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ARBITRATION

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Abstract

Within the economics literature on arbitration, some studies, generally considering commercial disputes, emphasize arbitration-litigation relationships. For instance, commercial arbitrators often rely on customary commercial law rather than national law, suggesting that arbitration can be a jurisdictional alternative to litigation rather than simply a procedural one. In support of this, the literature demonstrates that arbitration is a potential source of precedent, and is viable without judicial backing. Others studies, mostly dealing with labor disputes, focus on negotiation incentives given alternative forms of compulsory interest arbitration. Arbitration selection processes' implications for arbitrator behavior and the relative 'quality' of arbitration are also considered.

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1. Introduction

The law and economics literature on contracts and contract enforcement has focused almost exclusively on judicial adjudication (Rubin, 1995, p. 113), despite the fact that the vast majority of contracts are never adjudicated. Outside the realm of law and economics there is a large literature on alternative dispute resolution (ADR) including arbitration, for instance, indicating that even when disputes cannot be resolved through negotiation or mediation, they are directed away from national courts and into arbitration, at least for some large categories of contracts. Lew's (1978, p. 589) detailed examination of the evidence on international commercial contracts concludes that around 80 percent of these contracts had arbitration clauses at the time of his study, for example, and that over time, 'more and more [international traders] ... turn to arbitration'. More recent studies confirm this trend: Casella (1992, p. 1), Berger (1994, p. 12) and others report that about 90 percent of all international trade contracts contain arbitration clauses. Similarly, within the United States, arbitration under the auspices of various commercial organizations, or by

independent arbitrators, perhaps from the American Arbitration Association (AAA), resolve at least three times as many commercial disputes as the common law courts do (Auerbach, 1983, p. 113).

Arbitration of disputes between employers (both government and private) and unionized employees has also been routine (and even compulsory for government employees, as well as for some private sector employees, when negotiation proves inadequate) for several decades in the United States. Furthermore, while non-union employees' disputes were almost never arbitrated before 1970, growing numbers are now resolved by arbitrators (Ware, 1996, p. 1). Arbitration is also used for disputes between businesses and customers. For instance, the New York Stock Exchange formally provided for arbitration in its 1817 constitution, and it 'has been working successfully ever since', primarily to rectify disputes between Exchange members and their customers (Lazarus, et al., 1965, p. 27). The Council of Better Business Bureaus (BBB) operates arbitration programs for consumers in many parts of the United States, several automobile manufacturers have contracts with the BBB to arbitrate car owners' complaints, AAA arbitrators annually resolve thousands of insurance claims, the National Association of Home Builders offers AAA arbitration of buyers' complaints against association members, medical malpractice arbitration, begun in 1929, is on the rise, and so on (Denenberg and Denenberg, 1981). Non-contract civil disputes are also shifting to arbitration in the United States, in part to avoid litigation costs such as delays due to congested government courts (Bloom and Cavanagh, 1987, p. 35). Indeed, a new private-for-profit court industry, developing since 1979, offers a wide variety of ADR procedures to resolve all kinds of disputes (there were more than 50 such firms in the United States 1992, most with offices in several states (Ray, 1992, p. 191)). These firms are attracting growing numbers of customers (as well as profits and investors (Phalon, 1992, p. 126)), including many who do not contractually stipulate ADR prior to the dispute arising.

While arbitration has not attracted much attention in the core of the law and economics literature, there are some exceptions (for example, Landes and Posner, 1979; Bernstein, 1992; Shavell, 1995). Furthermore, expanding 'law and economics' to include some contributions from 'new institutional economics' and labor economics, reveals considerable analysis of various aspects of arbitration, thus providing the foundations upon which a law and economics approach to understanding arbitration's functions can be built. There is a much larger literature on arbitration outside of economics, of course, including several journals exclusively concerned with arbitration or ADR, but this review focuses on research by economists or by legal scholars who have adopted a law and economics approach (and at times, contributions from the larger literature referred to in this research), thus leaving out some issues that

may be attracting attention in the larger literature and/or of potential but yet unexplored interest from a law-and-economics perspective.

The economics literature on arbitration divides, roughly, between labor arbitration and commercial arbitration. However, within this literature, a different (but correlated) division is also apparent. In particular, some studies, mostly concerned with commercial arbitration, emphasize relationships between arbitration and litigation, while other economics research, primarily in the labor literature, focuses on arbitration's influence on negotiation incentives (explorations of the arbitration process are found in both literatures). The following presentation is organized in reflection of this division. It appears that the reason for the differences in focus arises, at least in part, because commercial arbitration is generally an *ex ante* voluntary decision by both parties to contractually specify arbitration over litigation in the event of a dispute, while the most widely studied examples of labor arbitration by economists (interest arbitration dealing with public sector employees) are compulsory under statute law. This is probably due to the fact that data on some compulsory arbitration systems can be obtained relatively easily, while data on general grievance arbitration is not nearly as accessible. As a consequence, however, within the economics literature, voluntary commercial arbitration is often depicted as a cooperative endeavor to minimize the costs of dispute resolution, while labor arbitration tends to be characterized as a much more adversarial process. In reality, like commercial arbitration, most private-sector labor arbitration arises through collective bargaining contracts rather than through compulsory statutes, the primary exception being parts of the transportation industry governed by the Railway Labor Act so, as indicated below, the impression taken from the labor economics literature on arbitration may be quite misleading.

First, some of the reasons for why law and economics scholars should be interested in arbitration are discussed in Part 2. An important one, at least for commercial law, is that arbitrators often resolve disputes under customary commercial law and/or trade association rules rather than under the statute and/or precedent law of a particular nation. That the choice of arbitration is a jurisdictional issue rather than simply a procedural one might not be accepted if, as is frequently claimed, arbitration is not viable without judicial enforcement of arbitration agreements and rulings, and/or arbitration is simply a compromising process and not a source of legal interpretation and precedent. Therefore, the arguments and evidence regarding these two 'arbitration versus litigation' issues are explored in Sections 3 through 6. The arbitration/negotiation relationship as it is depicted in the labor economics literature, primarily in consideration of the effect of alternative forms of compulsory arbitration on incentives to negotiate, is examined in Sections 7 through 10. Arbitration selection processes and their implications for arbitrator

behavior and the relative 'quality' of arbitration are examined in Section 11, and concluding comments appear in Section 12.

2. Why Should Arbitration be Studied?

There are many reasons for more careful consideration of arbitration in the law and economics literature. For instance, the similarities between arbitration and civil litigation are considerable, so perhaps we can learn something about more complex dispute resolution processes by studying arbitration (Ashenfelter, 1987, p. 342; Bloom and Cavanagh, 1987, p. 353). The differences between arbitration and litigation may also be instructive. For example, unlike judges and juries, arbitrators tend to specialize in particular types of disputes. A knowledgeable specialist can render a decision more quickly and with less information transfer from, and therefore less costs incurred by, the disputants, and is less likely to make an error, but Ashenfelter (1987, pp. 342-343) raises another point: since disputants typically have veto power in arbitrator selection, arbitrators competing for business have incentives to develop expertise and render unbiased decisions echoing those of past arbitrators. Thus, as explained below, considerable empirical evidence suggests that arbitrator decisions are statistically 'exchangeable'. In contrast, US juries are selected for their lack of knowledge in an effort to assure 'unbiased justice' (fairness), but the exchangeability of expert arbitrators' decisions suggests an alternative way to achieve bias-free justice while reducing the likelihood of error or bias: competition between 'experienced jurors'.

Perhaps a more important reason for considering arbitration is to gain a fuller understanding of contracting and contract law. In this regard, the focus on judicial adjudication in the law and economics literature on contracting would be appropriate if court precedents and statutes as interpreted by a nation-state's courts (as well as court-interpreted trade agreements between nations) was the exclusive source of law shaping contracts. This is not the case, however, at least in the area of commercial contracting (Rubin, 1995; Benson, 1989, 1998a, 1998b; Bernstein, 1992, 1996). For instance, Lew's (1978, pp. 582-583) examination of international commercial arbitration records demonstrates that arbitrators often 'denationalize' disputes, looking instead to a 'non-national and generally accepted rule or practice appropriate to the question at issue ... developed through the concerted efforts of those concerned with and participating in international commerce' (Lew, 1978, pp. 582-583). That is, as Berman and Dasser (1990, p. 33) explain, international arbitrators 'refer to international commercial custom, including contract practices in international trade, as a basis for their award', and no nation's law is applied unless the contract specifies it or the parties expect it (also see Trakman, 1983, and Benson, 1992b).

Standards of business practice and usage within trade associations and other commercial groups (or a trade association's explicit internal 'legislation' (Bernstein, 1996)) are also the sources of many of the basic rules under which contracts are drawn up and disputes are arbitrated within many countries. Bernstein's (1992, p. 126) examination of the systematic rejection of state-created law by the diamond industry in favor of its own internal rules (including arbitration institutions and privately produced sanctions) provides a very revealing example: the New York diamond merchants' 'Board of Arbitrators does not apply the New York law of contracts and damages, rather it resolves disputes on the basis of trade custom and usage'. Furthermore, despite Bernstein's (1992, p. 116) contention that 'the diamond industry is unique in its ability to create and, more important, to enforce its own system of private law', the same abilities actually exist in many other commercial groups. The fact is that commercial arbitration makes 'the courts secondary recourse in many areas and completely superfluous in others' (Wooldridge, 1970, p. 101). Thus, while many contend that law is what judges say it is, this is only true in contracts to the extent that a judge is expected to have the last word on the contract; when adjudication is not sought, perhaps due to the availability of arbitration and the benefits it produces (and/or private sanctions to discourage adjudication, an issue discussed at length below), other behavioral rules can and often will control the contracting parties' conduct (Rubin, 1995, pp. 118, 124; Bernstein, 1992, 1996; Benson, 1998b, 1998c, 1998d).

Furthermore, if government courts are occasionally called upon, thus influencing the expectations of parties to particular kinds of contracts, 'influence is different from control... [and] One cannot assume, moreover, that the influences flow only in one direction' (Rubin, 1995, p. 124). Some of the new rules for business behavior that develop through evolving practices, contractual negotiations, and arbitration are likely to be recognized and adopted by judges (Chen, 1992; Benson, 1989, 1990a, pp. 227-229, 1998b), for instance. But even when the courts do not recognize custom as a relevant source of law (perhaps because they conflict with precedents or statutes), a judicial decision does not have to be treated as a permanent determinant of behavioral rules. A contract can specify different types of behavior along with a general arbitration clause, thereby nullifying the future application of the judicial ruling (De Alessi and Staaf, 1991). Thus, an understanding of the evolution of contract law, at least in many areas of commercial activity, requires recognition of arbitration, not only as an ADR, but at least in conjunction with contracts, as a mechanism for nullifying statutes and precedents - that is, as an alternative to legislation and judge-made precedent (Wooldridge, 1970, p. 101; Benson, 1989, 1990a, 1990b, 1992a, 1992b, 1995a, 1998b, 1998c, 1998d; Bernstein, 1992, 1996; Rubin, 1995). This is in sharp contrast to the view that arbitration is essentially a procedural issue (for example, Brunet, 1987), of course, but it is reinforced below when the potential

for precedent setting through arbitration is discussed. Before this potential for law creation through arbitration can be fully appreciated, however, an understanding of what motivates the use of arbitration in commercial contract disputes is required.

3. Why is Commercial Arbitration Chosen Rather than Litigation?

Any dispute is 'adversarial' of course, but in the commercial area, the voluntary use of arbitration is motivated by positive economic incentives. Private arbitration appears to be an attractive substitute for litigation, in part because arbitrators can be selected on the basis of their expertise in matters pertinent to specific disputes, as noted above. Government judges need have no such expertise, so arbitration reduces the uncertainty associated with judicial error and/or bias. This specialization also means that arbitration can be accomplished faster, less formally, and often with less expense than litigation because the parties do not have to provide as much information to the arbitrator as they would to a judge/jury. Another benefit arises when government court time is allocated by waiting, since delay can be devastating to a business. Other potentially important benefits include: (a) arbitration is generally less 'adversarial' than litigation so it is more likely to allow continuation of mutually-beneficial repeated-dealing relationships; (b) if desired, privacy can be maintained; and (c) businessmen may wish to avoid the application of state-made law by agreeing to something in a contract that would be overturned in a government court, since an arbitrator looks to the contract first and the contract can specify the relevant law for deciding a case (for example, business practice and custom rather than the statutes or judicial precedents of a particular nation). For elaboration on some or all of these points, see Mentschikoff (1961), Lazarus et al. (1965), Williamson (1979), Trakman (1983), Ashenfelter (1987), Berman and Dasser (1990), Benson (1989, 1990b, 1992b, 1995a, 1998a, 1998b, 1998c), Bernstein (1992, 1996), Currie (1994), Shavell (1995), and Rubin (1995). The potential of mutual gains (lower costs of dispute resolution and/or a larger 'pie' to share in the long run) means that there clearly is a 'cooperative' element to arbitration as compared to litigation.

Despite widespread recognition of at least some of the benefits listed above, a frequent contention is that the defendant can always refuse to engage in arbitration or to accept an arbitration ruling, so the plaintiff must be willing and able to seek judicial (government) enforcement in order to have a credible threat to induce acceptance (see, for example, Willoughby, 1929, p. 56; Lazarus et al., 1965, pp. 31, 125; Landes and Posner, 1979, p. 247; Domke, 1984, p. 27; and Shavell, 1995, p. 3). If this is correct then the contention that arbitration often involves a choice between legal systems may be at least partially

undermined. After all, if the primary threat backing arbitration is litigation, then for it to be credible arbitration procedures and awards will have to be acceptable to judges.

In sharp contrast, Charny (1990, pp. 409-412) maintains that when a 'community of transactors recognizes an authoritative nonlegal decisionmaker' such as an arbitrator, 'nonlegal sanctions' will induce the members of the community to accept arbitration and comply with the arbitrator's judgement; thus, arbitration and nonlegal sanctions are 'a perfect substitute for legal enforcement'. These nonlegal sanctions are essentially the 'private' (as apposed to government-imposed) sanctions discussed in the large economics literature suggesting that bond-posting or hostage-taking (for example, Klein and Leffler, 1981; Williamson, 1983; Kronman, 1985), including the potential loss of reputation (for example, Kreps, 1990; Ellickson, 1991; Milgrom, North and Weingast, 1990; Klein, 1997), provides powerful sources of credibility, and Charny (1990) explains that this analysis also applies for commitments to arbitrate (also see Wooldridge, 1970; Trakman, 1983; Auerbach, 1983; Bernstein, 1992; Benson, 1989, 1992b, 1995a, 1998a, 1998b, 1998c). Perhaps more important than these negative threats, however, are various positive incentives associated with relation-specific reciprocities that arises in repeated dealings (Fuller, 1964, p. 24; Axelrod, 1984; Ellickson, 1991; Trakman, 1983, p. 10; Benson, 1989, 1998c). Indeed, one potential long-term benefit from accepting an unfavorable arbitration award is the reciprocal commitment by a trading partner to accept low cost arbitration and abide by an unfavorable judgement in any future dispute. Of course, private sanctions reinforce such incentives, so the combination can provide strong incentives to arbitrate even without an added 'legal' (that is, government-imposed) threat (indeed, reciprocities are valuable assets which can be threatened, and therefore, part of the private sanctions arsenal).

4. Does Commercial Arbitration Rely on Reciprocities and Private Sanctions, or on Legal Sanctions?

Those who see legal sanctions as necessary to back arbitration cite United States arbitration history as 'evidence' in support of this view. In light of the competing hypotheses that reciprocities and private sanctions create strong incentives to arbitrate, Benson (1995a) re-examines this alleged 'historical evidence': that arbitration supposedly was not in widespread use in the United States prior to passage by New York (1920), New Jersey (1923), the federal government of Pennsylvania (1927) and California (1925), Oregon (1925), Massachusetts (1925, 1927) of statutes commanding the common law courts to enforce arbitration agreements and rulings (examples of this contention include Willoughby, 1929, p. 56, and Lucas, 1987, p. 55). Prior to this, it is often alleged (incorrectly, as explained below) that agreements to arbitrate were

generally not considered binding under common law until these statutes were passed, and that hostile judges felt free to overturn arbitration decisions if one of the parties chose to litigate (examples include Lazarus et al., 1965, p. 18; Horwitz, 1977; Murray, Rau and Sherman, 1989, p. 435; Allison, 1990, p. 11).

A relative lack of litigation in the United States regarding arbitration issues appears to be the evidence that many have looked to in contending that commercial arbitration was not widely used before 1920. It is true that litigation over issues arising in arbitration increased dramatically following passage of the 1920s statutes (see Sturges, 1930), but court records do not provide a clear picture of the historic level of arbitration because the vast majority of arbitration decisions are never appealed, and the statutes themselves may have increased the propensity to appeal rather than the propensity to arbitrate, as explained below. Moreover, an examination of newspapers, merchant letters, and the records of organizations providing arbitration services, such as the New York Chamber of Commerce, clearly demonstrate that commercial arbitration actually was in widespread use in each of the British Colonies almost three centuries before modern arbitration statutes were passed (Auerbach, 1983; Jones 1956; Smith, 1961, pp. 180-188; Odiorne, 1953, 1954). After the revolution, arbitration remained in wide use in all of the states (Auerbach, 1983; Jones, 1956, p. 219; Smith, 1961, pp. 180-188; Odiorne, 1953, 1954). Why? Because 'Not only did courts, according to one New York merchant, dispense "expensive endless law"; they were slow to develop legal doctrine that facilitated commercial development' (Auerbach, 1983, p. 33).

Common law judges in America were hostile toward arbitration during the eighteenth and early part of the nineteenth century, as they exhibited an increasing willingness to overturn arbitrators' decisions for issues relating to either law or fact is evident (see Benson, 1995a for cases and references). The use of commercial arbitration developed during the colonial and post-revolutionary periods in spite this hostility, however, suggesting that court backing is not a prerequisite for such arbitration. Later in the nineteenth century, a trend toward less hostility can be detected in several state courts (MacNeil, 1992; Benson 1995a), but arbitration continued to evolve both in states where the courts were relatively receptive and states where judicial acceptance was evolving more slowly (Benson, 1995a). For instance, as New York merchants organized into various associations and exchanges, provisions were always made for the arbitration of disputes among members (Jones, 1956, p. 214), despite New York's maintenance of the common law doctrine of revocability of arbitration clauses in statutes longer than many other states.

The volume of evidence regarding the widespread and growing use of arbitration is particularly heavy for the last four decades of the nineteenth century (Jones, 1956, pp. 214-215; Wooldridge, 1970. p. 101; Auerbach, 1983; Macneil 1992; Benson, 1995a). Indeed, these developments suggest that

arbitration was being substituted for litigation, since this period witnessed rising litigation costs due to court congestion and trial delay, as well as increasing uncertainty costs regarding the credibility of state courts' implicit commitments to support business contracts as 'the growth of the regulatory state unsettled advocates of commercial autonomy who turned to arbitration as a shield against government intrusion' (Auerbach, 1983, p. 101; also see Benson, 1995a). Rising litigation costs increased incentives to establish contractual arrangements and organizations (for example, trade associations, commercial exchanges) to govern the process of dispute resolution and insure against litigation (for example, arbitration clauses, arbitration institutions, institutionalized private sanctions). Thus, by the end of World War I, arbitration had clearly made the courts irrelevant for contract disputes by a large segment of the business community in the United States (Wooldridge, 1970, p. 101).

Perhaps private sanctions and reciprocities are sufficient to encourage disputants to live up to most *ex ante* agreements to arbitrate, but to date, most arbitration apparently arises under preexisting agreements (or mandates in the case of compulsory interest arbitration discussed below). Does this mean that arbitration cannot be agreed to after a dispute has already developed, unless a strong (that is, state-backed) sanction can be brought to bear? An alternative explanation for the apparent lack of *ex post* arbitration may simply be Shavell's (1995, p. 9) point that the benefits of arbitration are greater when agreed to *ex ante* than when established *ex post*. However, he also notes that an *ex post* agreement to arbitrate can still reduce dispute resolution costs (Shavell, 1995, p. 9). Other potential benefits from *ex post* arbitration agreements include the possibility that the dispute will be resolved more amicably (arbitration is a less adversarial procedure), that risks of judicial error are reduced, and/or that the parties prefer the application of alternative law (for example, custom, the rules designed in a trade association). Thus, arbitration should also be attractive *ex post*, and perhaps legal sanctions to explicitly encourage such arbitration would be beneficial. However, there appears to be an evolving trend toward more *ex post* arbitration even without direct efforts to encourage it through legal sanctioning. For instance, nonmembers of the diamond merchants' organization who have a dispute with members often request *ex post* that the diamond industry's arbitration board hear their cases, and this is done if both parties sign an *ex post* agreement to arbitrate (Bernstein, 1992, p. 126). Furthermore, the recent and rapid development of private for-profit courts that resolve business disputes, personal injury disputes, divorces, construction warranty disputes, disputes over loan defaults, and so on, as they arise (Pruitt, 1982; Benson, 1990b; Ray, 1992; Phalon, 1992), and the growing scope of arbitration of non-contract civil disputes, both suggest that arbitration can be quite attractive even for disputants who do not precommit, and that private institutions are evolving to provide such services.

Additional evidence that reciprocities and/or private sanctions are sufficient to support a great deal of commercial arbitration at least, comes from international commerce. International contracts often expressly exclude litigation and almost always refer disputes to arbitration, and international trade disputes that cannot be resolved through negotiation are almost always arbitrated (for example, Lew, 1978; Trakman, 1983; Berman and Dasser, 1990; Casella, 1992; Berger, 1994; Benson, 1990b, 1992b, 1998c). Certainly, statutes in several nations, as well as various international treaties and agreements mandate court enforcement of international arbitration agreements, but the fact, as David (1985, p. 357) stresses, is that:

A sense of fair dealing on one hand, the respect for public opinion on the other, also the fear of being criticized by one's own community or that non-performance may be interpreted as evidence that one's business is in a critical financial situation are reasons why arbitral awards are most generally promptly and willingly executed by business people. Such conduct may also be encouraged if the losing party is led to believe that the community will not remain passive in case of non-performance, but that sanctions may be imposed if the award is not executed.

Arbitration is also attractive because international traders generally assume that national courts will not enforce obligations derived solely from customary commercial law (Chen, 1992, p. 100). Indeed, during the medieval period this was particularly true, and as a result, the medieval 'Law Merchant' was an almost pure system of privately-arbitrated customary commercial law backed by private sanctions (for example, Trakman, 1983; Berman, 1983; Benson, 1989, 1990b, 1998b, 1998c, forthcoming; Milgrom, North and Weingast, 1990).

5. What are the Consequences of Legal Sanctions for Arbitration?

Rejection of the hypothesis that government sanctions are necessary for all successful commercial arbitration does not definitely follow from the refutation of the evidence typically supporting it. Indeed, a middle ground is obviously also possible that may well be consistent with all of the evidence. Rubin (1994, p. 4), for example, suggests that 'private parties can use many available mechanisms to make agreements self-enforcing ... [but] the law can facilitate the use of these mechanisms ... [by enforcing] arbitration clauses in contracts if parties insert such clauses'. Perhaps positive incentives from reciprocities and/or private sanctions are not strong enough to support arbitration for some (many?) commercial transactions and, therefore, statutes mandating court backing are, on net, beneficial, as is often claimed (for example, Rubin, 1994; Shavell, 1995a; Ware, 1996)? Frequently, however, those who call for

arbitration agreements and awards to be enforced by the judicial system look only to the benefits of state backing without considering potential costs. The fact is that when reciprocities and private sanctions provide sufficient sources of credibility for transactors, state-imposed sanctions may actually raise transactions costs (Ashe, 1983; Auerbach, 1983; Trakman, 1983; Benson, 1989, 1990b, 1995a, 1998b; Charny, 1990, pp. 426-429; Bernstein, 1992, pp. 154-157) (note that this appears to be consistent with a similar argument from the labor arbitration literature discussed below, that the availability of compulsory arbitration can raise the transactions costs of negotiations). For instance, an enormous number of court cases were filed as businessmen tried to determine what characteristics of arbitration would be considered "legal" by the courts (Sturges, 1930), and this has continued: the early 1980s were still witnessing a 'growing number of court challenges to arbitration awards' (Ashe, 1983, p. 42).

Ashe (1983, p. 42) suggests that the increase in appeals reflects the increasing use of lawyers in arbitration because losing attorneys have a stronger tendency to circumvent the arbitrator's decision than does the losing party who tends to have greater 'allegiance to the system of arbitration itself' when lawyers' 'advice' is not involved (that is, there is a principal/agent problem between attorneys and their clients). It is clear that lawyers were rarely involved with commercial arbitration in the United States before the 1920s (indeed, Auerbach, 1983 and Benson, 1995a, contend that the arbitration statutes were passed due to the lobbying efforts of Bar Associations, because lawyers saw arbitration as a growing threat to their business and sought to 'legalize' it in order to gain a role in the arbitration process), but as Charny (1990, pp. 388, 403-405) explains, when state-imposed sanctions are available, the demands placed on formal contract writing are increased. If reciprocities and private sanctions alone apply, particularly within narrowly focused commercial organizations, less formality in contracting is required because the parties are intimately familiar with business practice and custom in their particular area of transactions; they understand what a general statement in a contract means, *and* they can choose an arbitrator with similar intimate understanding. However, a judge is much less likely to have such an understanding, so a contract that may face judicial scrutiny will have to be much more specific and formal in order to avoid a high probability of judicial error (Charny, 1990, pp. 385, 404). Thus, after the modern statutes were passed, some businesses, forced to pay attention to the prospect of judicial review, had to make their arbitration processes compatible with statute and precedent law including court procedure. In order to do so, they had to consult lawyers in drafting contracts and involve lawyers in arbitration (for instance, lawyer representation before AAA arbitration tribunals rose from 36 percent in 1927 to 70 percent in 1938, 84 percent in 1942, and 91 percent in 1947 (Auerbach, 1983, p. 111; Benson,

1995a); also see Bernstein, 1992, p. 156 for related discussion about the growing use of lawyers in diamond industry arbitration).

The increased likelihood of appeal reflects more than the increasing reliance on lawyers, however. Cohen (1921, p. 150) observed, after New York Arbitration Act's passage in 1920, that this statute

establishes legal machinery for protecting, safeguarding and supervising commercial arbitration. Instead of narrowing the jurisdiction of the Supreme Court it broadens it ... Instead of being ousted of jurisdiction over arbitration, the courts are given jurisdiction over them, and ... the party aggrieved has his ready recourse to the courts.

When the state asserts that it is the source of authority and sanctions for arbitration agreements it implies that rulings from arbitrated commercial disputes are less decisive than they otherwise would be, weakening incentives to abide by arbitrated settlements explicitly subject to potential appeal. Furthermore, there is the possibility that upon appeal a judge will find private sanctions themselves to be illegal (for example, as a restraint of trade). For instance, in *Paramount Lasky Corporation vs. United States* (282 U.S. 30 (1930)) an explicit agreement to boycott designed to back an arbitration system was struck down. A group of motion picture producers had agreed to place an arbitration clause in all contracts with motion picture exhibitors, and to boycott any exhibitor who refused arbitration or refused to accept an arbitration ruling. Thus, government sanctions can undermine the ability or incentives to use private sanctions (Ashe, 1983, p. 42; Bernstein, 1992, p. 156; Benson, 1989, 1995a, 1998d), and even stifle the development of trust relationships and organizations from which reciprocities and private sanctioning mechanisms often spring (Benson, 1989, 1995a, 1998d; Charny, 1990, p. 428). So the possibility that government sanctions to back arbitration may benefit some parties for whom reciprocities are uncertain and private sanctions provide weak threats does not imply that such sanctions are, on net, beneficial, because they may raise costs to others for whom reciprocities and private sanctions are or could be strong enough.

6. Are Precedents Produced Through Arbitration?

Even if the net effect of court backing of arbitration is negative, however, there may be another reason for judicial review. For instance, Brunet (1987, p. 19) contends that 'the output of conventional litigation should be viewed as a public good - society gains more from litigation than would be produced if litigation were left to the private market'. This presumably is the case because the results of arbitration and other forms of ADR are 'internal' to the parties involved (Brunet, 1987, pp. 14-15) so they will either not produce precedent, or will

underproduce precedent. Similarly, Landes and Posner (1979, pp. 238, 239, 245) argue that 'because of the difficulty of establishing property rights in a precedent, private ... judges might deliberately avoid explaining their results because the demand for their services would be reduced by rules that, by clarifying the meaning of the law, reduce the incidence of disputes'; that 'a problem is that a system of voluntary adjudication is strongly biased against the creation of precise rules of any sort'; and further, that commercial arbitration is 'not a source of rules or precedents'. Thus, the increasing use of arbitration apparently is eroding 'the guidance function of the law' (Brunet, 1987, p. 23).

Secrecy is often a characteristic of arbitration. For instance, Bernstein (1992, p. 124) explains that within the diamond industry 'As long as judgments are complied with, the fact of the arbitration as well as its outcome are officially kept secret'. But this 'official' secrecy does not mean that precedents are never created, or that too few rules exist. The parties to the dispute will certainly consider the arbitration result in future dealings under similar circumstances, for instance, and probably have to explain them to trading partners. But more importantly, a diamond bourse (trading club) is 'an information exchange as much as it is a commodities exchange'. As one author put it, 'the bourse grapevine is the best in the world. It has been going for years and moves with the efficiency of a satellite communications network. ... Bourses are the fountainhead of this information and from them it is passed out along the tentacles that stretch around the world' as each local bourse is part of an umbrella organization that, among other things, arbitrates disputes between members of different bourses, enforces arbitration judgments from other bourses, and facilitates the establishment of uniform trading rules throughout the industry (Bernstein, 1992, p. 121). Under such a circumstance, 'official' secrecy is probably not much of a constraint on the spread of important information about an arbitration ruling that might provide new precedent. It is clear that in the diamond industry arbitration results do 'become known through gossip' (Bernstein, 1992, p. 126) at any rate.

Bernstein (1992, pp. 126-127) contends that when diamond industry arbitrators hear complex cases 'it is difficult to determine what substantive rules of decisions are applied', and such observations may appear in support of the view that arbitration does not produce effective precedent. However, as Fuller (1981, p. 90) explains, '[e]ven if there is no statement by the tribunal of the reasons for its decision, some reason will be perceived or guessed at, and the parties will tend to govern their conduct accordingly'. Thus, precedent of a sort may well be produced even in such an environment. Furthermore, and importantly, it must be recognized that within a customary legal system there are a number of ways for new rules to evolve (for example, through unilateral adoption of behavior that is observed and emulated, through bilateral negotiation and contracting with resulting contract clauses spreading and

becoming standardized), besides through precedent (Benson, 1998b), so when a particular arbitration process does not appear to be designed to produce precedent it simply may mean that precedent is a relatively unimportant source of new rules for the relevant group, or that circumstances do not change often enough to require new rules. And importantly, if situations change, making precedent more important, the group is also free to change its arbitration procedures. Thus, as Bernstein (1992, p. 150) explains, diamond dealers have begun to recognize that 'The lack of written decisions and a tradition of *stare decisis* makes it difficult to determine in advance the type of sanctioned behavior. In order to increase predictability, many bourses in the world federation have relaxed the norm of complete secrecy. Arbitrators publish written announcements of the principles used to decide novel cases while keeping the parties and other identifying facts secret'. Private dispute resolution mechanisms are very flexible and diverse. They can even accommodate the demands for precedent setting while still meeting demands for privacy. However, privacy is not always as important as some critics of arbitration seem to believe.

Landes and Posner (1979), Brunet (1987) and others who see in arbitration a failure to create external benefits appear to take the characteristics of some arbitration and extrapolate them to all arbitration, assuming that arbitration is a much more homogeneous commodity than it really is. But if external benefits are significant there are strong incentives to internalize them, so when precedents become important institutional adjustments are likely to be made. Indeed this provides traders with one of the incentives to form groups such as trade associations and diamond bourses which clearly can internalize the benefits of precedents. Within such an organization, it is easy to imagine a contractual arrangement that creates incentives to minimize disputes by setting clear precedents (for example, consider arbitrators who compete to receive a lump-sum fee under a contract to handle all of the disputes between members of a particular organization over a particular period of time, or arbitrators chosen from the membership of an association who have high opportunity costs if they encourage excessive disputes in the form of time spend away from their business pursuits, and who also personally benefit from clear precedents). Thus, those arbitrators who, as characterized by Landes and Posner (1979, p. 240), 'tend to promulgate vague standards which give each party to a dispute a fighting chance' actually do less business. Fuller (1981, pp. 110-111) contends that incentives are exactly the opposite, for instance: 'Being unbacked by state power ... the arbitrator must concern himself directly with the acceptability of his award. He may be at greater pains than a judge to get his facts straight, to state accurately the arguments of the parties, and generally to display in his award a full understanding of the case'.

An obvious hypothesis is that when the environment is a dynamic changing one in which the need for existing rules may be frequently inadequate guides

for a new dispute, arbitration rulings are likely to be recorded and/or made known to the relevant group (which certainly is not likely to be the entire 'public', of course, but in general, that is not necessary or even desirable - the idea that a single universal system of law is somehow superior to polycentric law with parallel, as well as overlapping and competitive jurisdictions is not consistent with either theory or reality (Benson, 1990a, 1990b, 1992a; Berman, 1983)). This in turn creates incentives for arbitrators to make careful rulings based on past business practices, customs and precedents established within the relevant group. For support of this hypothesis, consider international commercial arbitration. When no clear rule applies from the 'private international law systems from which the parties come' arbitrators must determine the appropriate new rule (Lew, 1978, p. 584). To do so, 'in their desire to 'denationalize' the award and make it acceptable and fair, arbitrators often try to show the inherent correctness of their decision in the award itself ... arbitrators may refer to several rules to show how they all lead to the same result' (Lew, 1978, pp. 584-585). Thus, international arbitration has characteristics often attributed to the common law, as arbiters look to past rulings, practices, traditions, and usage in extending the law to new issues - that is, in producing new precedent based on older law. In fact, the general view of international arbitrators is that, 'owing no allegiance to any sovereign State, international commercial arbitration has a special responsibility to develop and apply the law of international trade' (Lew, 1978, p. 589).

It appears that the misallocation of resources under arbitration is not be as great as Landes and Posner (1979) and Brunet (1987) predict. Indeed, the law-making consequences of private arbitration led Wooldridge (1970, p. 104) to suggest that its substantial growth in this century has involved a 'silent displacement of not only the judiciary but even the legislature'. Furthermore, Bernstein (1992, p. 117) points out that 'nonlegal norms trump legal rules in a given [voluntary] market only where market participants find that keeping to the industry norms advances their own self-interest. The private regime must be Pareto superior to the established legal regime in order to survive'. (In addition to their contentions that private judging underproduces precedent, however, Landes and Posner, 1979 and Brunet, 1987, p. 21 argue that the common law produces efficient rules as contended by Rubin, 1977 and Priest, 1977, but the validity of this argument has also been subject to considerable attack; this literature is not discussed here, but see for instance, Rizzo, 1980a, 1980b; Aranson, 1986, and Benson, 1990a, 1990b, 1992a, 1996).

7. Are there Important Differences in Labor Arbitration Institutions?

Non-compulsory labor arbitration in the private sector is also growing, as collective bargaining agreements include arbitration clauses much like many contracts between businessmen do. The development of repeated dealings between unions and firms with institutionalized collective bargaining along with strike and lockout options appears to be a sufficient stimulus for arbitration of many grievances and perhaps even contract disputes when negotiations break down. The incentives of the decision-makers must also be recognized. Arbitration may be relatively attractive to union leaders, for instance, because of their legal status. They are in a position of representing everyone in the union, including those who opposed their election and perhaps even campaigned against them. Indeed, they have a legal duty to represent all members, and therefore, in order to avoid a breach of fair representation lawsuit, union officials may pursue grievance arbitration in cases that they would prefer not pursue or would negotiate in the absence of the antagonistic position held by the member with the grievance. Arbitration of such cases is clearly more attractive than the alternatives (a strike or a lawsuit) that may be much more costly for the union as a whole, including the union leader's supporters. Thus, grievance arbitration may offer union leaders an effective way to avoid controversy and maintain the appearance (and indeed, the reality) of fairness (this suggests that the availability of grievance arbitration may reduce strikes, litigation, and negotiation - the latter is a subject that is widely considered in the labor arbitration literature, and discussed below).

There also appears to be incentives to structure grievance arbitration so that benefits of precedents can be internalized. After all, both labor unions and corporate management are likely to recognize that repeated disputes over the same type of issues are costly, and therefore that arbitration which establishes clear precedent is desirable. In this light, consider the incident reported by Bloom and Cavanagh (1986, p. 412): 'a system known as expedited arbitration was adopted by labor and management in the basic steel industry in 1971. Under this system, unresolved employee grievances that do not require precedent-setting rulings are arbitrated by a rotating panel of young, inexperienced arbitrators (mostly lawyers) who decide the case for a relatively small fee within two weeks of the decision to arbitrate'. When a resolution is expected to be particularly valuable because it will set a precedent, more experienced, more expensive arbitrators are chosen (factors determining the choice of arbitrators are discussed below). This system was established because of rising costs and increasing delays due to a relative shortage of experienced arbitrators. While it has not yet attracted 'an in-depth study', it is spreading (Bloom and Cavanagh, 1986, p. 412). United Steel Workers contracts outside the basic steel industry now include it, and it has also been included in some

United Mineworker contracts, and is employed in the US Postal Service. Thus, it is instructive for at least three reasons. First, it points to the fact that within an 'industry' (the group of employers and the union, not simply the two parties in a particular dispute) the benefits of precedent can be recognized and internalized, even in some types of labor arbitration. Second, it reinforces the fact that arbitration is flexible enough to produce a mix of dispute resolution procedures and outcomes. Third, it suggests that even labor arbitration may have a cooperative element, in contrast to the perception one draws from the economics literature on the subject (Non-union employees' disputes are also being resolved by arbitrators in growing numbers (Ware, 1996, p. 1)). This perception reflects the fact that the focus of the economics literature on labor arbitration has been on compulsory interest arbitration.

Compulsory interest arbitration is almost exclusively a 'public sector' phenomena (baseball arbitration and some transportation sector arbitration are among the few exceptions). Yet many of the publications in this interest-arbitration literature begin with a brief discussion of the widespread use of arbitration in commercial areas, perhaps also recognizing that arbitration between individuals and their employers is frequently used to resolve private-sector labor grievances, implicitly suggesting that inferences from their empirical and/or theoretical examination of compulsory public-sector arbitration apply under other institutional arrangements as well. This clearly is not always the case, however. For instance, the compulsory-arbitration focus of the literature might create the impression that labor arbitration in general must rely on state backing or mandates. Much of the literature does not appear to recognize that the institutional environment might create different incentives, although there are a few exceptions. Bloom and Cavanagh (1987, p. 355) and Currie (1989, pp. 365-366) note that private sanctions and expectations of reciprocities may be quite weak for some government employers whose incentives are tied to particular constituencies that may not view an arbitrated (or negotiated) outcome as desirable, for example. Currie (1989, p. 366) also suggests that significant principal/agent problems may arise when imperfectly-monitored self-interested union leaders are bargaining with imperfectly-monitored self-interested government officials (private-sector managers are not perfectly monitored either, but the incentives to monitor public officials are much weaker (Benson, 1995b)). When publicly employed laborers are protected by civil service 'tenure' the potential for reciprocities and private sanctions influencing their behavior may also be sharply limited. Thus, the institutional background may be very important, and expanding the scope of the statutes (for example, to mandate arbitration in place of private sector strikes and lockouts) might alter incentives to develop and use labor arbitration institutions voluntarily, as evidenced by some of the things that have happened in commercial arbitration since arbitration statutes were passed in the 1920s.

Compulsory arbitration can take different forms, but it often means that strike and lockout options are precluded for public employees by the state, so if one party requests arbitration the other can be forced to accept it. Thus, Stevens (1966), in an early and influential contribution to this literature, describes compulsory arbitration as a bargaining tool in a purely distributional dispute (for example, a zero-sum dispute over the distribution of a fixed 'pie' to be divided between employers and a union) that has much in common with a strike or a lockout. In particular, if arbitration is costly then when it is threatened, it can induce the other party to negotiate. Furthermore, he explains that arbitration mechanisms can be designed to encourage negotiated settlements (discourage arbitration), and as demonstrated by the empirical research discussed below, this clearly appears to be the case. He then suggests that arbitration should be designed to impose costs on bargainers in order to encourage voluntary settlements. In fact, following Stevens, it is often contended that the most successful form of compulsory arbitration 'is one that is not used' (Long and Feuille, 1974, p. 202). A recommendation that arbitration be made more costly in order to encourage negotiation obviously requires a strong normative belief that negotiated settlements are more desirable than arbitrated settlements (Bloom and Cavanagh, 1987, p. 354; Currie, 1989, p. 364). This norm seems to permeate the economics literature on labor arbitration (with important exceptions, like Bloom and Cavanagh, 1986, 1987; Ashenfelter, 1987, and Currie, 1989). Indeed, as Currie (1989, p. 364) explains, 'most industrial relations experts believe that settlements reached by the parties themselves are superior to those imposed by an arbitrator', but without much theoretical basis for the belief. There is some theoretical basis for the conclusion, of course. In particular, as Stevens (1966) alleges, standard interest arbitration as a compromising process tends to 'chill' bargaining as it creates incentives for negotiators to misrepresent their true underlying profit- and/or utility-maximizing positions, expecting arbitrators to split the difference between their extreme demands. However, there are alternative theoretical explanations for the relationship between arbitration and negotiation that can produce the same empirical fact and quite different normative implications.

Law and economics scholars might anticipate that arguments for encouraging negotiations are based on Coase's (1960) famous theorem, that if the transactions costs of bargaining are not prohibitive an efficient allocation of resources is achieved through voluntary negotiation. However, the decision to arbitrate obviously implies positive transactions costs for bargaining (perhaps in the form of uncertainty for the union representative regarding the 'political' or legal consequences of a negotiated settlement that might be perceived as biased or unfair to some of the membership), and in that context the typical inference drawn from Coase is to lower the cost of negotiating (for example, by clarifying property rights, or in labor arbitration, perhaps by allowing the

aggrieved party rather than the elected union leaders to choose a negotiator), not raise the cost of the alternative. Thus, for instance, in the diamond industry, Bernstein (1992, p. 124) explains that parties who submit a dispute to arbitration must first participate in a conciliation proceeding before a conciliation panel that attempts to help the parties negotiate a settlement. Only if such third-party aided negotiation fails can the dispute go to arbitration. This is clearly a mechanism intended to encourage negotiation without raising the cost of arbitration, in sharp contrast to Stevens' (1966) proposal, and an estimated 85 percent of the diamond-industry disputes submitted to arbitration are settled during this conciliation procedure.

Moreover, as Williamson (1979) explains, characteristics of the transaction that determine transactions costs (for example, degree of asset specificity, frequency of the transaction, uncertainty) determine the efficient organizational choice, given 'market', 'bilateral' (direct negotiation and contracting), and 'trilateral' (use of a third-party), or 'ownership-integration' governance options. Under these circumstances, if arbitration is used it may be because the transactions costs of negotiation are relatively high, so fair arbitration is a more efficient means of achieving a settlement. Thus, encouraging negotiation by raising the costs of arbitration can reduce efficiency. As Posner (1986, p. 366) notes in his discussion of summary jury trials and other ADR options, the objective should not be to maximize negotiated settlements but to minimize the total costs of the system of achieving settlements, whether voluntarily or through third-party procedures.

Perhaps the points made here do not apply to Stevens' (1966) arguments about compulsory labor arbitration, however. The disputants themselves presumably have not voluntarily designed this governance arrangement if it is mandated by statute (in all likelihood, public sector unions and employers lobbied to influence the statutes, of course, but the statutes may not allow the transaction-specific adjustments in governance organizations that would lead to efficient outcomes (Benson, 1995b)). Compulsory arbitration still may be a cooperative outcome if it is the low-cost dispute resolution mechanism relative to a particular high-transactions-cost negotiation, however. Indeed, Bloom and Cavanagh (1986, p. 409) point out that 'labor practitioners place greater emphasis [than economic theorists] on arbitration as a mechanism for helping disputants identify and reach efficient outcomes. In their view, arbitrators are professional gatherers and processors of information who play a highly constructive role in a bargaining process which is better treated as a cooperative attempt at problem solving than as direct economic conflict'. Furthermore, Bloom and Cavanagh (1986, p. 421) conclude, from their study of the selection of arbitrators (discussed below), that 'the similarity of union and employer preferences for different arbitrators suggests that collective bargaining functions more cooperatively than most existing models indicate'. Doubt is cast

on the theoretical underpinnings of this hypothesis by considering the assumption that arbitrators split the difference between offers. Farber (1981) raises important theoretical questions regarding the assumption, noting that even empirical evidence of difference splitting would not be sufficient to prove that this is the objective of the arbitrator since parties are likely to position their offers around the expected arbitration award. That is, 'the expected arbitration outcome shapes the parties' bargaining positions rather than the reverse' (Farber, 1981, p. 70). Gibbons (1988) goes even further, modeling arbitration in the context of a three-party game in which arbitrators also learn about the state of the employment relationship from the parties' offers.

8. Does Final Offer Arbitration Encourage Negotiation (or Discourage Arbitration)?

Stevens (1966) and several others propose what has come to known as final offer arbitration (FOA) to overcome the hypothesized tendency for compromising arbitration to 'chill' negotiation. FOA requires the arbitrator to choose one or the other of the two sides' final offers rather than choosing some compromise between them. The idea is that the negotiators will have incentives to move toward relatively reasonable positions before arbitration, but in doing so they are presumably more likely to reach a negotiated settlement on their own. FOA has been implemented in labor arbitration through statute law in a number of places, and as a consequence, it has attracted a good deal of theoretical analysis.

Crawford (1979) provides one of the earliest formal theoretical examinations of FOA. He notes that if the arbitrator's exogenously determined notion of what a settlement should be is known to the two parties then FOA and conventional arbitration will lead to the same outcome in a zero-sum distributional game. Under conventional arbitration neither party would settle for a distribution different from the arbitration outcome so all awards have to correspond to that outcome whether they are achieved through negotiation or arbitration. If the arbitrator selects the final offer closest to his preferred outcome, the same is true, as one party can always improve on any final offer by offering the arbitrator's preferred settlement. Of course, given positive arbitration costs (that is, if use of arbitration makes the process a negative-sum game), arbitration should actually not be used at all. This might appear to be desirable, given the arguments by Stevens (1966), Long and Feuille (1974) and others, but in this case the parties are simply agreeing on what the arbitrator would award anyway, so arbitration is actually the determining factor, not negotiation (Ashenfelter and Bloom, 1984, p. 112).

Crawford (1979) also draws on Schelling's (1963) model of commitment, suggesting that parties find it advantageous to commit to a position that is costly to disavow. Given uncertainty about the strength of the parties' commitments, the potential for commitment by both parties can lead to a disagreement and therefore to arbitration. Factors that increase the payoff to commitment increase the likelihood of disagreement. Still, the model predicts that FOA should not increase the likelihood of negotiation. Indeed, Crawford (1979, p. 152) suggests that 'FOA may create a Prisoner's Dilemma situation and thereby prevent agents who would otherwise cooperate from agreeing on an efficient settlement'. Of course, in a repeated game setting the prisoner's dilemma outcome of non-cooperation is less likely (Axelrod, 1984), so if the interaction generating the dispute is not viewed by the negotiators as a one-shot game this result may not hold. Nonetheless, Crawford's framework does not appear support the contention that FOA should increase the propensity to bargain.

Actually, Crawford (1979) does raise one point that implies that FOA can be relatively 'costly'. If negotiations break down, neither final offer may actually be efficient (or equitable, depending on the objectives of the arbitrator and/or the nature of the dispute - the outcome of a zero sum dispute may reflect the arbitrator's view of equity, for instance). If there are multiple issues involved in the dispute, for example, both final offers may involve inefficient mixes of solutions. Constraining the arbitrator to choose one or the other would, therefore, guarantee an inefficient solution. Crawford (1979) concludes that 'multiple FOA' is superior to single FOA arbitration, but under conventional arbitration the arbitrator has a full range of outcomes to consider, so an efficient solution is also possible. If conventional arbitrators are expected to search for an efficient solution (or an equitable distribution in a zero-sum bargain) rather than to split the difference, and if bargaining costs are high, FOA could easily 'encourage' more bargaining and more costs than conventional arbitration does, but in this case, the result actually involves higher transactions costs. Thus, whether FOA is desirable or not depends on what bargainers expect arbitrators to do, which in turn should depend on what they actually do Bloom (1981, p. 243).

Farber and Katz (1979), and Farber (1980, 1981) offer a different view of compulsory arbitration than Crawford (1979). They assume that the parties are uncertain about arbitrators' preferences and explain that the likelihood of a bargain depends on the parties' expectations about the arbitration award and their risk preferences. For instance, similar expectations about arbitration outcomes and significant arbitration costs can produce a contract zone, and Farber and Katz (1979) suggest that a larger the contract zone increases the probability of a bargaining settlement. Divergent expectations (for example, overly optimistic expectations by at least one party), on the other hand, can

prevent successful bargaining. However, Farber and Katz (1979) conclude that uncertainty about arbitration's outcome coupled with risk aversion on the part of at least one party, can also produce a contract zone, while greater certainty about the arbitration award, and hence less risk, may mean that no contract zone exists and arbitration results. Thus, in keeping with Stevens' contention that arbitration should be structured to encourage negotiation, Farber and Katz (1979) express concern that uncertainty will decline as parties gain experience with arbitration, and that arbitration will become more prevalent over time (this is one variant of the 'narcotic effect' hypothesis discussed below). In addition, the relative impact of FOA and conventional arbitration depend on the parties' attitudes toward risk and their expectations about arbitrator preferences, among other variables.

In line with Stevens (1966), Kochan (1980) contends that FOA is more effective at imposing costs on parties if they fail to reach a negotiated settlement. After all, the expected award from FOA is a probability weighted average of two points while the expected conventional award is a probability weighted average of a distribution of potential awards, and by removing the ability of an arbitrator to compromise, the relatively low risk middle part of this distribution is removed. FOA appears to be riskier, and as Farber and Katz (1979) emphasize, uncertainty regarding the behavior of the arbitrator is a source of arbitration costs. But this reasoning is flawed (Farber, 1980; Crawford, 1982; Farber and Bazerman, 1987, 1989). For instance, Farber and Bazerman (1989) point out that the risk of FOA can be manipulated by manipulating offers, and FOA eliminates the high-risk tails of the distribution as well as the low-risk middle. Indeed, they use existing estimates of arbitration behavior, assuming constant absolute risk aversion utility functions and identical normal prior distributions on the arbitrator's concept of an appropriate award, and conclude that contract zones are unambiguously larger under conventional arbitration than under FOA. Given that identical-expectation contract zones are relatively large, it should take a greater degree of divergent expectations to offset the potential for bargaining under conventional arbitration. Thus, if larger contract zones imply that a voluntary settlement is more likely, negotiation should be more prevalent under conventional arbitration.

In contrast to the standard view, however, Bloom (1981) explains that wider contract zones do not necessarily imply a greater likelihood of successful negotiations (a point also made by Crawford, 1981). After all, there may be substantial direct costs of negotiations, as well as uncertainty about settlement points within the contract zone. Indeed, it may be easier to agree if there is one point in the contract zone that both parties prefer to arbitration than if there are a large number of alternatives. Thus, raising the costs and/or uncertainty associated with arbitration may not lead to more negotiated settlements. In this light, Farber and Bazerman's (1989) finding of larger contract zones under

conventional arbitration does not necessarily imply more negotiations, a fact that they recognize. However, they point to another of their results, contending that the best explanation for relatively more negotiated settlements under FOA, as hypothesized by Stevens (1966), comes from their finding that the expected-utility-maximizing-Nash-equilibrium last offers given to an arbitrator (where a negotiator is indifferent between the last offer and the expected arbitration award) are closer under FOA than conventional arbitration. Thus, they conclude that strategically, when equilibrium offers are farther apart the parties are more reluctant to make concessions. If this is the case, then FOA does not appear to raise the cost of arbitration, although it does influence bargaining behavior.

An alternative hypothesis, apparently not found in the literature but tentatively proposed above, is that when bargaining costs are high arbitration becomes relatively attractive because arbitrators are expected to search for the efficient (or equitable) solution to a dispute rather than simply splitting the difference, and that FOA constrains such a search so FOA is less attractive (more costly) than conventional arbitration. Note that this hypothesis is consistent with recent empirical findings by Burgess and Marburger (1993) that 'FOA awards tend to be of "low quality" in the sense that they lie outside the range of negotiated settlements' in their study comparing baseball player salaries determined through negotiation versus those determined through FOA arbitration. Indeed, A number of empirical testable hypotheses follow from this theoretical literature, and a growing body of empirical research addresses many of them.

9. Do Arbitrators Split the Difference?

The 'split-the-difference' assumption appears to be key to the conclusion that conventional arbitration chills negotiations (Feigenbaum, 1975; Feuille, 1975; Anderson and Kochan, 1977; Starke and Notz, 1981). In this regard, Bloom (1986) finds that on average, arbitration decisions in his sample appear to be mechanical compromises between the parties' final offers, but he also emphasizes that there is in fact a substantial amount of unexplained variance in arbitration awards, so that the overall conclusion need not apply to any particular case. His examination of written arbitration decisions also finds a correlation between final offers and the facts in each case (a finding supported by several studies discussed below). That is, negotiators tend to adjust final offers to be consistent with the facts that arbitrators are expected to look at, as Farber (1981) suggests, and therefore arbitrators can use the parties' final offers as a source of information about facts. Furthermore, Bazerman and Farber's (1985) study of wage awards by 64 actual arbitrators in 25 simulated

conventional arbitration cases clearly suggests that arbitrators look at both final offers and the facts of the case, weighing the facts more heavily than the offers. The facts also are increasingly important as the offers diverge, contradicting 'the naive split-the-difference view of arbitrator behavior' (Bazerman and Farber, 1985, p. 76).

Farber and Bazerman (1986) report the results of a similar study comparing arbitrator behavior under FOA and conventional arbitration. They assume that the same criteria, determining awards based on facts rather than offers, characterizes arbitrator behavior under different arbitration schemes. Their findings support the assumption: again, conventional arbitration awards are weighted averages of the facts and offers with weights depending on the reasonableness of the offers, and final offer awards are also determined by the facts and the offers. Thus, it appears that arbitrators are generally consistent in their behavior under different arbitration regimes (Farber and Bazerman, 1986, p. 842). Ashenfelter and Bloom (1984) reach similar conclusions about the virtually identical decision processes for arbitrators under conventional arbitration and FOA, using a data sample drawn from New Jersey where public employee disputes can be decided under conventional arbitration if the parties agree to it, but FOA if they do not. Arbitrators, it seems, do much more than split the difference.

10. Does Conventional Interest Arbitration 'Chill' Negotiations?

Despite the significant evidence that arbitrators do not simply split the difference, there does appear to be empirical evidence of a chilling effect to conventional arbitration. One source of evidence (although there is in fact no strong theoretical linkage (Currie, 1989, p. 364)), is the hypothesized 'narcotic effect' (Kochan and Baderschneider, 1978, p. 431) of third-party dispute resolution. It is contended that when compulsory arbitration is available parties become reliant upon it rather than negotiating. Early studies conclude that such an effect exists because, for example, wage settlements appear to be less responsive to market conditions when third-party procedures are employed (for example, Kochan and Baderschneider, 1978; Butler and Ehrenberg, 1981, and Auld, et al., 1981). Bloom and Cavanagh (1987, p. 355) point out that the simple descriptive statistics which appear to support the hypothesis are far from conclusive (also see Anderson, 1981), however, as a complete test of the hypothesis would require establishing serial correlation in the use of arbitration after controlling for heterogeneity across bargaining units.

Currie (1989) provides what may be the most sophisticated empirical analysis of the 'narcotic effect' hypothesis to date. She finds, controlling for a number of other factors, that bargaining units who used arbitration in the

previous round of negotiations are at least 10 percent more likely than other bargaining units to use it in the current round, thus supporting the narcotic-effect hypothesis. Yet, the total number of arbitrations in previous years (her sample included 35 years of compulsory arbitration by teachers in British Columbia) has a negative effect on the probability of arbitration, and variables intended to capture attitudes toward risk, changes in the degree of uncertainty associated with arbitration awards, and differing beliefs about awards do not have significant effects on the probability of using arbitration. Thus, Currie (1989, p. 378) concludes that the typical explanations for a narcotic effect do not appear to hold, so 'A theoretical explanation of this "stylized fact [positive state dependence]", perhaps in the context of a dynamic model of arbitration, is badly needed'. Indeed, the result is consistent with the idea suggested above that an experience with arbitration simply reveals that the net benefits of arbitration are higher than previously believed, so when the transactions costs of negotiation prove to be high, those with experience tend to opt for arbitration relatively more quickly. A very similar point is made by Bloom (1981, p. 243), when he observes that if the split-the-difference hypothesis does not hold and arbitration appears to chill negotiation it may be because 'the parties view this mechanism [compulsory arbitration] as the least costly alternative for establishing a contract'. Of course, if this is the case, the 'chilling' of negotiations may well be appropriate from an efficiency perspective, and designing arbitration mechanisms to raise the cost of arbitration is inefficient (another possible explanation for increasing relative use of arbitration might be that union leaders perceive an increasing probability of breach of fair representation lawsuits in light of the perceived increases in the propensity to litigate in the United States, leading union officials to pursue more grievance arbitration in cases that they would prefer to negotiate in the absence of this perceived threat).

There is yet another set of studies that probably provides the strongest evidence of a potential chilling effect of conventional arbitration: the growing literature comparing negotiation under FOA and conventional arbitration. It appears that FOA increases the probability of a negotiated settlement (Feuille, 1975; Neale and Bazerman, 1983; Farber and Bazerman, 1989). Thus, Stevens (1966), Farber and Katz (1979), and others who suggest that the nature of the arbitration process influences the likelihood of a bargained outcome appear to be correct. But does this support the contention that arbitration should be structured to encourage negotiation or that FOA is desirable? The answer still depends on the relative costs and benefits of negotiated and arbitrated settlements, as Bloom (1981) suggests. In this regard, the evidence of arbitrator behavior, including evidence from the FOA literature, is instructive. Some characteristics of arbitration behavior have already been discussed, such as the fact that they apparently do not split the difference. However, in order to fully

appreciate the reasons for this and other characteristics of arbitrator behavior, we must first look at the arbitrator selection process.

11. How are Arbitrators Selected?

Many critics of arbitration and other forms of ADR contend that these private alternatives to litigation will be biased. The proposed reasons for such bias vary, however. Some contend that arbitrators are easily corruptible, so the bias is in favor of the disputant with the most financial resources: 'If the rendering of verdicts is to be independent of the relative wealth of the litigants, then the provision of judicial services naturally requires separation of the decision-makers gain from that of each litigant. This fact either requires heavy regulation or it requires public provision of the judge directly' (Mabry, et al., 1977, p. 83). A different bias is seen by Landes and Posner (1979, p. 254) who contend that 'it might seem that competition would lead to an optimal set of substantive rules and procedural safeguards. But this is incorrect. The competition would be for plaintiffs, since it is the plaintiff who determines the choice among courts having concurrent jurisdiction of his claim. The competing courts would offer not a set of rules designed to optimize dispute resolution but a set designed to favor plaintiffs regardless of efficiency'. Brunet (1987, pp. 31-40) simply concludes that arbitration's procedures bias results away from 'quality', 'accurate' results because they do not incorporate as much information as litigation does (Currie, 1994, makes a similar point except that she focuses on the relative use of information in arbitration and negotiation, and she is much more tentative in her normative conclusions). Essentially, he sees ADR procedures as too 'informal, ambiguous, and not administered in a managerial fashion' and lacking effective discovery processes (Brunet, 1987, pp. 31-33).

All such arguments involve a failure to recognize the potential for creating an arbitrator selection process to avoid such biases. Indeed, as Bloom and Cavanagh (1986, p. 409) explain, 'one of the most important characteristics of arbitration systems is that they may be designed in different ways'. Not surprisingly, arbitration selection mechanisms actually vary widely. For example, within some organizations a single arbitrator or panel is appointed for a set period to arbitrate all disputes between members. Of course, prescreening occurs because these arbitrators are chosen from a competitive pool by the association through its membership approved selection process. For instance, in the diamond industry, arbitrators are elected from the organization's membership for two year terms (Bernstein, 1992, pp. 124-125). A different alternative is that contracting parties or organizations preapprove a list of arbitrators, and if a dispute arises, an arbitrator is chosen from the list by some preset mechanism (for example, random selection, rotating selection, selection

by a third party such as a governing board of the association). Yet another common selection system gives the parties to a dispute the resumes of odd numbered list of arbitrators from a larger preselected group (for example, preselected by a trade association, or provided by the AAA), with each party having the power to successively veto names until one remains. Thus, a second level of prescreening is added at the disputant level, contributing 'to the legitimacy of the arbitrator and his award in the eyes of the parties' (Bloom and Cavanagh, 1986, p. 409). The parties are also given the arbitrator's résumés, so they know about experience, training, the nature of awards given in the past, and so on. A similar practice, the subject of Bloom and Cavanagh's (1986) empirical study discussed below, is also common: the parties are given a list and résumés of seven potential arbitrators with the power to veto three and rank the other four, and the arbitrator who is not vetoed by either party and has the highest combined rank is chosen. Another common practice is for both sides of the dispute to provide a list of, say, six arbitrators, and each can then veto any or all of the names on the other party's list; if all names are vetoed each provides another list and the process is repeated (clearly, this procedure requires that both parties want to arbitrate, so they do not continue to provide unacceptable names). All such systems guarantee the appointment of an arbitrator without requiring explicit agreement by the two parties while still allowing for prescreening of the potential arbitrators.

In light of the fact that selection mechanisms allow veto, each party might be expected to support at least some candidates that are expected to be unbiased. In fact, it is widely contended that arbitrators are chosen for their expertise, reflected by their experience and training, as well as for their consistency in deciding cases solely on their merits, and for their impartiality (for example, Elkouri and Elkouri, 1985), but before Bloom and Cavanagh's (1986) study, little statistical evidence existed to verify this. They examine the selection of arbitrators for 75 public employee disputes in New Jersey. A number of findings are of interest. First, in many cases the union and the employer have similar rankings, suggesting that their preferences for arbitrator characteristics are at least moderately similar. Second arbitrators with perceived biases tend to be eliminated. Thus, arbitrators that exhibit a tendency over time to favor labor are given poorer rankings (generally vetoed) by management and vice versa. Similarly, economists get low rankings by labor, relative to lawyers and labor relations practitioners, perhaps because 'economists are likely to be heavily influenced by efficiency conditions' (Bloom and Cavanagh, 1986, p. 418) such as the advantages of competition, mobile labor, and other factors that labor unions tend to undermine. Third, both employees and employers show significant preferences for experience, controlling for impartiality and training. Clearly, while it is not possible to prove that experience reflects arbitrator-specific characteristics such as expertise, it probably does because experience both adds to expertise and is a reflection of past popularity. Fourth, while a

number of variables representing impartiality, experience and training appear to be significant, their magnitudes are small, suggesting 'that the parties are relatively indifferent to many of the arbitrators in the New Jersey system' (Bloom and Cavanagh, 1986, p. 419). It would appear that the preselected group of 70 arbitrators that each panel of seven in this sample is drawn from are actually perceived to be quite similar. As Ashenfelter (1987) explains, this is precisely what should be expected.

12. Conclusions: 'Exchangeability' and the Benefits of Arbitration

Given that disputants have the same information about arbitrators and the power to veto any arbitrators that are expected to be biased (Ashenfelter, 1987) explains that arbitrator decisions should be statistically 'exchangeable'. Furthermore, a number of independent empirical studies tend to verify this exchangeability hypothesis (for example, Ashenfelter and Bloom, 1984; Bazerman and Farber, 1985; Farber and Bazerman, 1986; Ashenfelter, 1987; Bloom, 1986; Faurot and McAllister, 1992; Burgess and Marburger, 1993). Consider for example, Faurot and McAllister's (1992) study of salary arbitration in major league baseball. They hypothesize that an arbitrator will attempt to base decisions on the same criteria with the same weights as other arbitrators in order to avoid being vetoed, and find that the expected value of the arbitrator's notion of a fair settlement is significantly influenced by a number of fact-based variables specified in the contract (the Basic Agreement): player performance in the last year, career performance and consistency, recent club performance, and previous compensation (Faurot and McAllister, 1992, p. 710; also see Burgess and Marburger, 1993).

Furthermore, while some evidence might appear to suggest that arbitration is biased, a careful examination generally reveals the opposite. For instance, Ashenfelter (1987, pp. 343-345) discusses a sample of New Jersey's FOA system for police disputes in which the employers win only about a third of the decisions. However, both conventional arbitration and FOA are used in this system, so they can be compared. Recall the evidence discussed above that arbitrators choose conventional awards using a consistent criteria based on the facts, and that FOA arbitrators use the same criteria, choosing the final offer closest to their preferred award. In this light, Ashenfelter (1987) compares conventional and FOA awards and finds that on average, union offers were more reasonable than the employee offers (perhaps because union bargainers were more risk averse, or perhaps because employers were making unreasonable offers for political reasons), so the disproportionate number of union wins reflects bargaining positions, not arbitrator bias, and is actually consistent with the exchangeability hypothesis. He also examines a set of data

from the Iowa FOA system for public employees where, in contrast to New Jersey, the employer offers were more frequently chosen, but in this case it appears that the employers' offers were, on average, the 'more reasonable'.

It is exchangeability, Ashenfelter (1987, p. 341) suggests, that underlies the continued acceptability of labor arbitration systems. Indeed, given the political influence of unions and bureaucratic organizations (Benson, 1995b), it is hard to imagine that compulsory arbitration statutes could survive if they were not perceived by both parties to be beneficial relative to alternatives (strikes, lockouts, litigation, negotiation when transactions costs are high). The view in the commercial arbitration literature that arbitration is a positive-sum process appears apply to compulsory labor arbitration as well.

The private sector is responding to the demand for resolution of a wide variety of disputes by offering a wide variety of specialized dispute resolution options. Specialization has desirable consequences in the production of most goods and services. It is reasonable to expect that this is also true for the production of justice. Indeed, many of the efficiency-based arguments against arbitration (for example, that it will produce 'low quality' biased judgments, that it cannot efficiently produce precedent) are undermined by the flexibility of arbitration and other ADR options. Furthermore, while there is evidence that appears to support some arguments against at least some arbitration, such as the hypothesis that its availability raises the transactions costs of negotiation, it appears that the evidence is also consistent with other hypotheses. Thus, the evidence to date does not provide strong reasons to be discouraged by the fact that arbitration is being substituted for litigation and legislation.

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