Bargaining over Weapons: Justice and Effectiveness in Arms Control Negotiations

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Abstract

This article explores the relationship between justice and effectiveness in bilateral and multilateral arms control negotiations. A set of hypotheses, derived from earlier

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research about the impacts of procedural and distributive justice on negotiation outcomes is evaluated. The sample consists of twenty cases, ten bilateral and ten multilateral. The results of statistical analyses show strong effects of procedural justice on the effectiveness of bilateral, but not multilateral, negotiations. Further analyses indicate that the effects are largely accounted for by half of the bilateral cases. Case-by-case analyses reveal some of the conditions that explain the correlation between PJ principles and effective outcomes. Distributive justice correlated with more substantial agreements in the multilateral cases. Reasons for the limited effects of procedural justice on multilateral outcomes are discussed. The article concludes with more general implications and suggestions for further research.

**Keywords**

bilateral arms control – distributive justice – effective negotiations – multilateral arms control – principle of equality – procedural justice

Can justice play a role in and influence the success and effectiveness of negotiations in a security area like arms control? It is common to regard the sheer importance of national and international security issues as irreconcilable with serious considerations of justice. Negotiators enter into arms control talks to serve the security interests of their own countries, not for the pursuit of justice.

Nevertheless, such negotiations have important justice dimensions (Müller & Wunderlich 2013). Countries engage in arms control talks because alternative ways of providing for their security, including through a continuous buildup of arms, are less effective or more costly and risky. There is ample room in this process for the pursuit of self-interest. As in other negotiations, these may be linked to and presented as justice claims which are genuinely held or merely tactical. But the pursuit of self-interests is restrained by the need to take into account the security requirements of others. Arms control agreements can only be effective when they balance the essential concerns of all parties, avoid enhancing the national security of some at the cost of others, and are mutually beneficial. Like other international agreements, they must secure the voluntary approval and compliance of states. This means that they cannot be seen as unreasonable or unjust in the sense of ignoring or damaging the vital security needs of anyone whose signature is important. In arms control agreements, states agree to give up or limit specified military activities, in exchange for other parties doing the same, as a means to provide for their
security. Violations may directly threaten the security of complying states. Parties therefore commonly associate justice not only with compliance in itself, but also with the establishment of verification procedures which deter and detect breaches and reflect the seriousness of their obligations.

Questions of justice in arms control talks relate to the larger debate over the role of such principles in international affairs and negotiations (Albin 2001). Early discussions focused on whether justice could play a serious part in such political contexts at all, and many were rather skeptical. Predominant approaches honored the realist tradition, and its arguments about the limited applicability of justice to state conduct and interstate relations (Gauthier 1986). The constant striving to maximize self-interest, narrowly conceived, and the exploitation of any power advantages were instead primary driving forces, including in international bargaining (Snyder & Diesing 1977, Habeeb 1988). Moreover, the realist approach typically defines justice narrowly as “mutual advantage”: Negotiations and agreements are considered just and legitimate by virtue of delivering net benefits to each and every party (Gauthier 1986). Thus justice excludes arrangements and parties which cannot or do not contribute to joint gains. Past injustices can be compensated for or corrected only when offering all parties gains from agreement.

More recent research has done much to advance the debate by investigating empirically when, why and how justice matters in negotiations of international importance. While systematic research specifically on how justice may impact international negotiation effectiveness has just begun, some findings to date suggest positive relationships in the areas of peace and trade talks (Albin & Druckman 2012, Albin & Druckman forthcoming).

The focus on arms control and disarmament negotiation is chosen for several reasons. This is a highly significant area of international affairs in its own right, whose exploration in research to date has been limited by the predominance of single case studies. It is also a hard ‘test case’ of an international issue area that is arguably among the least associated with matters of justice. Little is known about the role of justice principles in this area, and there is virtually no systematic knowledge about their impact on effectiveness. A number of theorists argue that justice principles will undermine “effectiveness” in various senses, and that one or the other needs to be prioritized. This dilemma is much debated under the label “peace vs. justice”, particularly in the context of post-conflict societies in which difficult trade-offs are seen between the pursuits of justice and of peace-building and durable peace (Zartman & Kremenyuk 2005). More specifically in the area of arms control, Müller (2013a) argues that efficiency and justice are competing objectives: Efficient (just) outcomes may also be unjust (inefficient) outcomes. More generally, he calls attention to the potential of
justice claims for generating conflict. Negotiators face the challenges of reconciling the different objectives or finding a resolution of the competing justice claims. This is an empirical issue addressed by the present study. Specifically, the article contributes knowledge about the impacts of certain justice principles on effectiveness in international arms control negotiations. This diplomatic activity, as in many other areas, has faced repeated stalemates or has made little progress.

In the section that follows, a set of hypotheses is elaborated that address the impact of PJ and DJ on, and their relative importance for, effective negotiation outcomes. These hypotheses are then evaluated on a selection of 20 cases of bilateral and multilateral arms control negotiations using statistical methods. The cases span several decades of negotiations, and changes in their objectives and ambitions. During the Cold War, ‘arms control’ entailed efforts to regulate the competitive buildup of arms, nuclear in particular, through agreement on freezes and other limits on specified types of weapons. The process helped to manage the US-Soviet rivalry by keeping channels of communication open and reducing the risks of accidental war or escalation. Today, ‘arms control’ talks aim at – and do contribute to – actual disarmament, the abolition of entire categories of weapons, and the creation of new international norms. The end of the US-Soviet competition has enhanced the prospects for attaining such goals. At the same time, in a world deprived of the relative predictability and security of bipolarity, the desire of several countries in conflict-ridden regions to acquire their own deterrent weapons capabilities has increased.

**Approach**

This article examines how procedural justice (PJ) and distributive justice (DJ) principles impact effectiveness in arms control negotiations. PJ refers to the justice of how the negotiations are conducted, and how the parties relate to each other and are treated in the process. Specifically, PJ is defined in terms of four principles (Albin 2008). One is *fair representation*, referring to full or balanced representation in the decision-making process of parties and interests expected to be affected by the outcome (Thibaut & Walker 1975). A second PJ principle concerns *fair treatment and fair play* – that is, opportunity to have an input, be heard and influence the process, as well as the consistency and impartiality in the conduct of it (Lind & Tyler 1988). A third is *voluntary agreement*, or freedom from imposition and acceptance of one’s own volition (Barry 1995). Finally, the PJ principle of *transparency* refers to openness and accessibility regarding decision-making in the negotiation process, as parties work to reach a negotiated agreement (Heald 2006).
DJ refers to the justice of the allocation of benefits and burdens between parties, as these are discussed during the negotiation process and reflected in the outcome. DJ is also defined in terms of four principles. The first is *equality*, referring to identical or comparable distribution of resources and burdens. The second is *proportionality*, implying distribution of resources and burdens are in proportion to relevant inputs such as, for example, contributions made. A third is *need*, meaning distribution of resources meets present basic needs. Finally, *compensation* denotes resource distribution to indemnify undue costs or wrongdoings inflicted upon a party (Druckman & Albin 2011).3 In this study, DJ is examined as a process rather than outcome variable – that is, how parties’ notions of what DJ principles should guide the distribution of benefits and burdens in an agreement affected the process of negotiating.

Each of these principles is recognized as a central component of PJ and DJ, respectively, in the research literature even if its precise definition varies. They are highly relevant across issue areas as well as specifically in arms control matters, which is why this study focuses on these two types of justice. They also lend themselves well to operational definition. There are, of course, other dimensions of justice that fall outside the scope of this study. For example, one that is noticeable in multilateral arms control matters concerns the status and recognition of states, in particular the privileged status of five states as official nuclear powers. It is a source of tension which often underlies or fuels disagreements, including those over other justice issues, in negotiations such as those under the Nuclear Non-Proliferation Treaty (NPT).

The “effectiveness” of agreements is assessed using five components, each drawing on measures used in negotiation studies. An advantage of the approach is that it increases the relevance of a more general literature for hypothesis development and evaluation. It also facilitates comparison of findings obtained from justice studies performed in different issue areas. The components follow with examples of earlier negotiation studies in which they were used as dependent variables.

- **Number of issues resolved**: This is a frequently used outcome measure in experimental (Druckman 1994) and comparative case studies (Druckman et al. 1999).
- **Time to reach agreement**: This is a frequently used indicator of efficiency used particularly in experimental studies (Druckman 1994).

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3 For a full discussion of these DJ principles and their origins, see Albin, 2001 and Druckman & Albin, 2011.
• **Degree of agreement**: This refers to the extent of support for an agreement among parties. In large-scale multilateral negotiations involving numerous parties and interests, this is often a challenge to achieve.

• **Type of agreement**: This indicator refers to the comprehensiveness of the agreement, including the extent to which implementation issues are addressed. For example, an agreement may address all outstanding issues comprehensively or only partly, and may resolve them in depth or handle them more superficially. It was a key outcome measure in one comparative case study on negotiations to end international conflicts and in another on types of negotiating objectives (Irmer & Druckman 2009, Druckman et al. 1999).

• **Balance of integrative and distributive elements**: This indicator captures Hopmann’s distinction between absolute or joint and relative benefits (Hopmann 1995). It was a key measure of the quality of outcomes in Wagner’s study of historical negotiations and the Druckman et al. study of negotiating objectives (Wagner 2008, Druckman et al. 1999). It was also the primary dependent variable in the Hollander-Blumhoff and Tyler simulation experiment on procedural justice (Hollander-Blumhoff & Tyler 2008).

These components are aggregated to form an “effectiveness index.” They are, however, not independent components. Some are correlated with each other: namely, number settled and type of agreement for both the bilateral and multilateral cases; number settled and time for the bilateral cases; time and type of agreement for the bilateral cases, and time and balance for the multilateral cases. Thus, we evaluate the impacts of justice on the aggregated index as well as on the separate components.

### Justice and Effectiveness in Bilateral Arms Control Talks

The research literature on bilateral arms control suggests strong preferences for reciprocity inside and outside of negotiations. These preferences are evident in empirical analyses of moves and counter-moves made during the course of negotiation (Hopmann & Smith 1977, Jensen 1988) and in the communications between leaders captured in various events datasets (Patchen 1998). The form taken by reciprocity in arms control is referred to as comparative reciprocity: Bargainers adjust their moves in the direction of the other’s previous move; the adjustment is usually in the direction of firmness, leading often to impasses (Stoll & McAndrew 1986, Druckman & Harris 1990). This is a specific rather than diffuse form of reciprocity, in the terms defined by Keohane.
It emphasizes the relevance of the principle of equality, which is also found to be important in peace agreements (Druckman & Albin 2011, Albin & Druckman 2012).

Arms control bargainers may be particularly sensitive to the distributive principle of equality. They are also sensitive to the procedural justice principles of fair treatment and fair play as well as transparency as shown in studies on legal (Hollander-Blumhoff & Tyler 2008) and trade (Albin & Druckman 2012) issues. Effective negotiations may turn on satisfying these principles; agreements are unlikely to be reached if the process deviates from these principles. An attempt is made in this study to explore the relationships between justice principles and effective outcomes in arms control negotiations.

Arms control negotiators also emphasize possible losses rather than gains from agreements. Thus, they take a risk-averse rather than a risk-seeking approach to negotiation. Progress has been shown to depend less on their own initiatives than on external interventions in the form of third parties or external events (Druckman 2001). Their caution is due in part to a lack of trust. Content analyses of arms control cases show that these negotiators are competitive (King 1978), seeking relative rather than absolute gains (Hopmann 1995). This orientation leads to a pattern of mutual toughness, perpetuating impasses. One way to unfreeze the impasse is for one party to take an initiative by making unconditional concessions (Osgood 1962, Pruitt et al. 1988) which are occasionally heeded (Etzioni 1967), particularly when they are a last resort, as was the case for Gorbachev’s dramatic moves in the late 1980s. More often, however, these initiatives are not taken (Rose 1988). Slow progress or drawn out negotiations are also due to the lack of cooperative international and regional regimes; unlike trade and environmental talks, cooperative regimes have been difficult to establish on security issues (Jervis 1983).

These findings support observations made by scholar/practitioner specialists on the history of bilateral arms control. Stated in the form of hypotheses, Carnevale & Haass (1987) emphasize the features of advantages of bargaining through strength, a lack of unilateral restraint in developing weapons systems, codifying existing force structures on both sides, reducing uncertainty (through verification), a focus on compliance problems, increased spending on defense, and domestic support for a negotiation process even when agreements do not emerge. This context for negotiation is not conducive for achieving effective agreements. That same context, however, emphasizes the importance of resolving competing justice claims made by the different parties, particularly in asymmetric negotiations (Müller 2013a). Indeed, agreements may turn on these principles more than in other issue areas, where there is less uncertainty and more trust. Uncertainty discourages bargainers from accepting terms that
violate equality or proportionality; a lack of trust makes it unlikely that they will consider agreement options that are not based on transparent exchanges of information about forces/weapon or that raise questions about fair play during the negotiation process.

These considerations suggest two hypotheses about the relationship between justice principles and effective outcomes. A first hypothesis derives from earlier findings on the importance of equality and from theoretical ideas concerning uncertainty and protecting against losses in the interest of maintaining a power balance. It specifies a relationship between the equality principle and effectiveness.

\[ H_1: \text{More adherence to the DJ principle of equality in bilateral negotiations leads to more effective agreements.} \]

A second hypothesis derives from the findings on procedural justice and trust, specifying a relationship between these principles and effectiveness.

\[ H_2: \text{More adherence to PJ principles in bilateral negotiations leads to more effective agreements.} \]

These hypotheses seek to explore relationships between justice principles and negotiation outcomes. We regard these analyses as first steps in a larger research program. Next steps include probes of various causal mechanisms that may account for the relationships. We consider this issue further in the discussion section.

**Justice and Effectiveness in Multilateral Arms Control Talks**

Considerably more has been researched and written on bilateral arms control talks – in particular, between the US and the Soviet Union/Russia – than multilateral cases. Much of the research in the multilateral sphere consists of single case studies, which do not lend themselves to generalizations.

To some extent, the research literature on multilateral negotiation generally helps to explain when and why large-scale arms control talks are effective or not. It emphasizes the need to manage and reduce complexity if such talks are to succeed. Multiple issues, parties and roles must be simplified, structured and oriented into a process that can produce an outcome – and coalition-building, leadership and agenda management are key factors contributing to this goal (Tallberg 2010, Albin & Young 2012).
The involvement of vital national and international security concerns makes virtually all arms control negotiations, but particularly those engaging multiple parties, center on the search for compliance and verification mechanisms. Whether negotiations in this area result in effective (or any) agreements often depends on whether this search is successful – if not, the consequences could be catastrophic for individual parties (Gallagher 1999). Indeed, issues of verification and compliance often become major challenges or stumbling blocks in multilateral arms control talks (Hampson & Hart 1995). Progress toward agreement often depends on overcoming impasses on these issues.

This section puts forward a set of hypotheses about how justice may relate to effectiveness in multilateral arms control negotiations. As noted, little research has been published about the role of justice in this area. The available findings are based mostly on a single case study or a single area. For example, justice issues have turned out to be prominent in “humanitarian” arms control talks concerned with landmines, small arms and cluster munitions as well as in the NPT negotiations (Albin 2001, Müller 2010). The hypotheses formulated here thus draw on more general research literatures on negotiations and justice, as well as on literatures in specific areas including multilateral arms control.

As stated above, social psychology and management studies offer support for the argument that PJ contributes to effective outcomes and to organizational effectiveness in general. This seems logical as PJ entails that those affected have opportunities to be represented, participate in and influence a reasonably transparent negotiation process, and agree voluntarily to any deal. Specifically, adherence to PJ in the negotiation or decision-making process has been found to promote: (a) positive attitudes such as trust and confidence in those deciding on the outcome; (b) cooperative behavior; (c) opportunities for parties to participate; (d) integrative (problem-solving) rather than distributive (competitive) bargaining; and (e) a reduction in conflict (Hollander-Blumoff & Tyler 2008). Each of these factors enhances the formulation of effective agreements, including satisfaction with and acceptance of the outcome (Thibaut & Walker 1975, Gibson 1989). Acceptance occurs even when the outcome favors one party more than another (Lind & Tyler 1988). Aside from the content or principles in an agreement itself, acting in procedurally just ways thus enhances acceptance of and adherence to it. Unfair procedures have the opposite effects and, thus, impact negatively on outcomes.

In multilateral negotiations, adhering to PJ can be expected to be especially important if effective agreements are to be reached. These are complex settings in which a large number of parties, interests and issues compete for attention and influence. Many more actors are affected and more issues are
put forward than can possibly be included in the actual decisive negotiation processes. This creates additional pressures and expectations regarding how those processes are arranged, and who and what are included or excluded. If, moreover, multilateral negotiations concern vital issues of national and international security, as in arms control talks, the importance of handling competing parties and interests with respect for PJ increases even further.

Such principles as transparency, fair representation, fair treatment and fair play, and voluntary agreement become at once significant and challenging to honor: it is difficult to be transparent about issues involving national security and sovereignty (Hampson & Hart 1995), and core deals must typically be worked out without the possibility of including everyone or everything (Albin 2008). Smaller groups of parties must be formed – and accepted – to take the lead in working out agreements without damaging concerns about PJ and legitimacy. Multilateral talks often stand or fall, at least in part, on how well this challenge is handled (Albin 2012). The failure to work out and use acceptable negotiating and decision-making procedures goes a long way to explain the lack of progress in the early days of the Doha Round of multilateral trade talks, and the 2003 Cancún meeting in particular (Albin & Young 2012). A contrasting example is the 1995 NPT conference. Its president, Jayantha Dhanapala, created a consultation forum consisting of 25 countries representing major groups and interests, including a dissenting minority of nonaligned states. The most important talks were conducted with this broad representation. While they were not open to others, the overall procedure was essential to the successful outcome adopted without a vote (Albin 2001). The will of the majority was respected while allowing the dissenting minority to voice their concerns. From the discussion above, a third hypothesis can be formulated:

**H3:** More (less) adherence to PJ in multilateral arms control negotiations leads to more (less) effective agreements. (PJ has a direct impact on effectiveness.)

A counter-argument is that PJ in large-scale multilateral talks may have different effects from those found in the more theoretical research literature, which draws many of its conclusions from small-scale settings (Hollander-Blumoff & Tyler 2008). The inclusion of more parties and, with them, more issues can indeed expand the scope for joint gains and the possibility of an agreement (Sebenius 1983). More commonly, however, the complexity of a large number of participating parties creates barriers to reaching agreement (Watkins 2003). Adhering to PJ principles in such a context risks giving free play and room for conflicting interests to emerge, which may undermine the possibilities
for obtaining an effective agreement. This may be particularly true in multi-
lateral arms control negotiations. They typically engage vital and not easily compromised security concerns, as well as spoiler countries seeking to prevent an agreement being reached. As a result of PJ adherence more time may be needed to reach agreement, and the scope and quality of any agreement reached may suffer in favor of a lowest-common-denominator deal. A case in point is the so-called Ottawa Process. Although high on most aspects of PJ the process was initiated and managed by a small number of states favoring a total ban on anti-personnel landmines; this process produced a relatively effective agreement on a ban without exemptions. A more inclusively managed process may have failed to reach agreement on a total ban, given other countries’ opposition to it. From these observations a counter-hypothesis can be formulated:

**H4: More (less) adherence to PJ in multilateral arms control talks leads to less (more) effective agreements.**

If negotiating parties are strongly affected by and/or expected to live with the outcome in the longer term, the focus may be on the justice of the terms of agreement rather than the process. While the just distribution of benefits (privileges) and costs (duties) in negotiated agreements – DJ – is rarely unimportant, it assumes particular significance in talks affecting national and international security. Arms control is indeed about mutual obligations and mutual rights. As signatories of arms control treaties, countries become parties to a legally binding ‘contract’ spelling out permitted and forbidden military activities. The duty of compliance with obligations raises stark justice issues, because of the stakes involved and the potentially fatal consequences of violations.

These matters assume additional importance in multilateral arms control agreements, involving a large number of different parties and military capabilities. With particular reference to the NPT talks, Albin (2001) demonstrates how justice issues surrounding the distribution of duties and benefits regarding disarmament, compliance and verification have influenced the course and outcome of the negotiations. A balanced distribution of obligations and privileges has been associated with progress and agreement in this complex multilateral setting, while accusations of unjust distributions have caused stalemates. From these arguments we derive a fifth hypothesis:

**H5: More (less) adherence to DJ principles in multilateral arms control talks leads to more (less) effective agreements.**
More specifically, the DJ principle of equality is often associated with effective agreements in multilateral arms control talks (e.g., Müller 2010), as in bilateral talks (see H1 above). This seems logical: No party is likely to readily agree to less than an equal status in matters as important as national security and survival. Becker-Jakob (2011) stresses in particular the importance of equal rights and obligations in compliance and verification measures, for effective arms control and disarmament measures. Thus verification measures may be designed to ensure compliance and to detect violations on an equal, non-discriminatory basis (Albin 2001). The Chemical Weapons Convention (CWC), like the Biological Weapons Convention and the Comprehensive Test Ban Treaty, is often singled out as fair and non-discriminatory, as parties are subjected to identical bans and requirements and to the same verification procedures. The CWC talks were concluded successfully once Western chemical weapon states, especially the US and France, abandoned their attempts to retain certain (unequal) privileges. While taking more than two decades to complete, these negotiations entirely outlawed chemical weapons and established a strong implementation and verification regime. The discussion above suggests a final hypothesis:

**H6**: More (less) adherence specifically to the DJ principle of equality in multilateral arms control talks leads to more (less) effective agreements.

As noted above in the section on bilateral cases, these hypotheses focus on relationships between justice in the negotiation process and outcomes. A next step will be to evaluate the hypothesized relationships found to be significant.

**Data and Methods**

Ten bilateral or trilateral and ten multilateral cases of arms control or disarmament negotiations which resulted in an agreement were carefully selected to test the hypotheses. The sample was chosen primarily with the view of being representative of the larger population of such negotiations, specifically with regard to four matters. One was the key issues negotiated, notably types of weapons involved. Thus the sample includes a variety of types of weapons, but weapons of mass destruction, nuclear in particular, are overrepresented notably among the bilateral cases. This reflects the record of considerable international efforts and accomplishments to control the spread of and eliminate such weapons. It contrasts somewhat with the record of attempts and results in the area of conventional arms control, although there have been
significant achievements in this area over the past two decades. Another criterion of selection concerned the negotiation fora in which the talks took place. These included well-established and frequently used conferences such as the Conference on Disarmament, as well as ad hoc fora. A third criterion concerned parties involved – their identity and type (e.g., states, international and non-governmental organizations). Finally, cases were chosen to represent different time periods during which arms control and disarmament negotiations have been conducted. The availability of detailed quality documentation about the negotiation processes was also taken into account when selecting cases.

Both the bilateral and multilateral cases were selected with a view to achieving sampling representation and using good quality documentation. Each type of case is discussed in turn.

Bilateral/Trilateral Cases

The ten bilateral cases are shown in Table 1 below. Although constrained by available documentation, an attempt was made to select cases that varied in terms of issues discussed and time period covered. The issues included nuclear weapons testing, reduction of arsenals, outer space and underground testing, transparency of military activities, elimination of intermediate range and conventional weapons, safeguards for nuclear facilities (confined to the Indian-US deal), and conversion of nuclear programs for peaceful purposes. The time period ranged from 1963 (the trilateral [US, Soviet Union, UK] Limited Test Ban Treaty) to 2008 (Indo-US Nuclear Deal). The parties are less varied. Most include the US and either the Soviet Union or Russia. This was due in large part to the virtual monopoly of bilateral arms control (especially involving nuclear weapons) being conducted between these super-powers.

Questions may be raised about two cases in the bilateral dataset. The India/US nuclear deal may not qualify as an arms control agreement. It was intended to open the possibility of civilian nuclear trade between these parties. The arms control aspect consisted of negotiating safeguards on the Indian civilian nuclear program. The Mutual and Balanced Force Reductions (MBFR) case is bilateral in the sense of bargaining between two alliances: Differences among the allies within each bloc may be similar to the conflicts that occur within delegations in bilateral talks between nations. But this case may also be considered multilateral with regard to the intra-alliance bargaining that took place within both alliances, as intra-alliance differences occur among national delegations. Rather than take a position on these issues, we performed several sets of analyses with and without these cases for the bilateral, multilateral and combined datasets. Similar results would reduce the need to justify the inclusion of these cases in the bilateral dataset.
The sources of information on the cases consisted primarily of book-length discussions of the negotiation process. Examples of excellent documentation include Seaborg and Loeb (1981) on the Limited Test Ban Treaty, Winkler (2000) on the Incidents of Sea Agreement, Newhouse (1973) on the Strategic Arms Limitations Talks (SALT) I, Talbott (1979) on SALT II, Graham & Lavara (2003) on the Threshold Test Ban, and Terry (2002) on the Strategic Offensive Reductions Treaty (SORT). However, we also consulted article-length sources for most cases when available (e.g., Druckman et al. 1991, on INF; Hopmann & King 1976, on the test ban talks).

**Multilateral Cases**

The multilateral sample consists of ten cases of negotiations (see Table 2 below). Overall, a very good level of representativeness was achieved in view of available documentation. As for parties, the number ranges from just over 20 to nearly 200 participating states. While other actors occasionally take part, the heavily state-dominated scene reflects the reality of arms control talks. The issues under discussion vary considerably and include limits or bans on nuclear weapons and explosions, anti-personnel landmines, chemical and biological weapons, cluster munitions, “inhumane” weapons, military use of environmental modification techniques, and aerial surveillance to promote openness regarding military matters (open skies). Established negotiating fora predominate;

<table>
<thead>
<tr>
<th>Cases</th>
<th>DJ total</th>
<th>DJ per</th>
<th>PJ total</th>
<th>PJ per</th>
<th>Effectiveness (corrected)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Indo-US Nuclear Agreement</td>
<td>8.93</td>
<td>2.23</td>
<td>6.25</td>
<td>1.56</td>
<td>13.75</td>
</tr>
<tr>
<td>Agreed Framework, US &amp; North Korea</td>
<td>8.05</td>
<td>2.01</td>
<td>7.75</td>
<td>1.94</td>
<td>12.75</td>
</tr>
<tr>
<td>Prevention of Incidents on &amp; over the High Seas</td>
<td>5.88</td>
<td>1.94</td>
<td>10</td>
<td>2.5</td>
<td>20</td>
</tr>
<tr>
<td>Intermediate Nuclear Forces</td>
<td>3.17</td>
<td>1.58</td>
<td>5.83</td>
<td>1.94</td>
<td>16</td>
</tr>
<tr>
<td>Limited Test Ban Treaty</td>
<td>5.8</td>
<td>1.45</td>
<td>6.83</td>
<td>1.71</td>
<td>14.25</td>
</tr>
<tr>
<td>Mutual &amp; Balanced Force Reductions</td>
<td>3.9</td>
<td>1.3</td>
<td>5</td>
<td>1.25</td>
<td>7.75</td>
</tr>
<tr>
<td>SALT I</td>
<td>4.44</td>
<td>1.48</td>
<td>6.5</td>
<td>1.63</td>
<td>13.5</td>
</tr>
<tr>
<td>SALT II</td>
<td>5.38</td>
<td>1.79</td>
<td>7</td>
<td>1.75</td>
<td>12.5</td>
</tr>
<tr>
<td>Treaty on Strategic Offensive Reductions</td>
<td>4.63</td>
<td>1.54</td>
<td>7.25</td>
<td>2.42</td>
<td>16</td>
</tr>
<tr>
<td>Threshold Test Ban Treaty</td>
<td>3.38</td>
<td>1.69</td>
<td>5.5</td>
<td>1.38</td>
<td>14.5</td>
</tr>
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nonetheless, three cases involve ad hoc conferences and two cases involve both. The length of the negotiations ranges from a few days to many years. The 1997 Anti-Personnel Landmines Convention (Ottawa Convention), for example, was negotiated in just three days, due in large part to prior discussions that took place in Vienna. By contrast, the discussions that eventually led to the 1993 Chemical Weapons Convention were initiated in 1968 and the last round of talks (included in the sample) required 8 years. Finally, the sample includes cases from 1969–1970 to 2008, with at least two cases for each decade, thus capturing much change over time in arms control and disarmament talks.

Variables and Coding
Three variables were analyzed in each of the 20 cases: PJ and DJ principles in the negotiation process, and the effectiveness of the agreement (the dependent variable). DJ is about the distribution of benefits and burdens; its presence or lack thereof is commonly assessed in the terms of agreements or other outcomes. Because the dependent variable is also about the outcome, however, it would have been difficult to distinguish it from assessments of DJ in agreements. Procedures were therefore developed for assessing the adher-

<table>
<thead>
<tr>
<th>Cases</th>
<th>DJ total</th>
<th>DJ per</th>
<th>PJ total</th>
<th>PJ per</th>
<th>Effectiveness</th>
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ence or not to DJ principles, and its effect in the bargaining process. In other words, the analysis focused on whether and how parties' notions of what DJ principles ought to underlie an agreement and impacted upon the outcomes. For example, conflicting notions of what DJ principle(s) should guide the distribution of benefits and costs in an agreement are likely to cause stalemate in negotiations, while similar notions tend to facilitate the process, leading to agreements (Albin 2001).

Guides for coding DJ and PJ principles, including definitions and examples of application, were developed in earlier studies (Druckman & Albin 2011, Albin & Druckman 2012). These were adjusted for use with the arms control cases in this study. A first step was for coders to identify negotiator statements that reflected a particular DJ or PJ principle. Two questions were then asked: a) What kind of influence did the DJ (PJ) principle have in the negotiation process (primarily positive, mixed, or primarily negative)?; and b) How much of an impact (whether positive or negative) did the principle have on the negotiation process (highly significant, important, marginal)? Answers to these questions were combined to form an index that ranged from positive, highly significant (3) to negative, highly significant (0) in increments of .5. This seven-step scale was designed to capture the overall impact of each principle identified in the process.

The scaled scores were added across the principles to produce total DJ and PJ scores (an average score was taken for statements judged to reflect the same principle). A per principle average was also calculated by dividing the total score by the number of DJ or PJ principles coded. For example, a total score of 1.5 calculated from two principles results in a per principle score of .75. An effectiveness index was also constructed. It consisted of five parts with four choices each, intended to capture the concept: number of issues resolved (all, most, some, none), degree of agreement or disagreement (all parties support, all parties partially support, a few parties support, no support), time to reach agreement (no delays, minor delays, some delays, considerable delays), type of agreement (specific or substantial, less than substantial but specific, broad or vague, no agreement), and balance of integrative and distributive elements (primarily integrative, mixed, primarily distributive, no agreement). Each question was accompanied by a confidence judgment (consisting of a choice among fully, somewhat, not confident). The coded part scores were aggregated for two indices, total and corrected effectiveness. The latter was corrected by the confidence ratings with weights of 1 (fully), .75 (somewhat), and .5 (not confident). The corrected index was used in the analyses reported below, with scores ranging from 0 (minimum corrected effectiveness) to 20 (maximum corrected effectiveness).
Calibration of Judgments

A procedure was designed for calibrating the judgments of DJ and PJ. This is similar to systematic expert judgments, where panels of experts work toward consensual judgments through a series of steps involving feedback and reconsideration. An example of a popular panel procedure is known as Delphi analysis. The idea is to improve the judgments rather than to alter the coding system. The latter approach falls under the tradition of reliability assessments.

A second coder was recruited to perform blind judgments for each of the statements identified by the first coder per case. Both coders were graduate students with training in conflict and negotiation analysis at Uppsala University’s Department of Peace and Conflict Research. The second coder’s task consisted only of assigning justice principles to statements, not identifying the statements from the case reports. The judgments made by the coders were then compared for agreements and disagreements.

Generally high levels of agreement were attained for both types of cases. With regard to the bilateral cases, the coders agreed on 45 of the 58 statements selected for coding PJ (77.6% agreement). They agreed on 72 of the 90 statements selected for coding DJ (78.3%). With regard to the multilateral cases, they agreed on 65 of the 75 statements coded for PJ (86.7%), and agreed on 57 of the 67 statements coded for DJ (85%). These are impressive results. A next step consisted of calibrating the disagreements. The coded data for each case are shown in Table 1 (bilateral cases) and Table 2 (multilateral cases).

Results

Correlational analyses were performed to evaluate the hypotheses for the bilateral and multilateral cases. Both bivariate and partial correlations were calcu-
The partial correlations consisted of controlling the variation contributed by a third variable: for example the relationship between DJ and effectiveness controlling for the effects of PJ on each of these variables. Regression-based mediation analyses were also performed to ascertain whether a relationship between two variables (DJ and effectiveness) can be explained by the operation of a third variable (PJ). For example, does PJ explain the relationship between DJ and effectiveness? (See Sobel 1982, on mediation analysis.)

**Bilateral Cases**

Results obtained from analyses of the ten bilateral cases are organized in terms of the hypotheses.

**H1:** More adherence to the DJ principle of equality in bilateral negotiations leads to more effective agreements.

A borderline correlation between the principle of equality and the extent of agreement between the parties provides modest support for this hypothesis ($r = .55, p < .10$). Equality did not correlate with any of the other components of the effectiveness index. The DJ per principle index, consisting of an aggregation of the four principles, correlates significantly with the extent of agreement ($r = .65, p < .04$). However, the index correlates inversely with the balance of the agreement ($r = -.62, p < .05$); more emphasis on the DJ principles led to a less balanced agreement. These correlations did not change when controlling for the PJ indices. These results provide marginal support for this hypothesis.

**H2:** More adherence to PJ principles in bilateral negotiations leads to more effective agreements.

Strong correlations were obtained between the PJ indices and effectiveness. With regard to the PJ per principle index, strong correlations were obtained with the effectiveness index ($r = .79, p < .007$) as well as with several parts of the index: number of issues settled ($r = .61, p < .06$), extent of agreement among the parties ($r = .57, p < .09$), and type of agreement ($r = .86, p < .002$). These correlations hold when controlling for DJ. A similar pattern is evident for the PJ total index. Strong correlations occur with the effectiveness index ($r = .70, p < .02$) as well as with various parts of the index: number of issues settled ($r = .61, p < .06$), time to settlement ($r = .62, p < .06$), and type of agreement ($r = .60, p < .07$). These correlations change very little when controlling for DJ. These results provide strong support for this hypothesis.
Further, the DJ and PJ indexes were not correlated. Nor was the relationship between PJ (or DJ) and effectiveness mediated by DJ (or PJ). Results of mediation analyses were not significant. The two justice variables had independent effects on effectiveness.

The pattern of results indicates that effectiveness in the bilateral cases was strongly influenced by PJ: More adherence to those principles led to more effective outcomes, including more issues settled, more agreement among the parties, fewer delays, and more substantial agreements. Interestingly, the other component of effectiveness, referred to as balance, was influenced by DJ (not PJ): More adherence to DJ principles during the process led to more distributive or less integrative agreements, as well as more agreement for this outcome among the parties. Adherence to DJ principles geared the negotiation process toward distributive outcomes as may be expected.

When the two controversial cases, the Indo-US nuclear agreement and MBFR, are dropped from the analysis, the correlations between the justice variables and effectiveness change only slightly: from .70 to .60 for PJ total; from .79 to .71 for PJ per principle. These changes are accounted for by the MBFR case. When only the Indo-US case is dropped, the correlations are practically identical. When MBFR is dropped, the correlations are reduced (from .70 to .61 and from .79 to .72) but remain significant. Based on these analyses, we conclude that the results are essentially the same whether the two cases are included or dropped from the analysis.

**Multilateral Cases**

Results obtained from analyses of the ten multilateral cases are also organized in terms of the hypotheses.

**H3:** More (less) adherence to PJ in multilateral arms control negotiations leads to more (less) effective agreements. (PJ has a direct impact on effectiveness.)

**H4:** More (less) adherence to PJ in multilateral arms control talks leads to less (more) effective agreements.

The only significant correlations occurred between the two PJ indexes (PJ per principle and PJ total) and number of issues resolved. The correlations were identical and inverse ($r = -.70$ and -.70, $p < .03$). These correlations held when controlling for either of the DJ indexes (per principle and total) suggesting some support for H4. Adherence to PJ principles during the process led to fewer issues being resolved in the outcome. Correlations between PJ and other parts of the effectiveness index were not significant.
**H5:** More (less) adherence to DJ principles in multilateral arms control talks leads to more (less) effective agreements.

Significant correlations were obtained between the DJ indexes and two components of the effectiveness index. DJ per principle correlated with the type of agreement as substantial or vague ($r = .58, p < .08$). DJ total correlated inversely with time to agreement ($r = -.57, p < .09$). Both correlations held when controlling for the PJ indexes. These results provide modest support for H5. The multilateral agreements were more substantial when DJ principles were adhered to during the process.

**H6:** More (less) adherence specifically to the DJ principle of equality in multilateral arms control talks leads to more (less) effective agreements.

None of the correlations between the DJ principle of equality and the effectiveness index (or any of its parts) approached significance. Thus, this hypothesis is not supported. Further, similar to the bilateral results, the DJ and PJ indexes were not correlated. Nor was the relationship between PJ (or DJ) and effectiveness mediated by DJ (or PJ). Results of mediation analyses were not significant. The two justice variables had independent effects on effectiveness.

These results indicate that adherence to PJ principles during the negotiation process resulted in fewer issues being resolved in the outcome. They also show that multilateral agreements were more substantial when DJ principles were adhered to during the process. However, more delays occurred during the process when these principles were adhered to. Perhaps delays are more likely to occur when attempts are made to attain specific, substantial agreements.

The correlation analyses were recomputed with MBFR re-classified as a multilateral case. Neither analysis, with or without MBFR included in the dataset, produces significant correlations. The highest correlation is between PJ total and effectiveness for the original dataset, without MBFR ($-.32, p < .36$). Thus, we conclude that the results are the same whether MBFR is included or excluded from the multilateral analyses.

**Bilateral and Multilateral Cases**

A similar pattern of results is obtained for the combined sample of 20 cases. These results indicate that effectiveness is moderately influenced by PJ principles: The more parties adhere to those principles, the more effective the outcome ($r = .45, p < .08$). A stronger correlation is obtained for time to agreement: Fewer delays occurred when the parties adhered more to PJ principles during the process ($r = .61, p < .004$). Only slight changes occur in these correlations.
when controlling for DJ. Further, DJ did not mediate the relationship between PJ and effectiveness. The inverse correlation between DJ and balance indicates that the more the adherence to DJ principles during the negotiation process, the more the agreement was distributive rather than integrative in the sense of satisfying all parties’ preferences ($r = .51$, $p < .02$). Only a slight change occurs when controlling for PJ.

**Summary of Findings**
The correlations between PJ and effectiveness are considerably stronger for the bilateral than for the multilateral cases or for the combined samples. Clearly, the results obtained across the two types of cases are accounted for by the sample of bilateral negotiations. A closer probe in the next section provides insights that contribute to our understanding of these findings.

DJ principles worked differently for the two types of cases: While balance was influenced by DJ principles in the bilateral (and combined) cases, the type of agreement reached among the parties was influenced in the multilateral cases.

The multilateral cases present a limited range of variation on the effectiveness index: The scores range from 13.5 to 19, a difference of 5.5. The average effectiveness is 16.4. For the bilateral cases, the effectiveness scores range from 7.75 to 20, a difference of 12.25. The average effectiveness for these cases is 14.1. The average PJ scores are higher for the multilateral (8.04) than for the bilateral cases (6.79). Thus, there was more adherence to PJ principles and a higher average effectiveness for the multilateral than for the bilateral cases. The high PJ and effectiveness indexes suggest ceiling effects where only small improvements may be possible. Further, the limited range of the effectiveness index for the multilateral cases would appear to be responsible for the low correlations and only modest support for the hypotheses.

Following the analyses reported above on the bilateral and multilateral cases, we calculated correlations without the two controversial cases. The results are similar. The correlations are virtually identical with and without the Indo/US case. They do however change when MBFR is excluded: from .41 to .24 for PJ total/effectiveness and from .45 to .28 for PJ per/effectiveness. Thus, MBFR does make a difference in the overall results obtained across the two datasets, and is thus an important case in the sample. These findings do not address the issue of whether MBFR should be considered a bilateral or multilateral case. That issue is resolved by the analyses reported in the previous section.
Discussion

Bilateral Cases
Strong support for hypothesis 2 indicates that PJ influences effectiveness in this sample of arms control cases. Further probes of these results reveal insights that provide an explanation for the relationship. The insights also suggest ideas for further research on the justice-effectiveness relationship.

Case Variation
The high correlations (.79, .70) between PJ and effectiveness explain between 50–60% of the variation in effectiveness. This can be interpreted as strong relations between PJ and effectiveness for about half of the bilateral cases. Thus, it would seem useful to look closely at those cases where the strongest co-variation (high or low PJ with high or low effectiveness) occurs. A question asked is: How does adherence (or non-adherence) to PJ principles lead toward or away from effective outcomes?

Index scores for the PJ and effectiveness variables are used to select bilateral cases for the probes. The following cases show the strongest co-variation:

- **INCSEA**: very high on both PJ (10 and 2.5) and effectiveness (20)
- **SORT**: quite high on both PJ (7.25 and 2.42) and effectiveness (16)
- **INF**: high on per principle PJ (1.94) and on effectiveness (16)
- **MBFR**: very low on both PJ (5, 1.25) and on effectiveness (7.75)
- **TTBT**: low on PJ (5.5, 1.38) and moderate on effectiveness (14.5)

The other five cases are either moderate on both variables (LTB, PEW 123) or mixed with relatively high scores on PJ and low on effectiveness (AF, SALT II, SALT I).

Explaining the PJ-Effectiveness Relationship: Case Analyses
An attempt is made to explain these patterns based on the more fine-grained analyses of the five cases that show the strongest co-variation between PJ and effectiveness. These brief analyses are followed by a summary of the lessons learned.

**SORT**: Signed by George W. Bush and Vladimir Putin in Moscow on May 24, 2002, this treaty was a strategic arms reduction treaty between the United States and Russia. It was in force from June 2003 until February 2011, when it was superseded by the new START treaty.
The treaty required the parties to limit their nuclear arsenals to between 1700 and 2200 operationally deployed warheads each. The agreement favored U.S. preferences. Some clarification of why Russia agreed to enter into this unbalanced agreement comes from our analysis.

Strong adherence to PJ principles, particularly fair treatment and fair play, may have been in Russia's interest. Sensitive to questions raised about their super-power status in the shadow of the break-up of the Soviet Union, Russia was eager to negotiate an arms control agreement with the "other" super-power. Producing an effective agreement was more important than the specific terms of that agreement. As a result, they withheld objections to the terms concerning limits and contributed to a process considered fair, representative, and voluntary. This is a case where the political context surrounding negotiation influenced both the way the talks were conducted – strong adherence to three of four PJ principles – and the agreement reached – effective on all components of the index except balance.

**INCSEA**: Signed by the United States and the Soviet Union at the Moscow Summit in May 1972, the Agreement on the Prevention of Incidents on and Over the High Seas (INCSEA) was a model agreement between these cold war adversaries. This may be due largely to clear principles, a non-political focus on safety, and a direct dialogue between naval officers on both sides. It is the only case in the dataset to receive the maximum score on effectiveness. Similarly, it receives the highest scores on both PJ indices, as well as on each of the four PJ principles.

A key factor in this case was the relationship between the officers in the two delegations. Their shared code of conduct on the high seas may have created a common bond that enabled them to adhere to PJ principles, particularly with regard to transparency and fair treatment and fair play. This sense of camaraderie, not typical of these nations’ other military services during the cold war, enhanced their perceived trust. Thus, trust may be considered as a moderating variable in the relationship between PJ and effectiveness. Trust may also have contributed to the significant correlation between DJ and the extent of agreement attained by the parties (George et al. 1988).

**INF**: Signed in December 1987 by Ronald Reagan and Mikhail Gorbachev in Washington DC, the Intermediate-range Nuclear Forces (INF) Treaty eliminated all nuclear delivery vehicles in the U.S. and Soviet Union arsenals with ranges between 500 and 5500 kilometers. The Treaty was the culmination of almost eight years of negotiation. Receiving a high score on effectiveness, this negotiation also attained relatively high ratings on the two PJ indices for the period examined (October 1985-December 1987). Early delays were caused in part by a lack of transparency on issues related to the nuclear balance. Yet,
despite this impasse, the parties continued to negotiate due in part to a quest to resolve their differences and to adhere to PJ principles on a number of procedural issues.

The impasse was resolved with Gorbachev’s proposed Double Global Zero option. Overcoming domestic opposition, Gorbachev’s option, which reflected a change in Soviet policy and beliefs, was decisive (Risse 1988). It resolved issues about definition and scope of reductions, as well as verification. Strong adherence to the PJ principles of fair representation and voluntary agreement during discussions of this option contributed to progress. Realizing that this option satisfied their concerns, the parties put aside their disagreement (including a lack of transparency) about conceptions of the nuclear balance and paved the way for the large concessions made by the Soviet Union in these talks. More broadly, these moves contributed to altering their relationship with the West in more fundamental ways. An insight gained from this case is that a resolving formula that serves the interests of both parties may be the substantive breakthrough needed for an effective agreement. The formula may be accepted more readily when the parties adhere to PJ principles, thus moderating the relationship between PJ and effectiveness.

MBFR: Negotiations between NATO and the Warsaw Pact on disarmament and control of conventional arms and armed forces in central Europe began officially on October 30, 1973. The talks continued for 13 years (1973–1986) without progress toward an agreement. They officially ended in February 1989 and were replaced by the Conventional Forces in Europe Treaty negotiations. Considered as a negotiation for achieving side effects, MBFR was shaped by the politics of the cold war. Similar objectives on both sides insured that the talks would go nowhere very slowly: The Warsaw Pact sought to protect its existing advantage in conventional forces while NATO sought to maintain domestic support for troop commitments in Europe. These objectives were achieved largely due to a mutually agreed-upon façade of progress toward mutual reductions. The apparent trade-off on asymmetrical alliance advantages (ground for air forces) never materialized as a serious proposal. These politics are also reflected by the justice and effectiveness analyses.

Interestingly, the talks survived a number of violations of PJ principles. The low PJ indices are a result of lack of transparency, fair treatment and fair play, and voluntary agreement. Although not discussed during the talks, fair representation may also have been an issue: With the exception of the UK and Germany, NATO and Warsaw Pact allies were largely subservient to the decisions made by the superpower leaders of these alliances. Low scores on each component of the effectiveness index were due in large part to the lack of agreement. MBFR is an example of a case where the parties had few incentives to
reach any agreement. Indeed, the introduction by the Warsaw Pact of the nuclear issue may have spoiled any chance at attaining an agreement. The attractiveness of their alternatives would seem to have accounted for both the lack of adherence to PJ principles and ineffective outcomes.

**TTBT**: The Threshold Test Ban Treaty (TTBT) between the U.S. and the Soviet Union was signed in July 1974 to be followed by negotiations on peaceful nuclear explosions (PNE). The idea of separating PNE from other technical issues served to break a deadlock, particularly on verification issues, in the TTBT negotiations. Clear and limited goals set by the leadership on both sides augured effectively for a relatively quick negotiation; the treaty was negotiated in five weeks. Yet despite the rapid progress, procedural problems arose with regard to transparency. The back-channel diplomacy engaged in by Kissinger and Gromyko raised concerns about the authority of the delegations to conclude an agreement. The lack of transparency accounted for the modest PJ indices and may have contributed to the less than substantial agreement reached.

Similar to the INF negotiation, a resolving formula combined with an impending summit meeting worked to move the talks toward agreement. This resolution paved the way for the limited agreement that was followed by a negotiation concerning the difficult PNE issues. The formula also appeared to offset tensions that arose with regard to the lack of transparency caused by the double track. A more general lesson from this case is that ideas that break impasses, regarded as turning points, reduce the problems created by lack of adherence to such PJ principles as transparency. But, the ideas per se may not be sufficient to attain an agreement. Procedural incentives – such as a scheduled summit meeting – may be needed to close the deal.

**Lessons Learned**

A number of factors are shown in the case-by-case analyses to influence negotiation outcomes. Many of them exert this influence through the link between PJ principles in the negotiating process and effective outcomes. These factors include the political context surrounding the negotiation, shared cultures between national delegations, substantive breakthroughs, and procedural innovations. Some of these conditions explain the significant correlations between PJ principles and effective outcomes.

The political context shapes the incentives for an agreement, leading toward agreement in SORT but away from agreement in MBFR. The incentives highlight the attractiveness of alternatives, negative for the SORT negotiators but positive for the MBFR delegations. Shared professional cultures, such as the naval identity in INCSEA, enhance trust, which has been shown to cor-
relate with PJ in the process as well as with effective, integrative outcomes (Hollander-Blumhoff & Tyler 2008). A key idea, such as limiting the scope of the issues on the negotiating table, may offset problems with such aspects of PJ as transparency, although the agreements may less substantial as in the INF and TTBT cases. Similarly, an impending deadline forced by scheduled events such as summit conferences may galvanize the delegations to resolve outstanding issues.

Lessons for further research on justice and effectiveness are suggested by these analyses. Highlighted here are the roles played by alternatives, trust, formulae, and deadlines. Each of these factors has received considerable attention in the negotiation literature. None has been explored as a variable that moderates the relationship between justice in the negotiation process and effective outcomes. This exploration remains to be done with a larger and more diverse sampling of bilateral arms control cases.

**Multilateral Cases**

The hypotheses about relationships between justice and effectiveness are only weakly supported in the sample of multilateral cases. Thus, further probes of selected cases, as performed with the bilateral cases, were not conducted. It is unlikely that case analyses would produce additional insights into the statistical findings. Rather, we discuss possible reasons for the pattern of results and offer new hypotheses to guide further investigations of multilateral arms control negotiations.

A different pattern of results was found for the multilateral cases. First, the strong adherence to PJ principles, compared to the bilateral cases, supports the idea of a need for regulatory focus in order to manage the complex web of interactions and political relationships. PJ adherence may have functioned to preserve relationships between the super-powers and among the less powerful nations. While preserving a balance of arms between the super-powers, a fair and representative process may have sustained the interest of weaker powers whose leverage was limited to moral suasion and damage control (Hopmann 1978). But, this focus may also hinder effectiveness in complex multi-party negotiations, as hypothesized (H4). The strong negative correlations between PJ and number of issues resolved provide partial support for this hypothesis: Fewer issues were resolved when PJ adherence was strong.

It is, however, also the case that PJ adherence did not correlate with the other components of the effectiveness index. This may have been due to the lack of variation from case to case on the index. This is the puzzle: Why did all the multilateral cases result in generally effective outcomes? Three explanations are suggested. One is that the costs of non-agreement in arms control
are prohibitive, making this outcome untenable. A failed multilateral process is a sunk cost to the participating nations. Another is that arms control negotiators take a risk averse approach that orients them toward safe agreements (Druckman 2001). Regarded as a confidence-building exercise (Hampson & Hart 1995), multilateral talks often achieve cosmetic agreements that preserve relationships. A third reason, observed in several multilateral cases, is suggested by high levels of initial agreement. For example, BWC and CWC negotiators worked out the contours of agreements in considerable detail before the formal talks began. These pre-negotiation consultations paved the way for the resulting agreements. Indeed, the substantial investment made in multilateral fora encourages early orchestration to increase the chances of a return on that investment.

The findings regarding DJ are interesting as well. Providing partial support for H5, more adherence to DJ in the process correlated with more substantial agreements that took more time to reach. Similar to the early preparation noted above, working out the distributive principles during the negotiation paves the way toward an acceptable formula – such as equal or proportional benefits – in the outcome. Thus, PJ and DJ have different effects on outcomes. Namely, fewer issues are resolved when PJ is adhered to, and more substantial agreements are reached for settled issues when DJ is adhered to. These different effects are also reflected in the lack of correlation between PJ and DJ. These variables are independent of each other.

Further Research

The results reported in this article stimulate a number of questions for further research. They demonstrated causal links between justice in the negotiation process and effective outcomes. Causation is established by the time lag between the discussions held during the talks and various aspects of the outcome.5 Missing however from the analyses are probes that would provide explanations for the findings. These probes can be performed in two ways: by performing statistical mediation analyses on additional coded variables and by performing qualitative process traces to demonstrate how variables such as trust develop through the course of the process, leading to the outcome. The mechanics for making these probes are not difficult. More challenging perhaps is the identification of the mediating variables. Some clues are provided by the mini-case studies. As noted above, these include alternatives, trust, formulae,

5 See Albin & Druckman 2014, for a discussion of causation in the context of analyses of process-outcome relationships in trade negotiations.
and deadlines. Of particular interest is a probe into the way these variables interact during the unfolding process of selected cases.6

The data used for coding the justice and effectiveness variables were assembled from archival sources on the cases. Missing from these sources are perceptions and interpretations of justice by the negotiators. Gathered from interviews or experiments, these perceptions would improve our understanding of factors that explain the justice-effectiveness relationship. The importance of socio-cultural background is emphasized in international relations (Wiener 2008) and in studies of negotiation (Leung and Tong 2004). A challenge, however, is to separate the cultural from the strategic sources regarding the way that justice concepts are used and interpreted. For example, the U.S. and Soviet negotiators differed in their meaning of ‘equal security.’ The U.S. did not accept the Soviet interpretation of equality that was used to justify higher force levels. Their reference for comparison was the combined American, British, and French forces while the U.S. only viewed its own forces as the appropriate reference for achieving equal security. This example points to the relevance of broader issues of navigating the terrain of norms and interests in arms control (Müller 2013). More specifically, the way justice claims are addressed in the context of strategic interests is an important topic for further research.

The study provides evidence for the contingent role played by justice in arms control negotiations: The effects are strongest for bilateral cases. Further insights are likely to come from analyses of additional cases in each of the sampling categories of issues and time period. Notably, more cases in which neither the U.S. nor the Soviet Union/Russia participated would be helpful. But the results also raise questions about the importance of justice, particularly in multilateral cases. Other concepts may come into play. One involves status considerations. Examples include the special status of the five official nuclear powers in the NPT negotiations and the status of Palestine for participation as a full state in the Arms Trade Treaty talks.

Another concerns the symmetry of power among the parties. The nuclear-non-nuclear divide is especially salient in multilateral negotiations. This divide would seem to raise both PJ and DJ issues, although these issues did not influence effectiveness in this study. More generally, however, whether effective outcomes turn on justice or power dimensions remains to be studied. Adding status and power dimensions steers the analysis away from single-factor explanations that drive negotiation.

6 See Irmer & Druckman 2009, for an example of how process tracing and plausibility probes are combined in case studies.
With regard to the dependent variable, other indicators of effectiveness may be considered. One is the idea of the “attractiveness” of a multilateral treaty. This may take the form of a ratio of the percentage of states eligible to be a party to the treaty divided by the number of years that the treaty was open for signing. Of interest is the extent to which the justice variables influence this ratio or the extent to which it correlates with the components of the effectiveness index used in this study.

A final question is whether or how far differences in the balance of power between negotiating parties help to explain different roles played by justice and its impact on effectiveness. Inequalities in power – such as in weapons arsenals (as between nuclear and non-nuclear weapon states) and level of economic development – were prominent in the multilateral cases covered by this study. Power inequalities as such are commonly thought to undermine the motivation or ability of parties to rely on justice in negotiations (Albin 2001). At the same time, such inequalities often raise stark issues of distributive justice, which are hard to ignore in the negotiation process. By contrast, nearly all the bilateral cases covered here were characterized by rough power equality between parties. This is thought to enhance motivation and opportunities to take justice into account, and to practice reciprocity in the process of bargaining and concession-making (Albin 2001). However, little is known beyond this; for example, whether the power balance affects the type of justice (DJ or PJ) which is taken into account.

Conclusion

The results show that justice plays a role in arms control negotiations. For the bilateral cases, PJ is strongly related to effectiveness as defined in this article. For the multilateral cases, PJ is strongly adhered to but does not correlate with most of the components of the effectiveness index. One implication is that justice considerations are taken into account even in areas where risks are high and national security interests predominate. Another implication is that the role of justice differs in bilateral and multilateral arms control. These principles may serve to reduce the uncertainty and mistrust evident in bilateral arms control negotiations. The relationship between PJ and effectiveness in the bilateral cases is mediated by several features of the negotiation process (formulas, deadlines) and the parties (alternatives, trust), as revealed by the detailed probes of several cases. These features enable the parties to resolve their disagreements on PJ principles, leading to convergence on salient solutions.
But there is considerable adherence to PJ principles also in the multilateral cases. This may be due to the institutional rule structure of these large negotiations, which serves to reduce complexity and uncertainty, and guides the way the process unfolds. Thus, the rule structure encourages convergence among the vast array of parties who come to the talks with a variety of interests and justice claims. More specifically, the justice variables influence particular aspects of multilateral effectiveness. These suggested explanations are sources for hypotheses to be explored in further research on justice in arms control negotiations.

References


