Book Review

Signaling Discount Rates: Law, Norms, and Economic Methodology

Richard H. McAdams†

Law and Social Norms. By Eric A. Posner. *Cambridge: Harvard University Press*, 2000. Pp. 260. $39.95.

For decades, sociologists and law-and-society scholars have studied law in a broader social context that includes norms.[1] More recently, the subject of social norms has come to the sustained attention of rational choice scholars, including economists,[2] philosophers,[3] political scientists,[4] and

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† Professor of Law, University of Illinois College of Law. I thank Dhammika Darmapala, Rick Hasen, Hal Krent, Anna Marshall, Bill Stuntz, and Tom Ulen for their comments on an earlier draft.

1. *E.g.*, DONALD BLACK, THE BEHAVIOR OF LAW (1976); David M. Engel, *The Oven Bird's Song: Insiders, Outsiders and Personal Injuries in an American Community*, 18 LAW & SOC'Y REV. 551 (1984); William L.F. Felstiner, *Influences of Social Organization on Dispute Processing*, 9 LAW & SOC'Y REV. 63 (1974); Herbert Jacob, *The Elusive Shadow of the Law*, 26 LAW & SOC'Y REV. 565 (1992); Stewart Macaulay, *Non-Contractual Relations in Business: A Preliminary Study*, 28 AM. SOC. REV. 55 (1963); Sally Falk Moore, *Law and Social Change: The Semi-Autonomous Social Field as an Appropriate Subject of Study*, 7 LAW & SOC'Y REV. 719 (1973).

2. *E.g.*, TIMUR KURAN, PRIVATE TRUTHS, PUBLIC LIES (1995); JANET TAI LANDA, TRUST, ETHNICITY, AND IDENTITY: BEYOND THE NEW INSTITUTIONAL ECONOMICS OF ETHNIC TRADING NETWORKS, CONTRACT LAW, AND GIFT-EXCHANGE (1994); ROBERT SUGDEN, THE ECONOMICS OF RIGHTS, CO-OPERATION AND WELFARE (1986).

3. *E.g.*, CRISTINA BICCHIERI, RATIONALITY AND COORDINATION (1993); BRIAN SKYRMS, EVOLUTION OF THE SOCIAL CONTRACT (1996); Philip Pettit, Virtus Normativa: *Rational Choice Perspectives*, 100 ETHICS 725 (1990). There are also some exchanges and collaborations involving economists and philosophers. *E.g.*, THE DYNAMICS OF NORMS (Cristina Bicchieri et al. eds., 1997); Geoffrey Brennan & Philip Pettit, *The Hidden Economy of Esteem*, 16 ECON. & PHIL. 77 (2000).

legal theorists. Where the former group of theorists emphasizes the way that norms and other social forces constrain individual behavior, the latter theorists seek to explain social norms as the result of the choices individuals make while (more or less) rationally pursuing their own interests.[5] The seminal work in the law-and-economics camp is unquestionably Robert Ellickson's *Order Without Law*.[6] After its publication, the analysis of norms exploded. The number of articles using a rational choice framework to discuss the interaction of law and norms is now too large to list even in a law review footnote.[7] Eric Posner's new *Law and Social Norms*,[8] however, represents the first book-length treatment of this subject by a law professor since Ellickson.[9]

I should disclose at the outset that I am one of the many participants in this new rational choice take on the old subject of social norms,[10] which obviously colors my perspective on Posner's book. Several critics of law and economics have taken to task this scholarly subfield; they have not liked the new trend to incorporate norms any more than they liked the "old" law and economics, perhaps even less because it purports to explain what prior scholarship merely ignored.[11] Posner's work will undoubtedly

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4. *E.g.*, ROBERT AXELROD, THE COMPLEXITY OF COOPERATION: AGENT-BASED MODELS OF COMPETITION AND COLLABORATION (1997); DENNIS CHONG, RATIONAL LIVES: NORMS AND VALUES IN POLITICS AND SOCIETY (2000); RUSSELL HARDIN, ONE FOR ALL: THE LOGIC OF GROUP CONFLICT (1995); Jonathan Bendor & Piotr Swistak, *The Evolutionary Stability of Cooperation*, 91 AM. POL. SCI. REV. 290 (1997). There are also a few sociologists employing rational choice theory to analyze norms. *E.g.*, JAMES S. COLEMAN, FOUNDATIONS OF SOCIAL THEORY 241-99, 785-828 (1990); Michael Hechter, *The Attainment of Solidarity in Intentional Communities*, 2 RATIONALITY & SOC'Y 142 (1990).

5. I say "more or less" because, in explaining norms, some rational choice scholars employ evolutionary models that assume only bounded rationality. *E.g.*, AXELROD, *supra* note 4; SKYRMS, *supra* note 3; H. PEYTON YOUNG, INDIVIDUAL STRATEGY AND SOCIAL STRUCTURE: AN EVOLUTIONARY THEORY OF INSTITUTIONS (1998). Similarly, "behavioral" law and economics proceeds on the assumptions of limited rationality and selfishness. *E.g.*, BEHAVIORAL LAW AND ECONOMICS (Cass R. Sunstein ed., 2000); Russell B. Korobkin & Thomas S. Ulen, *Law and Behavioral Science: Removing the Rationality Assumption from Law and Economics*, 88 CAL. L. REV. 1051 (2000).

6. ROBERT C. ELLICKSON, ORDER WITHOUT LAW: HOW NEIGHBORS SETTLE DISPUTES (1991).

7. There have been several symposia on the subject. *E.g.*, Symposium, *Law, Economics, and Norms*, 144 U. PA. L. REV. 1643 (1996); Symposium, *The Legal Construction of Norms*, 86 VA. L. REV. 1577 (2000); Symposium, *Social Norms, Social Meaning, and the Economic Analysis of Law*, 27 J. LEGAL STUD. 537 (1998). For a review of this literature, see Robert C. Ellickson, *The Evolution of Social Norms: A Perspective from the Legal Academy*, *in* SOCIAL NORMS (Michael Hechter & Karl-Dieter Opp eds., forthcoming Mar. 2001).

8. ERIC A. POSNER, LAW AND SOCIAL NORMS (2000).

9. Eric Posner is a professor at the University of Chicago Law School, a home for a substantial amount of this scholarship. *See* Lawrence Lessig, *The New Chicago School*, 27 J. LEG. STUD. 661 (1998); Jeffrey Rosen, *The Social Police: Following the Law Because You'd Be Too Embarrassed Not To*, NEW YORKER, Oct. 20 & 27, 1997, at 170.

10. *See, e.g.*, Richard H. McAdams, *The Origin, Development, and Regulation of Norms*, 96 MICH. L. REV. 338 (1997).

11. *See, e.g.*, Lawrence E. Mitchell, *Understanding Norms*, 49 U. TORONTO L.J. 177 (1999); Mark Tushnet, *"Everything Old is New Again": Early Reflections on the "New Chicago School,"*

attract this kind of criticism, but not from me. I accept the notion that we can gain some purchase on the difficult subject of norms by looking for the individual interests in creating, following, and enforcing norms. My scholarly perspective is focused more on *how*, rather than whether, to use rational choice theory to explain norms.

Posner's explanation for the behavior we would label adherence to norms is audacious and original. For the most part, he locates the source of norms in individuals' need to convince others that they will be good cooperative partners. Individuals need to "signal" that they value the future sufficiently—have a low enough "discount rate"—to forego the immediate benefits of defecting or cheating for the deferred benefits of a sustained cooperative relationship. The departure from earlier work within law and economics is to set aside internalized values and other normative motivations, rather than to wrestle them somehow into the framework.[12] Posner then uses his theory to analyze an amazing number of topics: manners, fashion, gift-giving, marriage, conspicuous consumption, voting, race discrimination, and nationalism—from why people obey law to why they bother to make contracts legally enforceable, from the sources of group loyalty to the requirements for individual autonomy. The subject of norms is a big one, and this book attempts to cover a lot of it.

For those seeking an early bottom line, it is this: *Law and Social Norms* succeeds well in individual contributions to the many topics it covers, but less well in the construction of a broad theory of norms. Those interested in these topics will benefit from the precise way that Posner states the relevant theoretical issues and the creative approach he takes to resolving them, even if one does not always agree with the resolution. But the value often comes directly from Posner's thinking about the specific issue rather than from applying his conceptual apparatus—the discount-rate signaling theory of social norms. In my view, this model exaggerates the importance of the motivation and mechanisms it employs and understates the importance of the normative origins of norms.

1998 WISC. L. REV. 579. For more general criticisms of the rational choice approach, see DONALD P. GREEN & IAN SHAPIRO, PATHOLOGIES OF RATIONAL CHOICE THEORY: A CRITIQUE OF APPLICATIONS IN POLITICAL SCIENCE (1994); and Martha C. Nussbaum, *Flawed Foundations: The Philosophical Critique of (a Particular Type of) Economics*, 64 U. CHI. L. REV. 1197 (1997).

12. For example, Robert Cooter offers a rational choice account of norm internalization. *E.g.*, Robert Cooter, *Models of Morality in Law and Economics: Self-Control and Self-Improvement for the "Bad Man" of Holmes*, 78 B.U. L. REV. 903 (1998). Peter Huang and Ho-Mou Wu emphasize the emotion of remorse to explain norms. Peter Huang & Ho-Mou Wu, *More Order Without More Law: A Theory of Social Norms and Organizational Cultures*, 10 J.L. ECON. & ORG. 390 (1994). I have argued that norms arise from the selfish and rational pursuit of esteem; that is, because people value the approval of others intrinsically, patterns of normative judgment tend to produce corresponding patterns of behavior. McAdams, *supra* note 10. For further comparisons of this work to Posner's, see *infra* text accompanying notes 187-189.

My Review proceeds in four parts. Part I describes Posner's discount-rate signaling model of norms, as well as a supplemental "commitment" model he uses. Part II raises a concern about the falsifiability of the general model and then describes and critiques a few of his many substantive applications. The falsifiability problem arises because the abstract model puts so much weight on an unexplained and unconstrained process by which "norm entrepreneurs" create new norms. The problem infects some but not all of Posner's analysis of particular concrete norms. To illustrate, I explain what is powerful about his explanation of gift-giving and family norms, but also what is unpersuasive in his discussion of conspicuous consumption and norms of race discrimination. Part III then critiques Posner's theory more broadly. I suggest a more complex way of understanding discount rates and raise some doubts about the core inference from a person's discount rate to his or her suitability for cooperation. I then describe some improbable implications of the signaling model of norms, such as that there is less norm compliance among the aged and in groups with smaller and more stable membership, and that people would never volunteer information that implies a high discount rate. I conclude by questioning whether people would invest so much in signaling given better alternatives for attracting cooperative partners. Part IV then critiques Posner's reductionist methodology: his provocative choice to explain norms without relying on any sort of normative motivation.

I. SIGNALING DISCOUNT RATES AND PRODUCING NORMS

For Posner, as for many rational choice theorists, the starting point for discussing norms is the familiar problem of cooperation, in which individuals fail to achieve all possible cooperative gains because each has a "dominant" strategy of defection. The standard example is the prisoner's dilemma, in which each prisoner does better by confessing no matter what the other prisoner does.[13] Posner's analysis employs the repeated version of the game. As Robert Axelrod illustrated in his famous computer tournaments, when the prisoner's dilemma game is repeated, and if the parties value the future sufficiently, conditionally cooperative strategies

13. In the famous example, two prisoners, *A* and *B*, are suspected of committing a crime together. If neither confesses, each knows they will each be convicted of a lesser offense and serve (say) three years in prison. The prosecutor then offers each the following deal, and each knows it is offered to the other: If you confess and the other does not, we will let you off with only one year in prison; if the other confesses and you do not, we will punish you with ten years in prison; if you both confess, you both will serve five years in prison. Confessing is the dominant strategy because it is the best strategy no matter what the other prisoner does. From *A*'s perspective, if *B* confesses, *A* is better off confessing and getting five years instead of ten; if *B* does not confess, *A* is better off confessing and getting one year instead of three. The reasoning is the same for *B*.

may thrive.[14] The incentive to defect is no longer dominant because defection may provoke the other side into defecting in future rounds, whereas cooperating may induce cooperation. If the parties care enough about the future, the discounted benefit from mutual cooperation in future rounds will exceed the immediate benefit from defecting. This does not mean that always cooperating is the dominant strategy because that strategy is easily exploited by strategies that always defect. Even conditional cooperation like the tit-for-tat strategy that won the Axelrod tournament is not dominant.[15] But the well-established result is that repetition of the game makes cooperation possible; sustained conditional cooperation is one possible equilibrium for the repeated game.

A. *Signaling and Social Norms*

As indicated, a key variable determining the possibility and likelihood of cooperation is the individual's discount rate. The more one discounts the future, the less likely one is to forego the immediate and one-time benefit of defecting in favor of the delayed benefit of future cooperation. Thus, in the repeat game, individuals may differ in their degree of cooperation just because they differ in the amount they value the future. Facing the same payoffs, individuals with a high discount rate—whom Posner calls a "bad type"—may always defect, while those with a low discount rate—"good types"—employ some strategy of conditional cooperation.[16] In Posner's model, the differences in the willingness of individuals to cooperate, and the attendant labels of "good" and "bad" types, are based on nothing but a difference in the individuals' discount rates.[17]

All of which reasonably leads Posner to make these twin inferences: Part of the effort to find cooperative partners is an effort to find individuals with low discount rates; part of the effort to attract cooperative partners is an effort to convince others that one has a low discount rate. A good type[18] who plans to cooperate will prefer interacting with another good type; the two stand the greatest chance of achieving repeated cooperation. A bad type planning to defect will seek out good types because the immediate payoffs

14. ROBERT AXELROD, THE EVOLUTION OF COOPERATION 27-54 (1984).

15. For example, if other players always defect, then one who plays any conditional strategy that cooperates in the first round will always do worse than others in that round. Though a conditional cooperator may achieve an equal outcome in future rounds, when both players defect, the conditional cooperator never recovers from doing worse in the first round.

16. POSNER, *supra* note 8, at 18.

17. Posner mentions in passing other characteristics that might separate individuals into "good" and "bad" types for cooperative relationships, but does not develop these ideas, stating they can all be "collapsed into the definition of the discount rate." *Id.*

18. From this point on, I drop the quotes around "good" and "bad" type, but I note again that Posner uses these terms in a narrow, technical, and nonnormative manner. Good and bad types are equally selfish; neither is driven by fairness or commitment to moral principle.

from defecting are higher if the other cooperates. Thus, everyone will seek individuals with low discount rates. As a result, the individual who convinces others that she has a low discount rate will be offered more cooperative opportunities, while one who imprudently convinces others of her high discount rate will encounter fewer opportunities.[19] It pays to appear to take the long view.

How does one convince others that one has a low discount rate? That is the story of the book. Before reading *Law and Social Norms*, one might have thought there were a limited number of things one could do to influence what others think of one's discount rate. Not so. Posner claims that a huge amount of social life consists of the effort individuals give to projecting a low discount rate. The behaviors by which people project a discount rate are called "signals." In game theory, a person who has private and nonverifiable information can "signal" that information (intentionally or not) by making certain strategy choices.[20] In particular, people with low discount rates are more willing than others to incur a short-term cost for the sake of future cooperative gains. For this reason, Posner says, *any* costly and observable behavior can serve as a signal that one has a relatively low discount rate.[21]

For an example, I turn to the first application chapter, on gift-giving. Other things equal, a good type is willing to incur a greater cost from giving a gift at the beginning of a relationship. The less one discounts the future benefits of the relationship, the more one is willing to spend up front to signal one's low discount rate as a means of creating the relationship. Thus, gift-giving is a signal of low discount rates. For example, suppose "a good type values a future payoff of 10 [from some kind of future cooperation] at a 10 percent discount and a bad type values the same payoff at a 30 percent discount."[22] This means that the good type "can distinguish himself" by buying a gift that costs 8.[23] This cost "is less than the good type's discounted payoff (9) and greater than the bad type's discounted payoff (7)."[24] Because only good types are willing to incur the cost of bestowing the gift, they will use the behavior to signal their type and attract cooperative opportunities.

Gift-giving is but one example of the signaling model. Any behavior that is costly (in the sense of having a positive cost, no matter how small) can serve in the same manner to distinguish good and bad types. All that is

19. *Id.* at 19.

20. Signals are "[s]trategy choices by those who possess *nonverifiable information* that convey information." DOUGLAS G. BAIRD ET AL., GAME THEORY AND THE LAW 315 (1994).

21. POSNER, *supra* note 8, at 24 ("[A]ny costly action can be a signal . . . ."); *id.* at 25 ("[A]nything can be a signal.").

22. *Id.* at 19.

23. *Id.*

24. *Id.*

necessary is that the cost of the behavior be apparent to observers. Thus, Posner briefly suggests that manners and fashion—how one holds a fork or styles one's hair—are signals of one's discount rate.[25] These behaviors are costly, which means that, other things equal, good types will be more willing to invest in them than bad types. They are observable, which means others will receive the signal. And manners and fashion are arbitrary, which is useful because people are more likely to infer that conformity reflects a low discount rate rather than an intrinsic preference to behave in the particular manner.

Thus, the requirements for signaling are minimal. Because most behaviors are costly and potentially public (in that they have a chance of being discovered by others), and any can be made to include some arbitrary aspects, the theory of signaling discount rates has potential application to virtually any possible behavioral regularity. I discuss more of Posner's applications below, but a partial list of the behaviors he models as signals of discount rates provides a sense of the breadth of the analysis: engagement rings,[26] deferred sex and unprotected sex,[27] obedience to law,[28] voting,[29] patriotic displays,[30] self-censorship,[31] race discrimination,[32] and nationalism.[33] One might imagine that this theory explains too much, an objection that Posner anticipates but one to which I return in several places.

At this point, however, one may ask: What does signaling have to do with social norms, the subject promised in half the title? Here we see the full breadth of Posner's claim. Posner asserts that the behavioral regularities we call social norms are merely the equilibrium outcomes of various signaling games. Some background on signaling equilibria is useful to illuminate Posner's point. There are two principal types of signaling equilibria. When individuals attempt to signal their type, perhaps the most intuitive outcome is a *separating* equilibrium. In the above numerical example, the good type is willing to give a gift of 8 to secure a future relationship he values at 9 (discounted from a future value of 10). Because the bad type's discount rate is higher, he will not give the gift. Thus, in equilibrium, the signal separates the good and bad types because only the former engage in the behavioral regularity the signal represents. Suppose, however, that potential gifts are discontinuous and that one can make gifts costing only either 5 or 10. In that case, the signal of gift-giving cannot

25. *Id.* at 22.
26. *Id.* at 71.
27. *Id.*
28. *Id.* at 111.
29. *Id.* at 122-25.
30. *Id.* at 113-19.
31. *Id.* at 119-22.
32. *Id.* at 133-43.
33. *Id.* at 143-47.

distinguish the types. Neither the good nor the bad type is willing to give a gift of 10, but both are willing to give a gift of 5. There are two possible *pooling* equilibria: where neither type gives any gift or where both types give gifts of 5.[34]

There are other potential equilibria to a signaling game, but now Posner's claim is understandable: The behavioral regularity called a social norm is merely the equilibrium outcome of a signaling game. When individuals rationally pursue their own interests in sending signals, they sometimes produce a pooling equilibrium, in which everyone engages in a given behavior to avoid signaling a high discount rate. Other times, the signaling game produces a separating equilibrium, in which a large part of society—the majority, if the majority of society consists of good types—engages in the behavior but a substantial portion do not. In either case, Posner repeatedly emphasizes that the "norm" is merely the result of these processes; the norm does not cause behavior but is rather the label we attach to the regularity caused by the incentives of the signaling game.[35] Quite the opposite of Jon Elster's puissant statement that norms "have a grip on the mind,"[36] Posner proposes that "social norms are endogenous in games in which people maximize their interests through cooperation. They do not exist independently of people's interests, beliefs, and behavior."[37]

B. *The Role of Norm Entrepreneurs*

There is another major piece to the signaling model—a "norm entrepreneur."[38] Before explaining what the entrepreneur is or does, it would be useful to understand why this additional component is necessary to Posner's model. Understanding its function requires that I introduce a distinction not drawn by Posner but implicit in his analysis. Let us say that a behavior "distinguishes" good and bad types if it is more common to one type than to the other. Some behaviors can distinguish good and bad types before those behaviors are recognized by anyone as signals (of a low

34. The latter might seem unlikely. But imagine what might happen if good types lack sufficient information to foresee that they cannot reach a separating equilibrium. Attempting to signal their low discount rates, good types provide gifts. Bad types then emulate good types. Once everyone gives that gift, everyone fears abandoning the behavior because it might be taken as a sign of a high discount rate.

35. POSNER, *supra* note 8, at 8 ("The claim that a social norm caused X or Y is an empty claim. The appropriate claim is 'individuals seeking a or b interacted in such a way as to produce behavioral regularities X or Y, regularities that we call 'social norms.'").

36. JON ELSTER, THE CEMENT OF SOCIETY: A STUDY OF SOCIAL ORDER 100 (1989) (emphasis omitted).

37. POSNER, *supra* note 8, at 78; *see also id.* at 26 ("What we call a social norm . . . is simply a description of the behavior that emerges in these signaling equilibriums. In this model the social norm has no independent power, it is not an exogenous force, it is not internalized.").

38. *Id.* at 29-32.

discount rate or anything else), while other behaviors will distinguish types only after the behaviors are recognized as signals. A crucial move that Posner makes is extending the analysis to the latter cases, a move that turns out to produce the most interesting but also most disputable results.

To illustrate the former category—where behavioral differences predate signaling—consider savings and education. People with low discount rates save more and invest more in education than people with high discount rates because savings and education are activities in which the costs are entirely or mostly immediate, while the benefits are entirely or mostly deferred. Valuing the future more, they will be more inclined to bear present costs in exchange for future benefits. Thus, even if there were no signaling benefit (imagine everyone simply knew everyone else's discount rate, so there was no private information to signal), good types would distinguish themselves by savings and education. Further, independent of any signaling benefit, good types would avoid tardiness and addiction more than bad types. People who value the future more will value planning for the future more, which will cause them to be on time more often. And people who value the future more will value the costs of addiction more, which will cause them to refrain more often from consumption that will produce future costs.[39]

Let us call distinctions between good and bad types "natural" if, like the above examples, they do not depend on the behavior serving as a signal. The key point about these natural distinctions is that it is easy to explain how they become signals. A signal requires that "everyone, or most people, *believe* that certain behaviors serve as signals."[40] To create these beliefs for natural distinctions, people need only to perceive the existing distinction; they need only to perceive the correlation between a person's type and, for example, the person's level of education, savings, tardiness, or addiction. Once most people recognize that those with greater education and fewer addictions are more likely to cooperate in repeat prisoner's dilemmas, these behaviors become signals. As a result, good and bad types will invest even more in obtaining education and avoiding addiction, but the good types may be able to distinguish themselves by outpacing the bad types' investment.

For the most part, however, Posner is not interested in these natural distinctions between good and bad types. They do not give rise to the specific norms he wants to explain. Instead, he seeks to use signaling to explain behaviors that can distinguish good and bad types only *after* they

39. Posner mentions a few such distinctions: "Good types also signal by being business-like, in contrast to bad types, who fail to plan, are poorly organized, are chronically late, and are likely to be obese or to be addicted to alcohol or drugs." *Id.* at 21. Elsewhere he says bad types "do not want friends as much as good types do, because friendship requires immediate and significant investment in return for an uncertain long-term gain." *Id.* at 65. Thus, another natural signal of good types is having many friends.

40. *Id.* at 31 (emphasis added).

are recognized as signals. He is interested, in other words, in "arbitrary" signals.[41] For example, he mentions manners and fashion, but good types would not be more likely than bad types to hold their fork a particular way[42] or part their hair on a particular side[43] unless these behaviors are already recognized as signals. The same is true of all the behaviors Posner considers. Absent signaling, good types would not be more likely than bad types to give engagement rings,[44] racially discriminate,[45] engage in patriotic displays,[46] shun criminals,[47] or vote in political elections.[48] But if good types are not initially more likely to engage in these behaviors than bad types, how do they ever become recognized as signals of the good type? The problem is acute because Posner tells us that *any* costly observable behavior can be a signal. So how does everyone (or nearly everyone) first come to believe that one arbitrary behavior, out of an infinite number of possible arbitrary behaviors, is a signal of a low discount rate?

To solve this coordination problem, Posner introduces the norm entrepreneur. Although it is possible that "[h]istorical coincidence, physical qualities, and mere deviation from statistical regularities" might provide a "focal point" of certain behavior,[49] creating a signal that everyone recognizes, Posner emphasizes individuals who attempt to influence behavior intentionally:

> [I]t is useful to imagine the cooperation game embedded in a larger game. Prior to the first move of the cooperation game, a "norm entrepreneur" announces that a particular action will be a signal. (In real life, many norm entrepreneurs compete by proposing different signals.) The norm entrepreneur states that a particular action, for example, attending a public ceremony, will be understood as a signal of cooperativeness. . . . Every person, in his capacity as a sender of signals, chooses among all possible actions that might serve as signals. . . . After the cooperation game is

41. *See id.* at 37 ("[W]hat might emerge as a conventional signal in any group is to a certain extent arbitrary.").

42. *Id.* at 22-23.

43. *Id.* at 24-25.

44. *Id.* at 71.

45. *Id.* at 133-43.

46. *Id.* at 113-19.

47. *Id.* at 90.

48. *Id.* at 122-25. Absent signaling, good types should not engage in any of these behaviors more than bad types because, by hypothesis, the two types differ only by their discount rates.

49. *Id.* at 30. Thomas Schelling was the first to explore how certain psychologically prominent or salient solutions that he called "focal points" help individuals coordinate in games with multiple equilibria. THOMAS C. SCHELLING, THE STRATEGY OF CONFLICT (1960); *see also* Robert Sugden, *A Theory of Focal Points*, 105 ECON. J. 533 (1995) (explaining how actors use labeling to achieve systematic coordination). Posner does not, however, spend much time discussing focal points as a source of signaling equilibria.

> played, the norm entrepreneur receives a payoff that is a function of the number of people who issue the signal that he recommends.[50]

Among others, Posner has in mind "[a]rbiters of taste," "sellers of commercial goods," consultants, "protocol experts," academics, journalists, politicians, and political activists.[51] Norm entrepreneurs constantly compete to change what the public accepts as signals of low discount rates.

I hold my criticisms mostly until later, but I must note now that some further elaboration of this crucial but abstract concept would have proved helpful. Posner ignores, for example, an apparent tension in the motives of norm entrepreneurs and the good types they are supposed to persuade. If, as Posner states, an entrepreneur's payoffs depend on the number of people who adopt the recommended signal, then the entrepreneur should want to create a *pooling* equilibrium in which everyone, even bad types, follows his or her lead. A commercial vendor or academic, for example, might gain the most money or prestige by convincing everyone to "issue the signal that he recommends."[52] Yet good types always want a *separating* equilibrium, which uniquely distinguishes people and allows good types to avoid bad types. Why then do good types pay any attention to norm entrepreneurs? Why not ignore them, because entrepreneurs always advocate signals that lead to costly pooling equilibria with no offsetting benefit for good types? Perhaps the answer is that entrepreneurs, preferring to produce a separating equilibrium rather than none at all, strive for a reputation at providing signals that produce such equilibria.

But this answer gives rise to another problem: If entrepreneurs must overcome the skepticism of good types by signaling their commitment to a separating equilibrium, then it seems important for them to proclaim that their proposed behavior will have exactly that effect. Their rhetorical appeal should therefore take the form "Do *X* because bad types won't." At the least, entrepreneurs should reassure others that everyone will *not* follow their lead. But I cannot think of many norm entrepreneurs who send this sort of message.[53] To the contrary, entrepreneurs frequently or even typically advocate and invoke the ideal of universal norm compliance, which should threaten a pooling equilibrium, undermine their credibility, and eliminate their persuasive power.[54] There may be a simple explanation

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50. POSNER, *supra* note 8, at 30 (citation omitted).

51. *Id.* at 31-32.

52. *Id.* at 30.

53. An example is the advertising of expensive status goods, where the implicit message is that only the wealthy (or those with "refined" tastes) can afford the good.

54. Those who advocate voting do not say "Vote because defectors never will," but "Vote because it is every citizen's duty," invoking the ideal of universal political participation. Perhaps everyone believes by now that we will never reach a pooling equilibrium in which everyone votes,

that squares the signaling theory with this rhetorical practice, but Posner does not provide one.

C. *Some Important Extensions for Explaining Norms*

Although the major components are in place, I should describe two other features of Posner's analysis that are essential to explaining some important norm characteristics. The first concerns third-party norm enforcement. Posner says individuals enforce norms to send signals of their low discount rates. The second concerns conflicting group norms. Posner introduces a model other than signaling—the commitment model—to explain why group norms often conflict.

1. *Third-Party Enforcement of Norms*

Social theorists generally claim that norms are informally enforced by third parties using sanctions such as negative gossip, direct rebuke, ostracism, property destruction, and physical violence. Robert Ellickson observes that sometimes the "best evidence" of a norm is the existence of such enforcement.[55] Yet the signaling model does not obviously predict these sanctions. The only sanction the model seems to explain is economic and social ostracism. If *A* violates a norm, others infer that *A* has a high discount rate; because *A* is a bad type for cooperation, others will seek to avoid entering cooperative ventures with him. But the theory does not predict any other enforcement action against *A*. On the surface, then, the model fails to explain why anyone would bear the cost to gossip about or rebuke *A*, destroy his property, or commit an assault. Given how central these acts are to norms, this would seem to be a serious omission in signaling theory.

But Posner offers a signaling explanation of third-party enforcement other than ostracism. He claims that these punishing behaviors—gossip, rebuke, destruction, and violence—are themselves signals for a low discount rate. They arise in his model because some norm entrepreneur successfully proposes them as a signal.[56] Given some behavioral regularity, an entrepreneur can propose as a signal the costly punishment of those who deviate from the regularity. The initial behavioral regularity might itself arise from signaling, or it might arise by statistical accident. In the first case, an entrepreneur initially advocates behavior *X* as a signal and, when

so the universal rhetoric is empty and nonthreatening. But it would help if Posner could produce at least a historic example in which an entrepreneur advocated voting (or some other behavior) *because* it would distinguish bad types.

55. ELLICKSON, *supra* note 6, at 130.

56. POSNER, *supra* note 8, at 89-90.

most people start to conform to *X*, then advocates the punishment of nonconformers as a signal. In the second case, the regularity is merely statistical and the norm entrepreneur's role is limited to advocating the punishment of those who deviate from the regularity.

Posner illustrates the latter idea of exploiting existing differences with the example of sex-specific hairstyles among children:

> We might imagine that at time 0, most male and female schoolchildren in some classroom just *happened* to part their hair on opposite sides of the head, but no moral significance was attached to this practice. At time 1, an entrepreneurial kid shows the others that he is a good type because he is able to incur the cost of rejecting a child whose hair deviated from the male norm.[57]

Later, he discusses how this sort of entrepreneurism may lead to and explain punishing behavior beyond ostracism, as with informing during McCarthyism,[58] the harassment and physical assaults known as "charivari,"[59] and physical assaults and lynching to enforce norms of racial discrimination.[60]

2. *Group Loyalty and Group Norms: The Supplemental Commitment Model*

Signaling can easily explain conflict between norms when the norms exist in different places: Any arbitrary (costly and observable) behavior will suffice, so there is no reason to expect the signal in one location, produced by one norm entrepreneur, to be the same as the signal in another location, produced by a different entrepreneur. But signaling cannot so easily explain how different norms arise in the same place. Among people who are close enough to interact with one another, everyone should know that a certain behavior is viewed by others as the discount-rate signal, and everyone should want to send that signal to acquire cooperative opportunities. Yet norms do conflict even in the same place. They conflict when different groups—often a dominant group and various subgroups—live in the same town or city. Indeed, the norms of one group often require a behavior that another group's norms forbid; sometimes the whole purpose is to violate another group's norm.

To explain this sort of phenomenon, Posner sketches a second model of social norms, also arising from the struggle to find cooperative partners in the repeat prisoner's dilemma game. In the "commitment model," an

57. *Id.* at 25.
58. *Id.* at 114.
59. *Id.* at 76-78.
60. *Id.* at 77, 138.

individual shows his "loyalty" to members of a nonmainstream social group "by ostentatiously violating the norms of a dominant group."[61] By violating the dominant group's norms, an individual cuts himself off from cooperation with that group. Because an individual has fewer outside options, he is more dependent on maintaining a cooperative relationship with those in his particular subgroup. So, an individual will burn his bridges with the dominant group to make himself unlikely to cheat anyone in his own subgroup.[62]

Posner says that this model is independent of the signaling model; "[t]he incentives here are different."[63] He explains:

> Teenagers and others who reject mainstream society violate conventional forms of behavior not because they do not care about future payoffs, but because they seek future payoffs from people outside mainstream society. Those who observe these violations refuse to cooperate with this group of people because they believe that they are unreliable, but their unreliability is a result not of their discount rate but of the contempt they hold for the observers.[64]

To illustrate: A teenager adopts a distinctive manner of dress, hairstyle, and body-piercing because it offends adult sensibilities and thereby limits his cooperative options to other teens who are not offended. As a result of having fewer outside options, the teen has more at stake in preserving his reputation among teens and therefore is a more attractive cooperative partner for them.

Note that there is a tension between the signaling and commitment models, though not one Posner discusses. The motive for the teen—or any out-group member—to reject the dominant, in-group norms is to capture future payoffs from cooperating with other teens. Although dominant-group members obey group norms to signal a low discount rate, the behavior Posner describes also looks like a way of signaling low discount rates: Only an individual who values the future greatly would bother to engage in the costly behavior—rejecting dominant-group values—in order to secure better cooperative relations in the future. Thus, even from members of the dominant group, the demonstration that one values the future should attract rather than repel cooperative overtures.[65]

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61. *Id.* at 28-29.
62. *Id.* at 29.
63. *Id.*
64. *Id.*
65. This suggests the possible absence of an equilibrium: At time 1, deviant behavior by subgroup members seems to signal the bad type and repels cooperative partners from the dominant group. At time 2, members of the dominant group realize that the deviant behavior is intentional, aimed at securing cooperation from subgroup members. Because this is future-oriented action, the deviant behavior now attracts cooperation from members of the dominant

Posner seeks to avoid this problem by saying that the out-group members repel cooperation from members of the dominant group for reasons unrelated to their discount rates. Out-group members demonstrate their unreliability as cooperative partners with members of the dominant group by showing "the contempt they hold for the observers."[66] The surly teen with a pierced nose reveals that he is unwilling or possibly unable to cooperate with those who conform to mainstream values. But Posner's model of human behavior is so spare, it is not clear how it includes the ability to feel contempt for someone else or to feel someone else's contempt. Contempt is an emotion, and it is not clear how Posner can let in this bit of emotion without letting in a whole lot more. I address this sort of problem below.

II. THE FALSIFIABILITY PROBLEM AND APPLICATIONS OF THE SIGNALING MODEL

Most of *Law and Social Norms* is devoted to six chapters applying the model to various social norms and legal topics and to three chapters exploring the normative implications of the model. The breadth of these chapters is remarkable. The substantive applications are not narrowly tied to the signaling model but combine it with other insights to provide interesting theories of gratuitous promises, family law, shame sanctions and criminal law, voting and political participation, racial discrimination and nationalism, and contract law. The final chapters provide an extended discussion of the efficiency of norms, a signaling analysis of the problem of stigma in the distribution of welfare benefits, a signaling analysis of incommensurability in popular discourse, and, at the end, a discussion of signaling and social norms from the perspective of autonomy theory, a dramatic shift from the utilitarian tone of the rest of the book.[67] Anyone interested in these topics will find great insights and much to wrestle with in these chapters.

The application chapters are important not only because they provide the payoff for the signaling theory: the explanations of specific norms and how law interacts with them. These chapters also reveal how the signaling

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group. At time 3, however, dominant-group members observe that deviancy is no longer costly, because it attracts cooperative partners. Fearing that deviancy now signals the bad type, dominant-group members switch back to avoiding the deviants. The cycle continues back to what it was at time 1.

66. POSNER, *supra* note 8, at 29.

67. Most of the book is a positive account of norms, but where Posner provides a normative evaluation, he uses economic ideas of efficiency, until this last chapter on autonomy. Autonomy theory places value on the capability or opportunity to exercise human choice rather than the satisfaction of preferences. *See, e.g.*, GERALD DWORKIN, THE THEORY AND PRACTICE OF AUTONOMY (1988); MARTHA C. NUSSBAUM, WOMEN AND HUMAN DEVELOPMENT (2000); JOSEPH RAZ, THE MORALITY OF FREEDOM (1986).

theory can be usefully constrained to generate specific and falsifiable results. I say this because the abstract theory has so many degrees of freedom, especially given the unconstrained role of norm entrepreneurs. In this Part, I briefly describe this falsifiability problem and then discuss some of Posner's particular applications.

A. *The Falsifiability of the General Signaling Theory*

To test a theory's strength, we must be able to use the theory to generate concrete predictions, the accuracy of which we can then measure empirically. One weakness of signaling models generally is the difficulty of constraining them to make specific predictions. The same is true of Posner's theory. Recall that he emphasizes arbitrary, rather than natural, signals. As a result, "*any* costly [and observable] action can be a signal" of discount rates.[68] This is meant literally. At one point, Posner offers to explain why "[b]urning money and running around in circles" are not signals.[69] The only reason he gives is the intentionally circular one that most people do not engage in these behaviors, which makes them unfamiliar and difficult to evaluate as signals.[70] In other words, burning money and running around in circles *could* be signals. They have the right "cost structure"[71] and would become signals if a norm entrepreneur were to succeed in advocating them as such. It is simply that no entrepreneur has succeeded. The only constraint on the abstract theory is, therefore, the success of norm entrepreneurs.[72]

Unfortunately, Posner offers no basis to predict when entrepreneurs will succeed or fail. He does not even offer preliminary remarks on the matter. Thus, if we ask why certain norms exist and not others—like burning money—the answer is ultimately that, for reasons unknown, norm entrepreneurs succeeded in making certain behaviors familiar as signals of discount rates but failed (so far) in making other behaviors signals. The flexibility of an arbitrary signaling model appears to make it impossible to

68. POSNER, *supra* note 8, at 24 (emphasis added); *see also id.* ("If this claim seems too strong, try to think of a kind of behavior that is truly arbitrary, and chances are that somewhere that behavior has become a signal.").

69. *Id.* at 155.

70. *Id.*

71. *Id.*

72. Or of "focal points," which sometimes allow individuals to identify a behavior as a signal without a coordinating norm entrepreneur. But everything stated in the text about norm entrepreneurs applies equally to focal points. The conditions necessary to make an equilibrium "focal" are notoriously open-ended. *See* SCHELLING, *supra* note 49, at 97 (stating that coordinating via a focal point "may depend more on imagination than on logic, more on poetry or humor than on mathematics"); Robert Sugden, *The Role of Inductive Reasoning in the Evolution of Conventions*, 17 LAW & PHIL. 377 (1998). They depend on factors including, in Posner's words, "coincidence" and "serendipity." POSNER, *supra* note 8, at 30.

use the theory to make concrete predictions about what norms will or will not exist in a society.

This predictive difficulty leads to a more general problem for economics. Because it is difficult to measure the returns to signaling, the theory makes it difficult for economics to distinguish between ultimately costly and ultimately beneficial behavior. For example, consider what Posner says about voting. Much has been written about the rational choice paradox of voting.[73] If people are selfish and rational, why would they incur any costs to vote when they have virtually no chance of affecting the outcome? Posner explains voting as just another costly behavior that signals a low discount rate.[74] He states: "This explanation turns the voting paradox on its head: [V]oting functions as a signal precisely because the costs exceed the material gains."[75] Of course, if the full costs exceeded the full benefits, no one would vote. What Posner means is that, *setting aside the signaling benefits*, voting is costly. Because voting is costly, it can create signaling benefits. Because those signaling benefits (combined with any other benefits) exceed the costs of voting, people vote.

But the problem is that Posner makes this sort of claim without actually measuring the signaling returns to voting. In this respect, signaling theory threatens to make every behavior consistent with economic theory. Without signaling, it is usually possible to identify and measure when people are making "investments"—incurring costs—because they expect to receive greater returns. But with discount-rate signaling, any costly behavior is potentially an investment. If people refrain from costly behavior *X*, we say they are maximizing their utility by avoiding costs. But if people routinely engage in costly behavior *X*, we can now say that they are signaling their low discount rate and producing a net gain. Arbitrary signaling theory thus threatens to turn all of economics on its head.

This problem would not arise if we measured the returns to signaling precisely, because we could then rule out signaling claims when the measured returns were less than the measured costs. Nor would the problem exist if we knew that norm entrepreneurs could succeed only under certain measurable conditions, because we would then constrain the theory to the situations where those conditions exist. But neither empirical task is particularly tractable. Posner does not attempt to measure the returns to signaling or to explain how to measure them. And, as stated above, Posner says nothing about what makes norm entrepreneurs fail or succeed.

Of course, Posner is astute enough to anticipate this concern. As one response, he says that we can test the signaling model by finding out if

73. *E.g.*, GREEN & SHAPIRO, *supra* note 11, at 47-71; Richard L. Hasen, *Voting Without Law?*, 144 U. PA. L. REV. 2135, 2138-46 (1996).

74. POSNER, *supra* note 8, at 122-25.

75. *Id.* at 123.

people with low discount rates comply with norms more than do people with high discount rates. If we find that those with high discount rates comply more than or as much as those with low discount rates, the model would be falsified.[76] This is true enough; however, on nearly any rational choice theory of norms I can imagine, people who value the future more will, other things being equal, obey norms (or appear to obey them) more than people who value the future less. For a rational choice theory, the structure of norm compliance is that one bears costs today by complying with the norm and thereby avoids greater costs in the future—the costs of incurring norm sanctions (whatever they may be). Because the sanctions are deferred, we would always expect future-oriented people to comply more.[77] Consequently, if we find that people with lower discount rates do not comply more, we have probably falsified any rational choice approach to norms. Conversely, finding the expected relationship, while not disconfirming Posner's specific theory, would not provide much in the way of specific confirmation either.

Nonetheless, I believe that the discount-rate signaling model does generate some unique predictions about the structure and content of norms. I examine below some of these implications.[78] Unfortunately for the model, however, I find the implications to be mostly implausible, cutting against rather than in favor of Posner's model.

Note, however, that my discussion thus far has occurred at a rather abstract level. Yet one could doubt the usefulness of discount-rate signaling as a general norms theory and still embrace it as an explanation of particular norms. The proof of the pudding, they say, is in the eating. Putting aside tests of the abstract theory, if Posner can show that signaling explains tightly a number of interesting behaviors, then the theory works. I think Posner sometimes succeeds and sometimes does not. Rather than describe all of his applications in detail, however, I focus on a few representative examples: gift-giving, probably the most powerful application; family norms, which illustrate some of Posner's general

76. *Id.* at 36-38. He briefly describes how one might go about conducting the test. To measure individual discount rates, Posner identifies the sort of behaviors that I said above would "naturally" distinguish people according to the degree they value the future: "not having a savings account; smoking; having sex without contraception; being at a young age when one first smoked, drank or had sex; being poor; being less educated; and being younger." *Id.* at 36-37 (citations omitted). Posner admits that measuring norm compliance is difficult because norms vary according to group, and sometimes the same behavior is a norm for one person but a way of satisfying tastes for another. *Id.* at 37-38.

77. Moreover, sometimes compliance requires planning: remembering to make time to vote, buying a gift before the requisite occasion, and so forth. Those with a higher discount rate are less likely to prepare for compliance. Offsetting these two factors is the possibility that people with low discount rates will be better at concealing their norm violations. *See infra* text accompanying notes 143-146. Although that might mean that individuals who value the future commit more norm violations, it would still mean we would continue to *observe* fewer violations.

78. *See infra* text accompanying notes 147-165.

themes; conspicuous consumption, one of the weaker applications; and race discrimination, a subject about which there is already much existing theory.[79] The first two examples, I believe, are much more successful than the last two.

B. *Application of the Model to Specific Norms*

Gifts. Perhaps the most powerful application is the one already alluded to: the analysis of gift-giving. *A* wishes to enter a cooperative relationship with *B*, but *B* is not sure about whether to trust *A*. *A* might be interested in long-term cooperation or might seek the relationship merely for the opportunity to defect immediately (after which we imagine that *B* protects himself by defecting in future rounds or by terminating the relationship). In this context, *A* gives *B* a gift as a sign of "good faith." Why does the gift demonstrate *A*'s intent to cooperate? Because someone planning to cheat will not give a gift of a given cost. In the example above,[80] the bad type is not willing to give a gift that costs 8, but the good type is.

What if *A* and *B* are both unsure whether to trust one another? Mutual uncertainty implies that each will need to bestow a gift on the other, but this creates a problem. If they each give a gift that each values at 8, then their gifts offset one another. Even if *A* is planning to cheat, he would gladly give a gift of 8 in exchange for a gift of 8. It is the same as making no gift at all. This leads Posner to an interesting result: "Reciprocal gift-giving requires the destruction of value."[81] For *A* and *B* to signal their cooperative intent through gifts, they must each give a gift that costs the donor more than it benefits the donee. In this numerical example, the cost of each gift must exceed the benefit by 8. For example, *A* and *B* could each buy a gift for 10 that the other values at only 2. As a result, the exchange imposes on each a net cost of 8, which is something only one intending to cooperate would do.

The signaling theory thus explains not only "why so much ritual gift-giving involves the exchange of . . . goods or services rather than cash,"[82] but also how frequently these gifts benefit the donee less than cash would. Posner observes that "[j]okes about revolving fruitcakes and ugly ties reflect our appreciation that much of gift-giving has nothing to do with giving people something they need."[83] If the donee would never buy the tie, because it is ugly or extravagant or just not what he would spend his next unit of discretionary income on, then value is destroyed. As Posner notes, if

79. Below I discuss other applications in order to illustrate certain criticisms of the signaling model.

80. *Supra* text accompanying notes 22-24.

81. POSNER, *supra* note 8, at 52.

82. *Id.*

83. *Id.*

altruism were the motive for a gift, one would usually give cash because it is "almost always worth more to the donee than the goods it is used to purchase."[84] But signaling explains well our felt compulsion "to give [noncash] gifts even when we do not know what gifts will please the recipient and fear offending him."[85] In particular, signaling explains the survival of outdated gift-giving rituals, such as the Chinese custom of giving away moon cakes, which apparently do get passed around as gifts several times before the final donee consumes or discards them.[86] Of course people sometimes use gifts to demonstrate that they know the tastes and sensibilities of the donee. But this too is a signaling explanation—a good gift shows that one has invested time and effort in learning those tastes and sensibilities—rather than an altruistic explanation.[87]

Family law. One of the book's strengths is Posner's ability to state concisely the central problem in an area of law. Regarding the law of marriage and divorce, for example, Posner notes its sharp contrast from contract law. Among other things, "contract law will enforce whatever promises people happen to make, no matter how idiosyncratic, as long as they are legal. Traditional marital law imposes on people a standard set of obligations from which they may not deviate by agreement . . . ."[88] Given the prominence of contractual principles, the central puzzle is "why people are not allowed to contract around the laws of marriage."[89]

Posner admits that his answer is not "fully satisfying," but it at least seems to point out an interesting direction.[90] Posner begins by accepting the description of marriage used by other economic theorists, in which a central issue is how to control opportunism. Like other long-term contracts, the marriage relationship permits the parties to achieve mutual gains, but the realization of those gains is not guaranteed, because each party has an incentive to shirk. That is, a spouse may selfishly refrain from behavior that would be costly for him or her but create a net benefit for the marriage (because the benefit for the other spouse exceeds the cost for the first). Having a sexual affair is an obvious example, but less dramatic forms of

84. *Id.* at 52-53.

85. *Id.* at 52.

86. *Id.* at 169-71 (quoting Craig R. Smith, *Moon Cakes: Gifts That Keep on Giving and Giving and . . .*, WALL ST. J., Sept. 30, 1998, at A1). Once the gift becomes a signal of cooperative intent (or ability), no individual benefits by deviating from the norm.

87. Although Posner claims that altruism does not explain many observed patterns of gift-giving (such as the frequency of reciprocal exchange of noncash gifts), he does not entirely discount altruism. POSNER, *supra* note 8, at 39. He does, however, reinterpret a different motive for giving gifts—status-seeking—as simply a matter of signaling one's low discount rate. *Id.* at 56-58.

88. *Id.* at 69.

89. *Id.* at 79.

90. He actually suggests a number of explanations, but I want to discuss the one that most clearly advances his broader themes.

shirking include a spouse neglecting his or her marital duties—house or yard work, rearing children, making money—in order to indulge in some recreational activity such as golfing, playing cards, or drinking.

Posner then describes how various forms of nonlegal enforcement (partly) deter opportunism, including community, norm-based enforcement of marital bargains (in addition to nonlegal enforcement by husbands and wives and their respective families). According to Posner, most Western European cultures in most time periods before the twentieth century engaged in a set of practices known as "charivari."[91] These practices, "greatly simplified, consisted of gangs of local youths and young adults who would harass people whose behavior violated local family norms, including norms against marriages between people of different ages or status, against wife-beating and husband-beating, and against adultery."[92] "Charivari" describes a particularly successful means of community enforcement. Below, I express doubt about whether the signaling model explains charivari. For now, the point is that communities are or at least were substantial enforcers of marriage norms; a major reason parties complied with marital obligations was the fear of community enforcement.

Given this assumption, Posner can explain the compelled simplicity of the marriage contract as a means of facilitating community enforcement. Under a regime of free contracting in marriages, individuals could, Posner notes, marry multiple parties who also marry multiple parties, allow one spouse to have a certain number of extramarital affairs in exchange for undertaking additional childcare responsibilities, and do anything else. "The problem is that the existence of multiple or idiosyncratic relationships might be so confusing to the members of the community that community enforcement becomes impossible. . . . [C]ommunity members can deter opportunism only if the actions that count as opportunistic are common to all marriages."[93]

This is a clever explanation. The insight also interestingly illustrates the limits and potential of law, themes Posner explores throughout: First, it reflects the old point that, for some subjects, law is not the only or even the most important means of social control.[94] Second, it shows that, even where law does significantly influence behavior, it may do so mostly by aiding nonlegal enforcers. Many legal scholars think of law as strengthening norms by adding the threat of legal sanctions, but here the law works instead by identifying what will count as contrary to the norm. Third, there is a painful trade-off: Community enforcement may help to deter opportunism, which on most normative accounts is good, but only by

91. POSNER, *supra* note 8, at 76.
92. *Id.*
93. *Id.* at 79-80.
94. *See, e.g.*, ELLICKSON, *supra* note 6; sources cited *supra* note 1.

denying to individuals their desire to fashion their own marital arrangements, which on most normative accounts is bad. Posner emphasizes another problem: Charivari was a blunt tool. The mob sometimes punished individuals far more than was necessary to deter opportunism and sometimes punished individuals for engaging in merely idiosyncratic, not opportunistic, behavior.[95]

Conspicuous consumption. Thorstein Veblen coined the term "conspicuous consumption" to refer to public and wasteful consumption that advertises one's "pecuniary strength."[96] Though some elements have changed, Veblen's observations about the Gilded Age are generally true today.[97] Posner purports to explain conspicuous consumption via the signaling model. A "tycoon," Posner states, "lives in an expensive house, sends his children to expensive schools, wears expensive clothes, and takes expensive vacations. These instances of conspicuous consumption cause people to believe that the tycoon is indeed wealthy, and thus that he might have the standard wealth-generating characteristics," including a low discount rate.[98] Elsewhere, he introduces a number of nuances to the argument:

> [B]ecause demonstrations of cultural competence can also serve as signals, vulgar or inappropriate conspicuous consumption can reveal that one belongs to the bad type. Indeed, because consumption often reveals a high discount rate, exposing as it does the consumer's inability to defer gratification, good types must engage in *conspicuous* consumption, consumption that is stylized to show that it is unlikely to satisfy intrinsic preferences.[99]

In this case, the use of the signaling model seems forced. The obvious economic prediction about two people with different discount rates is that the one who values the future more will save more, which is why Posner admits that "consumption often reveals a high discount rate."[100] So here

95. POSNER, *supra* note 8, at 77. Posner further explores this theme in discussing criminal law shame sanctions, which he criticizes because (among other reasons) the state is in no position to predict how much punishment will occur as a result of its publicizing the offender's crime. *Id.* at 94-96.

96. THORSTEIN VEBLEN, THE THEORY OF THE LEISURE CLASS: AN ECONOMIC STUDY OF INSTITUTIONS 68 (Random House 1934) (1899).

97. *E.g.*, ROBERT H. FRANK, CHOOSING THE RIGHT POND: HUMAN BEHAVIOR AND THE QUEST FOR STATUS (1985); ROBERT H. FRANK, LUXURY FEVER: WHY MONEY FAILS TO SATISFY IN AN ERA OF EXCESS (1999).

98. POSNER, *supra* note 8, at 57.

99. *Id.* at 21.

100. *Id.* Posner repeatedly notes that signals may be weakened by ambiguity, and one of his examples is conspicuous consumption:

> An instance of conspicuous consumption—the purchase of a yacht, for example—might reflect the intrinsic tastes of one buyer, given his wealth, while it reflects the

Posner is positing that an arbitrary signal arises that is the exact opposite of the natural distinction that would exist between good and bad types: Good types naturally save more but, somehow, they wind up distinguishing themselves by spending more. This result is certainly possible; any costly behavior can serve as a signal if the right expectations arise. But spending can work as a signal only if the individual does not sufficiently enjoy the resulting consumption; if he does, the spending is no longer costly. Yet most conspicuous consumption produces some immediate pleasure beyond what the cheaper alternatives provide. At best, therefore, consumption is an extraordinarily "noisy" signal of discount rate. It is hard to tell whether the person who owns a mint-condition antique car or a state-of-the-art laptop computer gains no more utility from them than from the cheaper alternatives, or, contrariwise, quite a lot of utility. The car owner may be signaling a low discount rate, but the computer owner may have just impulsively bought an object he has always coveted. It is therefore difficult to see how a norm entrepreneur managed to make conspicuous consumption a signal of low discount rates.

Savings, by contrast, would be a direct and powerful signal. Why is the signal conspicuous consumption instead of conspicuous savings? Posner's explanation is that only observable behavior can serve as a signal and that, while much consumption is observable—including all that we call "conspicuous consumption"—savings are not. But it is not a satisfying explanation merely to observe that savings are, under current institutional arrangements, a private matter. The question is, given the powerful incentives to signal anything that shows a low discount rate, what force keeps savings out of sight of the public?

Posner anticipates this point. He says:

> Superficially direct forms of signaling—like displaying one's bank statement or mutual fund shares—are, on reflection, quite inadequate. Documents can be forged, and can be shown only to a limited number of people. Financial resources can be shifted around—for example, one can borrow lots of money, put it in a bank account, obtain a statement, then repay the money a few days later. So this behavior is really just cheap talk, like telling people that you are rich, which people do anyway with less

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effort of another buyer to signal his type. So signals can operate effectively only when people have a rough idea of the tastes and endowments of each other. The fear that others might misinterpret their actions causes people to send signals whose meaning has become clear over time . . . .

Id. at 27.

> hassle. Credible signaling requires more complex behavior and . . . complex institutions supplied by the market.[101]

This argument is unconvincing. Posner identifies a consumer demand for publicizing one's wealth and acknowledges that the most direct means of meeting this demand would be to publicize savings. Yet Posner identifies no structural failure to explain why the market would not supply an institution to publicize savings instead of consumption, even though economists generally assume the market will satisfy demand absent a well-defined structural failure. It will not do to talk about forging documents and moving money around. People can forge diplomas and evidence of charitable contributions, but the problem is not severe enough, Posner apparently believes, to prevent education or philanthropy from signaling discount rates.[102] More to the point, under his theory, not only should people spend to advertise their savings, but others should incur costs to acquire this highly revealing information. When market actors care about ascertaining an individual's wealth correctly—as when the individual seeks a mortgage or entry into a co-op—the market is quite good at countering deception. Given the joint demand for publicizing savings, it is hard to see why market actors are not sufficiently adaptive to provide a solution.[103] In sum, if Posner is right, the demand for an institution to publicize savings should be extremely high, and its absence is extremely puzzling.

Posner's explanation also misses the personal and competitive nature of conspicuous consumption. The signaling theory implies that people who know each other particularly well would not bother to direct conspicuous consumption "at" each other. If *A* and *B* have known each other intimately for years, they presumably have lots of information about each other's discount rate and therefore no need to signal each other. But people often seem to take particular delight in describing and displaying their most wastefully expensive goods for people they know particularly well, without regard to the need for forging a new cooperative venture. It is common to observe competitive displays of consumption between long-time neighbors or in-laws.[104] Indeed, such displays can acrimoniously escalate with the

101. *Id.* at 226 n.6 (citation omitted).

102. Indeed, there are opportunities to fake most of the signals Posner discusses in the book, but it is presumably the costliness of faking that preserves the signal.

103. Accountants could create standardized means of evaluating an individual's wealth history, provide a difficult-to-forge certificate of their findings (or post them on the Internet), and stake their reputation on their accuracy. Banks could offer to make public, at the customer's election, records concerning savings in tax-deferred instruments like IRAs; penalties for withdrawal before age fifty-five or sixty would prevent individuals from simply moving their money around. Money managers could create "big savers clubs" (like charities' big donor clubs) and spend the money necessary to publicize membership in them. All of this may seem overdone, but it is the way the world should look if Posner is correct.

104. Alexander Pope captures the personal nature of such consumption:

> Not for himself he sees, or hears, or eats;

length of the relationship, undermining, rather than facilitating, additional cooperation. In sum, the details of conspicuous consumption seem inconsistent with the signaling model.[105]

Race discrimination. Posner also claims that signaling explains race discrimination. His account is simple. Like any costly behavior, "discrimination against people with salient and immutable characteristics that systematically differ from those of desired cooperative partners serves as a signal to the latter that one has a low discount rate."[106] Posner then describes various constraints on his theory. Discrimination works as a signal only if the dominant group does not believe that its members discriminate based on "idiosyncratic tastes" such as hatred or sadism, for that would mean that the discriminator incurred a benefit rather than a cost, robbing the behavior of any information about discount rate.[107] More particularly, discrimination will work as a signal only if it is neither too cheap—which occurs if the targets are "so few or poor or unskilled that refusing to deal with them is not costly"[108]—or too expensive—if the opposite is true.

Posner runs through a number of predictive strengths of the signaling model of discrimination, particularly as it compares to Gary Becker's taste-based explanation.[109] Having criticized the Becker model myself,[110] I certainly think that Posner's account of its weaknesses is compelling and that signaling can explain a variety of patterns that the taste theory cannot explain.[111] Whether or not that is true, I find Posner's account deficient in two respects.

Artists must choose his pictures, music, meats:
He buys for Topham, drawings and designs;
For Pembroke statues, dirty gods, and coins;
Rare monkish manuscripts for Hearne alone,
And books for Mead, and butterflies for Sloane.

ALEXANDER POPE, *Moral Essays, Epistle IV, Of the Use of Riches*, *in* THE COMPLETE POETICAL WORKS OF POPE 171 (Henry W. Boynton ed., Houghton Mifflin 1903).

105. For a more conventional account, see Richard H. McAdams, *Relative Preferences*, 102 YALE L.J. 1, 38-44 (1992).

106. POSNER, *supra* note 8, at 133.

107. *Id.* at 135, 139.

108. *Id.* at 134.

109. *Id.* at 136-40; *see* GARY S. BECKER, THE ECONOMICS OF DISCRIMINATION 16-17 (2d ed. 1971).

110. Richard H. McAdams, *Cooperation and Conflict: The Economics of Group Status Production and Race Discrimination*, 108 HARV. L. REV. 1003, 1036-43 (1995).

111. For example, Posner plausibly says that signaling predicts that discriminatory behavior is distributed discontinuously among societies and within societies, that members of the in-group shun and attack other members who refuse to discriminate, that discrimination rises in times of tension, that "[d]iscrimination sometimes increases against groups whose skills and endowments have increased," and that out-group members sometimes discriminate against members of their own group. POSNER, *supra* note 8, at 136-40. In most cases, I believe my own "status production" model can explain these patterns as well. *See* McAdams, *supra* note 110, at 1049-74.

First, signaling seems unable to explain the pattern of who discriminates the most. The signaling model says that those with low discount rates will discriminate more. When using his model to explain voting—another costly behavior that signals low discount rates—Posner drew support from the fact that "voting increases with wealth and education," which "supports the signaling theory but contradicts the taste theory [of voting]."[112] The reason Posner gives for why the wealthy might vote more in a signaling model is that it is more costly for the wealthy (they have a higher opportunity cost for their time), so voting operates as a better signal. But the available evidence shows a *negative* relationship between these variables—wealth and education—and race discrimination.[113] That is, people with more education and wealth, who, on average, should have lower discount rates and be willing to spend more to signal, spend less on signaling via discrimination. How can the model explain this pattern?

Elsewhere Posner notes that "[d]iscrimination is always the poor man's signal: [O]ne does not need any assets in order to issue this signal, unlike the case of gift-giving or clothing fashion."[114] So Posner would presumably reconcile the discrimination pattern by saying that the wealthy can afford other signals, like conspicuous consumption, leaving the poor to signal via discrimination. And, he might say that, among the poor, those with lower discount rates discriminate more, a proposition for which there is, to my knowledge, no disconfirming (or confirming) evidence. But note that voting *also* does not require any assets, and should therefore be another poor man's signal. No reason is given for the different predictions for voting and discrimination. On the one hand, why do we not observe that the poor vote more often and the wealthy use more asset-sensitive signals like conspicuous consumption? On the other hand, if greater expense makes the signal more attractive, why do we not observe that the wealthy commit more *time* to discriminating than the poor? Although discrimination may not require assets, time-intensive discrimination—in some manner a norm entrepreneur might suggest—is a stronger signal for those who value their time more.

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112. POSNER, *supra* note 8, at 123.

113. *E.g.*, Donald L. Noel & Alphonso Pinkney, *Correlates of Prejudice: Some Racial Differences and Similarities*, 69 AM. J. SOC. 609, 610-12 (1964); Thomas J. Pavlak, *Social Class, Ethnicity, and Racial Prejudice*, 37 PUB. OPINION Q. 225, 229-30 (1973); A. Wade Smith, *Racial Tolerance as a Function of Group Position*, 46 AM. SOC. REV. 558, 563-68 (1981); *see also* JUDITH CADITZ, WHITE LIBERALS IN TRANSITION: CURRENT DILEMMAS OF ETHNIC INTEGRATION 91 (1976) ("Much social science literature supports the thesis that status-threatened people will exhibit prejudicial attitudes toward minorities."); JOHN E. FARLEY, MAJORITY-MINORITY RELATIONS 26 (2d ed. 1988) ("Persons in lower [socioeconomic status] groups tend to report more negative views toward out-groups, to be more ethnocentric, and to express more stereotyped thinking . . . .").

114. POSNER, *supra* note 8, at 145.

So the model could predict either that the poor or the rich discriminate (and vote) the most. Indeed, one can manipulate the model further to make it consistent with a third outcome. Suppose we found that middle-class whites discriminate more than either wealthy or poor whites. We might explain that result using signaling as follows. First, let us say we have three instead of two types—"*A*s," "*B*s," and "*C*s," with low, medium, and high discount rates, respectively.[115] We could imagine that the *A*s start discriminating in order to signal their low discount rate. Eventually, the *B*s emulate the *A*s and begin discriminating, but the *C*s are not willing to bear the costs to discriminate. Assume that the *A*s are not worried about being confused with *C*s—there are lots of other signaling differences—but they are worried about being confused with *B*s. So the *A*s find that they are better off shifting their signaling resources into something that better distinguishes them from the *B*s. The *B*s, however, cannot make this shift (the *A*s have found something too expensive for the *B*s[116]), but they do not stop discriminating for fear of being confused with *C*s. If, as Posner implies, those who value the future the most are, on average, able to accumulate the most wealth, then we will find that the wealthy will be most heavily represented by *A*s, the middle class by *B*s, and the poor by *C*s. If this effect dominated the others, then the middle class would be the most discriminatory. This looks like an explanation, but it worries me that I can so easily create wrinkles in the theory to explain any outcome.

Despite the model's flexibility, however, there are still some facts about race discrimination that it seems incapable of explaining. The most important is the nature of racist ideology, or at least, the particular United States ideology rationalizing racism against African Americans. Recall that a signal's costly nature must be apparent, and that ambiguity about cost undermines the signal. A common cause of ambiguity is confusion over whether the behavior satisfies the individual's intrinsic tastes; if so, it is not a signal of his or her low discount rate. Posner says that ambiguity creates the opportunity for norm entrepreneurs to clarify the signal or replace it with a clear alternative.[117] He then explains racist ideology as arising to clarify and preserve the discrimination signal. After explaining the potential ambiguity—that a discriminator might be satisfying intrinsic preferences—

115. Posner says the two-type model is merely for convenience and that we could imagine there are more types or that discount rates vary continuously. *Id.* at 19.

116. Assume the *B*s cannot merely transfer their existing investment in discrimination to the new signal the *A*s are using. This will be true if one can only invest in the new behavior in discrete amounts (rather than continuously) and the *B*s are not willing to buy the minimum amount but the *A*s (with lower discount rates) are. An example might be country club membership; one is not permitted to buy a "slice" of a membership.

117. POSNER, *supra* note 8, at 27 ("The fear that others might misinterpret their actions causes people to send signals whose meaning has become clear over time."); *id.* at 31 (arguing that the ambiguity of signals creates incentives to create new signals).

he says that the Nazis invented a theory purporting to justify discrimination against Jews based on the threat they posed "to the purity of Aryan blood, a theory designed to show that discrimination against Jews is not the satisfaction of a private taste."[118]

Here is the problem. In the United States, the racist ideology purporting to justify discrimination against African Americans does so by attributing to them a host of strongly negative characteristics. In this ideology, blacks are disparaged for being unintelligent, indolent, and untrustworthy.[119] Defenders of slavery and Jim Crow segregation justified these institutions through claims that blacks were inferior to whites. Although there is evidence that stereotypical thinking has declined in recent decades, the stereotype persists that blacks are lazy, unintelligent, and impulsive.[120]

None of this is explained by signaling. To the contrary, the ideology directly contradicts the signaling theory because it provides whites with a selfish reason to avoid blacks. According to the ideology, discrimination is not costly to the discriminator because blacks are poor cooperators; they make bad employees, neighbors, and in-laws. Indeed, it is the supreme contradiction of signaling theory that the racist ideology labeled blacks as being short-sighted and impulsive[121]—having a high discount rate—the very fact Posner identifies as giving everyone a reason to avoid them. The ideology not only makes discrimination seem too cheap to serve as a signal—because the targets are "so . . . unskilled"[122]—but implies that avoidance is actually beneficial. If shunning blacks is beneficial rather than costly, the signaling theory would actually predict that whites would show a

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118. *Id.* at 139. Posner continues the theme—that ideology avoids ambiguities in the signal—with another example. He says that the ideology defining race clarifies the signal by turning the inquiry of racial membership "from appearance to ancestry." *Id.* Posner further states:

> Norm entrepreneurs exploit fears that discriminatory signals will lose their clarity, and push for laws and practices that maintain or enhance the salience of characteristics that provoke discrimination. Hence all the laws, from miscegenation laws in the South to the identification requirements created by the Nazis, that are designed to make sure that the signal remains clear.

Id. at 138-39.

119. *E.g.*, STEPHEN JAY GOULD, THE MISMEASURE OF MAN 30-50, 70-72 (1981) (explaining how science and religion were used to justify slavery on grounds of the inferiority of blacks); GUNNAR MYRDAL, AN AMERICAN DILEMMA 100 (1944) ("[T]he Negro is believed to be stupid, immoral, diseased, lazy, incompetent, and *dangerous*."). *See generally* MYRDAL, *supra*, at 83-112, 582-85 (describing white stereotypes and ideology concerning blacks).

120. PAUL M. SNIDERMAN & EDWARD G. CARMINES, REACHING BEYOND RACE 62 (1997) (reporting that in a 1991 survey of whites, 34% agreed that most blacks are "lazy"); Lawrence Bobo, *Group Conflict, Prejudice, and the Paradox of Contemporary Racial Attitudes*, *in* ELIMINATING RACISM 85, 88 (Phyllis A. Katz & Dalmas A. Taylor eds., 1988) ("In 1942, approximately 60% of whites believed that blacks were less intelligent than whites. By 1964, that figure had declined to less than 25%." (citations omitted)).

121. MYRDAL, *supra* note 119, at 107, 216, 655, 783, 959 (describing white beliefs that blacks could not control their passions, lacked self-control, and did not save money).

122. POSNER, *supra* note 8, at 134.

low discount rate by incurring the cost of cooperating with blacks.[123] Because the ideology is the opposite of what the signaling model implies, I think the model is a poor explanation for discrimination against African Americans. I am also skeptical as to how well it applies to other examples of race discrimination, given how common it is for ideologies to disparage the talents and motives of the discrimination targets.

Although I cannot be sure, Posner might respond by denying that anyone actually believes the racist ideology. Throughout the book, Posner points out situations in which people say things they do not believe and then uses signaling to explain why.[124] When discussing Nazi racist ideology, Posner makes this move: "[T]he signaling theory explains why people would publicly support ridiculous theories that they can easily see through."[125] He contrasts the signaling theory with the preference theory of discrimination, which "does not explain why norm entrepreneurs would invent theories of racial supremacy and why these theories would receive the public support of people who ought to know better."[126] Because Posner does not explicitly discuss racist ideology about African Americans, I cannot say for certain that he would make the same claim in this context, but it appears so.

That people say things they do not mean is certainly an important truth. Timur Kuran calls this phenomenon "preference falsification" and uses it to explain sudden social change that occurs upon widespread discovery that most individuals privately disagree with the publicly stated truths.[127] But it is not plausible that preference falsification exists about all of racial ideology. Among other reasons, it is hard to understand how children could fail to embrace the racial ideology that pervades their society, unless someone explicitly instructs them as to its falsity, but anyone who did so

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123. To carry the analysis one step further: Even the most racist whites in the Jim Crow South did engage in cooperative ventures with blacks. Whites routinely hired black women to perform domestic work in their homes, which included rearing white children. *E.g.*, PATRICIA HILL COLLINS, BLACK FEMINIST THOUGHT 71 (1991); MYRDAL, *supra* note 119, at 652-53. While the signaling model predicts that whites would discriminate where doing so was thought to be costly—because blacks were desirable as partners—it conversely predicts that whites would cooperate with blacks when doing so was thought to be costly—because blacks were undesirable as partners. Yet again, the ideology suggested that blacks performed well at the tasks for which whites hired them, which means the white behavior was not a good signal of discount rates. *See* MYRDAL, *supra*, at 597, 1382 n.14. Again, the ideology creates ambiguity rather than resolving it.

124. One example is propaganda, by which the state creates the opportunity for individuals to signal loyalty to the state by "going along" with obviously false propositions. "The more baldly untruthful the propaganda, the more clearly does a person signal his patriotism by declining to disagree with it." POSNER, *supra* note 8, at 120. Later in the book, Posner explains the popular discourse of incommensurable values—that one would never put a "price" on certain relationships or values—as mere signaling rather than honest belief. *Id.* at 186-98.

125. *Id.* at 139.

126. *Id.*

127. KURAN, *supra* note 2, at 3-5, 247-88.

would risk being labeled as a bad type for challenging the prevailing ideology.[128]

In any event, it would not matter if Posner were correct in the (apparent) claim that no one believes the racist ideology of their society. Even if they do not, for the reasons stated above, the signaling theory still does not explain the ideology that exists. The negative characterization of African Americans does not serve any interest in the signaling game; to the extent there is even a risk that anyone might believe it, it undermines the clarity of the signal. In sum, a theory that fails to predict or explain the content of racial ideology seems not to explain race discrimination very well.

III. DOUBTS ABOUT SIGNALING: DISCOUNTING COMPLEXITIES, QUESTIONABLE IMPLICATIONS, AND AN UNLIKELY GLOBAL EQUILIBRIUM

Stepping back from the analysis of specific norms, I now discuss Posner's broader thesis. *Law and Social Norms* is audacious because it offers to explain a great variety of social practices and norms through a single, highly reductive, rational choice theory: Norms are merely the equilibrium outcome of a signaling game. Posner does state at one point, "I do not claim that rational choice theory can offer a complete explanation of social norms or of cooperation."[129] At the same time, he offers to explain a wide variety of specific norms—pertaining to manners, fashion, gift-giving, conspicuous consumption, marriage and family, obedience to law, shaming of criminals, voting, patriotic displays, and race discrimination—with nothing but the signaling and commitment models. At no point does he identify a particular norm or a type of norm behavior that his theories cannot explain. Posner also makes clear in an early chapter on alternative theories that he wants to push the explanation as far as it will go without any help from other norms theories.[130] At least for purposes of this book—perhaps only as an exercise in model building—I think it fair to read Posner as offering signaling (with commitment) as a general account of social norms.

In the preceding Part, I criticized certain applications of the signaling model—the norms related to conspicuous consumption and racist ideology.

128. Kuran uses this fact—that later generations believe the propositions earlier generations merely said but did not believe—to explain the long-term effect of preference falsification. *Id.* at 184-89.

129. POSNER, *supra* note 8, at 46.

130. In chapter three, Posner considers and rejects a number of ways rational choice theorists have attempted to complicate their model to explain norms—altruism, status and conformity, emotions, and internalization. *Id.* at 39-40, 42-44. On the other hand, Posner expresses guarded optimism about models of herd behavior and bounded rationality, which he occasionally employs in the book. *Id.* at 41-42, 44-46.

In this Part, I explore more general criticisms. Initially, I focus on the foundations of the model: the notion of discount rates and their effect on cooperation. In Section III.A, I point out some recent economic literature on inconsistent (or hyperbolic) discount rates and explore its implications for the model. I also demonstrate that one is not always better off attempting to cooperate with someone with the lowest discount rate. Having examined the signaling model up close, I draw back a bit. In Section III.B, I consider some of its broad implications about individual behavior and the operation of norms. In particular, I identify three implications of the model that are contradicted by common observation: that norms will be weak in small, stable, and integrated groups; that aged individuals will obey norms less than others; and that individuals will never volunteer information that reflects a high discount rate. In Section III.C, I take a different approach. I describe the kind of global equilibrium analysis that is necessary to conclude that individuals would invest enough in signaling to produce the set of social norms that Posner discusses. Although I do not provide a formal account of the equilibrium, I argue that it is unlikely that people would invest as heavily in signaling as Posner assumes because there are more direct, less ambiguous ways to attract cooperative partners.

A. *Two Signaling Problems: Inconsistent Discount Rates and Concealed Cheating*

In this Section, I call attention to two problems for the signaling model. First, there is a controversy within economics about how people value the future-more technically, about what sort of function best describes the way individuals discount future costs and benefits. Some people may have inconsistent discount rates: low when considering two future options, but high when considering a present versus a future option. The resulting complexity is not, by itself, a great challenge to the signaling model, but it matters to other issues discussed later and is interesting in its own right. The second issue is more serious: Where it is possible for individuals to invest in concealing their defection, good types pose a greater risk than bad types. Thus, individuals may not want to signal their low discount rate, at least not below a certain level.

1. *Inconsistent Time Preferences and Imperfect Self-Commitment*

Posner presents a simple concept of an individual's discount rate. Although he does not state the matter mathematically, implicit in his analysis is that one values the future according to an exponential formula: $PV = FV / (1 + r)^n$, where PV is the present value of a future benefit; FV is the nominal future benefit, before discounting; r is the discount rate applied

during each time period; and n is the number of periods in the future the benefit will be incurred.[131] On this account, the only way people can differ is by the simple discount rate—r. Good types have a low r value; bad types have a high value.

But there are other ways that people might differ in how they value the future. It is frequently said that people are impulsive in the sense that they give in to temptation and then regret doing so. Many theorists have observed that, like Ulysses facing the sirens, some people try to constrain their future choices so that they cannot give in when temptation presents itself.[132] If there is any truth to this, it cannot be explained by the simple exponential discount function. With this function, I should not want to constrain my choices and should not experience regret when I fail to constrain them. I should always avoid regret because my preference between two options should remain constant over time. To illustrate, suppose I face a choice between benefit (cost) A, which accrues at time T_a, and benefit (cost) B, which accrues at time T_b. Suppose that T_a will accrue three units of time (hours, days, weeks, etc.) sooner than T_b (thus, $T_b = T_a + 3$). With exponential discounting, if I prefer B to A when T_a takes one value, then I will prefer B to A for every value T_a may represent. A little more concretely, say that option A is \$10, option B is \$12, and the units of time are days, so that the constant is that I can have A three days sooner than I can have B. If I prefer \$12 in thirty-three days to \$10 in thirty days, then I will prefer \$12 in ten days to \$10 in seven days, and I will prefer \$12 in three days to \$10 immediately (when $T_a = 0$).

An interesting array of empirical evidence falsifies this last prediction.[133] When faced with the above sort of choice, there is evidence that people (and pigeons![134]) sometimes prefer B to A when T_a is large, but A to B when T_a is small or equal to zero. That is, when comparing two options separated in time by a fixed amount, people sometimes prefer the "later-large" option over the "sooner-small" option when both choices are in the future, but the sooner-small option when it is available immediately or almost immediately. This result is puzzling. If I know I am going to

131. *Cf.* CHARLES J. GOETZ, LAW AND ECONOMICS: CASES AND MATERIALS 159 (1984).

132. *E.g.*, JON ELSTER, ULYSSES AND THE SIRENS 36-111 (rev. ed. 1984).

133. GEORGE AINSLIE, PICOECONOMICS (1992); RICHARD H. THALER, *Some Empirical Evidence on Dynamic Inconsistency*, *in* QUASI RATIONAL ECONOMICS 127 (1991); Richard H. Thaler & George Loewenstein, *Intertemporal Choice*, *in* RICHARD H. THALER, THE WINNER'S CURSE: PARADOXES AND ANOMALIES OF ECONOMIC LIFE 92 (1992); David Laibson, *Golden Eggs and Hyperbolic Discounting*, 112 Q.J. ECON. 443 (1997); George Loewenstein & Drazen Prelec, *Anomalies in Intertemporal Choice: Evidence and an Interpretation*, 107 Q.J. ECON. 573 (1992).

134. G.W. Ainslie, *Impulse Control in Pigeons*, 21 J. EXPERIMENTAL ANALYSIS BEHAV. 485 (1974); George Ainslie & R.J. Herrnstein, *Preference Reversal and Delayed Reinforcement*, 9 ANIMAL LEARNING & BEHAV. 476 (1981); *cf.* Frank A. Logan, *Decision Making by Rats: Delay Versus Amount of Reward*, 59 J. COMP. & PHYSIOLOGICAL PSYCH. 1 (1965) (finding the same behavior among rats).

prefer A to B when A is immediate and B is three days in the future, then I should also select A when it is a week in the future and B is ten days in the future. That way I will avoid regretting my decision when $T_a = 0$. Yet the evidence shows that people choose inconsistently depending on the time at which they are offered the choice.

Economists have used different terms to refer to this discounting inconsistency; a useful one is "present-biased preferences." "When considering trade-offs between two future moments, present-biased preferences give stronger relative weight to the earlier moment as it gets closer."[135] This inconsistency captures common intuitions about impulsiveness and regret. The bias also makes sense out of what are otherwise baffling efforts of individuals to constrain their future choices. If my present self would prefer that I wait a little longer for the $12, but I suspect that my future self will at the last moment grab the $10, then I may willingly enter a contract that forces me to wait the extra three days for the larger sum. Translated into the context of dieting: If I now prefer that I not eat dessert at tomorrow's dinner, but think I will then succumb if given the choice, then I may rationally decide to act today to restrain my culinary choices tomorrow.

This subject is complex, and economists and others have done much to study it empirically and analytically.[136] I have sketched the concept only enough to explain its relevance to Posner's signaling model. There are now two ways that someone might be thought of as having a high discount rate. As Posner discusses, an individual can have a consistently high discount rate. In the above examples, these are the people who consistently choose the early-small option over the late-large one. But a person might also have a present-oriented bias, so that, despite having a low discount rate when selecting between two future options, he or she has an inconsistently high discount rate when choosing between one present and one future option. These people are impulsive. If we think everyone has this tendency to some degree, then we might call people impulsive when their present-bias is large relative to others.

Whether time inconsistency affects Posner's signaling model depends on what one thinks of the possibility of self-commitment—defined as any action by which the present self constrains the choices of the future self. Ulysses famously ordered his men to tie him to the mast and plug their ears

135. Ted O'Donoghue & Matthew Rabin, *Doing It Now or Later*, 89 AM. ECON. REV. 103, 103 (1999). Another term is "hyperbolic" discounting. *See* Laibson, *supra* note 133.

136. *See, e.g.*, CHOICE OVER TIME (George Loewenstein & Jon Elster eds., 1992); George A. Ackerlof, *Procrastination and Obedience*, 81 AM. ECON. REV. 1 (1991); Robert D. Cooter, *Lapses, Conflict, and Akrasia in Torts and Crimes: Towards an Economic Theory of the Will*, 11 INT'L REV. L. & ECON. 149 (1991); Ted O'Donoghue & Matthew Rabin, *Choice and Procrastination*, 116 Q.J. ECON. (forthcoming 2001); Thomas C. Schelling, *Self-Command in Practice, in Policy, and in a Theory of Rational Choice*, 74 AM. ECON. REV. 1 (1984).

so that they could jointly resist the sirens' song, while Ulysses could still hear it. Self-commitment requires that people both foresee their future time preference and have some means of constraining their future choices. If there is no possibility of self-commitment, present-oriented bias operates just like a high discount rate in the repeat-play prisoner's dilemma: Because the rewards from defecting are immediate and the benefits of cooperation are mostly deferred, the present-oriented bias favors defection. On the other hand, if there is perfect foresight and perfect means for self-commitment, then a person with a present-bias is just like someone with no bias. Thus, in either extreme case, there is no need for the signaling model to consider the possibility of time-inconsistency; the good type and bad type still capture all the relevant distinctions.

But one should consider time inconsistency under the more realistic assumption that self-commitment exists but is imperfect. Consider this simple form of imperfection: People who foresee their impulsiveness can self-commit in some contexts but not others. That is, the mechanisms for self-commitment are sometimes available and sometimes not. If so, it will become important to distinguish among good types: Some are "consistent" in that they have a low discount rate and no present-bias, but others are "inconsistent" because they have a low discount rate but a present-bias.[137] Among the inconsistent good types, some can foresee their present-oriented bias and, when the necessary mechanisms are available, engage in self-commitment. But others either do not foresee their impulsiveness or do not know how to use any form of self-commitment to control it. Thus, there are two new categories that I show are relevant to the analysis: (1) inconsistent good types who can self-commit, and (2) inconsistent good types who cannot self-commit. Imperfect self-control then complicates the signaling story in two ways. First, it is possible that everyone will want to avoid all inconsistent good types, but they will find it difficult to do so. Second, it is possible that everyone will want to distinguish between inconsistent good types depending on their ability to exercise self-control, but will find it difficult to do so.

People will seek to avoid all inconsistent good types if, in the cooperative ventures they seek, there is no available mechanism by which their cooperative partner can self-commit against cheating. To use one of Posner's examples, suppose an employer will incur the costs of training an employee for six months, providing knowledge and skills the employee could then take to another employer who would immediately pay a higher wage.[138] Suppose a consistent good type, to gain cooperative returns over

137. Everyone wants to avoid bad types whether the bad types are consistent or not, so I will not pursue a distinction between consistent and inconsistent bad types.

138. POSNER, *supra* note 8, at 11-13.

the long run, would stay with the initial employer even after receiving the training. A bad type, however, would immediately leave at the end of the training. What would an inconsistent good type do? If we assume there is no self-control mechanism—for example, no court or third party will enforce an agreement requiring the employee to stay at the initial job—then the inconsistent good type will give in to temptation at the last moment and take the higher-paying job. The employer therefore wants to avoid any inconsistent good type just as much as the employer wants to avoid bad types.

A problem arises, however, because inconsistent good types will often send signals just like consistent good types. In contexts where self-commitment is possible, the inconsistent good types who can self-commit will perfectly mimic consistent good types. Where self-commitment is unobservable, the effect is to create noise: Some potential employees who send signals of being a consistent good type can resist cheating only with the help of a self-commitment device that is not available in the employer's situation. For example, Posner says that charitable contributions are a signal of the good type. But an individual with a low discount rate but a present-oriented bias could commit to making charitable contributions in the future—by pledge or contract or will. A pledge may not be legally binding, but it raises the costs of not following through, so that someone who would never *just* write a check to a charity would (1) make the pledge to write the check in the future, and (2) write the check at the required time to avoid sending a disastrous signal of backing out on a pledge.[139] But absent an opportunity to pre-commit, this same individual would never make charitable contributions and would cheat rather than cooperate in a repeated prisoner's dilemma. Charitable contributions are then a noisy signal unless the charity discloses which individuals gave without benefit of a self-commitment device.[140]

Imperfect self-control might complicate the story in a second way. Let us replace the initial assumption stated above with the assumption that it is possible to self-commit in the repeated prisoner's dilemma game. Now individuals will want to interact with inconsistent good types if and only if

139. Another example is discrimination. Suppose that *A* owns a business and that discrimination is legal. *A* can self-commit by announcing, and instructing his managers to implement, a policy of discrimination. This decision incurs many of the benefits of the signal before incurring any costs. The costs come later, when discrimination targets are less likely to apply for jobs or when subordinates carry out the discriminatory policy without *A*'s immediate knowledge. The commitment strategy undermines the behavior's signaling function because later observers see only the absence of any racial minorities but do not know how *A* brought this about—with or without commitment.

140. If the self-commitment is observable, then self-commitment becomes a signal of an inconsistent good type that people wish to avoid. *A* wants to avoid people who are overweight (reflecting a high discount rate or a significant bias) or who are not overweight but seem to require a strong commitment (for example, never go to restaurants, never keep any sweets in the house).

they are capable of self-commitment. For example, suppose that *A* is considering whether to marry *B*, and *A* knows that *B* will have opportunities to cheat on their arrangement, either by having affairs or shirking at work or with childcare. All of these behaviors are subject to some degree of self-commitment. An individual seeking to be monogamous can self-commit, for example, by avoiding being alone with others to whom he or she is attracted. An individual who fears that he will ignore his children by working on the computer may decide not to bring work home. In the business context, a person might self-commit against cheating by agreeing to a liquidated damages provision, or prevent shirking at the office by leaving novels at home. In any of these cases, an inconsistent good type with an ability to self-commit is just like (or nearly like) a consistent good type.

Again, however, there is a difficulty. If there is imperfect information about whether a situation included an opportunity for self-commitment, then it will be difficult to determine whether inconsistent good types failed to send a signal in that situation because they lacked the *capacity* or merely the *opportunity* to self-commit. For example, assume that *A* observes that *B* failed to make a charitable contribution or left a firm immediately after receiving training. If *A* does not know whether there was an opportunity for self-commitment in these contexts, then *A* cannot determine whether *B* is a good bet for a cooperative venture.[141] If *B* had an opportunity for self-commitment but did not commit, then *A* wants to avoid *B* because she is either a bad type or an inconsistent good type without the capacity to self-commit. But if *B* lacked even the opportunity, then it remains possible that she might have the ability to self-commit, and *A* may not want to rule out the possibility of cooperation. Thus, the possibility of imperfect self-commitment makes signals more noisy.[142]

In sum, self-commitment can conceal important distinctions in type. When self-commitment is not available in the prospective cooperative venture, everyone wants to avoid inconsistent good types, but unobservable self-commitment allows such individuals to mimic consistent good types. When self-commitment is available in the prospective venture, everyone is willing to interact with inconsistent good types who can self-commit, but they will sometimes fail to demonstrate their ability to self-commit because

141. Of course, failing to send the signal immediately reveals that *B* is not a consistent good type.

142. Where self-commitment is observable, it becomes an attracting signal, demonstrating the ability to exploit available self-commitment mechanisms. This result is just the opposite of the prior analysis where self-commitment, if visible, would repel others. *Supra* note 140. The point is not that the prior analysis was wrong, but that the effect of a self-commitment signal depends on whether self-commitment is possible in the prospective venture. Because both situations coexist—sometimes self-commitment is possible in the prospective venture and sometimes not—it is impossible to say in the abstract whether people will want to send the signal of self-commitment.

they lacked the opportunity to do so in a given situation. When the opportunity to self-commit is also not observable, it is impossible to distinguish inconsistent good types who can self-commit from those who cannot. Interpreting signals is more complicated and subject to even greater ambiguity than Posner indicates.

2. *Concealed Cheating: When Good Types Are Bad and Bad Types Are Good*

In the signaling model, the key inference is that a person with a low discount rate will be more likely to cooperate. With minor modifications to the model, however, this is not always the case. There are circumstances where an individual choosing between two individuals should prefer to interact with the one with a *higher* discount rate. This result is not possible in Posner's stylized iterated prisoner's dilemma. There, defecting is immediately detected and the party suffering from defection may retaliate in the next round. Admittedly, Posner's results would still hold if we introduced random "noise" into the model by imagining that one party does not always interpret the other party's move correctly; that is, cooperation is sometimes perceived as defection and defection is sometimes perceived as cooperation. As long as mutual cooperation remains a possible equilibrium (which requires some minimal level of correct perception of the other side's move), those with lower discount rates are less likely to defect.

But suppose we modify the model to include nonrandom error. Suppose that an individual can invest to increase the chance that his defection will be perceived as cooperation. More precisely, assume there is some minimum probability that cheating will remain undiscovered in the next time period and, with effort, that an individual can increase this probability. Thus, he can act to conceal his cheating. This is a highly realistic scenario. One example is embezzlement. If an employee grabs the money in the cash register at the end of the day, the owner will likely perceive the defection and (at the least) fire the employee. But if the employee invests time and other resources, he may discover a means of embezzling money so that the owner does not notice. The owner will know he is making less money but incorrectly attribute it to something other than the employee's cheating. A second example is adultery. One spouse can decrease the likelihood that the other spouse will discover his affair by investing time and effort into concealing it. The aggrieved spouse experiences a loss of the other spouse's time and attention but incorrectly attributes it to something other than cheating.

Notice that in both cases, and as a general matter, the defector must make some of the investment *before* he gains the benefits of cheating. The employee must figure out how the security procedures work and how to

defeat them before attempting embezzlement. The husband must arrange a secluded place to meet his mistress and prepare a plausible explanation of his whereabouts before he actually does meet her.

As a result, where concealment is possible, the good type may be a greater threat than the bad type. Concealment reverses the order of the costs and benefits that otherwise exist in Posner's model: First, the cheater incurs the cost of planning and implementing the scheme; later, the cheater incurs the benefits. Given this familiar structure, we can predict that people with low discount rates will be more willing than people with high discount rates to incur the immediate costs of concealment to acquire the deferred benefits of cheating. As a result, good types will engage in more concealed cheating than bad types.[143] A person with a high discount rate might grab the money from his employer's cash register (and would probably get caught), but he would not bother to invest months of time and energy to figure out an embezzlement scheme. A husband with a high discount rate might commit adultery impulsively (and would probably get caught), but he would not invest days planning an elaborate scheme to meet his mistress secretly.[144] The people who are able to inflict losses on their cooperative partners for an extended period of time (though they may eventually be caught) are the good types.

Given the possibility of concealment, signaling now involves a complicated trade-off. Bad types are not certain to defect; they are merely more likely to defect. Compared to bad types, good types present less risk of immediate defection, but now we see that they pose a greater risk of concealed, long-term defection. In the real world, there will be some repeat prisoner's dilemma situations for which the payoffs from cooperation induce even bad types to cooperate. In those situations, good types will be the only ones cheating, assuming they have discovered a means of concealment. In these cases, one will wish to avoid good types.

To clarify the point, let us assume there are three types.[145] Between the good and bad types is a "so-so" type with an intermediate discount rate. Assume that bad types will probably defect immediately, but that, in many cooperative ventures, both good and so-so types will probably cooperate. Of course, good types are more likely to cooperate initially than are so-so types (given lower discount rates), but this advantage is offset by the fact

143. This is a good point at which to restate that the terms "good type" and "bad type" refer to nothing but an individual's low or high discount rate, respectively.

144. A third example, somewhat similar to embezzlement, is a complex swindle. I thank Hal Krent for pointing out the relevance of the movie *The Sting*, in which the protagonists engage in "the long con"—a con game that requires a considerable investment of time and money, and presumably, therefore, criminals with a low discount rate. Bad types would settle for "the short con." *See* THE STING (Universal Pictures 1973).

145. It is only a methodological convenience to assume there are exactly two types. Discount rates are likely to be continuous. POSNER, *supra* note 8, at 19.

that the good types are also more likely to invest in long-term cheating strategies, and their concealment, than are the so-so types. Depending on the exact trade-offs, an individual seeking cooperation might prefer so-so types to good types; that is, she might prefer someone with a higher discount rate (though one still lower than a bad type's). Thus, discount rates are only contingently related to cooperation. If an individual structures his business so that quick defections are immediately detected with high probability, but worries that concealed defections might cost him a lot, then he would prefer hiring individuals with a discount rate just low enough to prevent their immediate defection, but high enough to prevent any industrious form of embezzlement. Some individuals might prefer to take a small risk that their spouses will cheat impulsively in order to avoid the risk of marrying the type who can cheat for long periods of time without being detected.

This point directly challenges the key inference of the signaling model. The significance of the challenge depends on the relative threats of open and concealed cheating: If concealed cheating were sufficiently likely, then people would generally want to signal high rather than low discount rates. But even if the potential for concealed cheating is limited, there will still be a point where the signaling of low discount rates produces negative returns, meaning that people will want to signal moderate rather than particularly low discount rates. In either case, it is wrong to assume that people will wish to signal a low discount rate "at every opportunity,"[146] which makes it unlikely that signaling explains all of the social norms Posner discusses.

B. *Some Questionable Implications*

Now let us consider the macro-implications of the discount-rate signaling model of norms. Any theory of norm origin will likely make a number of predictions about the general structure and operation of norms. Throughout the book Posner does a good job of drawing out many interesting and compelling implications of his model. But the signaling model also implies, in my view, some rather improbable things. Here I describe three such implications, each of which provides reason to question the model as a general explanation for norms. I emphasize that these implications are my own creations. Posner quite likely would deny that his model produces these results. Let me also state that, in each case, one can always think of some clever way to avoid the implication I am drawing, but only by introducing complications of the sort that Posner generally rejects. Posner offers signaling as a simple and parsimonious way of explaining

146. *Id.* at 21.

norms, and I accept that methodological minimalism for purposes of examining the model's implications.

1. *Less Norm Compliance in Small, Stable, Integrated Groups?*

In Posner's model, the returns from signaling should fall as existing knowledge about a person rises. We expect that the signaling return from providing the 900th piece of information about one's discount rate will be less than the return from providing the ninth piece of information. I read Posner to approve of this inference. He states at one point that the wealthy feel less pressure to obey norms (that is, send signals) because people are unlikely to forego cooperation with the rich.[147] This observation makes sense, however, only if people already know that an individual is rich. The rich person will still need to signal as much as others until people discover his wealth, but less afterward. Posner makes this point more generally when he notes that new entrants are particularly likely to signal because they have not had a chance to develop a reputation.[148] The converse is that old entrants—those who have been in a market or community for an extended time—need to signal less because more is known about them already. Finally, the same point applies to those with a high discount rate. If a person's alcohol addiction or gambling problem is well-known, for example, he will signal even less than others with the same high discount rate because he knows his signaling will fail to convince anyone that he has a low discount rate. To generalize, other things being equal, *the more that people in* A*'s community already know about* A*'s discount rate, the less* A *will signal.* Signaling varies inversely with the amount of information already known about the individual.

When applied to social norms, however, this generalization is almost certainly false. The relationship implies that members of small, stable, tightly integrated groups and communities will signal less than members of large, transient, anonymous groups and communities. The former groups and communities invariably have more information about their members than the latter. Members of a more integrated group interact with each other more frequently and along more dimensions, thus creating more opportunities to infer someone's discount rate (or cooperativeness generally). Members of a smaller group will find it easier to remember what they have observed about each other. And in a more stable group—a group with less turnover and thus populated by old entrants—there will be fewer people at any given time who have no reputation. Thus, the smaller the group, the more stable its membership, and the more frequently the

147. *Id.* at 28.
148. *See id.* at 20-21.

members interact with one another, the more reputational information the members will have about one another. In Posner's model, more information means that these groups will signal less.

But recall that, in Posner's model, to signal less means to comply less with social norms. Norms are nothing but the equilibrium outcome of a signaling game. So the model implies that members of small, stable, tightly integrated communities will comply with norms less than members of large, transient, anonymous communities. Needless to say, this is the exact opposite of what decades of social science has found. Life in small towns is more regimented by social norms than is life in large, transient, anonymous urban centers.[149] The most powerful norms—causing people to bear the greatest costs—are found in small, integrated groups. To take one example of many, soldiers fight more aggressively in combat, at greater risk to their lives, when fighting with a small, close-knit group of men they know extremely well than when fighting with a group of relative strangers.[150] From Posner's model, one would predict the opposite: that strangers—all new entrants vis-à-vis each other—would have a greater need to signal their low discount rate to each other and would incur the greatest cost in doing so.

There is a possible response to this criticism. Small, stable, integrated groups have not only a greater stock of reputational information, but also a greater flow of such information. By contrast, the information flow in anonymous cities may be so bad that perhaps signaling does not pay. If no one will remember whether a particular individual sent the signal, then the signal is not worth sending. Posner does not suggest this point anywhere (and the point complicates some of his claims), but, in any event, it does not really avoid the problem. It would explain why norm compliance does not peak in urban centers. But it also implies a parabolic function: As we move from the most anonymous settings toward smaller, more stable communities, we will hit a point where people start to remember the signals that were sent and suddenly see a upsurge in signaling. But as we move further to even smaller, more stable and integrated communities, we should eventually hit a point where reputational information is plentiful and signaling declines. The closed community at the end of the spectrum should in fact have little or no signaling—because everyone has known each other since birth. So, at best, Posner's model implies (1) that at either end of the spectrum there is very little signaling (in big groups because no one remembers the signals, in small groups because everyone remembers other

149. *E.g.*, JOHN DOLLARD, CASTE AND CLASS IN A SOUTHERN TOWN 15, 346, 354 (1937); ELLICKSON, *supra* note 6, at 177-82; MYRDAL, *supra* note 119, at 126; ROBERT D. PUTNAM, BOWLING ALONE: THE COLLAPSE AND REVIVAL OF AMERICAN COMMUNITY 119, 205-06, 463 n.10 (2000).

150. *See* S.L.A. MARSHALL, MEN AGAINST FIRE 148-52 (1947).

reputational information based on past interactions), but (2) that signaling peaks somewhere in between. As far as I can see, the evidence contradicts this prediction, because norm compliance and social regimentation continue to grow as the group becomes smaller, more stable, and more integrated.[151]

2. *Less Norm Compliance Among the Aged?*

Posner notes that in times of national tension, the stakes in cooperative ventures are higher and therefore the signaling is higher. We can generalize this point by saying that in his model, other things equal, *the more* A *needs cooperative relationships, the more* A *will signal.* This generalization leads to a "last period" or endgame prediction: that people will signal less as they approach the end of their lives. As an individual approaches death, his need for additional cooperative relations falls. Although Posner does not explicitly say that the aged signal less, he seems to endorse the implication I am drawing when he says: "People who have built up reputations over the years frequently cash them in as old age overtakes them."[152] If the aged signal less, in the model, that is the same as saying that such individuals will comply less with social norms.

Casual observation contradicts this implication. The elderly do not violate norms substantially more than others do. Indeed, the elderly often lament the fact that new generations do not respect the norms that the elderly grew up with, and the elderly sometimes find it impossible to stop engaging in behavior that was once obligated by norms but is no longer expected or appreciated. Of course, my casual observation may be wrong. Finding reliable data on the subject is difficult, but the two cases in which I know of data do not support the model. First, Posner says that voting is a means of signaling low discount rates, but the elderly vote far more than do other age groups, rather than far less.[153] Second, Posner describes race discrimination as a signal of low discount rates, but the elderly endorse racist attitudes more than do other age groups, rather than less.[154] The model's "last period" implication is quite doubtful.

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151. One might also respond that the difficulty of exiting close-knit groups raises the need to cooperate with people inside the group, which might raise signaling. But that dependency just means we should not observe much cheating. Because everyone knows who has the good reputation for not cheating, there is no need for the arbitrary signals that Posner describes.

152. POSNER, *supra* note 8, at 50. He gives the example of an aging celebrity who sells his reputation by making television commercials endorsing a product.

153. *E.g.*, RAYMOND E. WOLFINGER & STEVEN J. ROSENSTONE, WHO VOTES? 47 (1980). For more recent data, see U.S. CENSUS BUREAU, REPORTED VOTING AND REGISTRATION, BY SEX AND SINGLE YEARS OF AGE: NOVEMBER 1998 (2000), *available at* http://www.census.gov/population/socdemo/voting/cps1998/tab01.txt.

154. *E.g.*, Glenn Firebaugh & Kenneth E. Davis, *Trends in Antiblack Prejudice, 1972-1984: Region and Cohort Effects*, 94 AM. J. SOC. 251 (1988); Herbert H. Hyman & Paul B. Sheatsley, *Attitudes Toward Desegregation*, 195 SCI. AM. 35 (1956); A. Wade Smith, *Cohorts, Education, and the Evolution of Tolerance*, 14 SOC. SCI. RES. 205 (1985). Admittedly, these data do not

Perhaps the prediction can be avoided.[155] In discussing family norms, Posner makes a point that might explain why, notwithstanding the general implications of his model, the aged would still comply with norms:

> The family name becomes a kind of trademark associated with reliability. Parents might want to transfer this reputational advantage to their children for several reasons . . . . Indeed, the "family," like a corporation, might be thought of as an immortal (or at least indefinitely long-lived) institution that solves the last period problem by giving every member an incentive to maintain the family reputation.[156]

Posner uses this point to explain why parents might constrain the marriage choices of their children. Because most parents expect to live for a substantial time after their children marry, this control is not surprising. The question is why parents would continue, after reaching an old age, to care enough about the family name to bother complying with social norms. The answer, presumably, is altruism. Just as many parents forego consumption in life to leave their children an inheritance after death, parents comply with norms to preserve the family name and leave their children a better reputation after death.

I have no data on this subject, but I find this answer empirically implausible and insufficient to avoid the endgame inference. Altruism does not begin to address why childless individuals would obey social norms in their advanced years. More generally, though family names counted for a great deal in traditional societies, in modern societies, an individual's reputation depends very little on his parents,[157] especially once the children are middle-aged and when the parents and children live in different communities (as is increasingly common). In the United States, business partners and even some married couples know and care to know little about each other's parents.[158] If *A* will not hold *B*'s father's conduct against *B*,

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suggest that white people become more discriminatory as they age, but that, at any time period, the older cohorts consist of people who were more prejudiced throughout their lives. But whatever forces caused prejudice to decline in general over the relevant time period, it is significant that they had the least effect on people whose advanced age gave them a weaker reason to signal. The signaling model would predict the opposite.

155. One might say that the elderly comply with norms because they gain utility during their lives from believing that they will enjoy a good reputation after they die. But this is exactly the kind of move that Posner's methodology—based on "stripped-down preferences"—rules out. POSNER, *supra* note 8, at 41. To value posthumous reputation is to value it intrinsically (not as a means of acquiring cooperative opportunities), which requires an actual preference for reputation.

156. *Id.* at 75 (citation omitted).

157. This is not to say that a parent's wealth or fame may not benefit his child in other ways. It is simply to say that people are not likely to infer that the child must have a low discount rate, or must be likely to cooperate, just because the parent has a good reputation.

158. One could imagine an elderly parent bringing disrepute to a middle-aged son or daughter by committing a crime so heinous that others felt it necessary to shun the aged criminal's children.

then there is no reason for the father to comply with social norms, even though he altruistically cares for *B*.[159] All of which leaves us with the unlikely conclusion that age is negatively correlated with social norm compliance: that as people age, they feel increasingly free from the bonds of social obligation.

3. *No One Volunteers Information That Implies a High Discount Rate?*

Late in the book, Posner addresses why incommensurability claims are common in popular discourse. These are claims in which people say that they cannot compare different values—like money and personal relationships—because they exist in different dimensions. For Posner, the question is why people assert that they would never put a price on friendship, and similar things, when people behave as if they do—they "drop friends when the costs of maintaining the friendships become too high" and "risk or violate family relationships by accepting attractive job offers in distant locations."[160] He explains such statements as signaling. His argument for this is complex because speaking by itself is normally thought to be cheap talk, not costly enough to serve as a signal. But Posner concludes that "[p]eople are driven to extreme statements by their focal nature and by the need to match the exaggerated claims of bad types."[161] Just as firms do not say their products are *mostly* high-quality, it does not pay to state honestly that one cheats but only rarely, or to say that one would cheat only under highly unlikely circumstances. Even if few people believe one's absolutist claims, everyone is driven to make them.[162]

Again, I wish to generalize from this example. The signaling model implies something else about popular discourse: If people are constantly concerned with signaling a low discount rate, they would never admit that they are engaged in behaviors that signal a high discount rate. There is no point in undertaking costs to signal one's low discount rate (and claiming to hold incommensurable values) and then telling people that you have a high discount rate or giving them information from which to infer that you have a high discount rate. The model thus predicts that people will, where possible, avoid revealing any behavior that signals a high discount rate.

But that would be highly aberrational. Much more likely, learning that *B*'s sixty-five-year-old father has not voted for years will have no effect on *A*'s decision to cooperate with *B*. If Posner's theory were true, *A* would presumably just recognize that *B*'s father is in an endgame situation but *B* is not.

159. To the contrary, if the father can somehow cash in on his past reputation, by cheating people who expect him to cooperate, he may be able to leave *B* a larger inheritance.

160. POSNER, *supra* note 8, at 186.

161. *Id.* at 190.

162. *Id.* at 192-98.

Indeed, if we were to apply Posner's incommensurability logic to this kind of discourse, we might say that people would flatly deny that they discounted the future at all. Such a statement would be obviously false, but in Posner's view, so are common claims of incommensurability. If competition with bad types compels good types to make absolutist claims about loyalty and cooperativeness that are false and mostly disbelieved, then why would the same forces not push them to claim a discount rate of zero?

Obviously, this more extreme implication is false because people do not claim to have a zero discount rate. But even the weaker implication—that people would never volunteer information revealing a high discount rate—is false. People frequently offer what should be damaging information about their discount rates.[163] In my experience, people admit to things like waiting until the last minute to do their taxes, grade their exams, or finish their Christmas shopping; being late to appointments; not "getting around to" cleaning or performing routine maintenance; spending money impulsively and regretting it later; and having difficulty paying off credit card debt. Think how common it is for people to admit that they have trouble maintaining a particular weight because they have a sweet tooth or hate to exercise. All of these things are what I previously referred to as natural signals of high discount rates. They all show that the person values present costs much more than future costs or present benefits much more than future benefits. If people care as much about their perceived discount rate as Posner claims, then these behaviors are puzzling.

I can think of only two ways to try to resolve this puzzle in favor of the signaling model. One is to say that people often admit to things that are already generally known or will become known. If *B* is already going to discover *A*'s tardiness, then *A* has nothing to lose, and maybe something to gain, by being the one to inform *B* of this fact. But often people admit to things that others do not know and would not discover. When people say, "I tell myself every year that I'm going to grade my exams (do my taxes, start my Christmas shopping) early and get it out of the way, and then I wait until the last minute," they are usually revealing information that the hearer did not already know.[164]

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163. Russell Hardin makes a similar comment about Posner's recent article applying the signaling model to explain tax compliance: that if tax cheating is a signal of high discount rates, it is hard to explain why people ever volunteer (to others, not the government) their failure to comply. *See* Russell Hardin, *Law and Social Norms in the Large*, 86 VA. L. REV. 1821, 1822-23 (2000) (commenting on Eric A. Posner, *Law and Social Norms: The Case of Tax Compliance*, 86 VA. L. REV. 1781 (2000)).

164. Even an overweight person who says he has a sweet tooth is confirming what otherwise might be uncertain: that he would not be overweight if he did not discount so significantly the future benefit of being slim compared to the present benefit of eating something tasty.

The other way to resolve the puzzle is to argue that, in cases where *B* did not already know about *A*'s high-discount-rate behavior, *B* is not likely to believe what *A* says about it. Just as one would dismiss *A*'s statements of having a low discount rate or having engaged in the corresponding behavior as meaningless cheap talk, one might dismiss *A*'s statements of engaging in behavior that reveals a high discount rate. But this answer would miss the point of Posner's incommensurability discussion. Posner says that the refusal to make such a claim is meaningful. To say "I will never cheat" may not help much, but to say instead "I will not cheat unless the gains exceed reputational losses" is self-destructive.[165] In the same way, though claiming to be debt-free is cheap talk, stating "I sometimes have trouble paying off my credit card debt" should work against one's reputation.

That people nonetheless make this sort of statement undermines the signaling theory. Posner's chapter on incommensurability discourse is fascinating—treating what people say as important behavior and explaining it within a rational choice framework—but he does not address what is, for his theory, one of the more important aspects of what people say. When they have the option of saying nothing, they sometimes volunteer things that reveal a high discount rate, the last thing they should do if they are focused on signaling a low discount rate.

C. *Global Equilibrium: Would There Really Be This Much Signaling?*

Consider now the sum of Posner's individual explanations of social norms. He contends that signaling produces not merely norms of gift-giving, or gift-giving and voting, but gift-giving and voting and table manners and conspicuous consumption and race discrimination and nationalism and a whole lot more. Realistically, the claim is that all of social life is dominated by the signaling of discount rates, that people feel the need, as Posner says at one point, to signal "at every opportunity."[166] If this is true, then the demand for and productivity of signaling must be extraordinarily high, so that over and over again the investment in (yet another) costly signaling behavior is repaid with improved cooperative opportunities. But there is another possibility. It is possible that the need to signal runs out early on, before individuals get around to engaging in all of these behaviors. If so, then signaling cannot explain all these social norms.

This is ultimately an equilibrium issue. Posner discusses signaling equilibrium, but only for one signal at a time. For an individual, however, there is also a general signaling equilibrium. One form of signaling is a

165. POSNER, *supra* note 8, at 190.
166. *Id.* at 21.

substitute for another.[167] If a person adequately signals his discount rate by gift-giving and voting, for example, he does not need to engage in discrimination and patriotic displays. The individual reaches this point, not when everyone believes that the individual is a good type, but when the marginal costs of sending one more signal exceed the marginal benefits. When all the individuals in society have reached their general signaling equilibrium, there is a global equilibrium. At this point, no individual can improve his position by shifting resources to or from signaling, or between one form of signaling and another. The broad question I am raising is whether we can say anything useful about when the system is likely to reach global equilibrium. The precise issue is whether most individuals satisfy their need for attracting cooperative opportunities without complying with the social norms Posner wants to explain. If so, then signaling does not explain why most people comply.

Posner does not address this issue. The omission is unfortunate, because it is probably fair to ask him to persuade a reader, at least provisionally, that global equilibrium would involve the very high level of signaling investment his theory assumes. More importantly, there are significant grounds for skepticism. In this Section, I explain the basis for this skepticism and why I believe that the need to signal is not strong enough to explain all the norms Posner discusses (even if the signaling model is consistent with each norm). On the one hand, the signaling Posner describes is very "noisy." On the other hand, there are less noisy alternative methods of acquiring cooperative opportunities. Thus, I do not try to ascertain how much signaling the global equilibrium would involve, but I think these two points cast considerable doubt on whether it would include so much signaling.

1. *Noise: Ambiguities Decrease the Productive Efficiency of Signaling*

The signaling model requires two inferences: first, that the behavior that constitutes the signal demonstrates that the person has a low discount rate; and second, that having a low discount rate makes a person a more attractive cooperative partner. Neither of these inferences is true in every case. Because a person's behavior is the outcome of a great many variables, there is always considerable ambiguity in how to interpret that behavior. And, as explained above,[168] sometimes one is better off cooperating with a

167. Posner makes this point when he says that whether one engages in the signaling of race discrimination depends, in part, on whether there is "a superior form of signaling (like gift-giving, patriotic displays, or religious discrimination) that produces the same results at less cost." *Id.* at 134.

168. *Supra* text accompanying notes 143-146.

bad type. Together, these problems lower the return on signaling; that is, they lower its productive efficiency in acquiring cooperative opportunities.

Differences in tastes. Posner repeatedly acknowledges the first problem: that ambiguity undermines a signal. Most frequently discussed is the ambiguity about whether an individual engages in a costly behavior to signal a low discount rate or to satisfy an intrinsic preference. As a result, Posner says, differences in tastes produce "noise"—a costly behavior may reflect a bad type acting to satisfy a preference rather than a good type signaling a low discount rate. Uncertainty over a person's tastes creates uncertainty over his type, whatever his behavior. Posner refers to the "crudeness of signals, the inevitability of error."[169]

Robert Cooter has observed a particular kind of preference that confounds interpretation of almost any signal: differences in risk preferences.[170] Most of Posner's examples involve risk because there is uncertainty about whether norm-violating behavior will be detected and sanctioned. Consider the failure to vote, discriminate, or consume conspicuously, or the failure to shun those who violate a social norm. Now imagine two people, *A* and *B*, with identical discount rates, but with different preferences regarding risk: *A* is risk averse and *B* is risk preferring. Because of the uncertainty about whether their norm violation will be sanctioned, *A* values the cost of the possible sanction at more than the expected sanction (which is the probability of detection multiplied by the cost of the sanction), while risk-loving *B* values it at less than the expected sanction. As a result, *A* is more likely to conform to the norm than *B*, even though they have the same discount rate. In some cases this noise will be particularly disruptive of the signaling scheme, because an individual who seeks to avoid bad types might actually prefer to cooperate with risk-loving good types, so the same norm-violating behavior may both repel and attract cooperative partners.

Differences in wealth. Differences in wealth provide another source of noise. There being no reason to think signaling is an inferior good, the amount a bad type spends on signaling will rise with his wealth, so the wealthy bad type may outsignal a poorer good type. Posner observes that wealth differences may result from differences in discount rates—those who take the long view are better able to accumulate wealth.[171] The extent of this correlation is unknown, but, on any account, is less than one-to-one. So there will be many rich bad types and poor good types. Uncertainty

169. POSNER, *supra* note 8, at 38.

170. Robert Cooter, Statement at the University of Virginia School of Law Olin Conference on Legal Construction of Norms (Feb. 25, 2000).

171. *See* POSNER, *supra* note 8, at 180-81.

about another's wealth will create uncertainty over his type, whatever his behavior. Perhaps not voting shows that *A* has a high discount rate, or perhaps it shows that *A* cannot afford a car or the time it takes to use public transportation to get to the voting area.

Present-biased time preferences and differences in self-commitment. The next source of noise is the inconsistent time preferences discussed above.[172] In addition to a low discount rate, one sometimes prefers to interact with someone with no present-bias, a consistent good type who has no impulsive inclinations he needs to restrain. But where self-commitment is not observable, it will be difficult to distinguish between consistent and inconsistent good types. Conversely, sometimes one is willing to interact with inconsistent good types as long as they have the ability to self-commit. But, again, if the opportunities for self-commitment are not always present and are not always observable, then one cannot easily determine whether the person who failed to send the requisite signal lacks the capacity or merely the opportunity for self-control. The result is more noise.

The threat of concealed cheating from good types. The prior sources of noise concern the difficulty of determining another's discount rate. The final problem is that the optimal discount rate for a cooperative partner may be something other than the minimal rate. As discussed above, the reason is the threat of concealed cheating. Even if *A* believes that *B* has a lower discount rate than *C*, *A* may believe that *C* has a sufficiently low discount rate to resist the option of immediate defection in each period, but a high enough discount rate not to be tempted by long-term cheating strategies that require planning and investment. On the other hand, *A* may fear that *B*'s discount rate is so low that the dangers of concealed cheating outweigh the incremental gain from *B* being less likely than *C* to defect immediately. The concealment threat could be sufficiently powerful, relative to the immediate defection threat, to eliminate completely the motive to signal low discount rates. But even if some signaling still pays, people will want to signal a discount rate above the minimum. Signaling an intermediate rate is an extremely delicate task. It means that there is a danger of being misinterpreted at both ends, having too high or too low a discount rate. There is now a danger that what is optimal for one person (who mostly fears immediate defection) is not optimal for another (who mostly fears concealed and prolonged defection). Consequently, one may wonder if the game is worth the candle. More generally, all four sources of noise lower the productivity of signaling, to the point where the costs might exceed the returns.

172. *Supra* text accompanying notes 132-142.

2. *Reputational Alternatives to Signaling*

Another reason to be skeptical that people would invest so much into signaling their discount rates is that they have other means of securing cooperative opportunities. Primarily, they can establish a reputation for cooperation. It is useful to think of the discount-rate signaling model as an extension of a broader theory of reputation. Quite a bit has been written about reputation;[173] we should begin by distinguishing what has been said from what Posner's book adds. The conventional view is that one develops a reputation for reliably doing *X* by always (or almost always) doing *X*.[174] One gains a reputation for honesty, for example, by always telling the truth, or at least telling the truth more than others. One gains a reputation for delivering goods on time by delivering goods on time and, more generally, for cooperating rather than defecting by cooperating (at least absent a prior defection). Reputation works this way because, by observing an individual cooperate in a variety of settings, we conclude that his situation is one in which the benefits of cooperating generally exceed the costs. Maybe the individual has internalized an obligation to cooperate; maybe he values the esteem that he earns and the disapproval he avoids by cooperating; maybe he has a low discount rate and has decided that cooperating serves his long-run interest. Whatever the reason, we come to believe we can rely on this person to cooperate, at least more than others, because we have some evidence that it is in his interest to do so.

Signaling supplements the reputational model in the following way: One develops a reputation for reliably doing *X* by doing *Y*. While the connection between doing *X* in the past and doing *X* in the future is straightforward, the signaling theory less obviously connects behaviors other than *X* to one's reliability at doing *X*. In Posner's theory, *X* is one's willingness to cooperate in an iterated prisoner's dilemma, and *Y* is a signal of a low discount rate. If we observed the individual cooperate on many occasions in iterated prisoner's dilemma situations, we might conclude that he was a reliable cooperator because he had a low discount rate. But Posner disaggregates the inference about discount rates from the observation about cooperation. One of the book's fundamental contributions is to push the

173. The game theory literature on reputation begins with David M. Kreps & Robert Wilson, *Reputation and Imperfect Information*, 27 J. ECON. THEORY 253 (1982); and Paul Milgrom & John Roberts, *Predation, Reputation, and Entry Deterrence*, 27 J. ECON. THEORY 280 (1982). For influential discussions in the legal literature, see David Charny, *Nonlegal Sanctions in Commercial Relationships*, 104 HARV. L. REV. 375 (1990); and Robert E. Scott, *A Relational Theory of Default Rules for Commercial Contracts*, 19 J. LEGAL STUD. 597 (1990).

174. *E.g.*, Drew Fudenberg & David K. Levine, *Maintaining a Reputation When Strategies Are Imperfectly Observed*, 59 REV. ECON. STUD. 561, 561 (1992) ("[T]he idea is that if a player continually plays the same action, his opponents will come to expect him to play that action in the future.").

economic understanding of reputation beyond the simple model to this more complex one.

But it is easier to show that signaling discount rates can attract cooperative opportunities than it is to prove that, in global equilibrium, most people would signal by complying with all the norms Posner discusses. In seeking cooperative opportunities, an individual will want to invest first in the behavior that generates the most returns. It should be fairly obvious that the best way to start is by investing in the conventional means of acquiring reputation. The basic reputational model exploits simplicity: The connection between doing *X* in the past and doing *X* in the future is easy to recognize. By contrast, the signaling model is noisy because it depends on a more complex inference between doing *Y* in the past and doing *X* in the future. Thus, if a person seeks to convince others that he will keep his promises, it would be odd to invest in signaling a low discount rate (by, say, conspicuous consumption) before he invested significantly in keeping his promises. Equally implausible would be a manufacturing company signaling its interest in the long view by spending lots of money on ornate office architecture but at the same time defaulting in various contractual relationships. One expects that the direct means of producing a reputation—by acting accordingly—is the most efficient means, and that an individual will invest in that means before using an indirect means of signaling.

In his discussion of the reputational alternative to signaling, Posner acknowledges that a merchant can "develop a reputation as a person who rarely or never cheats . . . by not cheating in previous games."[175] He then adds: "But this strategy succeeds only to the extent that information flows sufficiently freely and memories are good; and also the strategy obviously cannot be used by a new entrant to the market."[176] These two points are sufficient to show that there is some room left for signaling; there are some situations where signaling will work for the individual better than conventional reputational investments.

But the question is whether these two points are sufficient to explain all the signaling Posner describes elsewhere in the book. It is true that new entrants will not yet have had the opportunity to engage in the behavior—cooperating—for which they seek to build a reputation. But this cannot justify the ubiquity of signaling in Posner's model because most market players are not new entrants. One might imagine that new entrants signal their low discount rate for a while and then, after cooperating a few times, begin to rely increasingly on their reputation. But that would produce very

175. POSNER, *supra* note 8, at 20.

176. *Id.*; *see also id.* at 21 ("One wants a general reputation as a 'cooperator,' a person with a low discount rate, and one establishes that reputation both by declining to cheat in repeated games and by sending signals at every opportunity.").

different results from the behaviors Posner seeks to explain. Discount-rate signaling should then be dominated by new entrants, as newcomers in a community who feel the need to adopt an exaggerated sense of identity with and loyalty to the place in order to be accepted. In the norms Posner describes, however, not only do old entrants conform, but new entrants do not even seem to conform more than others.[177]

As to the second point, it is true that the value of investing in reputation depends on the quality of information flows and memory. But signaling *also* depends on memory and information flows. Many of Posner's signals—for example, voting, discrimination, and patriotic displays—will be observed only by a limited number of people, who may also forget or fail to communicate their information. An employee is surely better off spending extra time at work impressing his current employer for the purpose of getting a favorable job reference for future employers, than spending that same time signaling a low discount rate by participating in patriotic rallies. Moreover, one can invest to raise the level of information flows about one's reputation, and thereby make up for faulty memories. Advertising the high rating one's product received in *Consumer Reports* is likely to be more productive than spending the same money on the signal of conspicuous consumption. Posner does not explain how there could be a market in which there was better flow of information about signaling than about conventional reputation, nor does he limit his norms analysis to such settings.

So it appears that the reputation strategy will almost always trump the signaling strategy. There is a further problem. Even when an individual decides to signal, it is doubtful that anyone would begin with the behaviors Posner finds most interesting. Recall my distinction between natural and arbitrary behaviors.[178] Natural behavioral differences will arise between good and bad types before anyone recognizes the behaviors as signals. Valuing the future more, good types are more likely to save for retirement, invest in education, have friends, exercise, and have regular dental check-ups. Valuing the future less, bad types are more likely to miss appointments, procrastinate, overeat, develop addictions, and borrow money. If people need to signal, they will surely begin with these stable and intuitive distinctions. With natural distinctions, there is no coordination game to be solved by a norm entrepreneur. But Posner is not interested in

177. For example, it does not appear that new entrants to a community took the lead in charivari, *see supra* text accompanying notes 91-92, though Posner uses signaling to explain it. Nor does Posner suggest that new entrants comply more strongly than old entrants with the norms compelling individuals to give engagement rings or sanction criminals. *See* POSNER, *supra* note 8, at 71, 89-90. That established community members seem to comply as much as new entrants makes it unlikely that signaling is the explanation for the norm.

178. *Supra* text accompanying notes 38-48.

this form of signaling; it is only by extending the model to arbitrary signals that he can explain social norms.

Let me then summarize the problem. Individuals need to attract cooperative partners. They can choose between three strategies: investing in (1) establishing a reputation for cooperation (or more specific behaviors others find desirable) by engaging in that behavior, (2) signaling by exaggerating the natural distinctions that arise between good and bad types, or (3) signaling by engaging in an arbitrary costly behavior that a norm entrepreneur has established as the means of signaling one's type. People are likely to invest in the most productive means first. Reputation-building is more productive than signaling because, being simple and direct, there is less difficulty making the necessary inferences from the behavior. Natural signaling is more productive than arbitrary signaling because it is more stable and intuitive, and in any event, is more likely to arise first because it requires no norm entrepreneur. All of which leads back to the question: In a global equilibrium, would people even require arbitrary signals? Even if they would, it seems unlikely that they would want to invest as much in such signaling as would cause them to comply with all the norms Posner addresses.

This is not to deny that signaling may be the best explanation of certain behavior. I said previously that Posner's analysis of gift-giving is powerful.[179] Let me now explain why. First, as Posner explains it, gift-giving is a behavior narrowly aimed at the particular person whom the signaler wants to convince of his low discount rate. By contrast, most of Posner's other examples involve behaviors that are broadcast to the whole world with the hopes of reaching someone whose opinion actually matters to the signaler. In addition, gift-giving signals more than just a low discount rate; it signals all the factors that make one individual willing to cooperate with another.[180] *A* might find lots of good types with the same low discount rate, but perceive that the payoffs from some ventures will be better than others. These perceptions are based in part on his private information about his needs and capabilities. Thus, when *A* gives the gift to *B and not* to *C*, he signals to *B* not only a low discount rate, but other factors that make him believe the mutual benefits from an *A-B* venture are high. Because there is other information being signaled, the gift-giving analysis is largely immune to the above criticisms of discount-rate signaling.

But the other signals Posner discusses broadcast one's discount rate, not individualized suitability for cooperation. I find it hard to believe that, in global equilibrium, the investment in these noisy strategies would be very

179. *Supra* text accompanying note 80.

180. Posner makes this point when he says that parties in an ongoing cooperative venture give gifts to signal that none of the important underlying factors, discount rate included, have changed. POSNER, *supra* note 8, at 21.

high. There is nothing to say that decisively resolves the matter, but one way to think about the issue is to assume we are in global equilibrium and ask whether people have exhausted the reputational and natural signaling strategies. If, in equilibrium, they have not exhausted strategies (1) and (2), it seems unlikely they would invest much in strategy (3). But people have not exhausted strategy (2): As I stated above, people admit to short-sighted behaviors that naturally identify them as a bad type—being late for meetings, procrastinating, spending impulsively, avoiding the dentist.[181] If, at the margin, one can create the same cooperative opportunities either by keeping quiet about one's own impulsiveness and procrastination or by spending time or money signaling, then one should obviously pick the former option every time. That we sometimes see people foregoing that option suggests that they exhaust their need for reputation without using the arbitrary signaling behaviors that Posner addresses. The common admission of short-sightedness suggests that what others believe of our discount rate is fairly insensitive to small bits of information, even among people who do not know us well. Or maybe our discount rate is, in practice, such a small part of how good we are in cooperative relationships, that what others believe about our cooperativeness is fairly insensitive to small bits of information about our discount rate. In either event, it would be a mistake to view discount-rate signaling as the great engine of social life.

IV. NORMS AND ECONOMIC METHODOLOGY: WHAT IS THE OPTIMAL LEVEL OF REDUCTIONISM?

I have not yet discussed perhaps the most striking aspect of *Law and Social Norms*: its reductionism. Seeking to provide a parsimonious account of norms, Posner's theory "relentlessly ignore[s]" what he calls the "interior life"[182] of human beings. At a time when other theorists are working to complicate the rational choice paradigm's understanding of human motivation,[183] Posner, in his theory regarding discount-rate signaling, avoids or aspires to avoid anything that might qualify as a normative motivation. One might divide such motives into three categories: internalized values, moralistic emotions, and the desire for external approval. The signaling and commitment models clearly have no need for the first: internalized values. Posner purports to explain norms without relying on any preferences for specific norm obligations or more general

181. *See supra* Subsection III.B.3.

182. POSNER, *supra* note 8, at 43.

183. *E.g.*, SKYRMS, *supra* note 3; Brennan & Pettit, *supra* note 3; Korobkin & Ulen, *supra* note 5; Elinor Ostrom, A Behavioral Approach to the Rational Choice Theory of Collective Action, Presidential Address Before the American Political Science Association (1997), *in* 92 AM. POL. SCI. REV. 1 (1998).

tastes for altruism, reciprocity, or status. Second, Posner's models give no role to moralistic emotions (or any emotions). Anger and love, for example, do not influence norm creation or enforcement. Third, the theory avoids relying on a desire for the approval of others. In the signaling and commitment models, individuals place no intrinsic value on what others think of them. *A* does not gain utility directly from *B*'s moral approval of, positive attitude toward, or warm feeling for *A*. Thus, in Posner's models, none of these potential normative motivations—values, emotions, or approval—is necessary to explain why individuals obey norms or why norm entrepreneurs try to create them. The humans are thus "stripped down" to simple, mostly selfish and rational individuals who pursue material, not normative, ends.[184]

Omitting values and beliefs about what people ought to do, the model of discount-rate signaling seeks to explain norms without referring to anything normative. The spareness of the model is so profound that it raises the terminological question of whether the behavioral regularities that Posner addresses are even norms. The term "norm" is usually used to refer to a behavioral regularity accompanied by some kind of normative motivation, the least of which are approval (moral or otherwise) of conformity to the regularity and disapproval of nonconformity.[185] The behavioral regularities that Posner describes, which arise from "partial information—either about the value of some activity or about the character of people who engage in it"[186]—might be considered a custom or convention or something else, but "norm" seems an odd term if the inhabitants of the theory have no normative commitments or beliefs that contribute to the regularity.

But this is only a semantic point. Posner would simply say that, whatever term is used, he wants to explain the regularities of behavior others have explained through normative motivations. On the substantive issue—why omit normative motivations?—Posner uses the difficulty of explaining these interior features of human life (except by tautology) to justify employing Occam's razor to cut them out of the theory. Early in the book, he states:

> Readers will object that . . . . [t]hese behaviors bubble forth from a cauldron of instincts, passions, and deeply ingrained cultural attitudes.
>
> My response is that this book reflects a methodological commitment. My claim is that rational choice theory can shed light

184. Posner's term is "stripped down preferences." POSNER, *supra* note 8, at 41.

185. *See* Richard H. McAdams, *Conventions and Norms (Philosophical Aspects)*, *in* INTERNATIONAL ENCYCLOPEDIA OF THE SOCIAL AND BEHAVIORAL SCIENCES (Neil J. Smelser & Paul B. Baltes eds., forthcoming 2001); Pettit, *supra* note 3, at 728.

186. POSNER, *supra* note 8, at 41.

> on social norms by focusing on the reputational source of behavioral regularities to the exclusion of their cognitive and emotional sources. I do not claim that rational choice theory can offer a complete explanation of social norms or of cooperation. Cognition and emotion are not irrelevant. They are just not well enough understood by psychologists to support a theory of social norms, and repeated but puzzled acknowledgments of their importance would muddy the exposition of the argument without providing any offsetting benefits.[187]

In this passage, Posner does not explicitly address all the possible elements of normative motivation, but elsewhere he criticizes norms theories that make "strong assumptions about people's utility functions."[188] In sum, his omissions are deliberate, based on a methodological commitment to eliminate that part of the whole that he finds not suitably explained or explainable.

Rendering the interior life causally unimportant presents the most provocative aspect of the book—that we can understand and explain norms without using any sort of normative motivation. Ultimately, one cannot come to grips with *Law and Social Norms* without deciding whether this simplifying move reflects sound principles of causal explanation or excessive reductionist zeal. It is far too easy to make the latter charge, especially for those who find any reductionism to be too much. I agree with Posner that all explanations omit; to move beyond description, explanation requires identifying some part that is a key insight to the whole, more important for understanding than what is omitted. I also join Posner in thinking that the most important element to understanding social phenomena is the individual motivations and strategies that give rise to them. We may miss something important in trying to explain social forces by aggregating individual action, but the apparent alternative—to give "social forces" some collective, anthropomorphized power over individuals—is worse. Some who agree with these statements still reject rational choice explanations as implausible. But again, I agree with Posner that focusing on individual interests (though I conceive of those interests to include normative commitments in ways I explain below) captures an enormous amount. The collection of theories represented by "rational choice" has made substantial progress by relentlessly searching for the individual interests at play.[189] Sharing all of these basics with Posner, I do

187. *Id.* at 46.

188. *Id.* at 40.

189. One type of progress, which some invariably see as a defeat for rational choice, *see, e.g.*, GREEN & SHAPIRO, *supra* note 11, at 72-97, rather than its accomplishment, is the precise identification of behaviors and motivations that are neither rational nor self-interested, *see, e.g.*, Korobkin & Ulen, *supra* note 5 (calling for modifications of the rationality assumption); Ostrom,

not wish to dismiss casually the signaling theory because it avoids any discussion of the interior life.

Nonetheless, this is where I get off the reductionism train. Even if Posner were right in thinking that there is no adequate rational choice explanation for norms that incorporates normative motivations, I cannot agree that we should stop looking for one. Or, in a way I hope to make clear, his theory is not sufficiently predictive to make the case for ignoring the common intuition that normative motivations matter. Absent a highly predictive alternative theory, I think one can justify cutting normative motivations out of the explanation only if one of the following is true: (1) normative motivations do not actually exist, or (2) normative motivations, while they exist, are unrelated to the behavior we call norms. Posner explicitly rejects the first proposition, and the second is simply not tenable.

A. *The Troubled Existence of Normative Motivations in* Law and Social Norms

Taking the first point, I understand how someone could dispute which one of the normative motivations I mentioned is the most important (as well as contest my categorization). Perhaps Robert Cooter is right to emphasize, along with sociologists, the importance of norm internalization, what I have called values.[190] Or perhaps Peter Huang and others are right to emphasize emotions, particularly the moralistic variety.[191] Perhaps Philip Pettit and I are right to emphasize the motivating power of a desire for esteem, that individuals often intrinsically care whether others approve or disapprove of them.[192] In many cases, taking one of these as a starting point allows a theorist to minimize the importance of the other two. But I find it hard to understand how one can blot out all three at once.

In any event, Posner does not actually deny the factual importance of normative motivations. Although these motivations have no formal role in

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supra note 183 (calling for "second-generation" rational choice models based on the results of research testing the simpler models).

190. *E.g.*, Robert Cooter, *Law and Unified Social Theory*, 22 J.L. & SOC'Y 50 (1995); Cooter, *supra* note 12; Robert Cooter, *Normative Failure Theory of Law*, 82 CORNELL L. REV. 947 (1997).

191. *E.g.*, Peter H. Huang, *Reasons Within Passions: Affects and Attributions in Property Rights Bargaining*, 79 OR. L. REV. (forthcoming Summer 2000); Huang & Wu, *supra* note 12; *see also* ERNST FEHR & SIMON GÄCHTER, COOPERATION AND PUNISHMENTS IN PUBLIC GOODS EXPERIMENTS (Inst. for Empirical Research in Econ., Univ. of Zurich, Working Paper No. 10, 1999) (finding cooperation in the provision of public goods sustained by negative emotions directed at free-riders).

192. Brennan & Pettit, *supra* note 3; McAdams, *supra* note 10, at 355-57; Pettit, *supra* note 3; *see also* Robert Sugden, *Normative Expectations: The Simultaneous Evolution of Institutions and Norms*, *in* ECONOMICS, VALUES, AND ORGANIZATION 73 (Avner Ben-Ner & Louis Putterman eds., 1998) (explaining norms as arising from the effort to avoid resentment created by frustrating others' normative expectations).

the signaling or commitment models, they find their way repeatedly into the application chapters of *Law and Social Norms*. Posner acknowledges that some people "care deeply" about their religious beliefs and "theological commitments,"[193] that others "care[] deeply about the good of the country,"[194] and that a community may "deeply disapprove[]" of certain criminal behavior.[195] He mentions that some people feel contempt for members of other groups,[196] some "feel an obligation" to criticize the government,[197] others "are often offended" by pornography and certain unpopular beliefs,[198] and some may regard littering as "bad behavior."[199] In each case, Posner not only notes the beliefs but also states or implies that these normative values, emotions, or desires influence behavior. As I said previously, the commitment model works only because the deviant behavior of subgroup members shows contempt for the dominant group.[200] This emotion apparently causes dominant group members to incur the cost of shunning subgroup members, even though the latter may have low discount rates. Similarly, Posner suggests that religious beliefs cause people to forego membership in one community—despite the costs—and seek out "like-minded" others.[201] Good types who believed that McCarthy was bad for the country refused to send patriotic signals (by shunning Communists)—despite the costs—though other good types did send the signals.[202] Whether people will obey the law without fear of punishment depends on whether they think the behavior the law punishes is "bad."[203]

The most striking example concerns race discrimination. Posner states:

> A "taste" to avoid minorities is widely considered morally wrong in a way that is different from a taste to avoid goods of various sorts, or even a "taste" to avoid unattractive people. *This is a sociological fact that any theory of discriminatory behavior ought to explain.* The signaling theory suggests why these attitudes are treated differently: [A]voiding a person in order to signal one's

193. POSNER, *supra* note 8, at 101.
194. *Id.* at 114.
195. *Id.* at 102.
196. *Id.* at 29.
197. *Id.* at 119.
198. *Id.* at 121.
199. *Id.* at 111.
200. *See supra* text accompanying note 65.
201. POSNER, *supra* note 8, at 101.
202. *Id.* at 114-15.
203. *Id.* at 111. Similarly, Posner writes:

> We do not envy the [hypothetical] Pampered Prisoner [who is utterly free of social pressure], and the reason is that much of our sense of accomplishment and well-being comes from our considered approval or rejection of the values to which others expect us to conform, and from our consistent action with these judgments despite the pressures put on us by others.

Id. at 208.

> commitment to others is to use him as a means to an end; avoiding a person simply because one is not attracted to that person is not to do this. This point tracks an influential distinction in moral philosophy.[204]

Apparently, the normative commitment not to use another person merely as an end (one version of Kant's categorical imperative!) causes people to view race discrimination differently from other personal inclinations. Posner does not explicitly state that this attitude influences behavior, but presumably it does, because he says it "is a sociological fact that any theory of discriminatory *behavior* ought to explain."[205]

As these references show, Posner does not ignore the interior life as relentlessly as he intends. In some ways this is a good thing, because it allows Posner to make his application chapters far more interesting and realistic than they would be if he ignored every motivation besides the signaling of discount rates (and commitment to a subgroup) as a means of acquiring cooperative opportunities. But the fact that normative influences creep into the applications robs his theory of some of its purported simplicity. That these influences appear in an ad hoc rather than systematic manner undermines the predictability of the analysis. Above all, these examples show that Posner is not denying that normative motivations exist or that they influence behavior. He is just denying these motivations any formal role in his theory of norms.

This struck me as such an odd position to take—that normative motivations affect behavior but need not be incorporated into a norms model—that I considered interpreting Posner in a different way. There are times when his theory seems to make room for moral commitments or beliefs, when normative motivations might be used to constrain what can be a signal. For example, when explaining the harassment ritual known as "charivari," which sanctioned individuals for violating marriage norms, Posner says, "One signal of reliability is participation in (costly) nonlegal punishment of deviants who threaten or appear to threaten the community."[206] If enforcement really depends upon the deviants "threaten[ing] or appear[ing] to threaten the community," then perhaps Posner is saying, as an essential part of the explanation, that the charivari participants morally disapproved of what the deviant did. When Posner

204. *Id.* at 140 (emphasis added).

205. *Id.* (emphasis added). Perhaps he means that what people say—that discrimination is wrong—is their behavior, just as Posner thinks it important to explain why people say their values are incommensurable even though (he says) they are not. But then the interesting point is that here Posner uses an actual normative position—that discrimination is wrong—to explain why people say it is wrong. Given that what people say can affect their payoffs, the implication is that their normative beliefs can affect the costs they are willing to incur.

206. *Id.* at 76.

explains why third parties punish parents of illegitimate children, we see this possibility again:

> Community members are always looking for ways to signal their loyalty to each other. Actions which are unusual *or* that pose a threat to the community present an opportunity to demonstrate loyalty. Households with illegitimate children present such a signaling opportunity, *either* because they violate a statistical norm . . . *or* because they result in unsupported children that become a burden for the community.[207]

To punish a statistical outlier entails no normative belief.[208] But when Posner mentions punishing those who "burden" the community, maybe he is suggesting the role for a belief that parents of illegitimate children are bad.

Ultimately, I cannot sustain this reading of *Law and Social Norms*.[209] Posner clearly intends to omit the interior life, to avoid relying on values, emotion, or a desire for approval. Despite occasional lapses, he wants his theory to be capable of explaining social norms, at least the many he discusses, without making *any* assumption of normative motivations. He explains numerous behaviors without any reference to such motivations and says nothing to indicate that those explanations are the exceptional ones.[210] Posner even suggests at one point that individuals "disapprove" of a behavior because it signals a high discount rate.[211] The implication is that normative judgments, even where they exist, merely follow the signaling analysis. Thus, despite the way normative motivations slip into his analysis, the signaling and commitment models seek to avoid such motivations while explaining norms.

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207. *Id.* at 83 (emphasis added).

208. When Posner first introduces the idea, he says the shunning initially arises when "no moral significance [is] attached" to the unusual practice. *Id.* at 25.

209. Even if I could, the problem would then be Posner's failure to identify systematically when these motivations run out and signaling becomes a necessary explanation.

210. For example, when Posner describes why people take the "time and effort" to shame criminals—ordinarily thought to be an act involving normative motivations—he says, "[S]haming a person is usually understood as a signal by the speaker that he belongs to the good type. . . . An individual might fear that if he does not engage in an act of public shaming, people may believe that the signal is too costly for him." POSNER, *supra* note 8, at 90; *see also id.* at 123 ("The motive for voting, on this theory, is not to satisfy some taste for voting, or for expressing one's views, or even for helping one's country, but to obtain cooperative returns from other private actors.").

211. *See id.* at 123 ("In the United States many people disapprove of those who do not vote and who admit it. This reaction . . . follows from the signaling model: [T]he disapproval expresses people's view that you may not be a trustworthy person."); *id.* at 124 ("Under the signaling theory, disapproval is an expression of people's inclination to avoid those whom they do not trust.").

B. *The Relevance of Normative Motivations to an Understanding of Norms*

So I think we are left with the implicit claim that normative motivations, though real, are unrelated to the behavior we call norms. I call it a "claim" because I see no difference between saying that we can explain norms without normative motivations and saying that normative motivations do not contribute to the behavior we call norms. Again, I can understand how one can deny the significance of a particular type of normative motivation, but only by giving more weight to another. Yet any one of them will inevitably produce norms. If internalized values motivate behavior, then when people have similar values—some occurrence of which is statistically inevitable, especially because they can sort into groups—they will have similar behavior. If moralistic emotions motivate behavior, some people will share common emotional tendencies, like getting angry at having their expectations frustrated. The similarity of emotions and expectations will produce similarities of behavior. If people value the esteem of others—if *A*'s normative beliefs can motivate *B*'s behavior—then a pattern of approval or disapproval can produce a pattern of behavior. In each case, the normative premise leads, on any plausible set of assumptions, to a behavioral regularity; this is a norm.

Indeed, in each case, signaling theory reveals yet another means by which any form of normative motivation would produce a norm. People may wish to signal their values, emotions, or beliefs rather than their discount rates. For example, recall that Posner briefly acknowledges that people hold religious beliefs that can motivate their behavior.[212] How then should we explain costly religious behaviors like fasting, keeping vows of poverty, and going on religious pilgrimages, as well as more dangerous behavior like snake-handling, rejecting modern medicine, or defying a totalitarian state on religious matters? Perhaps we can do so by saying that religious people sometimes wish to signal their beliefs. Suppose that "true believers," being motivated by their beliefs, want to detect the "fakers" and associate only with each other. Religious sacrifice might be a good means of distinguishing true from false believers as long as the true believers are more willing to incur earthly costs (genuinely expecting heavenly reward) than are the nonbelievers. Even among people with equivalent discount rates, the costly behavior signals religious commitment.[213]

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212. *Id.* at 101.

213. We can make the same point about group loyalty and norm entrepreneurs who encourage such loyalty. We could imagine that people have normative beliefs justifying their loyalty to a group, that these beliefs motivate the loyalty to some degree, and that behavior is designed to signal these beliefs. People who actually believe racist or nationalist ideology may be more reliable cooperators with members of the same race or nation because they cannot tolerate,

To summarize: If one concedes that some type of normative motivation exists—and Posner does—then it seems inevitable that this motivation will produce a norm. Certainly it would require an explanation to see how religious beliefs are not a significant part of religious norms, how normative evaluations of pornography or illegitimacy or voting do not contribute to the norms that govern these things, how moralistic justifications for patriotism or the traditional family do not influence patriotic behavior or child-rearing arrangements, or how ideological rationalizations for sexism and racism do not influence norms of interracial dating. To paraphrase Posner: *Normative motivations are a sociological fact that any theory of norms needs to explain.*[214]

At this point, some economically oriented thinkers might respond by saying that I am merely attacking the plausibility of Posner's assumptions and that, following Milton Friedman,[215] we should be indifferent to the plausibility of assumptions and care instead about how well the theory predicts behavior. There is something to be said for Friedman's view. Certainly we should stand ready to allow superior empirical evidence to displace our familiar and comfortable intuitions about the world. Were we presented with a statistically rigorous account of a signaling model that explained some particular norm without reference to the normative motivations of the individuals involved, then I would not care so much about whether the assumptions seemed plausible. Posner, however, does not even purport to subject his theory to this sort of empirical test. I think this is entirely appropriate because he is engaged in hypothesis-building rather than hypothesis-testing.[216] But it is then not possible to say that the signaling model explains more of the observed variance in norm compliance than alternative theories that incorporate normative beliefs. When the predictive power is not known sufficiently to be compared, I think it entirely appropriate to count the plausibility of assumptions in favor of a theory and the implausibility against it.[217]

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ideologically or emotionally, cooperating with anyone else. Signaling the ideology or emotion may be cheaper for people who actually hold it.

214. *Cf.* POSNER, *supra* note 8, at 140.

215. MILTON FRIEDMAN, *The Methodology of Positive Economics*, *in* ESSAYS IN POSITIVE ECONOMICS 3, 14-16 (1953).

216. As is my own work on norms. McAdams, *supra* note 10.

217. The same point applies to Posner's criticism of theories, like my own, that make what he calls a "strong assumption" about preferences. Like others, I do not merely posit that individuals have a particular preference: I argue for that proposition as a fact. *Id.* at 355-57. Absent a breakthrough in predictive power, I do not see the methodological gain that accrues merely because one assumes fewer preferences, if the preferences being eliminated are well-supported by introspection and external evidence. If eliminating preferences, by itself, were a methodological improvement, then we should say that no one gains intrinsic pleasure from reading novels (or scores of other obviously pleasurable activities) because, given the right assumptions, it is *possible* to explain novel reading by signaling alone.

Posner's ultimate defense of his reductionism is that we do not have a good theory to explain the things he leaves out. Regarding internalization, for example, he says that "no well-developed theory of guilt allows us to make predictions about when" guilt will influence behavior or "what kinds of people feel guilt and what kinds of people do not. So if we observe . . . that some people litter but others do not, we cannot rely on a theory of guilt for an explanation."[218] That may be true. In my own work, instead of guilt, I have used patterns of external approval and disapproval (in the broad sense described above) to explain the origin and operation of norms.[219] But I have only a little to say about where the patterns of approval and disapproval come from, certainly nothing that allows strong predictions. To me, however, this seems not so different and certainly no worse than the degrees of freedom in the signaling theory. Recall the falsifiability discussion from above: Posner repeatedly explains a norm by saying that one arbitrary behavior among many happened to emerge as the signal because of the successful endorsement by one norm entrepreneur among many. But he gives us no way to predict which entrepreneur will succeed, nor any reason to think we may have a predictive account anytime soon.[220] Even if we have no good way of predicting normative beliefs, if we also have no good way of predicting the success of norm entrepreneurs, then we do not gain anything by the reductionism that replaces the former uncertainty with the latter. Normative motivations are familiar to us by introspection; much of social science is devoted to their study. However difficult it is to explain them, we are not actually simplifying norms theory by replacing them with speculation about norm entrepreneurs.

V. CONCLUSION

Rational choice theorists seek to explain social norms as the product of individual strategic decisions. Where some theorists assume that these decisions are influenced by some sort of normative motivation, the innovation in *Law and Social Norms* is to set aside the interior life and to explain norms as arising from the need to attract cooperative partners in the iterated version of the prisoner's dilemma game. Each individual wants to signal a low discount rate, some costly behavior becomes known as the means of demonstrating a low discount rate, and the resulting behavioral regularity—a "norm"—is merely the equilibrium outcome of the signaling game. Any of an infinite number of costly and observable behaviors could suffice to signal discount rates. In Posner's theory, norms typically arise

218. POSNER, *supra* note 8, at 43.
219. McAdams, *supra* note 10, at 358-60.
220. *See supra* Section II.A.

because a norm entrepreneur, also free from normative motivations, prevails over other norm entrepreneurs in making most others believe that a particular behavior will signal a low discount rate.

Posner's thesis is boldly inventive, but, I have argued, the discount-rate signaling model does not work well as a general explanation of norms. First, it is difficult to test or falsify the signaling explanation of any particular norm, because it depends so heavily on the unexplained outcome of the norm entrepreneur game. Virtually any behavior *could* be a signal, and all we are told of the difference between the behaviors that become signals and the behaviors that do not, is that sometimes norm entrepreneurs succeed in creating the necessary beliefs and sometimes they do not. Second, the model fails to consider the relevance of concealed cheating, which means that an individual will not always prefer interacting with the one who has the lowest discount rate. The returns to signaling a low discount rate will be negative when an individual fears those who invest in concealment more than those who cheat impulsively. Third, applied generally, the model implausibly implies that norms would be weak in small, stable, and integrated communities; that the elderly would tend not to obey social norms; and that people would never volunteer information that revealed their discounting of the future. Fourth, the theory overestimates the importance of signaling given alternative means of gaining cooperative opportunities. Because signaling discount rates is so much noisier than direct efforts to establish a cooperative reputation, it is unlikely that, in equilibrium, people would invest sufficiently in signaling to produce all the norms that Posner wishes to explain. Finally, the signaling model implausibly excludes from the formal analysis any sort of normative motivation—internalized values, moralistic emotions, or a desire for approval—even though Posner concedes that these motives exist and invokes them on occasion to explain particular behaviors.

Notwithstanding my criticisms, I find *Law and Social Norms* to be an interesting and enlightening book. It succeeds in at least two ways. First, when Posner discusses substantive topics—such as gift-giving, shame sanctions, welfare stigmatization, and family law—he often ventures away from the primary model and provides remarkable insight into the ways that law and norms interact. Much of these chapters stand on their own because, though signaling remains the central theme, the analysis is frequently independent of the exact source of the norm. No doubt these chapters will influence legal theory even among those who do not accept all of Posner's premises about norms. Second, whatever the flaws of discount-rate signaling as a general model of norms, *Law and Social Norms* certainly proves the lesser claim that signaling is an important component of social behavior, necessary to a broad understanding of norms. Anyone interested in social norms should value Posner's theory because it will *sometimes* be

the best explanation, as I think it is for norms of gift-giving. In addition, although Posner is not interested in developing this line, his book is suggestive of how signaling of things other than discount rates may lie behind social behavior. If normative motivations matter, then people may have reason to signal their values, emotions, or beliefs.

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