

Game Stories

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In any discussion of “Law-And-”, the elephant in the room is Law and Economics (“L&E”). Economic analysis has had greater success than any other discipline as a colonizer of legal scholarship. The main contenders, Law and Society and Law and Humanities, are certainly robust in their own rights, but relative to L&E, these approaches are underweight, and their adherents have been known to seethe at the capacity of L&E scholars to smother practically every legal field in sight.

In recent years, a number of L&E scholars have adopted a new tool, game theory, that expands their imperial claims even further. The simplest and best-known games in game theory are typically represented by a set of conventional stories. But that fact—that the games are represented by stories—makes these games a fair target for one branch of Law and Humanities scholarship, namely Law and Literature.

In the first Part of this Article I will sketch out some of the rudimentary literary characteristics of the most common of the L&E game stories, and I will speculate as to the qualities that may have made these particular stories take hold. Here I will focus especially on the very strikingly gendered patterns that appear in these game stories. These patterns are rather odd, considering that gender-norming is entirely unnecessary to demonstrate the various strategies with which the games are associated; all of these strategies could have been illustrated with much more gender-neutral examples. Hence this first Part will go on to query what role this rather exuberant machismo plays in the deployment of these game stories.

In the second Part of the Article I will try to decipher the special attraction of the most widely cited game story of all, the so-called Prisoner’s Dilemma (hereinafter “PD”). The problem with PD is that this story lacks or plays down some of the very features that make the other game stories appealing as narratives. How, then, has it managed to take such a grip on game theory scholarship?

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Richard McAdams, whose legal scholarship crosses over from economics to sociology and psychology, is one scholar who has addressed this question. He has recently complained that PD's dominance undermines the interest that other legal scholars might otherwise have had in game theory—notably scholars in the general rubric of Law and Society.¹ Yet, as McAdams points out, PD can often look much like other games and vice versa, to the point that established scholars can get mixed up about which game is which.²

McAdams attributes PD's appeal to certain structural features of the game, particularly its avoidance of distributional issues, its one-dimensional outcome and its implicit call for legal solutions.³ But while not entirely disagreeing with McAdams's diagnosis, I will argue that the appeal of the Prisoner's Dilemma may also come from its characteristics as a fable. While it lacks some of the narrative punch of the other well-known game stories, the PD story more than makes up for these faults with its implicit allusions to sin and redemption. Those allusions make the story appealing from several different directions, while the story also manages to dodge important issues about human character. Human character and the virtues that might help to solve PD problems—friendship, courage, justice and the like—are matters of special relevance in the humanities. Thus in the end, PD's evasiveness about character substitutes for the narrative characteristics of the other games—all help to open the door for a critical conversation between game theory and law and the humanities.

I. MATRICES AND THE TALES THAT CLARIFY THEM

Law and Economics approaches were not always so imperial as they are today. Nevertheless, economic considerations in law are in fact quite old, and indeed one of the sources of L&E's strength is the prevalence of economic arguments in major common law cases.⁴ In the first half of the twentieth century, economic arguments became particularly prominent in

1. Richard H. McAdams, *Beyond the Prisoner's Dilemma*, 82 U.S.C. L. REV. 209, 254 (2009).

2. *Id.* at 217-18 (noting confusion between games), 227 (noting that minor differences in payoffs can turn PD into one of the other games).

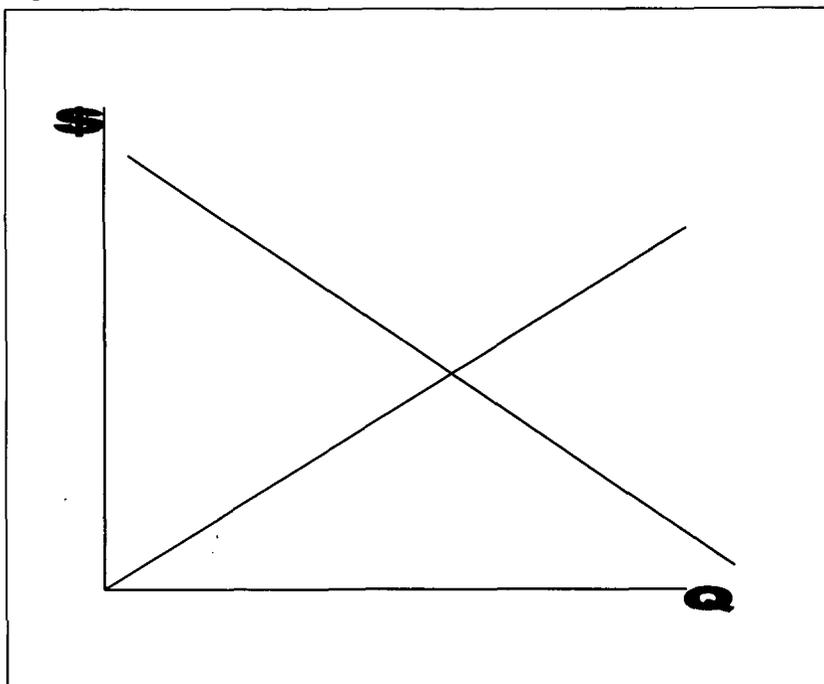
3. *Id.* at 212.

4. See, e.g., *Pierson v. Post*, 3 Cai. 175 (N.Y. Sup. Ct. 1805) (Livingston, J., dissenting) (describing incentives in allocation of property rights); *Tulk v. Moxhay*, (1848) 41 Eng. Rep. 1143 (Ch.) (discussing economic reasons for allowing promises to run with the land). Whether the common law is economically efficient in general is a different question, and a subject of considerable debate. See George L. Priest, *The Common Law Process and the Selection of Efficient Rules*, 6 J. LEGAL STUD. 51 (1977) (setting out an early claim of efficiency); George L. Priest & Benjamin Klein, *The Selection of Disputes for Litigation*, 13 J. LEGAL STUD. 1 (1984) (same, with some modification); Jody S. Kraus, *Transparency and Determinacy in Common Law Adjudication: A Philosophical Defense of Explanatory Economic Analysis*, 93 VA. L. REV. 287, 349-56 (2007) (defending efficiency thesis against philosophical critiques).

business-related legal areas like tax⁵ and antitrust.⁶ Major shifts toward imperialism, however, came with Gary Becker's application of economic analysis to such matters as race discrimination, criminal law, and family relations beginning in the 1950s,⁷ quickly followed by Guido Calabresi's use of economic reasoning in tort,⁸ and by Richard Posner's immensely influential popularization of economic concepts throughout wide areas of law from the 1970s onward.⁹

In those years, L&E largely consisted of standard single-equilibrium microeconomic analysis, with graphics that looked like this:

Figure 1:



But by the 1980s, some L&E scholars began to investigate another model, that of “games,” wherein several different players are faced with some common problem and have a choice of different strategies vis-a-vis

5. See, e.g., HENRY GEORGE, *PROGRESS AND POVERTY* (1879) (advocating “single tax” on land on economic grounds); A. C. PIGOU, *THE ECONOMICS OF WELFARE* (1920) (advocating tax as means to internalize externalities).

6. Richard A. Posner, *The Chicago School of Antitrust Analysis*, 127 U. PENN. L. REV. 925 (1979) (describing economic analysis of antitrust beginning in 1950s); see also Edmund W. Kitch, *The Fire of Truth: A Remembrance of Law and Economics at Chicago, 1932-1970*, 26 J. L. & ECON. 163 (1983) (providing an overview of Chicago economic analysis of antitrust).

7. GARY S. BECKER, *THE ECONOMIC APPROACH TO HUMAN BEHAVIOR* (1976); GARY S. BECKER, *THE ECONOMICS OF DISCRIMINATION* (2d ed. 1971) (1957); Gary S. Becker, *Crime and Punishment: An Economic Approach*, 76 J. POL. ECON. 169 (1968).

8. GUIDO CALABRESI, *THE COST OF ACCIDENTS: A LEGAL AND ECONOMIC ANALYSIS* (1970).

9. RICHARD POSNER, *ECONOMIC ANALYSIS OF LAW* (7th ed. 2007).

one another, with each player having a best strategy in light of the strategy of the other(s).

The standard graphic for these games was quite different. The simplest form of these games involves two players with two potential strategies, and hence the graphic is a two-by-two matrix with a four-cell box. Here is a generic depiction, in which the players are called Row and Column, their strategies are labeled X and Y, and their respective payoffs are A, B, C, and D, with $A > B > C > D$.

		Column	
		Strat. X	Strat. Y
Row	Strat. X	[A-D],[A-D]	[A-D],[A-D]
	Strat. Y	[A-D],[A-D]	[A-D],[A-D]

Unlike the standard graphic of a falling marginal demand curve crossing a rising marginal supply curve, the simple games seem to require supplemental narrative explanations to bring them into focus. Consider once again this graphic where the strategies (X, Y) and payoffs (A through D) are filled in in various ways for several of the best-known games:

Game 1:

		Column	
		Strat. X	Strat. Y
Row	Strat. X	B,B	D,A
	Strat. Y	A,D	C,C

Game 2:

		Column	
		Strat. X	Strat. Y
Row	Strat. X	A,A	B,C
	Strat. Y	C,B	B,B

Game 3:

		Column	
		Strat. X	Strat. Y
Row	Strat. X	A,B	C,C
	Strat. Y	D,D	B,A

Game 4:

		Column	
		Strat. X	Strat. Y
Row	Strat. X	B,B	C,A
	Strat. Y	A,C	D,D

And finally,

Game 5:

		Column	
		Strat. X	Strat. Y
Row	Strat. X	A,A	D,D
	Strat. Y	D,D	A,A

Not very compelling, are they? To be sure, the matrices in these games are all perfectly intelligible simply to show the payoff structures of several much-discussed kinds of choices. But whereas graphics often can enliven a technical narrative,¹⁰ these graphics do not. In fact, it is the other way around: narratives or stories pump life into the graphics.

10. See EDWARD TUFTE, *THE VISUAL DISPLAY OF QUANTITATIVE INFORMATION* (2d ed. 2001).

Here again is the first game:

		Column	
		Strat. X	Strat. Y
Row	Strat. X	B,B	D,A
	Strat. Y	A,D	C,C

The story for this game is that of the ubiquitous Prisoner's Dilemma, to whose ubiquity I will return later in this article. The game got its name in the early 1950s; a couple of Rand Corporation researchers came up with the problem, but the mathematician Albert E. Tucker attached it to the story of cops and prisoners.¹¹ In this story, the police interview two prisoners separately, encouraging each to incriminate the other with the bait of a tempting reprieve. The *jointly* maximizing strategy for the two prisoners is in the upper left corner, where both keep mum and neither can be convicted of a major crime, although both will be convicted of some minor offense (B,B). The problem is that the *individually* maximizing strategy is to confess, no matter what the other player does. Take Prisoner "Row": if Row thinks Prisoner "Column" is going to stay quiet, then by confessing, Row will go free while Prisoner Column heads to the slammer for a long stay—that is, the payoff will be A for Row but D for Column. Even if Row thinks that Column is going to confess, Row still thinks to himself that it is better to confess, in order to avoid that very long prison time—that is, Row would prefer the fairly hefty sentence of C (both confessing, represented by the lower right box) to the truly draconian sentence of D (he stays mum while Column sells him out, upper right box). Prisoner Column's thought process takes analogous turns, and the upshot is that both implicate each other, arriving at the lower right box (C,C), the option with the lowest value, taken collectively.¹²

11. Barry C. Nalebuff, *Prisoners' Dilemma*, 3 NEW PALGRAVE DICTIONARY OF ECONOMICS AND THE LAW 88 (1998); WILLIAM POUNDSTONE, PRISONER'S DILEMMA 8 (1992). The Rand Corporation researchers were Merrill Flood and Melvin Drescher. See also R. DUNCAN LUCE & HOWARD RAIFFA, GAMES AND DECISIONS: INTRODUCTION AND CRITICAL SURVEY 94 (1958) (attributing game to Tucker).

12. DOUGLAS G. BAIRD, ROBERT H. GERTNER & RANDAL C. PICKER, GAME THEORY AND THE LAW 33 (1994).

Now consider Game Number 2:

		Column	
		Strat. X	Strat. Y
Row	Strat. X	A,A	B,C
	Strat. Y	C,B	B,B

This game has certain similarities to PD, but it is less complicated. Here the jointly maximizing strategy (working together for A,A, upper left) is also the best for each individual player—but if either breaks from the joint effort, it only makes sense for the other to do the same. The conventional name for this game is “Stag Hunt.” It derives from a brief example in Jean-Jacques Rousseau’s *Discourse on Inequality*, but the story made its appearance in mid-twentieth century game theory shortly after PD, on which the midcentury game theorists thought it was an interesting variation.¹³ In the story, two or more hunters working together could take a very valuable stag; but if any one of them saw a hare he might instead drop the stag hunt and act alone to capture this much less valuable animal.¹⁴ If one hunter were to take this “defect” strategy, the others could no longer take the stag, and they would be wise to shift to hares too, moving to the lower right payoff of B,B—even though all would have been better off if they could all have stuck with the stag hunt. What each needs is the assurance that the others too will hunt the stag. For this reason Stag Hunt is often simply called an Assurance Game;¹⁵ the players’ interests do not conflict, but they do need an assurance that the opposite player will stay with the game plan.

13. See Thomas C. Schelling, *War Without Pain, and Other Models*, 15 *WORLD POL.* 465 (1963). (reviewing KENNETH E. BOULDING, *CONFLICT AND DEFENSE: A GENERAL THEORY* (1962)) (describing Rousseau’s example as variant on PD). McAdams, *supra* note 1 at 217 & n.31, observes that the blurring of PD and Stag Hunt has continued.

14. BAIRD ET AL., *supra* note 12, at 35, 37, 49 (describing game, referring to Rousseau); JEAN-JACQUES ROUSSEAU, *DISCOURSE ON THE ORIGIN OF INEQUALITY* 57-58 (Franklin Philip trans., 1994) (1754).

15. See, e.g., Tomar Broude & Doron Teichman, *Outsourcing and Insourcing Crime: The Political Economy of Globalized Criminal Activity*, 62 *VAND. L. REV.* 795, 841 (2009) (referring to Stag Hunt as an Assurance Game). It is of some interest that Rousseau’s original story was told in conjunction with his description of the origin of language, and takes place at a time when, on his theory, language was at most in a rudimentary stage of “cries” and “gestures” comparable to those made by crows and monkeys. ROUSSEAU, *supra* note 14, at 57-58. The location of the story strongly suggests that the problem was basically one of lack of communication skills, although he also mentions the participants’ inability to think far into the future. (Rousseau, of course, may also have been underestimating crows and monkeys both with respect to communication and with respect to foresight.) Because of the additional elements in the original story, Bertil Friden argues that it is an error to treat the story simply as an Assurance Game where the only issue is the ability to communicate. BERTIL FRIDEN, *ROUSSEAU’S ECONOMIC PHILOSOPHY: BEYOND THE MARKET OF INNOCENTS* 111-13 (1998).

Let us move on to Game Number 3.

		Column	
		Strat. X	Strat. Y
Row	Strat. X	A,B	C,C
	Strat. Y	D,D	B,A

This third game has a story too, easily imagined from its conventional name: “Battle of the Sexes.” Here, the conventional Ur-tale was first formalized by R. D. Luce and Howard Raiffa in 1958: the husband wants to go to the prizefight while the wife wants to go to the ballet, but neither wants to go alone and each would rather do the less-favored thing in order to be with the other.¹⁶ Battle of the Sexes is a game in which the highest joint payoff occurs in either of the two boxes—upper left or lower right—in which one party gets what s/he wants while the other defers and goes along. It is not the case that they enjoy equal shares, mind you. But each would prefer togetherness to going alone to his or her favored event. But in fact, mutual deference would be the worst outcome (lower left, where she goes to his prizefight while he goes to her ballet)¹⁷—worse even than mutual noncooperation, where each goes alone to his or her favored event.

Here is the fourth game again:

		Column	
		Strat. X	Strat. Y
Row	Strat. X	B,B	C,A
	Strat. Y	A,C	D,D

Game Number 4 has yet another name: “Chicken,” or as it is also known, “Hawk/Dove.”¹⁸ The Chicken story comes from the deadly teenage game of the 1950s, in which two teens (or groups of teens) drove their cars straight at each other to find out who would flinch first.¹⁹ The

16. BAIRD ET AL., *supra* note 12, at 41-42; AVINASH DIXIT & SUSAN SKEATH, GAMES OF STRATEGY 108 (2d ed. 2004); LUCE & RAIFFA, *supra* note 11, at 91

17. As Eric Rasmussen notes, this least successful strategy in Battle of the Sexes is the plot of O. Henry’s story, *The Gift of the Magi*, in which a husband sells his watch to buy hair combs for his wife for Christmas, while she sells her hair to buy a watch fob for him. ERIC RASMUSSEN, GAMES AND INFORMATION: AN INTRODUCTION TO GAME THEORY 35 & n.1.4 (3d ed. 2001).

18. Chicken and Hawk/Dove are generally treated as the same game. See, e.g., ROBERT SUGDEN, THE ECONOMICS OF RIGHTS, COOPERATION, AND WELFARE 61 (1986) (saying most game theorists know Hawk/Dove as Chicken). But see DIXIT & SKEATH, *supra* note 16, at 448-49 (describing Hawk/Dove as sometimes a Chicken game and sometimes a variation on PD).

19. BAIRD ET AL., *supra* note 12, at 44. Ward Farnsworth mentions that a game of Chicken was featured in the movie *Rebel Without a Cause*. See WARD FARNSWORTH, THE LEGAL ANALYST: A

first to grab the wheel and swerve “lost” by showing that s/he lacked courage. Nevertheless, if one swerved and the other didn’t, as in the upper right and lower left corners, the *joint* welfare of both parties was at its highest: the “hawk” could preen in his or her show of valor, while even the losing “dove” or “chicken” would still be alive, if embarrassed. The worst case, of course, was when nobody swerved and the cars crashed (lower right corner). If both swerved (upper left), the crash would not occur, but no one would be able to claim bravery, so that the “resource” of preening would go unexploited. Thus in Chicken as in Battle of the Sexes, there are two jointly maximizing results, but those results have unequal payoffs to the two players. The difference is that in Battle of the Sexes, the jointly maximizing solutions require both parties to follow a single strategy, even though one prefers it and the other does not. In Chicken, on the other hand, the parties must choose opposite strategies, with one deferring to the other to avoid the crash, while the other drives through and claims the reward.

Finally, we come to Game Number 5:

		Column	
		Strat. X	Strat. Y
Row	Strat. X	A,A	D,D
	Strat. Y	D,D	A,A

This dullest of all the games has no distinctive name or narrative, though its principal example is usually some reference to driving on the right (or left). Number 5 is a pure coordination game: both parties will be fine if they both adopt the same strategy, but either strategy will work. It can be driving on the left or driving on the right, no matter—what matters is that they do the same thing, and that each player knows what that thing is. This game too could be called by the pallid name of “assurance,” but the weakest of assurances would be enough to inform both parties, since the strategy is a matter of indifference to both. All they care about is that they are both on the same page.²⁰

TOOLKIT FOR THINKING ABOUT LAW 126 (2007). An additional 1950s icon was the photograph of some young people in a fast-moving car, evidently playing Chicken, in the fabulously successful photographic exhibit *THE FAMILY OF MAN* (1955). In 1959, Bertrand Russell compared the nuclear arms race to a game of Chicken. BERTRAND RUSSELL, *COMMON SENSE AND NUCLEAR WARFARE* 30 (1959). The Hawk/Dove version arrived somewhat later, described by the theoretical biologists J. Maynard Smith & G.A. Parker, *The Logic of Asymmetric Contests*, 24 *ANIMAL BEHAV.* 159, 161 (1976).

20. This is not to say that the construction of assurance is without interest. Thomas Schelling famously constructed a series of experimental questions and found that the subject interviewees could often arrive at “focal point” answers—the same as other interviewees—even when they were unable to communicate. See THOMAS SCHELLING, *THE STRATEGY OF CONFLICT* 54-58 (2d ed. 1980)

The indistinctness of Game Number 5's appellation, particularly by comparison to the other four, suggests what tellers of tales have long understood: that there is no good story without some underlying tension. It is not that pure coordination is unimportant; far from it, pure coordination is essential in everything from the assembly line to the conduct of battle to meeting a friend. Even Game Number 5 might seem more interesting if it were called "Assignment," suggesting a story about two lovers who have to synchronize their time and place for a secret meeting.²¹ But as between the parties to the game, the tension in a pure coordination game generally derives from miscommunication, inattention and confusion—unlike the conflicting interests, mutual distrust and betrayal, humiliation and domination implied in the names of the other four games. Those game names hint at much stronger stuff, and since the four games to which they are attached are so much more firmly fixed to stories, I will drop the anonymous Game Number 5 altogether.

From a Law and Literature perspective, once again, the most obvious point about these game stories is that they breathe life into each of the four-square matrices to which they are attached. To be sure, without the names and the stories they suggest, the matrices alone would still be legible; and to be sure, serious game theorists use lots of different names for many different game permutations.²² But these four are widely known, and they would undoubtedly be considerably less well-known and less discussed without the names. The names give a tag that allows the hearer to know instantly which game matrix is in question.

On the other hand, there is nothing foreordained about the story names that each of these game matrices has acquired. Quite the contrary, the names of the games could be quite different, and if they were, they would conjure forth quite different narrative ideas.²³ The classic Prisoner's Dilemma matrix itself could have had quite a number of different names and accompanying stories.²⁴ An entirely plausible name would have been "Deal or Steal?," describing the very common problem of potential trading partners who do not know whether they can trust each other, and whose

(describing experiments to discover "tacit coordination" of strategies). See also RASMUSSEN, *supra* note 17, at 31-32 (describing the experiments).

21. They might even be able to meet without explicit agreement on time and place so long as some "focal point" suggests itself to both parties. Schelling, *supra* note 20.

22. See, e.g., SUGDEN, *supra* note 18, at 36, 132 (discussing the "Crossroads Game" and the "Snowdrift Game"); see also STEVEN J. BRAMS, *THEORY OF MOVES 1* (1994) (noting that two players with two strategy choices can generate seventy-eight unique game structures).

23. McAdams makes a related point through a series of ingenious retellings of the Prisoner's Dilemma narrative, in such a way as to suggest that all four of the simple game matrices might be called "Prisoners' Dilemmas." See McAdams, *supra* note 1, at 218-220 (retelling PD story as Stag Hunt); 222-23 (as Battle of the Sexes); 224 (as Chicken or Hawk/Dove).

24. Indeed, in a multiple-person form, the PD is called the "Tragedy of the Commons." See BAIRD ET AL., *supra* note 12, at 34. Eric Posner uses an employer-employee relationship to illustrate the PD problem, along with a variety of other examples, none of which involve prisoners. ERIC A. POSNER, *LAW AND SOCIAL NORMS* 14, 17-18 (2000).

incentives under the circumstances are to refrain from carrying out their respective parts of the bargain, which may mean that they fail to arrive at a bargain at all.²⁵ This would have placed PD in the land of commerce, where it indeed has many applications, instead of in jail, where it has relatively few.

Much the same might be said of the other games. Stag Hunt, for example, might have been called “Quilting Bee,” in which the participants would do much better by cooperating on the creation of a large quilt than they would if each made some small pot-holders. The Battle of the Sexes might have been known as “Lunch Date,” with equal (and ungendered) partners trying to decide between one player’s favorite sushi place and the other’s preferred Greek deli. A name like Lunch Date might lead one’s thoughts to a neutral tiebreaker, such as flipping a coin, whereas Battle of the Sexes suggests ongoing rivalry between intimates, and perhaps future retaliation too (as in “Burnt Toast”).²⁶ The Chicken game uses a name that diverges from the other game names in overtly designating a winner (or rather, a loser); moreover, it suggests a triumphant Alpha Male and a weakling subordinate. But a slightly different name, “Bully,” would have implied much more sharply that the macho winner is actually behaving unjustly.²⁷ An even more intriguing name for the game might have been “Too Many Cooks” (or perhaps “Chicken *Soup*”) where the story pins the matrix to a more domestic example, in which the soup is fine when only one is cooking, but ruined when neither defers and both insist on staying in the kitchen. As in Chicken, the jointly maximizing strategy is for one cook to stay and the other to defer; even the non-cook will get to enjoy a better soup. But unlike the standard name Chicken, the name Too Many Cooks might hint that the prize of cooking should be awarded on criteria other than force or ferocity—skill or seniority, for example. And to go on for a bit about this game, still another possible name for the Chicken matrix might be “Alphonse and Gaston,” where both players need to go through the door but each urges the other to go first; here the name’s narrative would draw attention not so much to the car crash (or ruined soup) of the lower right-hand box, but rather to the excessive deference of the upper left.

It should be no surprise, of course, that these games might all have had different names with subtly or substantially different stories. After all, they are all supposed to represent matrices on which a variety of human

25. See, e.g., POSNER, *LAW AND SOCIAL NORMS*, *supra* note 24, at 15 (using relationship between traders to illustrate PD); see also FARNSWORTH, *supra* note 19, at 102 (same, commenting that similar situations are common in commercial life).

26. Theodore C. Bergstrom, *Economics in a Family Way*, 34 *J. ECON. LITERATURE* 1903, 1926 (1996) (describing ongoing family disagreements as resulting in “harsh words and burnt toast”).

27. The Bully name may already be taken, however, or at least almost taken. See description *infra* of “Quiche or Beer?”.

conundrums might be mapped. Lots of different stories might have yielded these same theoretical matrices. That is in fact the point: the matrices are supposed to show strategic commonalities over a variety of situations. Given, then, that other story names with quite different narrative directions might have illustrated the same basic behavioral patterns, why have these well-known game matrices acquired the names they have?

One simple possibility is path dependency: after someone thinks up a name, others can just latch on. Nevertheless, there must have been some choice on the part of the first namers of the various games; and perhaps less obviously, there must also have been a choice on the part of the later arrivals who latched onto these names. Clearly some names are easier to latch onto than others, and the mere act of designating something with a name does not necessarily make that name stick.²⁸ The name has to work, in the sense of being evocative enough to fasten itself in the minds of others. As David Hume said of what he called “impressions,” the word must be “vivacious.”²⁹

What, then, makes these actual matrix game names vivacious enough to stick? One important feature is simply that the game names are *story* names, suggesting the narratives that go along with them, with beginnings, middles and ends. Moreover, these mini-narratives themselves also have some other features that make them memorable and accessible. Most of the game matrix names tell stories that are relatively brief and punchy, qualities that no doubt increase their vivacity. In *Game Theory and the Law*, a leading book on the subject, Douglas Baird and his co-authors also note with some embarrassment that the game theory stories tend to

28. For example, in the environmental area, no specific name has caught on for tradable rights in resources such as air emissions, wetlands, or habitat. An early theorist, J. H. Dales, called them “pollution rights.” J. H. DALES, *POLLUTION, PROPERTY AND PRICES: AN ESSAY IN POLICY-MAKING AND ECONOMICS* 77 (2d ed. 2002). Two other important proponents called them simply “tradable rights.” Bruce A. Ackerman & Richard B. Stewart, *Reforming Environmental Law*, 37 *STAN. L. REV.* 1333, 1341 (1985). Two others have used the term ETMs (for “environmental trading markets”). James E. Salzman & J. B. Ruhl, *Currencies and the Commodification of Environmental Law*, 53 *STAN. L. REV.* 607 (2000). The Kyoto signatories call them CDMs (for “Clean Development Mechanisms”). Harro van Asselt & Joyeeta Gupta, *Stretching Too Far? Developing Countries and the Role of Flexibility Mechanisms Beyond Kyoto*, 28 *STAN. ENVTL. L.J.* 311, 312 (2009). On the other hand, trademark holders fear that their names are so catchy that they will succumb to “genericide” through common usage. Peter Lee, *The Evolution of Intellectual Infrastructure*, 83 *WASH. L. REV.* 39, 57-58 (2008) (describing process by which trademarks lose protection because of common usage). The threat of genericide no doubt motivates such cases as the recent suit of *The North Face* against a satirical competitor, *The South Butt*. See *North Face Apparel Corp. v. Williams Pharm., Inc.*, Case No. 4:09-cv-02029-RWS (E.D. Mo. filed Dec. 10, 2009).

29. Hume, whose epistemology consisted of “impressions” from the outside and “ideas” comparing impressions, thought that impressions were more “vivacious,” but that ideas too could become as vivacious as impressions as they became passions. See DAVID HUME, *AN INQUIRY CONCERNING HUMAN UNDERSTANDING* 27 (Charles W. Hendel ed., 1955) (1748); DAVID HUME, *A TREATISE OF HUMAN NATURE*, Bk. 3, Pt. 1, Sec. 2, in *HUME’S MORAL AND POLITICAL PHILOSOPHY*, at 6-7 (Henry David Aiken ed., 1948) (1739).

describe rather “offbeat” situations.³⁰ Still, one might suppose that offbeat-ness itself could add to their vivacity, so long as offbeat-ness does not become simply weirdness.

But what is embarrassing about these stories is not that they are offbeat. It is rather that they have a distinctive content that goes along with the names: they are pretty much all about “guy stuff,” for want of a better phrase. The activities around which these particular stories revolve are typically if not exclusively performed by men: hunting, getting into trouble with the police, playing dangerous competitive games. In the case of the mixed-gender Battle of the Sexes, the story reflects the common view that *he* will want the prizefight and *she* will want to go to the ballet.³¹ The alternative name for Chicken, that is, Hawk/Dove, carries another, very lightly veiled, reference to gender roles, insofar as the hawks are perceived to be male and the doves female.³² No doubt other kinds of cultural referents could help to affix these stories in memory, but it is rather depressing that all these games, which supposedly represent a great variety of human decisionmaking, nevertheless seem so firmly entrenched in gender stereotyping.

To be sure, the content of these stories may not matter very much as an influence on the general culture, now that their 1950s origins and their Cold War preoccupations slip from memory; the names may simply act as proxies for certain kinds of situations, while the stories themselves are safely shelved in a back corner of the mind. For example, while the Prisoner’s Dilemma plays an important role in Eric Posner’s book on *Law and Social Norms*, Posner does not bother to recount the prisoners’ story itself; he simply uses the name to describe several other illustrative situations, presumably on the assumption that the reader already knows the PD story.³³ Nevertheless, macho examples seem to have an enduring grip on this kind of analysis. Baird and his co-authors remarked in the mid-1990s that another game was becoming quite standard; its name is “Quiche or Beer?” and the story involves a bully, a tough guy and a wimp.³⁴ Here again, “guy stuff” predominates. For better or worse, gendered references seem to be part of the Humean “vivacity” of many game theory stories.

To stress a point made earlier, this is not to say that game theorists always use these simple game names. They don’t, and indeed they have a great array of names for the many strategic situations they analyze. But these four are very well-known games in the genre, and their notoriety

30. BAIRD ET AL., *supra* note 12, at 280 n.2.

31. *Id.* at 41-43. Luce and Raiffa, who originally came up with this game name, noted that the story followed “the usual cultural stereotype.” Luce & Raiffa, *supra* note 11, at 91.

32. See, e.g., McAdams, *supra* note 1, at 247.

33. POSNER, *supra* note 24, at 11-18.

34. BAIRD ET AL., *supra* note 12, at 157-58, 280 n.2.

suggests that their gender stereotypes must appeal to someone. But to whom? Obviously, they appeal to those who already believe the stereotypes and like to flaunt them. But they may also have some use for those who want to prove their own tough-minded bona fides—to demonstrate an ability to play with the boys, whatever one's gender. In the language of these games, the player finds herself in a scenario of Quiche or Beer?, where the wimp who likes quiche nevertheless mimics the tough guy and orders beer, in order to stave off a fight with the bully.

At the same time, all these displays of narrative testosterone *diminish* the appeal of game theory for others who might think, as philosopher Annette Baier once said quite dismissively of the Prisoner's Dilemma, that all of them are just big boys' games.³⁵ If so, it is a loss for other kinds of "Law-And-" scholarship. As noted above, Richard McAdams, in critiquing the overwhelming dominance of citations to PD as opposed to other games, complains that PD suppresses issues that should be of interest to Law and Society scholarship.³⁶ I will take up more of his argument shortly, but in the meantime, I would argue that the systematically gendered tilt of *all* these well-known games may have a similarly depressing effect on their use, in most if not all of the other "Law-And-" disciplinary approaches.

Having said that, however, McAdams is clearly right about PD's prevalence. By a huge margin, PD dominates the references to game theory in the legal literature. What, then, is the special appeal of PD?

II. PRISONER'S DILEMMA: WHAT'S THE BIG DEAL?

With a simple Westlaw search of legal articles, McAdams has illustrated that PD sweeps away the competition when it comes to game theory citations, racking up thousands of citations to a puny few hundred (or fewer) for the other simple games.³⁷ One possible reason, of course, is that PD describes more instances of human situations than other games.³⁸

35. Annette C. Baier, *What Do Women Want in a Moral Theory?*, 19 NOÛS 53-54 (1985) (describing PD as "a big boys' game, and a pretty silly one too").

36. McAdams, *supra* note 1, at 254.

37. *Id.* at 214-16, 219-20, 225. See also HOWELL E. JACKSON ET AL., ANALYTICAL METHODS FOR LAWYERS 37-43 (2003) (under rubric of game theory dealing exclusively with PD). It is interesting to note, however, that despite the dominance of PD in the legal literature, Stag Hunt has also started to acquire a following particularly in international law, probably following the lead of Kenneth W. Abbott. See Kenneth W. Abbott, *Modern International Relations Theory: A Prospectus for International Lawyers*, 14 YALE J. INT'L L. 335, 368-71 (1989) (discussing Stag Hunt). Similarly, Chicken or Hawk/Dove has been making inroads in the literature on property law, following Robert Sugden's suggestion that property might be modeled in this way. SUGDEN, *supra* note 18, at 94-95; Richard O. Zerbe and C. Leigh Anderson, *Culture and Fairness in the Development of Institutions in the California Gold Fields*, 61 J. ECON. HIST. 114, 133-34 (2001). Most recently, James E. Krier has taken up Sugden's analogy. See James E. Krier, *Evolutionary Theory and the Origin of Property Rights*, 95 CORN. L. REV. 139, 152-55 (2009).

38. See, e.g., JACKSON ET AL., *supra* note 37, at 42.

McAdams disputes this, for a variety of reasons,³⁹ but there is room for doubt, particularly if one takes into account the multiple-person version of PD, the so-called “Tragedy of the Commons,” which does seem to appear in many guises.⁴⁰ But he makes another very telling point: even if PD situations are common, PD is nevertheless over-cited, because even scholars who should know better tend to designate a situation as a PD situation when one of the other game matrices would be more apt.⁴¹

From a Law and Literature perspective, this dominance is rather perplexing, because as a story, PD does not seem to have any overwhelming narrative force. Indeed, it definitely lags behind the other matrix games in vivacity-producing elements. The story itself is certainly offbeat, but perhaps too much so. It is a tale about criminals, which seems rather off-putting insofar as the game illustrates issues that normal, law-abiding people presumably face on a routine basis. The PD story itself is not brief and punchy but instead rather long in the telling, requiring the narrator to describe an intricate array of potential jail sentences that each prisoner contemplates. Moreover, the story entails some rather confusing choices between “cooperate” and “defect” (cooperate with whom? the police or the other prisoner?). The name itself is not entirely settled (singular “Prisoner’s” or plural “Prisoners” Dilemma?).⁴² Finally, even the macho strain is relatively subdued in PD. While one might well suppose that the prisoners are men, their gender norming is at best muted. The game does not depict them as behaving in a very manly fashion; indeed one might say that the game’s structure leads both to act like chickens, hardly an appealing feature to those who think machismo is vivacious.

Are there other factors at work here to explain PD’s allure? Again, one possibility is simple path dependency, which would suggest a certain indifference to the story. PD has been around for quite some time, indeed since modern game theory was in its infancy; the game got its name in the early Cold War era of the 1950s, when evidently no one cared too much about its gendered characteristics *vel non*.⁴³ On this account, the PD story might have been vivid back at that time, but over the years it has become simply a cliché; everyone knows it so everyone else piles on, without thinking too much about the narrative. It was mentioned earlier, for

39. McAdams, *supra* note 1, at 226-27; cf. BRIAN SKYRMS, *THE STAG HUNT AND THE EVOLUTION OF SOCIAL STRUCTURE* xii (2004) (arguing that Stag Hunt, rather than PD, is the most important “exemplar” of social conditions).

40. Garrett Hardin, *The Tragedy of the Commons*, 162 *SCI.* 1243 (1968).

41. McAdams, *supra* note 1, at 217 & n.31. See also Lee Anne Fennell, Book Review, 55 *J. LEGAL EDUC.* 295, 301-02 (2005) (noticing same mistake).

42. BAIRD ET AL., *supra* note 12, at 48 (opting for singular, in order to highlight individual decisions); cf. Nalebuff, *supra* note 11 (using plural “prisoners”).

43. POUNDSTONE, *supra* note 11, at 4-5 (describing Cold War atmosphere in which midcentury game theorists worked).

example, that Eric Posner's book on law and social norms describes a number of situations as PDs, without bothering to tell the story itself. The problem with this account, of course, is that the other game stories are almost as venerable as PD, yet they have never gained PD's currency.

McAdams thinks that certain structural features of the PD game appeal to legal academics, even though those same features reduce the general acceptability of game theory in Law and Society circles. The next two subsections will explore these possibilities, and then take up some issues relating not to the PD's strategic structure, but rather to the narrative itself.

A. The distribution game...maybe

One of the aspects of PD that McAdams finds unattractive is what he describes as its indifference to distributional issues. His view is that the jointly maximizing strategy in PD requires both parties to cooperate, so that both gain from solving the problem, leaving the question of distribution in an indeterminate state.⁴⁴ Stag Hunt has the same characteristic: mutual gains from solving the problem, and no particular issue of distribution. But Battle of the Sexes and Chicken are different: the jointly maximizing solutions in both games favor one party or the other, and thus both games draw attention to unequal distributions. Because these latter two games put distributional inequalities front and center, McAdams argues, they could act as a bridge between game theory and Law and Society scholarship, where distributional questions take a leading role. Thus McAdams finds it particularly unfortunate that scholars cite PD so widely and even mistakenly, since this deters Law and Society scholars from making use of any kind of game theory.⁴⁵

Of course, supposing that this account is correct, PD's purported indifference to distribution might actually *attract* other kinds of academics. For scholars who think the size of the pie is more important than the way it is sliced, and that questions of distribution are economically irrelevant or distracting, game theory could be *more* attractive if its chief paradigm suppressed distributional questions.⁴⁶ On such a view, distributional issues would be discussed later, after the serious business of maximization is settled.

My own view, however, is that the distributional issues are not an important factor in distinguishing PD from the other games, for three reasons. First, PD itself can display distributional inequalities that rival

44. McAdams, *supra* note 1, at 230-31.

45. *Id.* at 255; see also TODD SANDLER, ECONOMIC CONCEPTS FOR THE SOCIAL SCIENCES 156 (2001) (lamenting "initial fetish" with PD as distracting attention from other interesting strategic situations).

46. Cf. Louis Kaplow and Steven Shavell, *Fairness versus Welfare*, 114 HARV. L. REV. 961, 989-1000 (2001) (generally arguing for maximization, but also giving some weight to distributional concerns).

those in the other games. Second, iterated play can easily wipe out distributional differences in all of these games. And third, all of these games tend to blur into one another, as McAdams himself very acutely observes.

To begin with the first point: PD itself can easily involve distributional inequalities. Solving a PD problem does entail gains that could be split equally between the players, but there is nothing that says that those gains have to be shared equally. Indeed, it is widely noted that unequal shares are the norm whenever the players find themselves in unequal circumstances outside the game. Take any kind of commercial relationship: the party with fewer outside opportunities places a greater importance on overcoming the PD problem entailed in beginning a trading relationship, and because her “threat point” is lower, she may have to take a lesser cut simply to get the other party to play at all. One need only look at the relationships between music artists and recording studios to see how these power relationships can play out: established stars can demand a royal payoff, while beginners acquire the name of “starving artists.” In other words, solving a PD problem makes both parties better off, relative to not playing at all, but one party may well be “more better off” than the other.⁴⁷ In this way, the distributional outcome of any given PD solution can easily resemble Battle of the Sexes, or perhaps even Chicken.

The second point concerns iterated play. When Battle of the Sexes or Chicken are played more than once, iteration can entirely change the inequality necessitated by one-off versions of these games. With iteration, the two parties can even things out by taking turns. In Battle of the Sexes, today we go to the prizefight, next week we go to the ballet. As for Chicken, there is something of a move afoot to describe property regimes as a version of Chicken (or more specifically Hawk/Dove), with a possessor of a particular thing playing the winning role and everyone else backing off.⁴⁸ While this author regards the Chicken game as a thoroughly impoverished version of the mutual respect that normally accompanies property regimes,⁴⁹ the payoff even of this caricatured

47. Carol M. Rose, *Women and Property: Gaining and Losing Ground*, 78 VA. L. REV. 421, 428-33, 439-41 (1992) (describing how surplus from solving PD may be unevenly split for various reasons, including cultural ones); see also Robert Sugden, *Contractarianism and Norms*, 100 ETHICS 768, 779-82 (1990) (describing conventions of inequality, free rider issues in breaking these conventions).

48. SUGDEN, *supra* note 18, at 94-101; Krier, *supra* note 37, at 151-54.

49. The Chicken or Hawk/Dove version of property in possessors makes property rights depend on fear of the party with better defensive lines, but in my view property relations based on fear are far too tenuous to be considered property at all. See SUGDEN, *supra* note 18, at 94 (arguing that possession confers advantages in the allocation of property rights because the possessor normally has a superior position in a fight); cf. Carol M. Rose, *Property and Language*, 18 YALE J.L. & HUMAN. 1, 10 (2006) (arguing that because of respect of others, property rights allow security even when owner is not present to guard the property); Carol M. Rose, *Property as the Keystone Right?* 71 NOTRE DAME L. REV. 329, 363-65 (1996) (same). James Krier, who gives a restatement of Sugden's Hawk/Dove analogy for property, also notes the limitations of the analogy when resource conflicts are serious and when one moves beyond very simple property arrangements. Krier, *supra* note 37, at 155-57.

version of property is a variant on iteration: you are a possessor of Thing X, while I am the possessor of Thing Y, and as possessors we both get our turns as property owners of our respective Things. In short, iteration can wipe out the distributional inequalities even of those games that ostensibly require unequal outcomes in a one-off form.

The third reason for doubting major distributional differences between PD and the other games is that all these games tend to melt into one another. McAdams notes that solutions to PD may have “embedded” coordination games, in that the players must agree on the form of cooperation.⁵⁰ But by the same token, coordination games may have an embedded PD: who will start the ball rolling on deciding that everyone should hunt the stag, or for that matter, meet at the sushi place? Organizing is something that most people would prefer to leave to someone else—and the saying, “let George do it,” falls into the category of PD. Similarly, even if Battle of the Sexes and Chicken players can advance their game by taking turns, they too face an embedded PD: who will take the favored spot first? Row may promise Column that she can take the favored position in the next round for a night at the ballet, but how is Column to know that Row will keep his word?

The last example illustrates that the blurring of these games may derive from iteration as well as embedding. PD is normally depicted as a one-off game, but if the parties manage to overcome the PD problem at the outset and then play again, PD turns into something else. In iteration, each player’s share of the joint gains from cooperation may swamp the risk of temporary losses in a one-off setting. (This point, once again, would be more easily discerned if PD were called Deal or Steal? and placed in a commercial context; as Law and Society scholars have long observed, cooperating merchants in longterm relationships often do better than those who only think of the one-off deal.⁵¹) Robert Axelrod too has famously popularized the virtues of using a “Tit-for-Tat” strategy in iterated PD situations: each player starts by cooperating and then does what the other guy does, and both players then merrily cooperate their way to fortune and happiness.⁵² In effect, the successfully iterated PD morphs into a Stag Hunt, where mutual cooperation is the preferred outcome for both.⁵³

50. McAdams, *supra* note 1, at 229-30.

51. See, e.g., Stuart Macaulay, *Elegant Models, Empirical Pictures, and the Complexities of Contract*, 11 LAW & SOC’Y REV. 507, 514 (1979) (describing example of debt collection).

52. ROBERT AXELROD, *THE ORIGINS OF COOPERATION* 13-14 (1984).

53. This is not to say that iteration erases all the differences between PD and two unequal-share games, Battle of the Sexes and Chicken. In iterated PD, the Tit-for-Tat strategy can keep the players in line because both gain from further iterations, sharing ever-larger total returns. In iterated Battle of the Sexes and Chicken, on the other hand, iteration on a taking-turns basis appeals to fairness, not to total returns. In this sense, the distributional issue that McAdams flags affects iterated versions of these games as well as one-off versions. However, cultural conceptions can inject unequal returns into iterated PD as well. See Sugden, *supra* note 47, at 779-82 (describing cultural pattern of unequal returns to women); Rose, *supra* note 47, at 428-33, 439-41 (same).

The fundamental point, then, is that while distributional issues may be more visible in some other games than in PD, distributional issues do not necessarily distinguish PD in a major way from other simple games. In a sense, all four games include (a) gains from cooperation (by one or both parties), and (b) a determination of how the gains from cooperation will be split. If distributional issues would attract Law and Society scholars, PD should be of interest too; if distributional issues repel economic scholars, PD should seem equally distasteful. But the upshot is that distributional issues seem to be of little moment as between the “vivacity” of these games, one way or another.

B. PD makes us look really bad...or does it?

McAdams gives two other closely related reasons why PD is unattractive to Law and Society scholars: PD heads inexorably toward a single equilibrium, and in that equilibrium, everybody cheats. Consequently, according to McAdams, the PD game makes coercion and law seem like a necessity, without taking into account the roles that might be played by history and culture in games with less determinate outcomes.⁵⁴ PD is thus a modern variant of the Holmesian “Bad Man,” a character who is iconic for legal centrists, but who bores and repels Law and Society types; Law and Society scholars are more interested in how groups and communities manage to solve problems without legal coercion.

On that account, once again, the very features of PD that turn off the Law and Society scholars would attract the legal centrists, explaining PD’s overall dominance. But while there is doubtless something to this explanation among legal scholars, anyone who thinks that law can neatly dispose of the PD problem cannot have thought about the issue very long. It does not take much to realize that when one turns to law, one just kicks the PD problem upstairs, because the creation and enforcement of law brings on another set of PD problems.⁵⁵ This pattern is reflected in the venerable saying, *Quis custodiet ipsos custodes?* In any event, PD’s appeal appears to go beyond legal centrists. Indeed, PD is quite important in the law-and-social-norms literature to date; in that literature, PD is an essential problem to be overcome, even when one thinks that legal coercion has no monopoly as the means to set things right.⁵⁶

Surely there are other features of the PD story that also contribute to its dominant position. Let us reconsider, then, the story *as a story*. As we noted above, in its formal characteristics, PD is not really a particularly

54. McAdams, *supra* note 1, at 212-13.

55. For an excellent discussion of this point in the environmental area, see James E. Krier, *The Tragedy of the Commons, Part II*, 15 HARV. J. L. & PUB. POL’Y 325, 336-38 (1992).

56. See, e.g., EDNA ULLMANN-MARGALIT, THE EMERGENCE OF NORMS 9, 18-71 (1977); POSNER, *supra* note 24; ROBERT C. ELLICKSON, ORDER WITHOUT LAW: HOW NEIGHBORS SETTLE DISPUTES 159-66, 178-81, 220-29 (1991).

compelling tale. But does it have some other narrative aspects that hold people's attention? Readers will recall that the strategic problem that PD describes could readily be told with some other story, e.g. Deal or Steal?, centering on the question about which merchant performs first. That story would actually be punchier; it is shorter, more easily related, and it puts the parties to a genuine moral test without the ambiguities of criminal behavior. But somehow the prisoners' story has captured the strategic situation from the merchants. Why is that?

Without even pretending to be exhaustive, here are some possibilities about how the prisoners' particular characteristics work to make their story "vivacious" as a kind of fable.

1. Some realism about sexism. While the gender pattern is not so overt in PD as in Battle of the Sexes, Chicken or Stag Hunt, the PD story is also a narrative primarily about men. But there is no strong man in this story—only manipulative cops and weak prisoners. In that respect, PD may be a guy story, but it gives the guys an out. It does not expect heroism, and it gives guys a rationale for defecting, and for behaving like ordinary people instead of Superman. The organization man who plays hooky or the breadwinner with the midlife crisis might find that the hapless prisoners ring a sympathetic chord. None of them do what they are supposed to do, and the prisoners' story makes it all seem natural.

2. Sin. A closely related point is that the PD characters are pretty clearly sinners—guys in custody who are trying to duck their just punishment. Then on top of that morally questionable beginning, they give in to temptation even when it would be better for them if they were both made of stronger stuff. Just so: the players turn out to be us after all, and not just the guys, either. We are all sinners, and the universality of sin might make this tale attractive. To be sure, we may not be as bad as they are, but their tale explains our own inability to work together toward better ends. It reveals and to some degree expiates our fallen state.

3. Redemption. This quality of PD in some ways runs in the opposite direction from the first two, but in my view, it could be an important key to the story's appeal as a fable. In the PD story, the police keep the prisoners separate, so that they cannot talk and come up with a common plan. But that part of the story suggests that if they *could* talk things over, they would arrive at a joint strategy—that is to say, but for the interference of third parties, they would behave themselves admirably. And indeed, people often do, and we all know it.

In fact, one of the most heartening aspects of PD is that while it is depicted as a tragedy, in real life we know that it is often overcome, voluntarily and without legal coercion. People do pick up their trash at public parks, they wait their turn at four-way stop signs, they contribute to National Public Radio, and they get mad at people who don't do these things. People do much more, too, responding to disaster with amazing

altruism.⁵⁷ Given a background of innumerable instances of successful cooperation in the real world, the PD story plays not as a tragedy, but a comedy, a promise of a happy ending, even a Hollywood ending. All they have to do is talk it over.

What the PD story glosses over, however, is the genuine mystery of how people do solve PD situations.⁵⁸ If we were to rename the PD story to Deal or Steal?, we would see a more realistic version of the dilemma: the underlying problem is not the inability to talk things over, but rather mistrust. Merchants may talk and promise 'til the legendary cows come home, but they may still fear to take the critical first step, the step in which they might turn into suckers. Trusting is difficult, and just as difficult is behaving in a trustworthy fashion, conveying that fact to another who risks loss in reliance. But who wants to think about that? The real effort needed to overcome these problems can be ignored in the PD story, insofar as it suggests that the prisoners would be fine if they could just compare notes.

But can these prisoners trust each other even if they talk things over? And if they can, why can they? As Edna Ullman-Margalit observed some time ago, the prisoners might come to an agreement and still defect later.⁵⁹ One possible solution might be that the prisoners have some ongoing relationship—they are friends, and friends don't rat on friends.⁶⁰ But Aristotle thought that this answer would be unlikely; in his opinion, bad people cannot form genuine friendships.⁶¹ In fact, the merchants of Deal or Steal? are more likely candidates for friendship than two no-goodniks in police custody.⁶²

Here, then, is another possible reason why some might find the PD narrative attractive: it is not that the structure of the story's game suppresses distributional issues (even though it may, at least some of the time). It is not even that this structure argues for legal coercion (even though it may do that too, some of the time). It is rather that in suggesting that all we need is talk, this particular fable suppresses the importance of friendship—or something like it, some generosity that assures trustworthiness—to overcome the deal-killing, relationship-killing poison

57. See REBECCA SOLNIT, *A PARADISE BUILT IN HELL: THE EXTRAORDINARY COMMUNITIES THAT ARISE IN DISASTER* (2009) (recounting many examples).

58. See, e.g., POSNER, *supra* note 24, at 15-18 (noting a number of difficulties with what appear to be solutions to PD problems).

59. ULLMANN-MARGALIT, *supra* note 56, at 21 (noting that the prisoners might ostensibly agree but defect afterwards).

60. *Id.* at 46-47 (discussing possible PD solutions based on friendship and solidarity).

61. ARISTOTLE, *NICHOMACHEAN ETHICS*, Bk. 8, Chaps. 4-6, 10 (J.E.C. Weldon trans., 1912).

62. Peter Kollock, *The Emergence of Exchange Structures: An Experimental Study of Uncertainty, Commitment and Trust*, 100 AM. J. SOC. 313, 337-38 (1994) (observing that subjects who succeeded in establishing trading relationships in experimental situations developed very positive attitudes toward one another).

of mistrust and short-term self-seeking.⁶³

And how is friendship or generosity grown? One game theorist, and in my view one of the most interesting, is Robert Sugden, who suggests starting small. In discussing Robert Axelrod's strategy of mutual gain through reciprocity, Sugden adds a word: "brave."⁶⁴ The "brave reciprocator" has to risk a little bit, right from the start. But this means that bravery too is something we need to know about, along with the connection between bravery, generosity, and ultimately friendship. On a moment's reflection, we can observe that others of these simple games suggest some similar qualities; for example, the importance of a sense of justice behind the pervasive patterns of turn-taking in real-life instances of Battle of the Sexes or Chicken. The PD story that is solved through talking things over turns out to be solved by qualities quite at odds with the characteristics assigned to the PD players themselves. Those players are driven only by their own personal best interests, whereas the talking-it-over players—if they succeed—are motivated by other matters altogether: friendship, courage, honor.

David Hume eschewed the tendency of thinkers of his era to exaggerate the selfishness of human beings.⁶⁵ He might well have the same reaction to modern-day thinkers, who hypothesize selfish genes when fully-formed human beings do not behave selfishly enough to conform to the precepts of rational behavior. The PD story, with its gloss of talking things over, lets such thinkers glide over essential components of its own solution. To some degree, this gliding-over might help to explain why the fable is so popular. Its ultimate appeal is its evasiveness.

CONCLUSION

Richard McAdams argues that there is plenty of room for game theory in Law and Society scholarship, and for many of the same reasons, there should be plenty of room for game theory in Law and Humanities scholarship as well. But conversely, I would argue that it should work the other way around: there should be plenty of room for Law and Humanities in game theory. These games have stories; they *need* stories to make them vivacious. Moreover, analyzing the peculiar game story of PD—at once most widely told and least forceful as a narrative—can lead us to the very center of these games and their stories, with all their overlapping and blurring characteristics. What we find there are the virtues: generosity,

63. Carol M. Rose, *Giving, Trading, Thieving and Trusting: How and Why Gifts Become Exchanges, and (More Importantly) Vice Versa*, 44 FLA. L. REV. 295, 310-11 (1992).

64. SUGDEN, *supra* note 18, at 119-25; cf. JAN ELSTER, *THE CEMENT OF SOCIETY* 195-201 (1989) (describing first trusting move as "magical thinking" that counterpart will reciprocate).

65. HUME, *TREATISE ON HUMAN NATURE*, Bk. 3, Pt. 3, Sec. 2, in *HUME'S MORAL AND POLITICAL PHILOSOPHY* 57 (Henry David Aiken ed., 1948) (1739).

friendship, justice, and courage—and probably some other virtues as well, along with the vices that can defeat all favorable outcomes. Where better to investigate the stories of those virtues and vices than through literature?

