

# The Politics of Linkage

Arthur A. Stein

Abstract:

Linkage politics—a state's making its course of action concerning a given issue contingent upon another state's behavior in a different issue area—is of interest to policy-makers as well as to those theoreticians who employ an issue-area approach to the study of international politics. However, there has been little discussion of the circumstances and conditions of linkage, or of its bargaining strategies. In this paper, 2 x 2 games are used as a model of strategic interaction to delineate the situations amenable to linkage, the forms of linkage, and relevant strategies. Coerced, threat-induced, and mutual linkage are illustrated and distinguished.

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# Research Note

## THE POLITICS OF LINKAGE

By ARTHUR A. STEIN\*

### INTRODUCTION

IN recent years, scholars have become increasingly interested in the international politics of linkage, a state's policy of making its course of action concerning a given issue contingent upon another state's behavior in a different issue area. Linkage has always existed as a means of national influence, but its recent popularity in America is due to the declining power of the United States.<sup>1</sup>

The United States, having taken stage center in world affairs during World War II, stood alone at the pinnacle of the world hierarchy with unquestioned superiority in a variety of issue areas and along every dimension or component of national power. It possessed both the world's "prime weapon of *destruction*—the atomic bomb—and the prime weapon of *reconstruction*—such wealth as no nation hitherto had possessed."<sup>2</sup> By the 1970s, that superiority had vanished in a number of areas; to discuss America's position in the 1970s and 1980s requires great specificity. The United States is, for example, the world's pre-eminent producer of wheat, but not of oil. It has the most accurate missiles, but not the greatest throw-weight.

When a country suffers such unbalanced or asymmetric decline—the loss of strength in one or more but not all issue areas—an obvious response is for it to use its continued superiority in some areas in order to make up for its relative inferiority in others. In 1956 and 1967, the U.S. could simply increase oil production to deal with an oil

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<sup>1</sup> For an analysis of influence from the perspective of global social choice, see Oran R. Young, "Anarchy and Social Choice: Reflections on the International Polity," *World Politics*, xxx (January 1978), 241-63.

<sup>2</sup> Jeannette P. Nichols, "Dollar Strength as a Liability in United States Diplomacy," *Proceedings of the American Philosophical Society*, Vol. 111 (February 1967), 47.

embargo. In the 1980s, no longer able to do so, it must find another way to deal with OPEC. The United States must use its strengths to make up for its weaknesses, and thus we hear calls to trade bushels for barrels, to make the supply and price of our wheat contingent on OPEC's supply and pricing of oil. Yet there is little discussion of the circumstances, conditions, and bargaining strategies for such linkage politics.

Linkage is a facet of a two-party relationship, and its rigorous analysis requires a model of international interaction. In this article, I shall use  $2 \times 2$  games, which are widely considered to be the most appropriate such model, to analyze linkage as a form of strategic interaction.<sup>3</sup> Such games are usually employed to delineate situations in which both actors have an identical choice in a single issue area, such as an arms race in which each of two nations chooses between disarmament and weapons procurement.

Two-person games can also be used, however, to describe situations in which each actor's binary choice involves a distinct issue area. Thus, the choice for the United States might be whether or not to sell food to Saudi Arabia, whereas the Saudis would choose between selling and withholding crude oil supplies. The outcome for each actor is a function both of actions it takes in the domain in which it has a choice and of the other's actions in the domain that it controls. Each actor has a preference-ordering among the four outcomes, and both actors' preference-orderings define a particular situation. In the analysis that follows, it will be assumed that the actors can communicate and can act sequentially.

There are situations that do not require linkage. If each actor always prefers to do what the other also prefers that it do, then there is no conflict: each actor benefits from what the other does individually and independently. Figure 1 provides an example of such a no-conflict situation. Both actors have a dominant strategy, a course of action that maximizes its return no matter what the other does. Actor A, for example, prefers to do  $A_1$  if B does  $B_1$  (preferring  $A_1B_1$ , its first choice, to  $A_2B_1$ , its third choice); it also prefers  $A_1$  if B does  $B_2$  (preferring  $A_1B_2$ , its second choice, to  $A_2B_2$ , its last choice). In any case, actor A

<sup>3</sup> This paper is not, however, a classic game-theoretic one. See the distinctions provided by Oran R. Young, "Manipulative Models of Bargaining: Introduction," in Young, ed., *Bargaining: Formal Theories of Negotiation* (Urbana: University of Illinois Press, 1975), 303-18. A recent study that finds  $2 \times 2$  games the most appropriate model of strategic interaction is Glenn H. Snyder and Paul Diesing, *Conflict Among Nations: Bargaining, Decision Making, and System Structure in International Crises* (Princeton: Princeton University Press, 1977).

prefers that B do  $B_1$ . Moreover, B prefers that A do  $A_1$ . The natural equilibrium outcome of  $A_1B_1$  provides both actors with their preferred outcome. Neither needs to link issues, since each will do what the other wants it to; each will obtain its best outcome without any communication, without making its decisions contingent on the other's behavior, without linkage. The actors' interests are harmonious ones that do not require a joint decision; they need neither to coordinate their actions nor to collaborate.

FIGURE 1

## A No-CONFLICT SITUATION

		Actor B	
		$B_1^*$	$B_2$
Actor A	$A_1^*$	4, 4 <sup>**</sup>	3, 2
	$A_2$	2, 3	1, 1
		(Situation 3) <sup>4</sup>	

In this and all following figures—

Cell numerals refer to ordinally ranked preferences: 4 = best, 1 = worst; the first number in each cell refers to A's preference and the second number in each cell refers to B's preference.

\* Actor's dominant strategy

\*\* Equilibrium outcome

One actor wants the other to behave differently when the equilibrium outcome of the situation provides it with something less than its first-choice outcome. The problem for this aggrieved actor is that it cannot simply change its own course of action, for an equilibrium outcome is one from which neither actor can move alone without making itself worse off. In Figure 2, for example, actor A prefers  $A_2$  no matter what B does, though it prefers that B do  $B_1$ . Actor B, however, prefers  $B_2$  no matter what A does, and prefers that A do  $A_2$ . Each actor has a dominant strategy, one that provides the greatest returns to

<sup>4</sup> Anatol Rapoport and Melvin J. Guyer, in their article "A Taxonomy of 2 x 2 Games," *General Systems*, xi (1966), 203-14, enumerate the complete set of unique 2 x 2 games. The situation numbers below the 2 x 2 tables in the present article refer to the listing they provide.

it no matter what the other does; A's is  $A_2$ , B's is  $B_2$ , and the equilibrium outcome is  $A_2B_2$ . Actor B is satisfied since it has a dominant strategy and actor A will do what B wants it to do anyway, and the resultant equilibrium outcome provides B with its first choice. Actor A, however, is aggrieved, for it obtains only its second-worst, or third-choice, outcome. Actor A cannot make itself better off simply by doing  $A_1$  instead of  $A_2$  since for it, the  $A_1B_2$  result is even worse. A desire for linkage is thus synonymous with an actor's being aggrieved with the equilibrium outcome. That is true whether the situation has already occurred and the actors find themselves stuck with a certain outcome, or whether the actors are predicting—given their knowledge of the preferences—the outcome of a situation that is yet to occur.

FIGURE 2

AN AGGRIEVED ACTOR

		Actor B	
		$B_1$	$B_2^*$
Actor A	$A_1$	3, 1	1, 2
	$A_2^*$	4, 3	2, 4 <sup>**</sup>
		(Situation 2I)	

\* Actor's dominant strategy  
 \*\* Equilibrium outcome

FORMS OF LINKAGE

Again, an actor aggrieved with an equilibrium outcome cannot improve its position simply by changing its own course of action. Therefore, the aggrieved actor must get the other actor to change its course of action, and that is why it turns to linkage politics. There are three different kinds of linkage—appropriate in different situations—which require that the aggrieved actor follow different bargaining strategies.

COERCED LINKAGE

An actor aggrieved with the equilibrium outcome can sometimes force the other actor to change its behavior simply by doing what is

not in its own interest. In other words, the aggrieved actor eschews its dominant strategy and thus forces the other, which has a contingent strategy, to change course. That is coerced linkage, and such situations arise under the following conditions:

- (1) the actor that links issues has a dominant strategy, preferring one particular course— $A_1$ , for example—no matter what the other does;
- (2) this aggrieved actor also prefers that the other always choose a particular strategy—for example,  $B_2$ ;
- (3) it also prefers eschewing its dominant strategy and having B do what it wants it to, rather than going ahead with its dominant strategy and having B do  $B_1$  when the aggrieved actor would rather have it do  $B_2$ ;
- (4) the other actor (B) has a contingent strategy, preferring to do what A wants ( $B_2$ ) only if A eschews its dominant strategy (and does  $A_2$ ). Otherwise, if A goes through with its dominant strategy ( $A_1$ ), B prefers not to do what A wants, and does  $B_1$ .

The six combinations of preference-orderings that meet these criteria are presented in Figure 3.<sup>5</sup>

FIGURE 3

COERCED LINKAGE

ACTOR A (AGGRIEVED LINKER)

- dominant strategy:  $A_1$ ;
- prefers B to do  $B_2$ ;
- prefers  $A_2B_2$  to  $A_1B_1$ .

These criteria generate the following preference-ordering for actor A:

		Actor B	
		$B_1$	$B_2$
Actor A	$A_1^*$	2,	4,
	$A_2$	1,	3,

<sup>5</sup> The situations characterized as potential coerced linkage situations differ from those games delineated in Rapoport and Guyer, *ibid.*, as having force-vulnerable equilibria.

FIGURE 3 (Continued)

ACTOR B (LINKEE)

—contingent strategy: B<sub>1</sub> if A<sub>1</sub>, B<sub>2</sub> if A<sub>2</sub>

This criterion generates the following preference-orderings for actor B:

	Actor B			Actor B			Actor B	
	B <sub>1</sub>	B <sub>2</sub>		B <sub>1</sub>	B <sub>2</sub>		B <sub>1</sub>	B <sub>2</sub>
Actor A	A <sub>1</sub>	,4 ,1	Actor A	A <sub>1</sub>	,3 ,1	Actor A	A <sub>1</sub>	,2 ,1
	A <sub>2</sub>	,2 ,3		A <sub>2</sub>	,2 ,4		A <sub>2</sub>	,3 ,4
	Actor B			Actor B			Actor B	
	B <sub>1</sub>	B <sub>2</sub>		B <sub>1</sub>	B <sub>2</sub>		B <sub>1</sub>	B <sub>2</sub>
Actor A	A <sub>1</sub>	,4 ,3	Actor A	A <sub>1</sub>	,4 ,2	Actor A	A <sub>1</sub>	,3 ,2
	A <sub>2</sub>	,1 ,2		A <sub>2</sub>	,1 ,3		A <sub>2</sub>	,1 ,4

Combining the preference-orderings of actors A and B generates the following coerced-linkage situations:

	Actor B			Actor B			Actor B	
	B <sub>1</sub>	B <sub>2</sub>		B <sub>1</sub>	B <sub>2</sub>		B <sub>1</sub>	B <sub>2</sub>
Actor A	A <sub>1</sub> *	2,4 4,1	Actor A	A <sub>1</sub> *	2,3 4,1	Actor A	A <sub>1</sub> *	2,2 4,1
	A <sub>2</sub>	1,2 3,3		A <sub>2</sub>	1,2 3,4		A <sub>2</sub>	1,3 3,4
	(Situation 44)			(Situation 47)			(Situation 48)	
	Actor B			Actor B			Actor B	
	B <sub>1</sub>	B <sub>2</sub>		B <sub>1</sub>	B <sub>2</sub>		B <sub>1</sub>	B <sub>2</sub>
Actor A	A <sub>1</sub> *	2,4 4,3	Actor A	A <sub>1</sub> *	2,4 4,2	Actor A	A <sub>1</sub> *	2,3 4,2
	A <sub>2</sub>	1,1 3,2		A <sub>2</sub>	1,1 3,3		A <sub>2</sub>	1,1 3,4
	(Situation 55)			(Situation 56)			(Situation 57)	

\* Actor's dominant strategy

The equilibrium outcome in all of the above situations is A<sub>1</sub>B<sub>1</sub>.

The criteria for actor A define one preference-ordering: its first choice is  $A_1B_2$ , its second-best is  $A_2B_2$ ; it finds  $A_1B_1$  second-worst or third-best, and  $A_2B_1$  is its least desirable choice. In other words, A's dominant strategy of  $A_1$  provides either its best or its second-worst outcome. Unfortunately for A, actor B does  $B_1$  when it does  $A_1$ , and so A obtains its second-worst outcome. Actor A would rather have B do  $B_2$ , providing A with its best or second-best outcome. Since B's strategy is contingent on A's, A can simply shift to  $A_2$ . When A does so, it temporarily obtains its worst outcome, but forces B to shift to  $B_2$  since B prefers  $A_2B_2$  to  $A_2B_1$ . Actor A thus obtains its second-best outcome:  $A_2B_2$ . Paradoxically, it is thus in A's interest to eschew its dominant strategy.

The coerced linkage outcome of  $A_2B_2$  is not an equilibrium one, since A can make itself better off by switching to  $A_1$ , thus getting its most desired outcome of  $A_1B_2$ . But  $A_1B_2$  is also not an equilibrium outcome, because B can make itself better off by switching to  $B_1$ , once again returning to the equilibrium outcome of  $A_1B_1$ . Thus, the coerced linkage outcome of  $A_2B_2$  is stable only as long as actor A accepts second-best.

It should be noted that three of the coerced-linkage situations (Nos. 47, 48, and 57) are ones in which both actors are aggrieved with the equilibrium outcome of  $A_1B_1$ , and in which both prefer the coerced linkage outcome of  $A_2B_2$ . Although both desire linkage, only one can force the issue.

The U.S. attempt to get Britain to withdraw its forces from the Suez Canal in 1956 may be considered an example of coerced linkage. Even though the United States had pressed them to delay, the British invaded the Canal zone believing that America would support military invasion as a last resort. The United States wanted the British to pull out of the Canal zone, but also wanted to continue its support of British currency regardless of Britain's Middle East policy. British decisions during the crisis, however, were contingent on the continuation of American support. The combined preferences are displayed in Figure 4. The equilibrium outcome here, that of continued American support *and* continued British involvement in the Canal zone, left the British satisfied and the Americans aggrieved. Yet, the situation was susceptible to coercion, and that is precisely what happened. The United States withdrew its support of British currency and created a run on the pound. With the shift in American international economic policy, the British were forced to change their military policy in the Middle East.

Equilibrium outcomes susceptible to coerced linkage can often char-

acterize the alliance relationship between a major power and a weaker one. The weaker state's preferences are contingent on the actions of the major power; specifically, the weaker state is dependent on the major power's support. The major power's dominant strategy is to

FIGURE 4

AMERICA, BRITAIN, AND SUEZ: 1956

		BRITAIN	
		B <sub>1</sub> Continue attack	B <sub>2</sub> Disengage
UNITED STATES	A <sub>1</sub> Support ally and its currency*	2, 4**	4, 3
	A <sub>2</sub> Withdraw support	1, 1	3, 2

(Situation 55)

\* Actor's dominant strategy

\*\* Equilibrium outcome

support its weaker ally, but the equilibrium outcome leaves the protector aggrieved and its ally satisfied. The major power can always force its ally to change policy by withdrawing its support.<sup>6</sup>

## THREAT-INDUCED LINKAGE

When actor A is aggrieved with an equilibrium outcome of A<sub>1</sub>B<sub>1</sub> and most prefers A<sub>1</sub>B<sub>2</sub>, it may attempt to induce actor B to shift to B<sub>2</sub> rather than to coerce it. If B prefers the A<sub>1</sub>B<sub>2</sub> outcome to both A<sub>2</sub>B<sub>1</sub> and A<sub>2</sub>B<sub>2</sub>, then A can threaten to shift to A<sub>2</sub> (resulting in either A<sub>2</sub>B<sub>1</sub> or A<sub>2</sub>B<sub>2</sub>), and promise *not* to do so if B shifts to B<sub>2</sub> (bringing about the A<sub>1</sub>B<sub>2</sub> linkage outcome). Both actors prefer that B comply with the threat to having A go through with it. Such a threat can be made in the following circumstances:

- (1) the actor that links issues (A) has a dominant strategy, preferring one particular course—for example, A<sub>1</sub>—no matter what the other does;
- (2) this aggrieved actor also prefers that B do B<sub>2</sub> when it does A<sub>1</sub>;
- (3) the other actor (B) either has a dominant strategy of B<sub>1</sub>, or
- (4) has a contingent strategy—preferring B<sub>1</sub> only when A does A<sub>1</sub>, and B<sub>2</sub> when A does A<sub>2</sub>;

<sup>6</sup>This is one possible interpretation of the big influence of small allies. See Robert O. Keohane, "The Big Influence of Small Allies," *Foreign Policy*, No. 2 (Spring 1971), 161-82.

- (5) actor B prefers that A always do  $A_1$ ; and
- (6) actor B prefers  $A_1B_2$  to  $A_2B_1$ .

These criteria generate six situations in which there is an equilibrium outcome ( $A_1B_1$ ) that leaves A with its second or third choice.<sup>7</sup>

Actor A can obtain its preferred outcome if actor B changes its course of action while A continues to follow its dominant strategy. To get B to change course, A threatens to do what is not in its own interest. In the example in Figure 5, A threatens to do  $A_2$ . If it goes through

FIGURE 5  
THREAT-INDUCED LINKAGE I

ACTOR A (BLACKMAILER)

- dominant strategy:  $A_1$
- prefers  $A_1B_2$  to  $A_1B_1$

These criteria generate the following preference-orderings for actor A:

		Actor B				Actor B				Actor B	
		B <sub>1</sub>	B <sub>2</sub>			B <sub>1</sub>	B <sub>2</sub>			B <sub>1</sub>	B <sub>2</sub>
Actor A	$A_1^*$	3,	4,	Actor A	$A_1^*$	3,	4,	Actor A	$A_1^*$	2,	4,
	$A_2$	1,	2,		$A_2$	2,	1,		$A_2$	1,	3,

ACTOR B

- dominant strategy:  $B_1$
- prefers A to do  $A_1$
- prefers  $A_1B_2$  to  $A_2B_1$

These criteria generate the following preference-ordering for actor B:

		Actor B	
		$B_1^*$	B <sub>2</sub>
Actor A	$A_1$	,4	,3
	$A_2$	,2	,1

<sup>7</sup> The term "blackmail" was first used for such a context by Daniel Ellsberg in 1959, but he did not specify the defining characteristics of such situations. See Ellsberg, "The Theory and Practice of Blackmail," reprinted in Young (fn. 3), 343-63. The situations described here as amenable to threat-induced linkage differ from Kenneth Oye's characterization of blackmail in "The Domain of Choice: International Constraints and Carter Administration Foreign Policy," in Kenneth A. Oye, Donald Rothchild, and Robert J. Lieber, eds., *Eagle Entangled: U.S. Foreign Policy in a Complex World* (New York: Longman, 1979), 13-17. The situations described here also differ from those games listed by Rapoport and Guyer (fn. 4) as having threat-vulnerable equilibria.

FIGURE 5 (Continued)

—contingent strategy:  $B_1$  if  $A_1$ ;  $B_2$  if  $A_2$

—prefers A to do  $A_1$

These criteria generate the following preference-ordering for actor B:

		Actor B	
		$B_1$	$B_2$
Actor A	$A_1$	,4	,3
	$A_2$	,1	,2

Combining the preference-orderings of actors A and B generates the following threat-induced linkage situations:

		Actor B				Actor B				Actor B	
		$B_1^*$	$B_2$			$B_1^*$	$B_2$			$B_1^*$	$B_2$
Actor A	$A_1^*$	3,4	4,3	Actor A	$A_1^*$	3,4	4,3	Actor A	$A_1^*$	2,4	4,3
	$A_2$	1,2	2,1		$A_2$	2,2	1,1		$A_2$	1,2	3,1
		(Situation 19)				(Situation 20)				(Situation 21)	
		Actor B				Actor B				Actor B	
		$B_1$	$B_2$			$B_1$	$B_2$			$B_1$	$B_2$
Actor A	$A_1^*$	3,4	4,3	Actor A	$A_1^*$	3,4	4,3	Actor A	$A_1^*$	2,4	4,3
	$A_2$	1,1	2,2		$A_2$	2,1	1,2		$A_2$	1,1	3,2
		(Situation 50)				(Situation 49)				(Situation 55)	

\* Actor's dominant strategy

The equilibrium outcome in all of the above situations is  $A_1B_1$ .

with its threat, it will be worse off, but so will B (outcome  $A_2B_1$ ). The threat is made because B prefers the linkage outcome desired by A ( $A_1B_2$ ) to either of the outcomes threatened by A ( $A_2B_1$  or  $A_2B_2$ ). Thus, the aggrieved actor uses threat to achieve a linkage outcome of  $A_1B_2$  in which the blackmailed actor is induced to shift its course of action. This differs from coercion in which the linkage outcome is  $A_2B_2$ —the result when both shift their courses of action.

In some of the threat-induced linkage situations, the blackmailer has a weak hand. In such a case, B, the threatened actor, has a dominant strategy ( $B_1$ ) and knows that it would be irrational for A to go

through with the threat; yet B also knows that A might do so anyway (either in spite or to maintain its credibility). A kidnapper, for example, prefers to keep hostages alive whether or not the target intends to meet the demands. The target, of course, prefers not to meet the demands, whether the kidnapper kills or frees the hostages. The kidnapper, unsatisfied if the demands are not met, threatens to kill the hostages. It is a threat that the kidnapper prefers not to carry out, for a dead hostage is worth nothing and the penalties for murder are severe, but the threat may well induce the target to meet the demands. (See Figure 6.)<sup>8</sup>

FIGURE 6

## THE KIDNAPPER AND THE TARGET

		TARGET	
		B <sub>1</sub> Refuse to negotiate*	B <sub>2</sub> Negotiate
A <sub>1</sub> Release hostages*	KIDNAPPER	3, 4**	4, 3
A <sub>2</sub> Kill hostages		1, 2	2, 1

(Situation 19)

\* Actor's dominant strategy

\*\* Equilibrium outcome

Another example of such linkage would be an Arab threat to embargo oil in order to obtain a change in U.S. Middle East policy. A simplified model of this case is provided in Figure 7. The United States wants to maintain its Middle East policy, but also wants the Arabs to continue selling it oil. The Arab producers clearly prefer to sell the oil, and would much rather have the United States change its policy than to undertake an embargo that would not affect American policy. The equilibrium outcome is that they continue to sell the oil and the United States maintains its stance, which leaves the United States satisfied and the Arabs aggrieved. This outcome is not susceptible to threat if the United States prefers to stand firm and do without oil than to get

<sup>8</sup> In this situation, the threatened action is not reversible. Once they have been killed, hostages cannot be brought back to life. In other circumstances, the threatened action may be reversible; that, too, affects the credibility of the threat.

oil only by changing its policy. If the reverse is true, then the equilibrium outcome is susceptible to the Arab threat not to sell oil unless the United States changes its policy.

In these situations, A has no desire to carry out the threat. When it makes the threat, the aggrieved actor (A) also promises not to go through with it if the other actor (B) complies and shifts course. Indeed, if B complies, then A has no interest in going through with the threat since it will be a satisfied actor, obtaining its preferred outcome. Actor A faces a dilemma if B does not comply, for it hurts itself as

FIGURE 7

THE UNITED STATES AND OPEC

		UNITED STATES	
		B <sub>1</sub> Maintain Middle East Policy*	B <sub>2</sub> Change Middle East Policy
OPEC (ARAB MEMBERS)	A <sub>1</sub> Sell oil*	3, 4**	4, 3
	A <sub>2</sub> Don't sell oil	2, 2	1, 1

(Situation 20)

		UNITED STATES	
		B <sub>1</sub> Maintain Middle East Policy*	B <sub>2</sub> Change Middle East Policy
OPEC (ARAB MEMBERS)	A <sub>1</sub> Sell oil*	3, 4**	4, 2
	A <sub>2</sub> Don't sell oil	2, 3	1, 1

(Situation 13)

Situation 20 is susceptible to threat; situation 13 is not. Threat-induced linkage by OPEC is possible if the United States prefers A<sub>1</sub>B<sub>2</sub> to A<sub>2</sub>B<sub>1</sub>; it is not possible if the preferences are reversed.

\* Actor's dominant strategy

\*\* Equilibrium outcome

well as the other by going through with the threat. It only carries out the threat for spite, or to strengthen its future credibility.

There are, on the other hand, situations of potential threat-induced linkage which include ones in which the threatened actor's decision is contingent on A's choice (Figure 5, situations 49, 50, 55). As in the cases described above in which B has a dominant strategy, the equilibrium outcome ( $A_1B_1$ ) leaves A aggrieved. Actor A thus threatens to do  $A_2$  (leading to  $A_2B_1$ ), and promises not to do  $A_2$  if B will do  $B_2$ . Actor B, who knows that it is not in A's interest to go through with the threat, will be forced to change its policy to  $B_2$  (leading to  $A_2B_2$ ) should A actually carry out its threat. (Actor A, of course, prefers the  $A_1B_2$  outcome which it hopes to obtain by threat.)

In only one case (situation 55) can the aggrieved actor actually choose between threat and coercion. In this case, the aggrieved actor (A) prefers both  $A_2B_2$  and  $A_1B_2$  to the equilibrium outcome of  $A_1B_1$ . The aggrieved actor threatens to do  $A_2$ , thus hoping to induce B to switch policy and thereby to provide A's preferred outcome ( $A_1B_2$ ). If B does not comply, however, then A can actually go through with the threat and force the  $A_2B_2$  outcome which it still prefers to the equilibrium one. In this case, the blackmailer has a strong hand; its threat is fully credible. It can choose between attempting to induce linkage through threat ( $A_1B_2$ ) and obtaining it by force ( $A_2B_2$ ), but always prefers to try threat first. The 1956 Suez crisis may be one such example. The United States could threaten to withdraw its support of the pound and could promise not to if the British withdrew. The United States did, in fact, attempt to induce linkage through threat. But the British did not pull out, and the United States thus found itself in a position to coerce linkage by carrying out the threat to cut support of the pound. In this particular case (Figure 5, situation 55) both prefer the threat-induced outcome to the coerced outcome; thus, the linker should try threat first and coercion second. Moreover, the linkee should comply when threatened because it, too, prefers the threat-induced outcome to the coerced one.

In all of the cases discussed so far, the aggrieved party is an actor with a dominant strategy, threatening to eschew this strategy but promising not to as long as the other actor forgoes its preference-ordering. There is only one situation in which the threatener is an actor without a dominant strategy; in this case:

- (1) the actor that links issues (A) has a contingent strategy, preferring  $A_1$  when B does  $B_1$  and  $A_2$  when B does  $B_2$ ;
- (2) this aggrieved actor also always prefers that B do  $B_2$ ;

- (3) the other actor (B) has a dominant strategy of  $B_1$ ;
- (4) B always prefers that A do  $A_1$ ;
- (5) B also prefers  $A_1B_2$  to  $A_2B_1$ .

The equilibrium outcome of  $A_1B_1$  gives B its first choice but leaves A with its third-choice outcome. Actor A can threaten to accept its own worst outcome ( $A_2B_1$ ) by doing  $A_2$ , leaving B with *its* third-choice outcome. If B complies with A's demand and does  $B_2$ , A continues to do  $A_1$ ; both then end up with their second choice. A's threat is to do what is not at all in its interest; if B complies by changing its course of action, then A will eschew doing what is in its interest and will stick with  $A_1$  rather than  $A_2$ , which it actually prefers. (See Figure 8.)

One example of this situation is the defense relationship between the United States and its allies, in which the United States must decide whether to assist its allies in their defense, and the allies must decide whether or not to contribute to their own protection. The allies invariably want American assistance; they also prefer not to contribute to their own defense. As long as the United States contributes, they prefer to be free-riders. If, on the other hand, the United States does not give any assistance, then they prefer not to expend their resources in a futile attempt to provide their own defense. Thus, they prefer the situation in which their contribution is augmented by American assistance to the situation in which neither they nor the United States contribute. The United States, on the other hand, has a contingent strategy; it prefers not to assist if the allies pay for all of their own defense, but will assist them should they fail to do so. Moreover, the United States always prefers that the allies contribute, with or without American assistance. The situation is displayed in Figure 9; in the equilibrium outcome, the United States contributes but the allies do not—an outcome that satisfies the allies and leaves the United States aggrieved. The United States, however, has no dominant strategy and can threaten not to provide assistance unless the allies contribute; in fact, that is precisely what has happened in the postwar period.

#### MUTUAL LINKAGE

In most of the situations discussed above, only the aggrieved actor prefers the linkage outcome to the equilibrium one. In three of the cases of coerced linkage (Figure 3, situations 47, 48, 57), both actors prefer the linkage outcome ( $A_2B_2$ ) to the equilibrium one ( $A_1B_1$ ); but these three cases are like the rest in that the linkage outcome,

FIGURE 8

## THREAT-INDUCED LINKAGE II

## ACTOR A (LINKER)

—contingent strategy:  $A_1$  if  $B_1$ ,  $A_2$  if  $B_2$

—prefers B to do  $B_2$

These criteria generate the following preference-ordering for actor A:

		Actor B	
		$B_1$	$B_2$
Actor A	$A_1$	2, 3	3, 3
	$A_2$	1, 3	4, 3

## ACTOR B (LINKEE)

—dominant strategy:  $B_1$

—prefers A to do  $A_1$

—prefers  $A_1B_2$  to  $A_2B_1$

These criteria generate the following preference-ordering for actor B:

		Actor B	
		$B_1^*$	$B_2$
Actor A	$A_1$	4, 3	3, 3
	$A_2$	2, 3	1, 3

## RESULTING SITUATION

		Actor B	
		$B_1^*$	$B_2$
Actor A	$A_1$	2, 4**	3, 3
	$A_2$	1, 2	4, 1

(Situation 39)

\* Actor's dominant strategy

\*\* Equilibrium outcome

though mutually desired, requires only one of the actors to act against its strict preferences. Thus, in these cases the actor who initiates linkage can force the linkage outcome.

FIGURE 9

MUTUAL ASSISTANCE

		ALLIES	
		B <sub>1</sub>	B <sub>2</sub>
		No contribution to self-defense*	Contribution to self-defense
UNITED STATES	A <sub>1</sub> Assistance	2, 4**	3, 3
	A <sub>2</sub> No assistance	1, 2	4, 1

(Situation 39)

\* Actor's dominant strategy  
 \*\* Equilibrium outcome

There is, however, one situation in which the desire for linkage is mutual and in which either actor can link the issues. This situation has a Pareto-deficient equilibrium in that both actors prefer an outcome other than the equilibrium one; it is the only case in which both actors have dominant strategies.<sup>9</sup>

Each actor prefers a particular strategy. Actor A prefers A<sub>2</sub> and B prefers B<sub>2</sub>. Each actor also always wants the other to do the opposite: A prefers B<sub>1</sub> and B prefers A<sub>1</sub>. Moreover, each prefers eschewing its own dominant strategy and having the other do what it wants. Thus, each prefers A<sub>1</sub>B<sub>1</sub> to A<sub>2</sub>B<sub>2</sub>. These preference-orderings, displayed in Figure 10, define the prisoners' dilemma game, which intrigues social scientists precisely because strict maximization can be mutual, leading to a suboptimal outcome. The game is problematic because it is assumed that the players cannot communicate, must decide simultaneously, and can play the game only once. Studies have shown that when communication is allowed, when the game is played a number of times, or when sequential play is allowed, the optimal outcome occurs a significant proportion of the time. It is certainly possible, therefore, that the dilemma is not as great for states as it is for prisoners.

Nonetheless, the prisoners' dilemma remains applicable to the situa-

<sup>9</sup> A Pareto-deficient outcome is one that all actors find inferior to a particular alternative outcome. The definition of mutual linkage differs both in defining-criteria and relevant strategies from the characterization of a backscratch situation by Oye (fn. 7).

tions discussed here. Indeed, it has been shown that the dilemma of collective goods can be seen to constitute a prisoners' dilemma.<sup>10</sup> Each actor prefers not to contribute to the provision of the good if the other will bear the cost; if the other will not, then there is no incentive to contribute. Yet, each prefers the provision of the good that comes with mutual contribution to the non-provision (or suboptimal provision) that comes with mutual non-contribution. In other words, each actor's dominant strategy is not to contribute, and yet each prefers mutual contribution to mutual non-contribution. As in the prisoners' dilemma, it is either greed or the fear of exploitation that leads each not to contribute. Thus, even in a setting of continual interaction and communication, situations like the prisoners' dilemma can and do occur.

FIGURE 10

## PRISONERS' DILEMMA

Actor B

		Actor B	
		B <sub>1</sub>	B <sub>2</sub> *
Actor A	A <sub>1</sub>	3, 3	1, 4
	A <sub>2</sub>	4, 1	2, 2**

(Situation 12)

\* Actor's dominant strategy

\*\* Equilibrium outcome

In the prisoners' dilemma, either actor can introduce linkage by promising to eschew its dominant strategy if the other also agrees to do so; the initiator promises to do what is not in its interest if the other reciprocates. But obtaining the mutually desired outcome remains difficult. First, it is clear that such situations are not conducive to threat. After all, fear of exploitation (if not greed) can still lead either

<sup>10</sup> Russell Hardin, "Collective Action as an Agreeable n-Prisoners' Dilemma," *Behavioral Science*, xvi (September 1971), 472-81. There is a large body of literature that argues that alliance relationships exemplify the dilemma of collective goods, a literature spawned by Mancur Olson, Jr. and Richard Zeckhauser, "An Economic Theory of Alliances," *Review of Economics and Statistics*, XLVIII (August 1966), 266-79. It is argued above that in the case of the United States and its allies, the situation is really one of potential threat-induced linkage (situation 39). The difference is whether the allies are equal in power or not.

actor back to the dominant strategy. Linkage probably requires institutionalized rules and binding commitments. Each actor wants to be certain of the obligation that the other takes on. Such linkage requires that each can be certain of monitoring the other side to prevent cheating, which must itself be clearly defined.

Scholars have often noted that the basic problems of international economic order are those that result from a deficient equilibrium outcome in the prisoners' dilemma game. Such cases result in beggar-thy-neighbor policies and other forms of economic warfare, for each state is better off devaluing its currency or imposing trade restrictions, whether or not the other retaliates. Yet mutual free trade remains preferable to economic warfare. The same is true when the issue is regarded more generally as the choice between cooperation with or defection from a liberal economic order. If the other state cooperates, then defection is preferred. If the other defects, then retaliation in kind is preferred to exploitation. Still, each prefers mutual cooperation to the disastrous outcome of mutual defection (and economic warfare). This translates into the preference-ordering of a classic prisoners' dilemma; the problem of creating order or providing collective goods is that of obtaining mutual linkage when both eschew the dominant strategy of defection. Such mutual linkage generally requires trust or, more typically, institutionalized arrangements and agreements.<sup>11</sup>

Mutual linkage requires that both actors shift away from their dominant strategies, and that both eschew standard decision criteria of strict maximization. In contrast, threat-induced linkage requires only that the threatened actor change course. Coerced linkage requires that the initiator eschew its dominant strategy and normal decision criteria, thus forcing the other to change its policy. But mutual linkage in the prisoners' dilemma requires that both eschew the standard decision criteria and the dominant strategy. The first actor has no assurance (unless it has been negotiated and formalized) that the other will respond in kind, and it knows that it will be exploited if the other does not respond in kind.

### CONCLUSION

Only certain constellations of interest (contexts) are amenable to linkage.<sup>12</sup> The most basic requirement is that the actors be interdepend-

<sup>11</sup> Elsewhere, I suggest that these situations are one of the two prototypical contexts for regime formation, as actors have an incentive to collaborate and eschew independent decision making. See Stein, "Global Anarchy, State Interests, and International Regimes" (paper delivered at the 1980 Annual Meeting of the American Political Science Association, Washington, D.C., August 29, 1980).

<sup>12</sup> Situations in which there is no equilibrium outcome or in which there are two

ent. Interdependence is implied by the assumption that both actors can unequivocally rank the four outcomes. This presumes that, for each actor, returns are determined by the other's decision as well as its own (i.e., interdependence).<sup>13</sup> Further, there are situations in which linkage is not desired and others in which it cannot be achieved. In some circumstances, the aggrieved actor can threaten to do what is not in its interest and promise not to go through with that threat as long as the other actor changes policy. The only problem may be that although this actor's promise is credible, the threat itself may not be. In other cases, the linkage initiator can simply force the other actor to change policy.

The present analysis distinguishes between threat-induced and coerced linkage. Both can be used before the fact (when an actor recognizes that it will be aggrieved with the expected outcome), or after the fact (when that outcome has already occurred). Deterrence is one form of threat-induced linkage—a successful threat made before the fact. It can be made in situations that are amenable to either threat-induced or coerced linkage; it is important to distinguish between the two because the threat is more plausible in the latter. Compellence, on the other hand, is used to describe cases of both threat-induced and coerced linkage, but always after the fact; it is intended to make an adversary change a course on which it has already embarked.<sup>14</sup>

There are situations in which both actors are aggrieved and in which both can agree on a mutually desired alternative outcome. Some of these cases are amenable to coerced linkage. In only one specific case does mutually desired linkage require both actors to act against their interests, with both benefiting by doing so.

Use of 2 x 2 games to delineate linkage situations demonstrates the implicit bases of linkage. An actor who uses any of the linkage strategies must know the context, and that requires knowing *both* actors' preferences. An actor must know not only that it is aggrieved with a particular outcome, but also which alternative outcome it prefers.

equilibria are not discussed here because in these cases both actors already have contingent strategies.

<sup>13</sup> If actor A, for example, were independent, it might prefer  $A_1$  or  $A_2$ , but would be indifferent both between  $A_1B_1$  and  $A_1B_2$  and between  $A_2B_1$  and  $A_2B_2$ .

<sup>14</sup> The term "compellence" was coined by Thomas C. Schelling. See his *The Strategy of Conflict* (Cambridge, Mass.: Harvard University Press, 1960) and *Arms and Influence* (New Haven, Conn.: Yale University Press, 1966). The terminology of others differs; see Alexander L. George, David K. Hall, and William E. Simons, *The Limits of Coercive Diplomacy: Laos, Cuba, Vietnam* (Boston: Little, Brown, 1971).

Moreover, successful linkage requires that the aggrieved actor know the other actor's preference-ordering, and clearly communicate to that actor its own preference-ordering and its own interests, in addition to whatever threat or offer it makes. In other words, the dissatisfaction of the linkage initiator must be clear to the other actor. Finally, the initiator must know the different forms of linkage and the bargaining tactics appropriate to each.<sup>15</sup>

Scholars have recently suggested that theories of international relations must be disaggregated by issue area.<sup>16</sup> They argue, for example, that balance-of-power theory applies in specific issue domains and must be so assessed. In view of the growth of foreign affairs bureaucracies and functional divisions of labor, different issue areas may exhibit different patterns of dyadic cooperation and conflict. Proponents of a new transnational perspective on international political economy have also argued for issue disaggregation. Keohane and Nye, for example, have developed a model on the foundation of an issue-structural, rather than a power-structural, explanation of regime change.<sup>17</sup>

Linkage is the central analytic problem with an issue approach to international politics. Issue compartmentalization only goes so far. At some point, policies percolate to the top and the same upper echelon officials are responsible for making policy in different issue areas.<sup>18</sup> They can pursue mixed policies toward a single state and they may very well link them, either as a conscious bargaining strategy or simply in order to reduce personal dissonance. Because there are situations amenable to linkage politics, the viability of an issue-area approach to the study of international politics is itself context-dependent.

<sup>15</sup> These situations are thus ripe for misperception. See Stein, "On Misperception," UCLA Center for International and Strategic Affairs, *ACIS Working Paper* No. 23 (1980).

<sup>16</sup> P. Dale Dean, Jr. and John A. Vasquez, "From Power Politics to Issue Politics: Bipolarity and Multipolarity in Light of a New Paradigm," *Western Political Quarterly*, xxix (March 1976), 7-28; Donald E. Lampert, Lawrence S. Falkowski, and Richard W. Mansbach, "Is there an International System?" *International Studies Quarterly*, xxii (March 1978), 143-66. The "bureaucratic politics" approach implicitly presents an argument for issue disaggregation in the study of international politics.

<sup>17</sup> Robert O. Keohane and Joseph S. Nye, *Power and Interdependence: World Politics in Transition* (Boston: Little, Brown, 1977).

<sup>18</sup> This is the basis for one of the central critiques of the "bureaucratic politics" approach; see Stephen D. Krasner, "Are Bureaucracies Important? (or Allison Wonderland)," *Foreign Policy*, No. 7 (Summer 1972), 159-79; Desmond J. Ball, "The Blind Men and the Elephant: A Critique of Bureaucratic Politics Theory," *Australian Outlook*, xxviii (April 1974), 71-92; Amos Perlmutter, "The Presidential Political Center and Foreign Policy: A Critique of the Revisionist and Bureaucratic-Political Orientations," *World Politics*, xxvii (October 1974), 87-106.