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# Trading at Divorce: Preferences, Legal Rules and Transactions Costs

MARGARET F. BRINIG AND MICHAEL V. ALEXEEV\*

## I. INTRODUCTION

For almost ten years, legal commentators have been aware of the possibility of applying economic bargaining principles to the problems of negotiations at the time of divorce.<sup>1</sup> Although some cases and journal articles have mentioned the Mnookin and Kornhauser article suggesting that custodial time and financial assets might be exchanged,<sup>2</sup> attempts to apply the analysis have been confined to description. No one has attempted an empirical study to see if there really are trade-offs between custodial time and marital assets at the time of divorce, and there has been no formal model describing the process.<sup>3</sup>

Furthermore, there has been no analytical discussion of what happens when the legal rules change,<sup>4</sup> either in terms of the outcomes of bargaining or in terms of the transaction costs of the process. On the other hand, there has been much attention devoted to the plight of single

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1. See, e.g., Robert Mnookin & Lewis Kornhauser, *Bargaining in the Shadow of the Law: The Case of Divorce*, 88 YALE L.J. 950 (1979).

2. See, e.g., Garska v. McCoy, 278 S.E.2d 357 (W. Va. 1981); Jon Elster, *Solomonic Judgments: Against the Best Interest of the Child*, 54 U. CHI. L. REV. 1, 5 (1987); Jerry McCant, *The Cultural Contradiction of Fathers as Nonparents*, 21 FAM. L.Q. 127, 137 (1987); Elizabeth Scott & Andre Derdeyn, *Rethinking Joint Custody*, 45 OHIO ST. L.J. 455 (1984).

3. There have been formal models describing the difference between bilateral and unilateral no-fault divorce, see Elizabeth Peters, *Marriage and Divorce: Informational Constraints and Private Contracts*, 76 AM. ECON. REV. 437 (1986); and, more recently, Douglas Allen, *Marriage and Divorce: A Comment*, 82 AM. ECON. REV. 479 (1992); and pretrial strategic behavior including divorce cases, see Robert Cooter, et al., *Bargaining in the Shadow of the Law: A Testable Model of Strategic Behavior*, 11 J. LEG. STUD. 225 (1982).

4. This is in the style of Ronald Coase, *The Problem of Social Cost*, 3 J.L. & ECON. 1 (1960).

women with children in the era of no-fault divorce.<sup>5</sup>

This paper will attempt to fill the gap in the existing literature by examining the bargaining process that resolves the issues involved in divorce in the overwhelming majority of cases.<sup>6</sup> It will investigate the jurisprudential consequences of such a system in terms of "result" versus "rule equality,"<sup>7</sup> and will discuss the effects of changes in the law on the resulting allocations as well as on the extent that the parties use the court system. The authors' results suggest that an unusually great variety of settlement outcomes is possible, depending upon the preferences of husbands and wives. In particular, we explain the apparent absence of the exchanges of custody for shares of marital property in many cases. In addition, we show that changes in rules regarding grounds for divorce, alimony, property and child custody affect not only the results reached, but also affect, to a greater extent, the procedures and transaction costs involved in reaching them.

There is undoubtedly a significant amount of bargaining between the divorcing spouses that occurs before legal proceedings.<sup>8</sup> In fact, the legal agreement that becomes a court decree is nearly always merely a ratification of the settlement reached by the spouses.<sup>9</sup> This bargaining is affected by the existing legal statutes and precedents.<sup>10</sup> The spouses' expectations about the likely result if the judge intervenes provide the alternative to continuing to bargain for a better outcome.<sup>11</sup> Further, this likely legal alternative, defined by state statutes and the less precise

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5. See, e.g., Lenore Weitzman, *The Economics of Divorce: Social and Economic Consequences of Property, Alimony and Child Support Awards*, 28 UCLA L. REV. 1181 (1981); Heather Wishik, *The Economics of Divorce: An Exploratory Study*, 20 J. FAM. L. 79 (1986); Robert McGraw, et al., *A Case Study in Divorce Law Reform and its Aftermath*, 20 J. FAM. L. 443 (1981-82); Herma Hill Kay, *An Appraisal of California's No Fault Divorce Law*, 20 CAL. L. REV. 299 (1987).

6. Cooter, et al., *supra* note 3, at 243-44; McCant, *supra* note 2, at 137.

7. Martha Fineman, *Implementing Equality: Ideology, Contradiction and Social Change: A Study of Rhetoric and Results in the Regulation of the Consequences of Divorce*, 1983 Wis. L. REV. 789, 791 (1983).

8. Mnookin & Kornhauser, *supra* note 1; John Murray, *Improving Parent-Child Relationships within the Divorced Family; A Call for Legal Reform*, 19 U. MICH. J. L. REF. 563, 588 (1986); Marygold Melli, et al., *The Process of Negotiation: An Exploratory Investigation in the Context of No-Fault Divorce*, 40 Wis. L. REV. 1133, 1142 (1988).

9. Robert Mnookin, *Divorce Bargaining: The Limits on Private Ordering*, 18 U. MICH. J. L. REF. 1015, 1016 (1986); Melli, et al., *supra* note 8, at 1142.

10. Mnookin & Kornhauser, *supra* note 1, at 1024; Mnookin, *supra* note 9.

11. Murray, *supra* note 8, at 588; Cooter, et al., *supra* note 3; ROGER FISHER AND ROGER URY, *GETTING TO YES* (1985) (Fisher and Ury call this the BATNA or Best Alternative to a Negotiated Agreement).

information about local judicial practices, serves as a benchmark which each spouse uses to determine the extent of his/her concessions to the other spouse.<sup>12</sup>

For these reasons, the outcome of the bargaining between the spouses depends on the divorce laws of the particular state as well as what the spouses want, or their partners think they want.<sup>13</sup> For settlement purposes, there are four very significant legal variables. The first is the statutory preference for child custody arrangements. Most states currently provide either for "joint custody,"<sup>14</sup> or they have a presumption that the "primary caretaker" before separation, usually the mother, is the best custodian following divorce.<sup>15</sup> The second involves grounds for divorce. States have either a fault and no-fault combination<sup>16</sup> or no-fault alone. The third is the prevailing rationale for alimony (support of a dependent former spouse<sup>17</sup> or temporary payments for rehabilitative purposes).<sup>18</sup>

12. Elster, *supra* note 2, at 33; Murray, *supra* note 8, at 589.

13. Mnookin, *supra* note 9, at 1025-26.

14. *See, e.g.*, VA. CODE ANN. § 20-107.2 (1992), defining joint custody as either (i) joint legal custody where both parents retain joint responsibility for the care and control of the child and joint authority to make decisions concerning the child even though the child's primary residence may be with only one parent, or (ii) joint physical custody where both parents share physical and custodial care of the child, or (iii) any combination of joint legal and joint physical custody which the court deems to be in the best interest of the child.

15. For favorable comments involving the primary caretaker presumption, see *Garska v. McCoy*, 278 S.E.2d 357 (W. Va. 1981); Robert Cochran, *The Search for Guidance in Determining the Best Interests of the Child at Divorce*, 18 U. RICH. L. REV. 1 (1985); Elster, *supra* note 2, at 11; David Chambers, *Rethinking the Substantive Rules for Custody Disputes in Divorce*, 83 MICH. L. REV. 477, 493 (1984). A less favorable evaluation appears in Elizabeth Scott's *Pluralism, Parental Preference, and Child Custody*, 80 CAL. L. REV. 615 (1992). The statutory language is almost invariably couched in terms of "the best interests of the child."

16. An example of this is Virginia's divorce statute, VA. CODE ANN. § 20-91 (1992), which provides for divorces based on the fault grounds of adultery, cruelty, desertion, imprisonment and confinement for a felony, and the no-fault ground of living separate and apart for six months (no children, property settlement agreement) or one year (children, with property settlement agreement). Wisconsin's divorce statute provides simply for dissolution based upon irretrievable breakdown of the marriage. WIS. STAT. ANN. § 767.17 (West 1989-90).

17. *See, e.g.*, *Eaton v. Davis*, 176 Va. 330, 338, 10 S.E.2d 893, 897 (1940), quoted favorably in *Newport v. Newport*, 219 Va. 48, 245 S.E.2d 134 (1978): "It stems from the common-law right of the wife to support by her husband, which right, unless the wife by her own misconduct forfeits it, continues to exist even after they cease to live together."

18. *See, e.g.*, WIS. STAT. ANN. § 767.26 (West 1989-90), providing for maintenance for a limited or indefinite length of time after considering, among other things, the "time and expense necessary to acquire sufficient education or training to enable the party to find appropriate employment."

Finally, but of no less significance, is the property regime, which at divorce may be equitable distribution<sup>19</sup> or the division of community property.<sup>20</sup>

In this paper, we will investigate the issues posed by bargaining at divorce both theoretically and empirically. The theoretical discussion applies the model of F.Y. Edgeworth<sup>21</sup> to illustrate the bargaining in Wisconsin, a state where the court outcomes are determinate.<sup>22</sup> Following this, the effect of the uncertainty of litigated outcomes is discussed in the context of Virginia marital settlements. The contrasting approaches are followed by a discussion of the effect on transaction costs as legal rules vary from the parties' desired outcomes. Both parts of the theoretical model are illustrated by an empirical study of divorce cases in two jurisdictions.

## II. THE DATA

The data for statistical testing of the theoretical propositions come from Fairfax County in Virginia (where more than 4500 cases were analyzed) and Waukesha County in Wisconsin (where more than 3500 cases were analyzed).<sup>23</sup> The two counties are both suburban communities that belong to large metropolitan areas. However, their legal rules are quite different. Virginia permits fault to be considered both for divorce and as a bar to spousal support;<sup>24</sup> Wisconsin courts do not even admit evidence of fault. In Virginia, neither spouse has a statutory advantage in seeking custody, although the spouse who has been the primary caretaker

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19. See, e.g., VA. CODE ANN. § 20-107.3 (1992), setting forth eleven factors the court must consider before making a marital property allocation.

20. WIS. STAT. ANN. § 767.255 (West 1989-90) provides that the "court shall presume that all other property is to be divided equally between the parties," although this may be altered after consideration of twelve factors.

21. The Edgeworth Box is used to depict a simple two person bargaining situation, where there are fixed commodities that are bargained for. FRANCIS Y. EDGEWORTH, *MATHEMATICAL PHYSICS* (1881). See, e.g., JAMES FRIEDMAN, *GAME THEORY WITH APPLICATIONS TO ECONOMICS* 153 (1985), for a modern description of the theory.

22. Mnookin, *supra* note 9.

23. Even though each case was examined in both jurisdictions, only 114 files in Wisconsin and 98 in Virginia contained all the information we needed and resulted in final divorces involving minor children. Statistics on bargaining involve these cases.

24. This statute, VA. CODE ANN. § 20-107.1, was amended in 1988 so that only adultery acts as a bar, and even then the judge may award alimony if not doing so would constitute manifest injustice, based upon the respective degrees of fault during the marriage and the relative economic circumstances of the parties.

## TRADING AT DIVORCE

before separation gets custody in most cases.<sup>25</sup> In Wisconsin, there is a presumption of joint custody.<sup>26</sup> Virginia allocates marital property based upon several equitable factors, while Wisconsin, a state with laws resembling a community property system, presumptively divides it evenly. In Virginia, spousal support is often awarded on a permanent basis, while in Wisconsin it is granted infrequently and usually only for rehabilitation of the dependent spouse.

We collected information on the wealth of each household before the divorce, on the shares of that wealth received by each spouse in the final divorce decree, on the custody arrangements and visitation rights of the non-custodial parents, and on the issues actually litigated by the spouses in court. Using relatively simple statistical analysis, we related the shares of custodial time and wealth received by husband and wife in the two jurisdictions and contrasted the transaction costs expended to reach these outcomes. We found that regardless of the legal rule, the outcomes in terms of ultimate child custody arrangements are very similar.<sup>27</sup> In terms of outcomes, the difference appears in the share of wealth received by the divorcing wife or in her ability to receive long-term spousal support.<sup>28</sup> In terms of the use of the court system, the data reveals that, paradoxically, the closer the legal rules approach what the parties want, the more likely the parties are to resort to courts rather than resolve the issues through the bargaining process.<sup>29</sup>

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25. See, e.g., *McCreery v. McCreery*, 237 S.E.2d 167 (1977), where a husband had been a "very nurturing parent" willing to place the welfare of the children above all else; and *Peple v. Peple*, 364 S.E.2d 232 (1988) (father had become an "exceptionally attentive parent, actively involved in the physical, mental and religious guidance of the child," while the mother, "while a loving and fit parent, was more occupied by her employment and not able to provide the same quality of care").

26. This statute was amended in 1988 so that the court may only award joint legal custody if it is in the child's best interests, and either the parents agree to it, or one parent seeks it and the judge finds that both parents are capable, and there are no conditions that would substantially interfere with the exercise of joint legal custody. There is still a presumption that a child is entitled to periods of physical placement (visitation) with both parents unless it would endanger a child's physical, mental or emotional health. A number of factors must be considered when making this determination.

27. In Wisconsin, on average, mothers received a 76.6 % share of their children's time. In Virginia, the average was 74.8 %.

28. The total received by both spouses may be less in Virginia where so many more cases are litigated, at least in terms of motions practice. Unless the hours spent in negotiation in Wisconsin exceed the total hours expended in Virginia, since time in court is usually billed at at least the same rate, the "transaction costs" are higher in the latter state. Whatever is spent as legal fees obviously cannot be divided between the parties.

29. There are other possible explanations for the greater litigation in Virginia. One is that Virginians are naturally more litigious than their Wisconsin counterparts. Another is that there is usually less litigation as the law becomes more certain. See, e.g., *George Priest &*

III. THE DETERMINATE OUTCOME MODEL (WISCONSIN)

It seems natural to analyze the bargaining between the two divorcing spouses within the framework of the Edgeworth Box diagram. A conventional assumption in this inquiry is that the preferences of each spouse over the wealth-custody space can be described by smooth convex downward-sloping utility indifference curves.<sup>30</sup> As we shall see later, however, such an assumption leads to conclusions which are not supported by the data.

If either of the spouses decides to litigate, then the court will determine the details of the divorce agreement. In other words, no bargaining between the spouses has to take place in order for them to obtain the court-

determined outcome. In this sense, the outcome of the litigation proves an endowment or beginning point for the bargaining process (see Figure 1 and Point E).<sup>31</sup> Let us assume that each of the spouses is aware of the likely outcome of

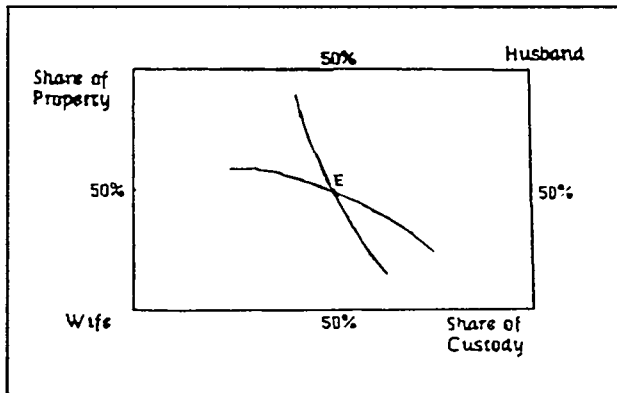


Figure 1  
The Edgeworth Box, with endowment point in Wisconsin

Benjamin Klein, *The Selection of Disputes for Litigation*, 13 LEG. STUD. 1 (1984); Donald Wittman, *Dispute Resolution, Bargaining and the Selection of Cases for Trial: A Study of Generation of Biased and Unbiased Data*, 17 J. LEG. STUD. 313 (1988). However, because of the atypical indifference curves (or preferences) we find for husbands and wives concerning custodial shares and marital property, we are inclined to believe that our explanation is correct.

30. Here, an indifference curve is the collection of combinations of custody or wealth that makes the spouse equally happy. In other words, the spouse is indifferent as to which of the combinations actually occurs.

31. This is comparable to the analysis of Cooter, et al., *supra* note 3 (Trial Outcome).

litigation.<sup>32</sup> If the spouses are rational, they will never settle for less than this endowment point. Unless the endowment point lies on the contract curve,<sup>33</sup> both spouses can be made better off as a result of bargaining. Given the endowment point, the data on the actual divorce agreements achieved without litigation can provide us with some interesting information on the preferences of the spouses.

In Wisconsin, because of the presumption of joint custody and the presumption of even allocation of marital property, each spouse can normally obtain a 50/50 split of custody and property without entering into pre-divorce bargaining with the other spouse. In the context of an Edgeworth Box diagram this implies that the endowment point is located exactly in the center of the box. Presumably, the observed outcomes are at the core of the bargaining game between the husband and the wife. In other words, neither party will end up worse off than with the court-determined outcome.<sup>34</sup> If our assumption about smooth, convex and

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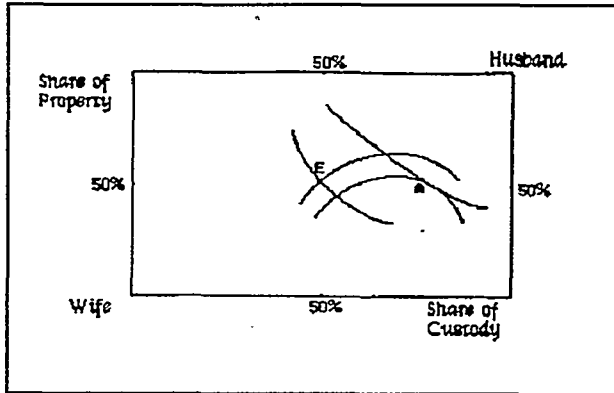


Figure 2  
The Edgeworth Box after Bargaining in Wisconsin

32. Cooter, et al., *supra* note 3, say the spouses will be aware, because if their lawyers made unrealistic predictions about one case, they would adjust in a Bayesian method once confronted with the solution that was unexpected.

33. The contract curve consists of the collection of points where each party's exchange rate of money/child custody is equal.

34. Of course there are costs involved with litigation that must be taken into account. These are considered later in this paper. Since so few cases are litigated in the state, almost the entire marital estate remains to be divided between the parties. Melli, et al., *supra* note 8, report that the Wisconsin couples they studied spent about one-fifth as much on legal fees if they mediated as opposed to pursuing an adversary divorce.



share of the custody while maintaining 50% of the marital property.<sup>35</sup>

It is instructive to look beyond the averages and analyze the outcomes broken down by custody arrangement. The bulk of the individual outcomes is split between two types of custody. In the first group, consisting of 17 cases, the wife's share of custody equals 50% (the joint custody solution). In the second group (74 cases), the wife's custody share is approximately 90% (the sole custody plus visitation solution). Contrary to the implication of the usual assumption on preferences, the median shares of marital property received by the wives do not differ significantly between the two groups. In fact, the wives' median share of marital property is somewhat greater in the second group (see Table I).

These results suggest that the spouses' preferences over custody and marital property allocations are more complex than were previously assumed. Consider first the preferences of a non-custodial parent (usually an ex-husband in the cases we examined). The utility he derives from visiting his children depends not only on the time he is allowed to spend with them, but also on the "quality" of the children.<sup>36</sup> This quality is, presumably, positively related to the quality of their living conditions at the ex-wife's home. These living conditions depend to some extent on the share of marital property received by the wife. The husband's desire to spend time with the children is affected also by his opportunity cost of time. The net outcome of all these interdependencies may be such that his ideal divorce arrangement assigns high shares both of the custody and of marital property to the wife.<sup>37</sup> The data suggest that, if anything, the husbands are often willing to accept both reduced time with their children and a lower share of marital property than would have been awarded to them had they gone to trial.

In the context of our Edgeworth Box diagram where the endowment point is certain, this sort of outcome implies that the husbands' indifference curves are positively sloped in the relevant range of the

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35. The marital property figure is a mean; the median figure from our data is 48%. The comparable figure from our data in Virginia is 45% (see Tables I and II, *infra* pp. 293-94).

36. The theoretical basis for this assumption can be found in GARY BECKER, *TREATISE ON THE FAMILY* (1981); Gary Becker & Gregg Lewis, *On the Interaction Between the Quantity and Quality of Children*, J. POL. ECON. § 279 (1985); and Douglas Allen, *What Does She See in Him? The Effect of Sharing on Choice of Spouse*, 30 *INQ.* 57 (1992).

37. Of course, this is not always the case, particularly when the spouses do not maintain an amicable relationship. They are more likely to remain on good terms, however, if they do not litigate the divorce, according to Melli, et al., *supra* note 8.

custody-marital property share space.<sup>38</sup> Whatever the slopes of the spouses' indifference curves, some bargaining does take place. Only by accident would the spouses' ideal points within the Edgeworth Box coincide. The fact that most actual outcomes of bargaining in Wisconsin lie quite far away from the endowment point suggests that both spouses would much prefer to avoid the court-ordered division of child custody and property. The prospect of court-ordered settlement provides strong incentives for negotiations outside of the courtroom.<sup>39</sup> Given the determinant nature of the court outcome in Wisconsin, the divergence between the endowment and the ideal outcomes from the spouses' point of view is likely to result in relatively few cases of divorce litigation, and thus a reduction in the transaction costs of divorce. This divergence, however, may force one of the spouses to accept an inferior bargaining outcome compared with the situation where the endowment is less "gender neutral."

IV. INDETERMINATE OUTCOME:  
THE EFFECT OF UNCERTAINTY OF LITIGATION OUTCOME  
ON PRIVATE NEGOTIATIONS

The litigation outcome is much less predictable in Virginia than it is in Wisconsin because of the presence of fault grounds for divorce, the effect of fault on alimony, and the use of equitable factors in determining the percentage of property that each spouse will receive. It is also possible that the custody issue itself is indeterminate, as the statute suggests, but, practically speaking, courts have awarded primary custody to the wife in all but a negligible number of cases.<sup>40</sup> Due to the higher uncertainty of the outcomes of litigation in Virginia, the Edgeworth Box description oversimplifies the true situation. In order to explain the outcomes of voluntary negotiations in Virginia, we must therefore model the risk associated with litigation.<sup>41</sup>

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38. As mentioned previously, this violates the standard assumption of negatively sloped indifference curves. Restated, husbands may be willing to give up less property after a certain point in order to get more time with their children. This empirical result seems to hold in both states we examined.

39. Of course, the large distance between the endowment and the equilibrium points does not have to imply a significant difference in the corresponding values of the utility functions. Since the spouses can accurately predict what the court would award, there is no good reason for them to expend additional resources to litigate. See *supra* note 29.

40. GERALD SILVER & MYRNA SILVER, *WEEKEND FATHERS* 54 (1981).

41. Cooter, et al., *supra* note 3, at 229-31, do this for the problem of deciding whether to negotiate or to go to trial, assuming there is only one good rather than two.

Note that while a typical outcome of litigation in Virginia is favorable to a wife (unlike in Wisconsin, where she would end up with far less custody than most women seem to want),<sup>42</sup> the "downside risk" of litigation for a Virginia wife is relatively high.<sup>43</sup> On the other hand, the occurrence of a litigation outcome which is significantly better than the typical non-litigation outcome for a wife is extremely unlikely in Virginia. Of course, the wife's share of child custody may be increased from the high percentage the court would usually award her, but normally wives would want to assure some participation of their former husbands in the upbringing of the child. This may be because the wives feel participation is better for the child. It may also be for the less child-centered reason that the wives want some time for themselves: to get tasks done that cannot be completed with children around, recreate, pursue hobbies, enhance their earnings capability, or begin new relationships.<sup>44</sup> The corollary of this is that the husband may not experience a "downside risk" that deviates substantially from his expected court outcome, since the probability of catastrophic financial loss or no visitation with the child is very low.<sup>45</sup>

The above discussion<sup>46</sup> provides another theoretical explanation, this time based on the asymmetrical nature of the preferences involved, of why Virginia wives may be willing to settle for less of both custody and

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42. We assume for convenience that wives put a greater weight on custody than do their husbands. This is not necessarily true (although it does seem to be borne out by our empirical study), but is certainly suggested by the substantial feminist literature suggesting that women value the altruistic and nurturing necessary for childrearing to a greater extent than do men. See, e.g., Fineman, *supra* note 7, at 886; CAROL GILLIGAN, *IN A DIFFERENT VOICE: PSYCHOLOGICAL THEORY AND WOMEN'S DEVELOPMENT* 24-63 (1982); NANCY CHODOROW, *THE REPRODUCTION OF MOTHERING* (1986); Christine Littleton, *Reconstructing Sexual Equality*, 75 CAL. L. REV. 1279, 1285 (1987); Alice Rossi, *A Biosocial Perspective on Parenting*, 106 DAEDALUS 1, 25 (1977).

43. John Murray, *Understanding Competing Theories of Negotiation*, 1978 NEGOTIATION J. 179, 184 (1986).

44. Elster, *supra* note 2, at 4; David Chambers, *Rethinking the Substantive Rules for Custody Disputes in Divorce*, 83 MICH. L. REV. 477, 557 (1984). In terms of the mathematical model discussed in the Appendix, on the margin there may be a relatively high opportunity cost of time for high values of 1-t.

45. No visitation would occur only if he was shown to be unfit. See, e.g., *Kern v. Lindsey*, 30 S.E.2d 707 (1944)(visitation continued although father for some years paid little attention to his son); *Doe v. Doe*, 284 S.E.2d 799 (1981)(otherwise fit mother allowed to keep visiting child although she was involved in live-in lesbian relationship).

46. At this point the interested reader may wish to refer to the Section I of the Mathematical Appendix for the description of bargaining in Wisconsin; *infra*, p. 295-97.

property<sup>47</sup> than they might typically be awarded if they chose to litigate. There are less rigorous alternatives that provide the same result. One possibility is that women and their attorneys may not have known what Virginia courts were granting women in the first few years the equitable distribution rule was applied.<sup>48</sup> However, it is not very likely that attorneys specializing in domestic relations or those with well-to-do clients would be ignorant of the published appellate decisions or of those from the various circuit courts in northern Virginia. Nor did they probably feel that this information would be so unimportant to their clients that they would not disclose it. As a group, it is unlikely that lawyers would prefer to generate increased fees through the more costly litigation process, both because of ethical considerations and the importance of reputation (goodwill) for the health of their practice. On the other hand, it is possible that the women misunderstood their attorneys,<sup>49</sup> or that they misperceived the variance (or spread) of the litigated outcomes, so that their subjective probability of loss was higher than the actual probability.<sup>50</sup>

A second group of explanations relates to the curvature of husbands' and wives' utility functions. One such explanation, favored by several legal writers, is that women as a group are more risk averse than their husbands.<sup>51</sup> This explanation may be true, but would be difficult to

47. Virginia women on average settled for 74.8% of the custodial time and about 45% of the property. The difference between the average of the wife's share of marital property in Wisconsin and in Virginia is statistically significant at a 3% level.

48. Murray, *supra* note 8, at 589.

49. Robert Mnookin, *Child Custody Adjudication: Judicial Functions in the Face of Indeterminacy*, 39 L. & CONT. PROB. 225, 253 (1983), suggests that this is not impossible, given the indeterminate nature of child custody decisions. His suppositions are complemented, to some extent, by the verbal findings of Austin Sarat & William Felstiner, *Lawyers and Legal Consciousness: Law Talk in the Divorce Lawyer's Office*, 98 YALE L.J. 1663 (1989). These authors indicate that while clients may understand their attorneys, they may be urged toward settlement because of a distrust in the validity of the legal proceedings. In Sarat and Felstiner's view, clients are introduced to a chaotic "anti-system" in which they cannot rely on the technical proficiency or good faith of judges and rival lawyers and which they have no hope of understanding on their own. *Id.* at 1665, 1669 n.39.

50. Mnookin, *supra* note 9, at 1026.

51. Risk aversion refers to the ratio of the second derivative of the utility function to its first derivative, and has to do with willingness to settle for less than the expected utility of a gamble in order to avoid the chance of a bad outcome. Milton Friedman & L.R. Savage, *The Utility Analysis of Choices Involving Risk*, 56 J. POL. ECON. 249 (1948). Risk aversion on the part of wives is assumed by Mnookin, *supra* note 9, at 1025; Melli, et al., *supra* note 8, at 1154; and Elizabeth Scott, *supra* note 15. One of the authors explores the question of whether women are more risk averse than men in Margaret Brinig & Steven Crafton, *Risk and Gender*, Working Paper, George Mason University Law and Economics Center, 1992.

prove. What we feel is more likely, given our data, is that there is a difference in men and women's preferences involving child custody.<sup>52</sup> To lose custody of a child, even if there is only a small chance of such loss, may represent such a catastrophic loss that women are unwilling, even if they are risk neutral, to take the gamble.<sup>53</sup>

## V. THE EFFECT OF RULES ON LITIGATION STRATEGIES

One interesting question posed by our research is what type of legal rules might cause couples to prefer to settle their differences through negotiation rather than litigation. The immediate reaction might be that if the legal system provided alternatives (or "distortions," as one attorney called them)<sup>54</sup> that the parties found acceptable, they would be inclined to settle rather than to waste time through litigation that would be costly and eventually end up with nearly the same result. This, however, is the opposite of what our data revealed.

We think the reason for this apparent paradox is that the threat of litigation becomes credible only if the predicted legal result closely approximates what the parties really want. A father in Virginia, for example, can threaten a custody battle by asking for it in divorce pleadings or by filing motions even though he doesn't truly want custody and even though he probably wouldn't get more than generous visitation if he went to court.<sup>55</sup> This was the result in some cases where the wife eventually received primary custody, but only a token alimony and less than half the property. If the wife very much wants custody, she may be inclined to settle for less in terms of child or spousal support to avoid the significant financial and other court costs as well as the small possibility of losing substantial time with the children<sup>56</sup> (see Table I). The Wisconsin father does not want to go to court because he actually does not want equal custody with his wife, which is what the law presumes is in the best interests of the children. If his wife knows this, his threats of litigation are not credible. The wife does not threaten litigation because, although the judge might well award her an equal share of the marital resources,

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52. CHODOROW, *supra* note 42, at 205-09; Chambers, *supra* note 44, at 533-37.

53. Elster suggests that this may be because of bonding, social pressures and so forth. Elster, *supra* note 2, at 2. See also Chambers, *supra* note 44, at 516; Cochran, *supra* note 15 at n.12.

54. Murray, *supra* note 8, at 589.

55. This is because he would be getting close to what he wanted if the court did order visitation. Chambers, *supra* note 44, at 568.

56. Cochran, *supra* note 15, at nn.8-86.

she would probably also get less than primary custody of the children.

A more generalized prediction, then, would be that if the parties' endowment points (anticipated results of litigation) closely approximate their utility functions, there should be frequent resorts to the court system and relatively high transaction costs in reaching settlement outcomes. These high transaction costs may continue after the final decree.<sup>57</sup> The additional friction between the parties may result in an unwillingness to meet the agreed upon conditions of facilitating visitation or paying child or spousal support.

Conversely, if the endowment point (or anticipated judicial outcome) bears very little relationship to what the parties really want, they are more likely to be forced to resolve their disputes themselves. They are, in effect, cast upon their own resources, because the threat of litigation is not credible. There should be lower transaction costs in such states both before and after trial. (To the extent, however, that divorced women with primary custody are actually impoverished, there will be increased public costs in the form of public assistance and other social services.)<sup>58</sup>

Since the Wisconsin endowment point lies further from the negotiated outcome than does the endowment point in Virginia, based on the above, one would expect to observe divorce cases litigated more often in Virginia. Our data support this conclusion (see Table II). Only 5% of the cases in our Wisconsin subsample versus 20% for Virginia went to trial. In addition, as we noted in the introduction, some motions filed during the preliminary proceedings can serve as threats of taking the case to litigation.<sup>59</sup> Such threats would be much more credible in situations where the difference between the negotiated outcomes and the endowments are relatively minor. We would expect the threats of litigation to be more credible in Virginia and, therefore, to see more pre-trial motions filed in Virginia than in Wisconsin. Again our data support this conjecture.

57. See Chambers, *supra* note 44, at 569. Until 1988, Virginia had one of the worst child support collection records in the nation. *The 10 Most Wanted. . . Fathers*, WASHINGTON POST, August 28, 1989, (Opinion Editorial) at A12, the editor states that in 1986, Virginia collected less child support per family than every state in the union except Oklahoma. However, the editor also states that by 1989, Virginia ranked 16th nationally.

58. LENORE WEITZMAN, *THE DIVORCE REVOLUTION* 15-41, 339 (1985); Mary O'Connell, *Alimony After No-Fault, A Practice in Search of a Theory*, 23 NEW ENG. L. REV. 437, 440-41 (1988).

59. An alternative explanation is that the parties will litigate even over minor issues if the anticipated court outcome will be acceptable in any case and if the various gains (psychic, custodial, or financial) outweigh the costs (time, attorneys' and court fees and emotional). This outcome is likely only in states where, like Virginia, the expected court outcome is relatively close to the parties' desires.

Pre-trial motions were filed in 20% of our cases in Virginia, compared with only 5.5% of the cases in Wisconsin.

The argument could be made that the greater uncertainty in Virginia might itself lead to a higher incidence of litigation, since resources would be wasted if people were to litigate a "sure thing." However, if both parties are risk averse, it would affect the desire of both to litigate in a negative way. Furthermore, if either or both of the parties is certain to have a relatively unsatisfactory outcome from litigation, there should be very few cases that go to court. This, in fact, is the case in Wisconsin.

## VI. SUMMARY

Changes in legal rules affect not only the income distributions of parties negotiating divorce settlements, but also their transaction costs. As the legal rules move further away from what the parties want to agree to anyway, out of court settlement becomes more and more likely. Our results suggest that allowing fault to have an effect on financial allocations at divorce may not only "imprison" some women in unfortunate situations,<sup>60</sup> but may also impair their bargaining position upon divorce.

Our results show that, contrary to the accepted wisdom, tradeoffs between custody and property may not always be present.<sup>61</sup> Further, it may not be possible to discern a downward sloping demand curve for visitation rights<sup>62</sup> because this is one case that violates the usual assumption that consumption of one good is independent from consumption of another good.

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60. Jana Singer, *Divorce Reform and Gender Justice*, 67 N.C. L. REV. 1103, 1111 (1989).

61. Bargaining is taking place, but over some range, larger shares of both custody and property may be on the same indifference curve as smaller shares of both goods.

62. Indeed, we tried to estimate the demand curves using some sophisticated econometric techniques and could not obtain statistically significant coefficients. In these estimations, the price for visitation rights equals the share of marital property given to the custodial spouse plus the amount of child support.

## TRADING AT DIVORCE

Table I  
Property and Alimony Shares

A. Wisconsin (without litigation; the number of cases litigated in Wisconsin is statistically insignificant)

Wife's Custody Percentage	Wife's Mean Share of Marital Property
50% (joint custody)	48%
90% (sole custody)	55%
<u>Wisconsin Overall:</u>	50%

B. Virginia (without litigation)

Wife's Custody Percentage	Wife's Mean Share of Marital Property	Percent of Cases Wife Awarded Alimony
50% (joint custody)	44%	33%
90% (sole custody)	45%	50%

C. Virginia (with litigation)

Wife's Custody Percentage	Wife's Mean Share of Marital Property	Percent of Cases Wife Awarded Alimony
50% (joint custody)	40%	9%
90% (sole custody)	56%	29%
<u>Virginia Overall:</u>	40%	



Table II  
Comparative Litigation

A. Litigation Events

Event	Virginia	Wisconsin
% of cases where there was any litigation	21.45%	9.27%
% of cases where a pendente lite hearing was held	18.41%	4.78%
% of cases where motions were filed	19.76%	5.53%
% of cases which went to trial	10.13%	5.38%

B. Issues Presented at Trial

	Virginia	Wisconsin
Issue of Fault	13.34%	0.29%
Issue of Support	18.07%	5.38%
Issue of Custody	13.18%	4.04%
Issue of Property	16.79%	4.78%

Mathematical Appendix

I. THE DETERMINATE OUTCOME MODEL: WISCONSIN

For those interested in mathematical modelling, the husband's utility function may be represented as follows:

$$U = U(F,t,q)$$

where  $t$  is the husband's share of custody,  $q$  is the "quality" of the children, and  $F$  stands for consumption of all other goods.<sup>63</sup> All first partials of  $U$  are assumed to be positive. Denoting the shares of marital property received through the divorce agreement by the husband and the wife by  $h$  and  $w$  respectively, and noting that the quality of children is a function of these shares, we can write  $q = q(1-h) = q(w)$ ,  $q_h = -q_w < 0$ . Consumption of all other goods is a function of  $t$  and  $h$  among other things, i.e.,  $F = F(t,h)$ , where  $-F_t > 0$  is the husband's opportunity cost of time spent with the children. Obviously,  $F_h > 0$ . Since both  $F$  and  $q$  depend on  $t$  and  $h$ , the utility function can be written as  $V = V(t,h) = U(F(t,h),t,q(h))$ . The slope of the indifference curves of  $V(\cdot)$  in the  $(t,h)$  space is  $s = -V_h/V_t$ . It can be easily seen that  $V_h = U_F F_h + U_q q_h$  and  $V_t = U_F F_t + U_t$ . If the husband's opportunity cost of time is large so that  $|U_F F_t| > U_t$ , then  $V_t$  is negative. If in addition,  $|q_h|$  is small enough so that  $V_h$  remains positive, the indifference curve has a positive slope. Alternatively, a positively sloped indifference curve can result from  $V_t > 0$  and  $V_h < 0$ . Note that most likely the slope of the husband's indifference curves would be negative in some range of values of  $t$  and  $h$ , and positive for the other values of these variables. In particular, as  $t$  gets smaller, the slope of an indifference curve is likely to become negative even if it is positive for greater values of  $t$ .

The wife's preferences are likely to be somewhat less ambiguous since, other things being equal, she presumably prefers higher shares of marital property to lower ones. Using the same notation for all the functions as for the husband, the wife's utility function is

$$U = U(F(1-t, w), 1-t, q(w)) = V(1-t,q).$$

Notice that the relevant variables for the wife are  $(1-t)$  and  $w = 1-h$ . Obviously,  $V_w > 0$ . Nonetheless, depending on the wife's opportunity

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63. Throughout, we are denoting simplified functions representing only variables that are endogenous to (inside) our model. Functions are denoted by parenthetical expressions, and first partial derivatives by subscripts, with the subscripts denoting the variable of differentiation.

cost of time, the slope of V's indifference curves in (1-t,w) space can be either positive or negative. Again, the most likely outcome would be to have the indifference curve slope downward for some ranges of 1-t and w, and to slope upward for other ranges.

## II. THE INDETERMINATE OUTCOME MODEL: VIRGINIA

In what follows we will assume that the wife could either obtain a typical outcome or end up with a considerably worse outcome. Suppose a wife is an expected utility maximizer. Denote the outcome of the voluntary negotiations by A, the typical outcome of litigation by E,<sup>64</sup> and the "disastrous" (from the wife's point of view) litigation outcome by D.<sup>65</sup> Then the worst voluntary agreement the wife is willing to make (A\*) is such that

$$U_w(A^*) = pU_w(E) + (1-p)U_w(D)(1)$$

where p is the probability of a typical court outcome E and  $U_w(\cdot)$  is the wife's utility associated with various outcomes. Since  $U_w(E) < U_w(D)$ , it is evident from (1) that the lower p is, the lower  $U(A^*)$  has to be. Also,  $U_w(A^*)$  is lower the lower  $U_w(D)$  is. Therefore, as long as  $U_w(D)$  is low enough and p is low enough,  $U(A^*)$  may be considerably worse than  $U_w(E)$ . Notice that this argument does not depend on the degree of curvature of the wife's utility function.<sup>66</sup> Other things being equal, the more risk averse the wife is, the lower that  $U_w(A^*)$  is. Of course, the outcome of the voluntary negotiation does not have to be the minimum acceptable to a wife. Given that the worst outcome of negotiation acceptable to a husband is A' and that the utility of that outcome is<sup>67</sup>

64. The actual endowment point was determined by reading all the reported Virginia cases (trial and appellate) involving equitable distribution that were decided during the period 1983-1987, and noting the percentages of property received by Virginia wives. In none of these cases involving minor children did the husband receive more than "substantial visitation" (90% custody given to the wife). Homes were uniformly divided evenly. Women received somewhere between 15 and 40 percent of their husband's pensions, business property and securities.

65. See Mnookin, *supra* note 49.

66. See *supra* note 49.

67. Notice that presumably  $U_h(E) < U_h(D)$ , or at least that the husband may pretend that this is the case in order to make his threat of litigation credible. In other words, he would prefer the outcome disastrous to his wife (he gets primary custody) to the usual court outcome of "liberal visitation." Mnookin, *supra* note 9, at 1032, Mnookin & Kornhauser, *supra* note 1, at 972 & n.15; Chambers, *supra* note 44, at 567; and Elster, *supra* note 2, at 19, suggest that there

## TRADING AT DIVORCE

$$U_h(A') = pU_h(E) + (1-p)U_h(D), (2)$$

the out-of-court agreement should satisfy  $U_w(A) \geq U_w(A^*)$ , and  $U_h(A) \geq U_h(A')$ . Other things being equal, however, the lower  $U_w(A^*)$ , the lower  $U_w(A)$  would be.

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may be strategic misrepresentation of preferences here. Elster quotes Judge Richard Neely, "The Hidden Cost of Divorce: Barter in the Court," *NEW REPUBLIC*, Feb. 10, 1986, at 13.

