

FORCE AND RESTRAINT IN A DANGEROUS WORLD

A GAME THEORIST'S PERSPECTIVE

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UN restraints on American military action: a policy for political losers?

"Democrats waiting for the U.N. to act? I can't imagine an elected member of the United States Senate or House of Representatives saying, 'I think I'm going to wait for the United Nations to make a decision.' If you're representing the United States, you ought to be making a decision on what's best for the United States. If I were running for office, I'm not sure how I'd explain to the American people: 'Say, vote for me, and, oh, by the way, on a matter of national security, I think I'm going to wait for somebody else to act.' "

President Bush discussing Iraq with reporters, 9/13/2002

<http://www.whitehouse.gov/news/releases/2002/09/20020913.html>



I will argue that restraint may be good policy for America, although Bush seemed right about it being bad politics.

The President's Logic:

The world must know that we will use force when necessary, to defend ourselves against foreign threats.

Any external constraint might prevent us from using such force when we feel it is necessary.

A game theorist's response:

The world must also have confidence that we will abstain from force when necessary. So to influence and deter potential adversaries, we need both force and restraint.

Restraint means limits on the use of force that are clearly understood by potential adversaries.

Game theory can show how forceful action without restraint may be counter-productive.

Another argument against multilateralism

"If it was right to topple Saddam Hussein, it was right even if no one else agreed. If it was wrong, then it was wrong even if the world was on our side. Lynch mobs aren't right because they have numbers on their side, and men who stand up to them aren't wrong because they stand alone. Multilateralism is good only to the extent that it allows us to achieve good things."

Jonah Goldberg, "When Multilateralism Falls Short"
National Review, 10/13/2006.

This conservative pundit assumes that an invasion is intrinsically right or wrong, regardless of what others think.

With game theory, I will argue that military actions should be evaluated a part of a deterrent strategy, and **the effectiveness of a deterrent strategy depends on how others perceive it.**

Game theorists study mathematical models of social interactions

To understand society and its problems, people tell stories.

To understand an international crisis, we might seek useful analogies by retelling the stories of:

- the 1938 Munich appeasement (to justify resolve), or
- the 1962 Cuban missile crisis (to justify restraint).

No story fits any real situation perfectly.

Insights of different stories must be compared.

Models in game theory are just stories of another kind.

The Rules of the Game

As any literary form, game theory has stylistic constraints, which define the power and limitations of game theory.

- The people in the game are the **PLAYERS**.
- Players have to choose **ACTIONS**.
- Players have goals which are listed numerically as **PAYOFFS** that they want to maximize.
- Players may learn some **INFORMATION** in the game.

All these must be described precisely by sets and numbers.

Game theorists always respect the players, assuming:

- Players are **RATIONAL** payoff-maximizers,
- Players are **INTELLIGENT**, understanding the game.

An **EQUILIBRIUM** is a prediction of all players' actions such that each player's action is best for himself given what the other players are expected to do.

A game where talking can help players to focus on the better of two equilibriums

	B cooperative	B aggressive
A cooperative	*1, 1*	-8, 0
A aggressive	0, -8	*-3, -3*

A's payoff, B's payoff

A = America, B = Bulgaria (* = best response)

This is a game where each player wants to match the other's action. The players choose their actions simultaneously and independently. We find two equilibriums: **both-cooperative**, and **both-aggressive**.

Suppose that players in such games have traditionally been aggressive.

...We should talk!

The Prisoners' Dilemma game, where neither player can trust the other's cooperation

	B cooperative	B aggressive
A cooperative	0, 0	-8, 1*
A aggressive	*1, -8	*-3, -3*

A's payoff, B's payoff

To understand deterrence, let's consider the "Prisoners' dilemma," a simple game that has one unhappy equilibrium. (We've switched the 0s and 1s in the first game.)

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Trust is impossible, if neither player can respond to the other...

A's strategies, when A can observe B's choice and can respond to it

	B's action:	B cooperative	B aggressive
A's strategies:			
A is cooperative always		A cooperative	A cooperative
A does the same as B		A cooperative	A aggressive
A does opposite of B		A aggressive	A cooperative
A is aggressive always		A aggressive	A aggressive

Now suppose that A can choose its action after observing B's choice.

A **strategy** for a player is a complete plan, specifying an action for the player in every possible situation that the player could encounter in the game.

When A can respond to B's action, A has a deterrent strategy, but is it credible?

	B cooperative	B aggressive
A is cooperative always	0, 0	-8, 1*
A does the same as B	0, 0*	*-3, -3
A does opposite of B	*1, -8	-8, 1*
A is aggressive always	*1, -8	*-3, -3*

A's payoff, B's payoff

The Prisoner's Dilemma game when A can choose its action after observing B's choice.

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“Doing the same as B” is a **deterrent strategy** for A, in that B would prefer to cooperate against this strategy. But this strategy is not optimal for A when B cooperates, so B shouldn't believe that A would use it, unless A is restrained...

The advantages of restraint

The deterrent strategy here involves both

- a promise that we will cooperate if our rival cooperates, and
- a threat that we will be aggressive if our rival is aggressive

For our deterrent strategy to be effective, our rivals must believe our promise of cooperation.

But in games like “Prisoners’ Dilemma”, we find short-run advantages from acting aggressively, instead of cooperating.

So to make our promises of cooperation credible, we may need someone else who can compel us to be cooperative in such situations.

Thus, America’s deterrent strategy may actually be more effective when we accept restraint from others in the United Nations.

When A has a valuable reputation for restraint, the good outcome becomes an equilibrium

	B cooperative	B aggressive
A is cooperative always	*0, 0	-8, 1*
A does the same as B	*0, 0*	*-3, -3
A does opposite of B	1-R, -8	-8, 1*
A is aggressive always	1-R, -8	*-3, -3*

A's payoff, B's payoff

Now suppose Player A will repeat the PD game against others who are expecting A to always use the “same-as” strategy, but if A ever deviated then they’d expect A to be aggressive always.

Let R be the value of A’s global reputation for never being aggressive against a rival who is cooperating.

-R = net present value of losing \$3 forever.

R=60 if A plays one game per year and uses a 5% discount rate.

Reputations for resolve and restraint

I have argued that a reputation for **restraint** can help make it credible that we will cooperate if our rival cooperates.

But for an effective deterrent strategy, our rivals must believe our threats of punishment as well as our promises of cooperation.

In situations where fighting is costly and aggression is unprofitable, a reputation for **resolve** can help make our threats credible.

Which is more important: resolve or restraint?

Small weak nations may need resolve more than restraint, because their weakness makes conflict more dangerous for them.

Stronger nations can find more opportunities for profitable aggression, and so they may have less need for resolve, more need for restraint.



**Restraint should be most important
for the world's most powerful nation.**

A's reputation must be judged by others

We have been assuming that, when a player is aggressive, the whole world will see that player's aggression.

Now suppose that, if B is aggressive, the whole world will probably see it, but there is a small chance that only A will see it and that everyone else will think that B is cooperative.

What should A do in a game where such a disagreement about B occurs?

It is better for A to be cooperative now and preserve its reputation than to be aggressive now and lose its reputation forever. ($-8 > -3-R$)

If A wouldn't lose any reputation by being aggressive when the world sees no evidence of B's aggression, then A would be aggressive always!

Military force must be judged as part of a deterrent strategy, and foreigners are the jury

Any bomb by itself causes only destruction.

It can have a constructive purpose only as part of a strategy that defines when we bomb and when we do not bomb.

People have no incentive to yield if they think that yielding only invites further aggression.

If our rivals do not understand the limits to our use of military force, then our bombing can only spread destruction and resolve to resist us.

So we want our adversaries to understand the limits on our use of force, and we want them to believe that we are complying these limits.

On a question of whether our use of military force was justified under our deterrent strategy, the judgment that counts is that of the foreigners whom we want to deter.

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If our invasion has been justified only to American voters, then it has not been justified at all.

Marketing militarism by exploiting uncertainty about others' restraint

"How many were martyrs [in the recent fighting with Israel]?"

Never mind, were they 1000 or 1200 martyrs?

In Iraq, some 10000 to 15000 people are killed every month in a chaotic war that is administered, financed, and incited by the Americans and the Mossad. The resistance [of Hezbollah] protected Lebanon."

Hasan Nasrullah, speech at Hezbollah rally in Beirut, 9/22/2006

<http://www.juancole.com/2006/09/nasrullahs-speech-here-is-bbc-world.html>

Ambiguity about the limits of American and Israeli military actions may have helped Hezbollah to sell itself as the strongest defender of Lebanon's security.

Similarly, Arab calls for total destruction of Israel have motivated Israelis to bear high military costs.
Lack of clear restraint can stimulate others' resolve.

Summary

To influence and deter potential rivals, we need a deterrent strategy in which threats of conflict are balanced by promises of cooperation when rivals yield to our pressure.

The threats and promises of our deterrent strategy can be effective only if they are understood and believed by our potential rivals.

When Americans judge our leaders for effectiveness in foreign policy, the central question should be how our policy is perceived by the foreigners whom we want to influence and deter.

Letting these foreigners judge our reputation for adhering to our deterrent strategy can help us to guarantee its credibility.



So a policy of submitting American military actions to international judgment and restraint can actually make America more secure.

Reconsidering the rationality assumption

What if our adversaries are not rational? What if we believe them to be congenital aggressors who cannot be deterred?

If so, then what could we do but try to bind or exterminate them? But if they understood that we believed this, then fighting us really would be rational for them!

Our most dangerous adversaries are not lone madmen but leaders with political support from many people who have normal hopes and fears.

What if the assumption of selfish rationality does not apply to us, because we can always be trusted to do what is right?

If so, then our intrinsic justice may be a sufficient deterrent against aggression, but its effectiveness depends on others believing in it.

Our own belief in our own justice is not enough.

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A final thought about patriotism

Should Americans who doubt that everybody can always trust America be denigrated as unpatriotic?

This game theorist would suggest that they may be true patriots, asking hard questions that are essential to our national security.

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<http://home.uchicago.edu/~rmyerson/chfest.pdf>

Further reading: Thomas Schelling, Strategy of Conflict (1960).