

CHAPTER 5

COOPERATION AND DEFECTION IN THE CONFERENCE ON DISARMAMENT

John Borrie¹

SUMMARY

On the face of it, that the strong dominate the weak would seem depressingly true in multilateral disarmament and arms control, as well as a recipe for continued deadlock in institutions like the Conference on Disarmament. Or is it? And, if it is, does it have to be that way? Drawing on game theory and findings about the emergence of cooperation, this chapter shows that over time clusters of cooperators (such as states and their civil society partners) can, through their concerted and self-interested action, affect the behaviour even of the most powerful by modifying the pay-off structures in which cooperation and defection occur.

INTRODUCTION

“We recommend that you should try to get what it is possible for you to get ... since you know as well as we do that ... in fact the strong do what they have the power to do and the weak accept what they have to accept.”²

These cold and rational words have a modern sound. In fact, they are almost 2,500 years old—the advice of the militarily strong Athenians to the weaker Melians during the Peloponnesian War, according to Thucydides. The island of Melos found itself an unwilling pawn in a vicious struggle between the Athenian and Spartan alliances. The leaders of the powerful Athenian force arriving on Melos’s doorstep offered a simple choice: submit to being conquered or be destroyed. The Athenians refused to discuss either the justice of their demands or any substantive argument by the

Melians. Choosing to resist, Melos was annihilated and its survivors enslaved.

There are echoes of the Melians' unenviable situation in some modern day scenarios in international relations, in which problems of conflict and cooperation dictate that "you're either with us or against us".³ The stark message apparently illustrated by the Melian dialogue is that little guys come last: "the strong do what they have the power to do and the weak accept what they have to accept". This was the lesson drawn by early game theorists and Cold War warriors like the Hungarian-born American mathematician John von Neumann, who was instrumental in the build-up of the United States' nuclear arsenal against the Soviets in the late 1940s and 1950s. Von Neumann was fond of quoting the Melian Dialogue verbatim as a warning against the dangers of the nation appearing weak.⁴ Such views have tinted the worldview of certain politicians and military strategists ever since, and have been taught as conventional wisdom to many future diplomats at school and university.

On the face of it, that the strong dominate the weak would seem depressingly true in multilateral disarmament and arms control, as illustrated in the Conference on Disarmament (CD) in recent years. Or is it? And, if it is, does it have to be that way?

DEADLOCK AND ITS DISCONTENTS

International relations can be viewed as essentially theoretical problems of cooperation played out in reality among states with different levels of interest, power and resources. In some multilateral contexts, such as the CD, structural or institutional factors constrain the ways in which cooperation can develop. They are all-or-nothing affairs, in which a single "defection" can prevent agreement even on beginning work.

In the CD's case its procedural rules, strengthened through accumulation of historical precedent, demand consensus as the threshold for formal decision-making.⁵ The dominant Cold War powers insisted on this as a safeguard against being out-voted, since vital matters of national security and sovereignty may, in principle, be addressed in the CD. In practice, the CD's manner of work hands a blocking power to a minority of countries to say "no" to cooperation, for whatever reason, regardless of the interests of

many others who might be affected. Cases in point: almost all of the CD's 65 member countries agree that a new international norm is necessary to halt production of fissile materials usable in nuclear weapons, and that progress is urgently needed toward nuclear disarmament. In the post-11 September 2001 world such objectives ought to be beyond dispute—no responsible government wants terrorists to acquire nuclear weapons. Moreover, the growing global stockpile of fissile material (not all of it well secured) and retention of nuclear weapons (many of them ageing) in the arsenals of nuclear-armed countries is an obvious invitation to disaster. Yet the CD has not negotiated any new agreements for almost a decade.

The Conference's efforts to resume work have been in vain because two "key" countries, China and the United States, will not cooperate in joining consensus on a work programme (there may be others, like Pakistan and Israel, hiding behind them.) After initial reluctance, China said it supports negotiations on a fissile material treaty, as does the United States, although lately Washington has wavered, ostensibly over the question of verification. Underlying China's concern about US missile defence plans, however, Beijing insists that alongside fissile material negotiations, the CD should also work towards an agreement to prevent an arms race in outer space. No deal, says the United States.

These mutually exclusive Chinese and American positions have, since 1998, prevented the consensus the CD needs to resume work. As a result, the body has been made an international laughing stock. This deterioration in credibility hurts its less powerful member countries more than it appears to bother China and the United States, who each have UN Security Council seats and other ways, including military muscle, with which to exert their influence on the global scene.

The CD's situation fits the textbook description of deadlock well. In the simplest terms, deadlock occurs when two parties fail to cooperate because neither really wants to—they just want the other party to compromise. In game theory, deadlock is described thus:

	Cooperate	Defect
Cooperate	1,1	0,3
Defect	3,0	2,2

In this table, the values from 0 to 3 represent utility, in which 0 represents the least utility (or worst outcome) for a particular actor. In two-party deadlock, each quickly surmises that she should defect because this has the highest utility value (3) for her. Mutual defection turns out to have the second-best outcome (2,2). Mutual cooperation in this analysis earns both parties a rather low utility value (1,1). The worst unilateral outcome is to cooperate when the other party defects—she earns the maximum 3 points, and you earn none.

Of course, global security is more than a two-player game. But for all intents and purposes, the 65-country CD has *become* a two-player game because only China and the United States can change the deadlock. If both of them were to agree, pressure would quickly be exerted on any other (less powerful) states that might be reluctant, as happened in summer 1998 when the CD briefly achieved a work programme (its work year concluded, however, before it could commence any negotiations). As a consequence, the CD has been reduced to serving the interests solely of those two parties content with a situation of deadlock, rather than most of the rest of its members.

Multilateral diplomats and the policy makers of many CD member states have become highly frustrated at their impotence. The CD's long impasse confronts them with the paradox that even as they assert the importance of multilateralism, they are themselves infantilized by the process and procedures of the CD. For example, there is common agreement that certain nuclear dangers are real, and loom increasingly large. It is also generally understood—at least intellectually—that a nuclear incident, whether a terrorist attack, an accidental intercontinental ballistic missile launch or, indeed, the dangerous instability inherent in a spread of nuclear weapons to more countries, would have terrible human consequences, in which the world's politically progressive non-nuclear armed states and its poorer countries (by no means mutually exclusive groups) will be especially vulnerable. Yet, like children trapped in the back of the family car while their parents argue, the attitude of many seems to be to shrug and whisper, what can we do? We do not have any power, do we?

This assumption of powerlessness needs to be questioned, especially by countries that have historically been active in efforts to work together in like-minded fashion at the multilateral level. These include many of the Europeans, Canada, Japan, Australia and leading countries in the

developing world such as Brazil, Mexico and South Africa. If the issues the CD is tasked with are so important (and that is the commonly held view), then why is more not being done? Do the defectors—China and the United States—really hold all of the cards? As long as agreeing the CD's work programme remains a two-player game, it appears that they do. This is evidenced by various attempts over the years to edge the CD into agreeing a work programme, which have all been seen off.⁶

One obvious alternative would be to change the CD's rules to permit certain decisions to be made without consensus. But this appears fraught with difficulty because any change of the rules of procedure would likely require the agreement of all CD members first. Why would defectors support that?

An important feature of the analysis that follows is that negotiations unfold over time rather than being single snapshots: uncertainty about the future—the length of its “shadow”—is individually subjective. Each party may place different values on the benefits achieved through cooperation versus defection and, consequently, behave differently (cooperation should not be confused with harmony, and is theoretically assumed to be consistent over time for different parties pursuing their interests). Ultimately it is the shadow of the future that is a major driver in any iterated process of decision-making—that is, in which interactions are not one-off, those involved can recall the outcomes of preceding encounters and the likelihood or number of further encounters is indefinite. Of course, the way in which we perceive the shadow of the future may lead us to reject cooperation if we feel we may lose out from it. Conversely, uncertainty about the future is often compelling in real life in getting people and their countries to cooperate, and is thus a powerful basis for arms control. We may be prepared to accept the costs of cooperation because the alternatives—nuclear war, pandemic disease or terror attack, for instance—are worse prospects.

Unhappily, the shadow of the future has failed to encourage progress in the CD. To understand why, let us briefly consider in the most generic terms how cooperation evolves and then apply that understanding to reviewing the CD's predicament.

IT'S ALL OR NOTHING

Many problems in life, including challenges in diplomacy, boil down to the fact that you do not know what the other party, or parties, intend to do. This is classically illustrated by the Prisoner's Dilemma, a hypothetical two-player form of the problem, in which the police arrest two suspects and lock them in different interrogation cells. Each is told that if she implicates the other (that is, defects) she will be set free (3 points), while the other will receive a harsh punishment (0 points), the "sucker's pay-off". If neither talks (cooperation) then both suspects will receive a light sentence for a lesser infraction (2 points), which is better than if they inform on each other, in which case both will get the heavy sentence according to the crime (1 point each). The dilemma is that both suspects realize—rationally—they should defect. But that would make them worse off than if they cooperated.

The utility pay-off structure of the Prisoner's Dilemma looks like this:

	B cooperates	B defects
A cooperates	2,2	0,3
A defects	3,0	1,1

As can be seen, this resembles the utility structure for deadlock, except that mutual cooperation appears more advantageous than mutual defection. Of course, with at least 65 parties, the CD is not a two-person dilemma but a much more complex n -person game, which hinges on many simultaneous interactions. For the purposes of illustrating the conflict between self-interest and the common good in the CD, however, it is not necessary to reflect that level of complexity here.

Instead, we can note that the countries that are ready and willing to get to work in the CD find themselves in a situation not unlike the Prisoner's Dilemma. On the face of it, it would be in all of their interests to cooperate. But, as in the previous example looking at China and the United States, the CD's pay-off structure presents an obstacle. Put yourself in a cooperator's shoes: the worst case for you would be if you called for work to commence outside the CD, say on fissile material negotiations, and not enough others were prepared to reciprocate (A cooperates, B defects).

You would be left with the sucker's pay-off, perhaps in terms of the financial costs and loss of reputation and influence involved in a failure (0 points). You might make the atmosphere in the CD even worse (or at least be accused of doing so). And, you would likely face the ire of defectors, such as the United States and China, who might wish to punish you in order to deter others from threatening their position with further initiatives. In the face of uncertainty about the intentions or trustworthiness of others, it is more tempting to defect—in this case to stick with the current status quo. The worst you can do would leave you at 1 point, although it would not be as good as if everyone cooperated (2 points). Perhaps this is why no proposals have been offered by CD members for parallel or informal negotiating to begin among those who could already agree to a work programme.

In the CD, how can one go about assessing the utility of each strategy? It is here that perceptions play such an important role, and where they are askew in the CD in at least three ways:

- the expectation that consensus (especially the cooperation of key states) is needed before cooperation entailing pay-offs for cooperators can occur;
- the perception that the CD has inherent value in the long run, beyond facilitating cooperative exchange between participants; and
- the implicit assumption that pay-off structures cannot be altered.

IS CONSENSUS NECESSARY FOR COOPERATION?

The Prisoner's Dilemma may not appear as hopeless if we follow what happens over time, rather than regarding defection or cooperation as a single snapshot. From the 1970s, there was a surge of interest in many research disciplines—from biology to economics—about the conditions under which cooperation would emerge in a world of egoists without central control. For political scientists with an interest in arms control like Robert Axelrod, the question was not purely a theoretical problem—it occurred to him that:

nations interact without central control, and therefore the conclusions about the requirements for the emergence of cooperation have empirical relevance to many central issues of international politics.

Examples include many varieties of the security dilemma such as arms competition and its obverse, disarmament.⁷

Axelrod wanted to find out what would happen if the Prisoner's Dilemma's *iterated*, with each of the prisoners able to remember what the other did the preceding turn. To examine these questions, Axelrod ran computer-based tournaments in which players using various strategies were invited to compete. The strategy that consistently won the Prisoner's Dilemma tournament was called Tit-for-Tat, submitted by a game theorist named Anatol Rapoport.⁸

A Tit-for-Tat strategy plays by cooperating on the first move, and then making the same choice thereafter that the other player did on the previous move. Axelrod observed that this strategy does well in beating a wide variety of others—that is, obtaining a greater pay-off in utility—provided that there is a sufficiently large chance that the same players will meet again.⁹

Things really got interesting when Axelrod and others constructed computer models that would allow more successful strategies in a population—Tit-for-Tat being one example of a strategy—to evolve at the expense of less successful ones over time (in fact, Axelrod dubbed it “the evolutionary approach”). What this means in basic terms is best described in Axelrod's own words:

This approach imagines the existence of a whole population of individuals employing a certain strategy, *B*, and a single mutant individual employing another strategy. Strategy *A* is said to *invade* strategy *B* if $V(A/B) > V(B/B)$ where $V(A/B)$ is the expected payoff an *A* gets when playing a *B*, and $V(B/B)$ is the expected payoff a *B* gets when playing another *B*. Since the *B*'s are interacting virtually entirely with other *B*'s, the concept of invasion is equivalent to the single mutant individual being able to do better than the population average.¹⁰

Tit-for-Tat is known as a *collectively stable strategy*. It can get started within a small cluster, spread in a population, and then resist invasion from strategies that refuse to cooperate because it is more successful and, for that reason, expands at their expense. Another feature is that Tit-for-Tat can be characterized as a “nice” strategy. Even though it retaliates for defection, it always cooperates on the first move, and does not defect thereafter unless

provoked by defection.¹¹ In contrast, a “mean” strategy unconditionally defects.

An important discovery was that the length of the game is key to this strategy’s success. Tit-for-Tat only avoids being invaded by other strategies (that is, those yielding higher utility) if the game is likely to last long enough for retaliation to counteract the temptation to pursue a “mean” strategy (that is, to defect). This reflects the shadow of the future, mentioned above.

A second insight Axelrod observed was that a:

world of “meanies” can resist invasion by anyone using any other strategy—provided that the newcomers arrive one at a time. The problem, of course, is that a single newcomer in such a mean world has no one who will reciprocate any cooperation. If the newcomers arrive in small clusters, however, they will have a chance to thrive.¹²

Third, Axelrod showed that players using nice Tit-for-Tat strategies that never defect first are better than others at protecting themselves from invasion by competing strategies. They do this by only defecting against those that defect against them. It must be recalled that a population of individuals that always defects can withstand invasion by any strategy provided players using other strategies come one at a time. By comparison, Axelrod notes that:

with nice rules the situation is different. If a nice rule can resist invasion by other rules coming one at a time, then it can resist invasion by clusters, no matter how large. So nice rules can protect themselves in a way that [always defecting] cannot.¹³

That cooperation can evolve in a broader world of defectors is an important theoretical insight. Moreover, it reflects both common sense and historical experience, and can be observed in a wide range of phenomena studied by many disciplines.¹⁴ Common to virtually all successes in multilateral disarmament and arms control—and further afield—have been “like-minded” groups of negotiators and the countries they represent generating momentum through proactive mutual cooperation. Examples include: the core-group in the negotiations on anti-personnel landmines that resulted in the 1997 Anti-Personnel Mine Ban Convention, and the emergence of the

seven-country New Agenda Coalition that helped to broker a success at the 2000 Review Conference of the Nuclear Non-Proliferation Treaty.¹⁵

THE CD'S INHERENT VALUE

International affairs meet the definition quite well of a world of egoists (read: governments) without central authority. Ideally, in such environments, entities like the United Nations or the CD “do not substitute for reciprocity; rather, they reinforce and institutionalise it. Regimes incorporating the norm of reciprocity delegitimize defection and thereby make it more costly.”¹⁶ Also, such institutions provide information to participants about others’ behaviour and intentions, act as forums to develop and maintain reputations (which in turn becomes incorporated into participants’ rules-of-thumb about each others’ actions) and even apportion responsibility for rule enforcement.

Is this the case in the CD? Well, no. Underlying US and Chinese differences, lack of progress in the CD occurs because of the context in which negotiating interaction takes place. In the language of game theory: “pay-off structures in the strategic setting may be so malign that Tit-For-Tat cannot work.”¹⁷ At time of writing, the pay-off structure in the CD favours defection and not cooperation. It has resisted modification because would-be cooperators perceive that the costs of trying to change the pay-off structure (through a change to the consensus rule, for example, or by taking work outside) are too high.

Many decision makers do recognize that some aspects of how the CD is structured make cooperation difficult. Few predicted that the CD’s deadlock would last this long, however, or that the CD would not only conspicuously fail to enhance international security on achieving the priorities in its work programme, it would end up hindering the emergence of other efforts. Defence of the status quo by would-be cooperators boils down to claiming that the obstacles to cooperation created by the CD’s current pay-off structure are outweighed in the long run by its other benefits as an institution. This sentimental view belies the reality that the CD’s pay-off structure actually achieves the opposite: it persistently obstructs cooperation developing for work on the issues in the work programme.

The real issue is under what conditions international institutions like the CD—as recognized patterns of practice around which expectations

converge—facilitate significant amounts of cooperation for a period of time. Criteria include whether an institution:

- provides incentives for cooperation so that cooperation is rewarded over the long run, and defection punished;
- monitors behaviour so that cooperators and defectors can be identified;
- focuses rewards on cooperators and retaliation on defectors; and
- links issues with one another in productive rather than self-defeating ways.

The CD has not met any of these criteria for some time.

CAN PAY-OFF STRUCTURES BE ALTERED?

Of course, countries that count themselves as multilateralist by inclination are loath to set the CD aside. It seems a retrograde thing to do. Indeed, the CD meets in the Council Chamber of the Palais des Nations in Geneva—the very seat of the defunct League of Nations and a continual reminder of an era in which multilateral institutions were abandoned along the road to the Second World War.

As has been demonstrated, however, the CD's pay-off structure continues to work *against* would-be cooperators' interests. It cannot be altered without Chinese or US flexibility, which they calculate not to be in their interests. But just because the CD's current pay-off structure cannot be altered does not mean that progress on the items in its work programme cannot be made. When rational actors are not satisfied with simply selecting strategies based on the situation in which they find themselves, the rational thing to do is to change the context itself.

Significantly, there have been efforts toward doing just that. In 2005, Mexico and five other states circulated a draft text for a possible resolution during the UN First Committee in New York which would have established ad hoc negotiating bodies in Geneva on the basis of the CD's blocked (but substantially agreed) work programme, specifically: fissile material negotiations, nuclear disarmament, negative security assurances and preventing an arms race in outer space. Built in to this initiative was the requirement that these issues would be returned to the CD if it could achieve consensus on a work programme.¹⁸ However, the five nuclear

weapon states closed ranks and put pressure on the initiating states to scuttle the exercise, and on any would-be supporters not to join. Like previous attempts to alter the CD's deadlock in the CD itself, the UN General Assembly draft resolution was seen off before being put to a decision.

Attempting to get the CD working by means of a First Committee resolution appears to have had a positive effect (even if thwarted) in that, in 2006, CD discussions became more substantive. While a work programme continues to elude the CD, hope has re-emerged among some (mainly Western) countries that negotiations on a fissile material agreement might soon be in the offing. If this fails to come to pass, perhaps a more radical solution is necessary. Rather than pursuing priority items in the CD's work programme within existing institutions, such cooperation would be more robust if undertaken as freestanding exercises. Not only would this avoid the "tyranny of consensus", as Nobel Peace Prize Laureate Jody Williams recently described the CD's problems:¹⁹ free-standing negotiations would not be burdened with the legacy of obsolete UN group structures that constrain cooperation by allowing defectors to bully would-be cooperators behind closed doors. For example, the present practice whereby CD presidents consult individually and privately with states arguably advantages defectors because it allows them to exercise a wait-and-see policy, while serving to deny would-be cooperators information that could help them cluster effectively.

An obvious hesitation is this: what will happen if so-called key countries stand outside freestanding negotiations, or refuse to join them once they have been agreed? Will not cooperators be left with the sucker's pay-off? There are several answers to this question. First, international security priorities like fissile material negotiations are not necessarily zero-sum. While it is iniquitous that nuclear-armed countries should get away initially without the constraints on state behaviour that a new norm would entail, the production of fissile material must be halted in the interests of non-proliferation. It is in the interests of the international community to prevent a cascade of horizontal nuclear proliferation whether nuclear weapon possessing states participate in negotiations or not.

Second, it is crucial to recognize that the evolution of cooperation is *dynamic*. By cooperating among themselves, would-be cooperators—actors who see benefit over time of a cooperative strategy—affect pay-offs

globally, including for defectors. A real-world example of this is the Mine Ban Convention, mentioned above. In just nine years this treaty has attracted more than 150 States Parties—a staggering achievement considering that momentum behind it was generated by a small group of medium-sized countries and transnational civil society against the opposition of key states like China, India, Russia and the United States. One important reason for its still-growing success is that many countries that initially defected for narrow national reasons have come to see the benefits of belonging to a global ban on anti-personnel mines and so joined the ranks of the cooperators. While it is true that the states named above are still outside the treaty, the significance of the mine ban regime can clearly be seen in the fact that anti-personnel mine production, transfer and use have largely dried up.²⁰

What this shows is that a cluster of cooperators has been able to stigmatize a weapon system to such a great extent that they have clearly affected the behaviour of defectors, even powerful ones. An added benefit is that while these so-called key countries stand outside the treaty, they have less opportunity to suppress the enthusiasm of the cooperators driving the Mine Ban Treaty—or to undermine their work.

Clusters of cooperators are not only a landmine-related phenomenon. For instance, initiatives are occurring at the local and state level in the United States to implement actions consistent with the 1997 Kyoto Protocol's obligations to reduce greenhouse gas emissions, despite the federal government not joining the multilateral agreement, which entered into force internationally in February 2005.²¹ Mayors of 279 US cities, as of time of writing, have already signed on to this agreement as it becomes clearer to people at the local level that "Climate change is on people's minds, and they're asking for action."²²

A third, related, point is that, historically, defectors actually prefer to be inside negotiating processes, even if they have little intention of cooperating over the long run. All of the major military powers participated in negotiations in Oslo on banning anti-personnel mines, even though this was a freestanding exercise outside UN structures, for the simple reason that they wished to influence its course and outcome.

The same has been true of almost any disarmament negotiation in recent decades, including the Comprehensive Nuclear Test-Ban Treaty (CTBT).

Indeed, the CTBT's failure to enter into force suggests an important lesson for multilateral negotiations that is rather different from the usual explanations. Instead of worrying that so-called key states might not participate, a more robust approach to negotiations by a sufficiently strong cluster of cooperators would have been better placed to develop worthwhile norms free of ruinous provisions such as the CTBT's entry-into-force formula.²³ Clusters of cooperators can create pressure on defectors, which over time compels them to change strategy and cooperate or face isolation.

Lastly, the development of cooperation is organic and iterative. Expecting consensus to be the starting-point for cooperation, rather than a possible end-state, is at odds with how we understand cooperation to evolve in a wide range of real-world environments. Instead, reciprocity fuels cooperation, because it enables the building of trust, something that has little chance to flourish at present in the CD's stagnant negotiating environment. Moreover, because iterations may be low in frequency due to the cautious nature and tempo of multilateral negotiating activity, we need to take a long view. France, for instance, did not join the 1972 Biological and Toxin Weapons Convention (BTWC) until 1984, but this did not stop that treaty constituting an international norm constraining its behaviour well before that.

RECOGNIZING INEFFICIENT EQUILIBRIA

Multilateralism should be seen as a generic means by which to achieve cooperative outcomes, and is not in itself an end. Understandably, though, multilateral diplomats and other policy makers who are intimately involved in multilateral work might be inclined to view one as synonymous with the other. The rules and structures of "playing the game" are of importance, and changing them or pursuing alternatives should not be treated trivially because it could make future goals more difficult to achieve. And, sometimes, cooperators do not achieve specific outcomes that necessarily benefit them, which is not an automatic reason to discard multilateral work: there is no guarantee that cooperation must always deliver benefit consistently over time or uniformly among cooperators to make it worthwhile. Yet distinguishing between ends and means in multilateral work is important because the rules and structures that have evolved in the

multilateral context are meant to have a purpose over the longer run, like any other cooperation—to achieve benefit of some kind for the cooperator.

One country that has been highly adept at using structures like the CD to prevent meaningful cooperation from developing at the same time as it has evinced frustration with the lack of perceived benefits multilateral processes have delivered to it is the United States. The tough criteria the United States has sometimes demanded be met for its cooperation with others and its willingness to be “unilateralist” or to find other configurations for achieving its security objectives have sometimes been severely criticized. Yet its concerns should be just as relevant to others, especially to smaller and individually less powerful states, as the costs of multilateral institutions and procedures can be even greater for them in real terms in proportion to their resources.

Making such assessments can be difficult to do, of course, because to a large extent our behaviour is affected by our social interactions with others, something that also holds true at the level of international relations.²⁴ What others think or how we anticipate they will react to our actions plays a role in shaping our perceptions of what it is in our individual best interests to do (this influence is not necessarily beneficial). Even if it were not the case, however, or imagining that—like in classical economic theory—our preferences were fixed and that we could ignore everyone else when we made decisions, their perceptions could still make us worse off. For instance, if the fear develops among other investors that the bank holding your savings will collapse, even if it is not initially in danger of doing so, there may be a run on the bank that hastens its collapse (as happened in the 1930s) and the loss of your savings, whether you were one of the fools standing in line to make a full withdrawal or not. This kind of collective behaviour, like the Prisoner’s Dilemma, is what economist Thomas Schelling described as an inefficient equilibrium:

all the situations in which equilibria achieved by unconcerted or undisciplined action are inefficient—the situations in which everybody could be better off, or some collective total could be made larger, by concerted or disciplined or organized or regulated or centralized decisions.²⁵

The problem is that, as we have seen with the CD, the processes arising to achieve these decisions can themselves, over time, become institutions that

lose or alter their purpose, for instance because of evolving custom or expectation. Perversely, such institutions can end up perpetuating inefficient equilibria, especially when participants regard the value of process—the CD as “the sole negotiating forum” or the “only disarmament game in town”—over substantive ends without a clear sense of what that could mean for their interests.

CONCLUSIONS

Where does this leave us? Should the CD’s situation be reason to despair? “Game theoretic” approaches, of course, have their limits. But examining the CD’s deadlock through this lens dispels the illusion that the CD’s deadlock is hopeless. A potential solution to that deadlock—freestanding work—would require governments to show more courage, imagination and initiative. Fuelling the courage of those genuinely concerned should be the realization that such action is consistent with their long-term interests and those of their citizens, whatever the short-term political pressures on them. Moreover, many of the perceived risks of like-minded activity may be illusory because of the dynamic effects of the evolution and clustering of cooperation.

This chapter began with a quote from Thucydides, which was grist to the mill of Cold Warriors and, more recently, to the various pundits who claim, in the post-11 September 2001 world of US President George W. Bush, that the sky is falling in on multilateral cooperation. But, when seen in context, the situation of the Athenians and Melians was relatively unusual. What was common both in the Peloponnesian War and in the world all of us live in today is that our decision-making must take into account the simultaneous and often unpredictable actions of others. Most of the time the Athenians and their Spartan enemies were constrained by the need to impress and retain their weaker allies, as well as winning over neutrals and seeing off other potential adversaries without direct conflict. The periods during the 27-year conflict when each side felt it could act without constraint, as in Melos’s rough treatment, were actually rather fleeting, and usually had consequences that nullified any benefit reaped in the short run.

Life is not simply a question of the strong doing what they have the means to do and the weak accepting what they have to. Over time, the weak can, through their concerted and self-interested action, affect the behaviour

even of the most powerful by modifying the pay-off structures in which cooperation and defection occur. This is something that because of the peculiar conditions of the Cold War, many of its theoreticians failed to recognize.

Would-be cooperators in the contemporary multilateral scene need to seize the initiative and act on disarmament priorities like those in the CD's work programme if these are important to their interests and they believe they would have collective benefit. Many (most conspicuously the prime defectors themselves) may try to belittle such like-minded efforts as naïve and hopeless, but the reality is rather different. A clear sense of self-interest can be a great spur to cooperative activity. Leadership, meanwhile, is often illustrated by determination to achieve an end despite obvious difficulties, overcoming fear of the consequences of failure. Being powerful comes with useful tools to minimize these obstacles, which may be why powerful states often lead the way. They are not prerequisites, however. Less powerful cooperators can offset potential costs by virtue of their sustained cooperation and, in the process, change the rules of the game. This is what defectors fear.

If there is to be any chance of making progress on the issues trapped in the CD's deadlock, this must be done soon. Moreover, by sidelining the CD's deadlock, it may also prove to be that institution's best hope of salvation.

Notes

- ¹ An earlier version of this chapter appeared as John Borrie, "Cooperation and Defection in the Conference on Disarmament", *Disarmament Diplomacy*, no. 82, Acronym Institute, 2006, pp. 34–40.
- ² Thucydides, *History of the Peloponnesian War*, Penguin Classics, 1972, pp. 401–402.
- ³ In a joint news conference with French President Jacques Chirac on 6 November 2001, US President George W. Bush said, "Over time it's going to be important for nations to know that they will be held accountable for inactivity You're either with us or against us in the fight against terror."

- 4 See William Poundstone, *Prisoner's Dilemma: John von Neumann, Game Theory and the Puzzle of the Bomb*, Anchor Books, 1992, pp. 142–143.
- 5 Rule 18 of the CD's Rules of Procedure stipulates: "The Conference shall conduct its work and adopt its decisions by consensus" (Rules of Procedure of the Conference on Disarmament, CD/8/Rev.9, 19 December 2003).
- 6 For a brief account of the CD's travails and the various proposals put forward to try to overcome its deadlock, see Vanessa Martin Randin and John Borrie, "A Comparison between Arms Control and other Multilateral Negotiation Processes", in John Borrie and Vanessa Martin Randin (eds), *Alternative Approaches in Multilateral Decision Making: Disarmament as Humanitarian Action*, UNIDIR, 2005, pp. 67–129.
- 7 Robert Axelrod, "The Emergence of Cooperation Among Egoists", *The American Political Science Review*, vol. 75, no. 2, 1981, p. 307.
- 8 These tournaments are described in Robert Axelrod, *The Evolution of Cooperation*, Basic Books, 1984.
- 9 Axelrod described a strategy (or decision rule) as "a function from the history of the game so far into a probability of cooperation on the next move". See Robert Axelrod, "The Emergence of Cooperation Among Egoists", *The American Political Science Review*, vol. 75, no. 2, 1981, p. 308.
- 10 *Ibid.*, p. 310.
- 11 At first, Axelrod thought that Tit-for-Tat was an evolutionarily stable strategy in that it will *always* infiltrate a population and spread throughout it. But there is an instance in which it will not reproduce—a situation in which the entire population cooperates. In such a scenario, Tit-for-Tat would never get a chance to retaliate and so, for all intents and purposes, would be identical to a strategy of "always cooperate".
- 12 Robert Axelrod, "The Emergence of Cooperation Among Egoists", *The American Political Science Review*, vol. 75, no. 2, 1981, p. 315.
- 13 *Ibid.*, p. 316.
- 14 For interesting introductions see Matt Ridley, *The Origins of Virtue: Human Instincts and the Evolution of Cooperation*, Penguin, 1996; and Paul Seabright, *The Company of Strangers: A Natural History of Economic Life*, Princeton University Press, 2004.
- 15 Vanessa Martin Randin and John Borrie, "A Comparison between Arms Control and other Multilateral Negotiation Processes", in John Borrie and Vanessa Martin Randin (eds), *Alternative Approaches in*

Multilateral Decision Making: Disarmament as Humanitarian Action, UNIDIR, 2005.

- ¹⁶ Robert Axelrod and Robert Keohane, "Achieving Cooperation under Anarchy: Strategies and Institutions", *World Politics*, vol. 38, no. 1, 1985, p. 250.
- ¹⁷ *Ibid*, p. 249.
- ¹⁸ The text of the draft resolution, co-sponsored by Brazil, Canada, Kenya, Mexico, New Zealand and Sweden, entitled *Draft Elements of an UNGA 60 First Committee Resolution—"Initiating Work on Priority Disarmament and Non-proliferation Issues"*, is available online at <www.reachingcriticalwill.org/political/1com/1com05/docs/draftelementsinitiating.pdf>.
- ¹⁹ Jody Williams was in the Council Chamber of the *Palais des Nations* in Geneva on 23 November 2005 when she used this phrase to describe the lack of effectiveness of some multilateral disarmament processes. A transcript of her remarks is online at <www.unidir.org>.
- ²⁰ See International Campaign to Ban Landmines, *Landmine Monitor Report 2006: Executive Summary*, 2006.
- ²¹ For information on the Kyoto Protocol, see the United Nations Framework Convention on Climate Change website at <http://unfccc.int/essential_background/kyoto_protocol/items/2830.php>.
- ²² "Cities, States Aren't Waiting for U.S. Action on Climate Change", *Washington Post*, 11 August 2006. Information about the US Mayors' Climate Protection Agreement is available online at <www.ci.seattle.wa.us/mayor/climate/default.htm#what>.
- ²³ The CTBT's most serious defect is its entry-into-force provision, which requires the accession of a list of 44 specific countries, including several persistent defectors, and was the result of late deal-making in the CTBT's negotiation. Now that the majority of these nations on this list have joined, the treaty is hostage to a minority—an outcome easily predictable when the CTBT was negotiated. The countries on the list are Algeria, Argentina, Australia, Austria, Bangladesh, Belgium, Brazil, Bulgaria, Canada, Chile, China, Colombia, Democratic People's Republic of Korea, Egypt, Finland, France, Germany, Hungary, India, Indonesia, Iran (Islamic Republic of), Israel, Italy, Japan, Mexico, Netherlands, Norway, Pakistan, Peru, Poland, Republic of Korea, Romania, Russian Federation, Slovakia, South Africa, Spain, Sweden, Switzerland, Turkey, Ukraine, United Kingdom of Great Britain and Northern Ireland, United States of America, Viet Nam and Zaire.

- ²⁴ Aurélia Merçay and I also explore this in a chapter on complexity elsewhere in this volume. See Aurélia Merçay and John Borrie, "A Physics of Diplomacy? The Dynamics of Complex Social Phenomena and their Implications for Multilateral Negotiations".
- ²⁵ Thomas Schelling, *Micromotives and Macrobehaviour*, Norton, 1978, p. 225.