



The Puzzle of Interstate War, Part II: Information and Commitment Problems

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- Fearon (1995) Review
- Incomplete Information Explanation for War
- Credible Communication
- Limits of the Incomplete Information Explanation
- Credible Commitments
- Issue Indivisibility
- Example: South China Sea
- Is War Obsolete?



How can incomplete information and incentives to misrepresent it lead to war within the bargaining model of war? How can commitment problems and indivisibility lead to war?



Key Terms

- Incomplete Information
- Incentives to Misrepresent
- Credible Communication
- Costly Signaling
- Costly Signaling Strategies
- Commitment Problem
- Credible Commitment
- Preventive War
- Preemptive War
- Indivisibility



Group yourselves and answer the following:

- What was Fearon's main point?
- What does Fearon identify as the “central puzzle” of war?
- What are the 5 incorrect bargaining explanations for war that Fearon critiques?
- What are the 3 bargaining explanations for war that Fearon identifies?



What was Fearon's main point?

- At time of writing (1995), (neo)realist explanations for war all had problems.
- Fearon criticizes some for lacking logical validity, while arguing others are not empirically supported. This means there may not be a rationalist explanation for war.
- As a rationalist explanation for war is a key part of realism, a threat to one is a threat to the other.
- Fearon's article is thus an attempt to solve this problem.



What does Fearon identify as the “central puzzle” of war?

- “[War] is costly and risky, so rational states should have incentives to locate negotiated settlements that all would prefer to the gamble of war” but existing theories fail to identify why they do not settle (380).



What are the 5 incorrect bargaining explanations for war?

- 1 Anarchy. Rebuttal: War is still costly, so what about anarchy prevents negotiation?
- 2 Preventive war. Rebuttal: why can't the rising power make concessions to avoid costly war?
- 3 Positive expected utility of war. Rebuttal: War is always a gamble with a chance of losses.



What are the 5 incorrect bargaining explanations for war?

- 4 Disagreements over relative power (and thus over the possible outcomes of war). Rebuttal: why can't states just tell each other this private information?
- 5 Miscalculation of opponent's willingness to fight. Rebuttal: why can't states just tell each other this private information too?



What are the 3 bargaining explanations for war that Fearon identifies?

- 1 Private information and incentives to misrepresent it.
- 2 Commitment problems. These include:
 - Preemptive wars
 - Preventive wars
 - Strategic territory/appeasement
- 3 Indivisibility



Incomplete Information Basics

- Remember from last class that, given a divisible good and costs to war, there always exists a bargaining range.
- **Given the existence of a bargaining range, there is always some deal that both sides would prefer to war.**
- **Why do states choose war, given the existence of both the costs of war and the existence of a deal that both sides prefer to war?**



Incomplete Information Basics

- We can reframe this puzzle in terms of information.
- Why can't each side calculate what the costs c are for both sides, and/or the potential outcome x , and thereby find the bargaining range?
- If we assume **incomplete information**, each side only knows its own costs c with certainty. Each side must guess at the other's costs as well as the outcome.
- So, what's preventing each side from simply telling the other its costs and figuring out the outcome?



Incentives to Misrepresent

- **Incentives to misrepresent incomplete information always exist.**
- If one actor can get the other to believe that their costs are lower than they truly are, or that the outcome of the conflict will be more favorable for them than it truly is, they gain an advantage in crisis bargaining and can try to secure a better negotiated settlement for themselves.
- However, each side is a rational actor and knows this. What does this mean?



Incentives to Misrepresent

- **Neither side can afford to trust the other, even if they are both telling the truth.**
- This is similar to a Prisoner's Dilemma, where cooperation is analogous to telling the truth and defection analogous to bluffing.
- However, the problem here is not that they cannot communicate, but that they cannot trust any communication.
- We say that this communication lacks **credibility**.



Incentives to Misrepresent

- This is the core of the information explanation for war:
 - Neither side can credibly communicate their private information.
 - This means one or both are unable to propose a settlement within a bargaining range that is acceptable to both sides.
 - If each side has a different estimate for the other's c and/or the outcome x of the war, this can lead disagreement over the location of bargaining ranges.
 - This leaves at least one side unable to propose a deal the other side views as better than war.



Non-Overlapping Bargaining Ranges

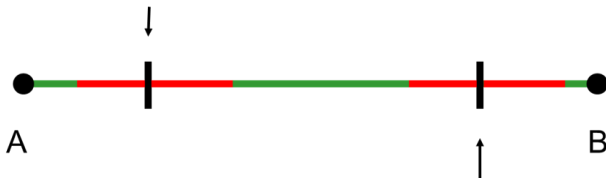


A thinks that the
probable new border if
A and B fight is here.



Non-Overlapping Bargaining Ranges

B says, “No, the probable new border if we fight is here.”



A thinks that the probable new border if A and B fight is here.



Non-Overlapping Bargaining Ranges

B has a secret weapon, putting
the *actual* probable new border
if they fight here.



A thinks that the
probable new border if
A and B fight is here.



Types of Private Information

- So, what kinds of incomplete information do states have incentives to misrepresent?
- Their costs c and beliefs about outcome x , but what does that mean in the real world?
- Costs are determined by two components: a state's **capabilities** and/or **resolve**.
- **Capabilities**: physical ability to prevail in war (e.g. troops, arms, economic resources)
- **Resolve**: a state's willingness to endure the costs of war to acquire a good.
- A state's **private information** about its own capabilities and resolve can lead to complications in bargaining.



- **Capabilities:** physical ability to prevail in war (e.g. troops, arms, economic resources).
- Some capabilities are obvious or easily credibly communicated.
 - Number of troops on a border
 - Flashy military hardware (planes, aircraft carriers, etc.)
- Others are harder to credibly communicate.
 - Secret weapons: cannot be revealed without losing their effectiveness.
 - Intangible elements such as quality of training or morale.



Types of Private Information: Resolve

- **Resolve:** a state's willingness to endure the costs of war to acquire a good or outcome.
- Resolve is even harder to communicate credibly.
- No state's leadership or military are going to ever admit to weak resolve or armed forces prone to desertion.
- Doubts about resolve can go both ways...



Resolve: Gulf War



“Yours is a society which cannot accept 10,000 dead in one battle.”

- Saddam Hussein (1990)



Resolve: Gulf War



“This will not stand, this aggression against Kuwait.”

- George HW Bush (1990)



Another Example: Afghanistan

Consider the case of US negotiations with the Taliban regime in Afghanistan following 9/11.

- 9/11 occurs and Al-Qaeda takes responsibility.
- US quickly realizes AQ is being sheltered by the Taliban government of Afghanistan.
- US demands Bin Laden and any other AQ leadership.
- Taliban refuse but offer to put Bin Laden on trial themselves.
- US CIA and special forces are in Afghanistan by late September, and Operation Enduring Freedom launches October 7.



Another Example: Afghanistan

What was the primary credible communication challenge here?

- Taliban ultimately doubted US resolve.
- Taliban leadership did not think US was prepared to pay the costs of a lengthy occupation.
- US ability to win a conventional battle with the Taliban was never in doubt.
- Taliban miscalculated by gambling that they could refuse to hand over Bin Laden, and this led to war.



- Given these challenges, how can states effectively signal their intentions?



Solutions to the Information Problem

All solutions to the information problem revolve around ways to credibly communicate. These are called **costly signals**.

- 1 Brinksmanship
- 2 Tying Hands
- 3 Paying for Power
- 4 Sunk Costs

All of these are intended to send a **costly signal**: an action that will only be taken by a truly resolved state, and never by an unresolved state, proving credibility.



Costly Signaling: Brinksmanship

- **Brinksmanship:** increasing the risk of accidental war to make one's threats credible.
- Textbook example: 1962 Cuban Missile Crisis.
- American placement of ballistic missiles in NATO members Italy and Turkey leads to Soviet missiles being placed in Cuba.
- Kennedy administration considers this unacceptable; both sides reach agreement to remove nuclear missiles from Cuba and Turkey after days of tension.
- During this time, President John F. Kennedy takes steps that make nuclear war more likely, such as putting missile crews on alert.
- This is a negotiating tactic to pressure the Soviets to dismantle nuclear missile sites in Cuba.



Costly Signaling: Brinksmanship



Corbis



Costly Signaling: Tying Hands

- **Tying hands:** taking actions that make backing down more difficult.
- How do states do this? By invoking **audience costs:** public commitments or threats that, once made, are damaging politically to renege on.
- To successfully tie one's hands, the audience costs of not keeping that commitment must be greater than the costs of following through on that commitment.



Who imposes audience costs?

- International audiences: any state with whom the current state might bargain in the future.
- Domestic audiences: voters, political opponents, etc.
 - Arguably more credible when coming from democracies, as voters can easily impose audience costs during an election cycle.



Costly Signaling: Tying Hands





Costly Signaling: Paying for Power

- **Paying for power:** taking costly steps to increase one's military capabilities.
- The resources spent in this way generally cannot be reused (ex: money spent to buy more tanks cannot also be spent to repair national highways).



Costly Signaling: Sunk Costs

- **Sunk costs:** engaging in costly expenditures of resources (political and/or material) to demonstrate one's resolve.
 - Ex: mobilizing troops, calling up reserves, moving military units around
- Differs from paying for power in that it does not involve changes to capabilities.



Example: 2016 Russian Military Drills



AP Photo/Pavel Golovkin



So, how effective are these methods? Let's begin with **brinksmanship**.

- Cuban Missile Crisis is most famous example.
- Hard to identify, except in hindsight.
- Unclear what the difference is between a strategy of brinksmanship and simple aggression or miscalculation of the bargaining range.



What about **tying hands**?

- Strong support from game theory scholars.
- Conditionality reduces uncertainty by making action and result very clear.
- May be more effective with some (democratic) domestic institutions than others.



What about **paying for power** and **sunk costs**?

- Some support for the paying for power: visible military expenditures may make capabilities more clear, reducing private information.
 - Weaker support from game theory scholars compared to tying hands.
- A sunk costs strategy may be irrational: if an actor deliberately creates sunk costs to demonstrate resolve, why shouldn't an observer conclude that they are now *weaker* due to losing those resources?



Information Problems Summary

- What prevents states from finding a settlement that both prefer to war?
- They both have private information about their capabilities and/or resolve.
- They both have incentives to misrepresent that information to get a better deal.
- Thus, neither can trust the other's statements, potentially leaving them unable to find a bargaining range they agree on.
- States can try to solve this by using strategies for credible communication.



Limits of Private Information

- Problems of credible communication may explain why wars start, but they become less plausible the longer a war goes on.
- **Why? War itself reveals information about costs and likely outcomes.**
- So, what explains wars that have lasted for a long time, or wars where both sides have reliable information on the costs and likely outcome?



Commitment Problems

- This brings us to the second of Fearon's explanations for war: **commitment problems**.
- These are concerned not with private information, but with whether actors can be trusted to honor an agreement once it is made.
 - This means commitment problems can occur even if there is *complete* information on both sides.
 - Anarchy as a permissive factor is especially important here.



Commitment Problems

- **Credible commitment:** a believable agreement by one side to not try to alter the situation after a negotiated settlement is reached.
- A **commitment problem** occurs when states cannot credibly agree not to threaten or use force to change a negotiated settlement in the future, even if that settlement is acceptable to both of them in the present.



Communication vs. Commitments

- Note the difference between credible communication and credible commitments.
- **Credible communication:** communicating one's capabilities and/or resolve in a believable way.
 - A solution to the problem of incomplete information.
- **Credible commitment:** a negotiated settlement with terms that neither side will attempt to alter in the future (via force or otherwise).
 - Commitment problems occur because making a credible commitment is difficult.



Bargaining Over Future Sources of Power

- At their core, commitment problems are a form of crisis bargaining over future sources of power.
- That is, any negotiated settlement at t_1 will reflect the balance of power then. **But what if that distribution of power changes over time or because of the deal itself?**
- In this case, at least one side will no longer have an incentive to honor the deal. But since both sides are rational and can anticipate this, avoiding war becomes more difficult.



Examples of Future Sources of Power

- **Weapons programs:** especially nuclear ones (ex: Iran, North Korea).
- **Strategically valuable territory:**
Senkaku/Diaoyu Islands, South China Sea, Golan Heights, oil fields, lucrative shipping lanes, etc.



Commitment Problem Types

Bargaining over sources of future power (commitment problems) can take one of two forms:

- 1 **Preventive War**
- 2 **Preemptive War** (also called war with first-strike advantages)



Logic of Preventive War

- With incomplete information, we looked at two states bargaining at a single moment in time.
- Now, we shift to these states considering not only the present (t_1) but also the future (t_2).
- **States have incentives not to bargain over things that diminish their future power.**
- Any rational state will be reluctant to agree to any settlement that will make it vulnerable in the future, even if that settlement is rational in the present.



Logic of Preventive War

- If State B makes concessions to avoid war that weaken it today (t_1), it cannot be sure that State A will not press for more concessions at t_2 now that B is weaker.
- **Why? State A, which will be militarily advantaged by striking this bargain at t_1 , cannot credibly commit not to exploit the new distribution of power that favors it in t_2 .**



Logic of Preventive War

- Another way to phrase this is to say that State B is undergoing a **power shift**: a change in the distribution of power between these two states. State A (the “rising power”) is growing stronger while state B is growing weaker.
- When the distribution of power is anticipated to change rapidly, states have incentives to initiate **preventive war**: war fought due to anticipation of a rival state becoming stronger in the future.

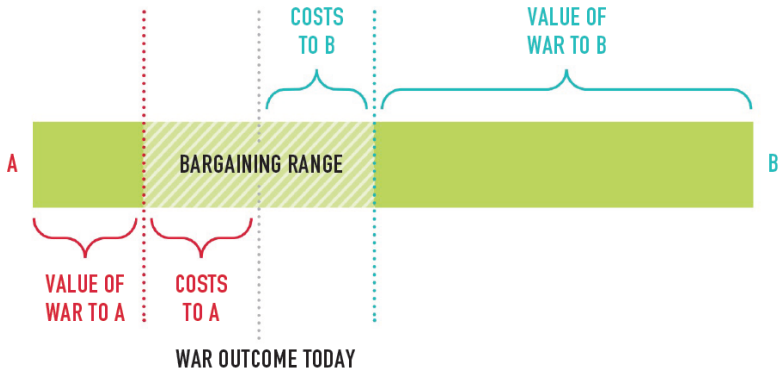


Logic of Preventive War

- Under the bargaining model of war, a rising power has an incentive to alter the status quo in the future (t_2) once it is powerful enough to do so.
- Knowing this, its opponents have incentives to attack it while it is currently weak (at t_1).
- Example: Iraq War (according to US)

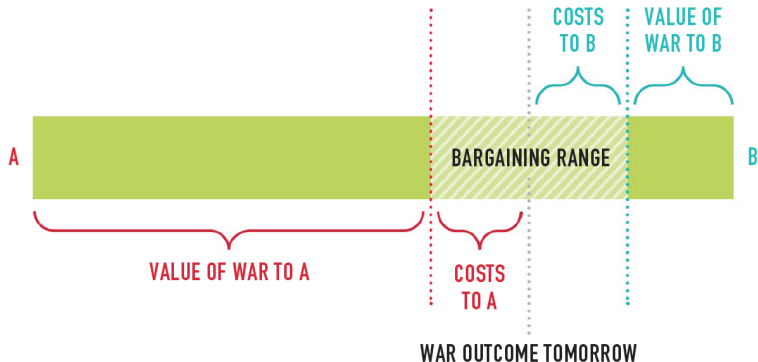


Today (t_1): B is Relatively Strong





Tomorrow (t_2): B is Relatively Weak





Preventive Wars

- A preventive war is fought because a rational state would rather fight a weak rival today than a strong rival tomorrow.
- Why can't the rising power promise not to abuse its new power? **Because the incentive structures of the situation, and lack of enforcement mechanisms for any deal, give it every incentive to renege on any deal.**

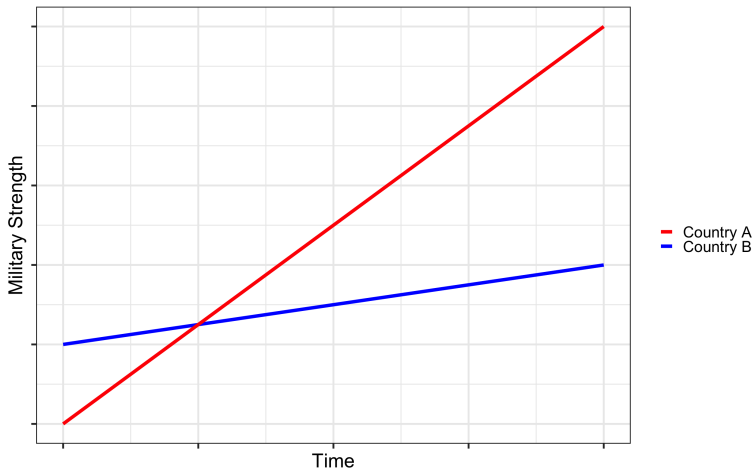


Preventive Wars

- This change in power can occur for a variety of reasons.
 - An economic deal that disproportionately benefits one side.
 - Growth in one side's military strength due to technological or other advances.
 - An impending alliance deal (ex: what if Ukraine joined NATO?).
 - Any present deal that cedes strategic territory to the other side (ex: appeasement)
- This change in power can also take two general forms...



Rapidly Growing Power





Example: Pearl Harbor



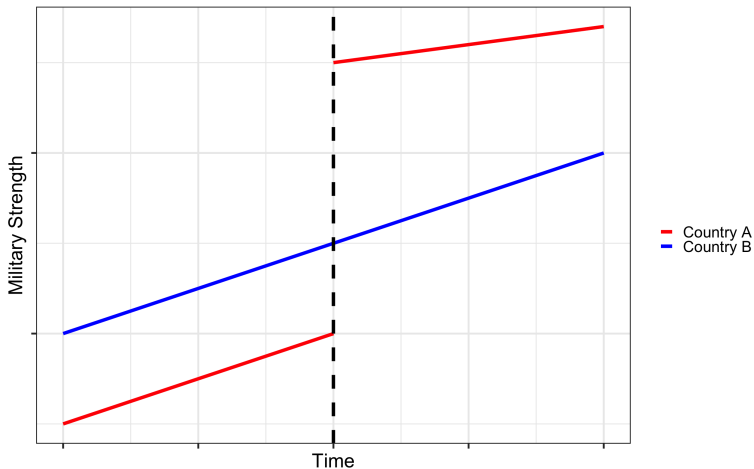


Example: Pearl Harbor

- Japanese actions against China in the 1930s lead to retaliatory US trade restrictions.
- American trade restrictions on oil and steel hurt Japan's military.
- Japanese government fears that continued restrictions will further weaken them.
- Thus, Japanese government concludes they would rather fight a (relatively) weaker US today than wait for the balance of power to disadvantage them even further.



Discontinuous Shift in Power





Example: US Invasion of Iraq in 2003





Example: US Invasion of Iraq in 2003

- American justification for the invasion was that Iraq was developing WMDs, supporting terrorist groups (including AQ), committing human rights abuses.
- Most important part of this justification was the purported WMD program.
- Development of working WMDs represents a discontinuous shift in power.
- No WMDs ever found, nor any evidence that Saddam was working with AQ...

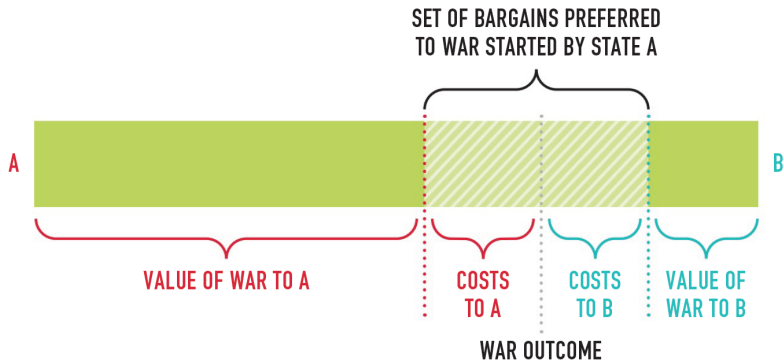


Preemptive War

- The second subtype of commitment problem involves the possibility of **preemptive war**: war with first-strike advantages.
- States have a **first-strike advantage** when there is a significant military benefit to being the first to attack.
 - Ex: nuclear first-strike advantage (prior to development of second-strike capabilities).
- If a state fears that the other side will attack first, and there is a first-strike advantage, it has incentives to preempt that attack by launching its own.
 - Ex: Israel during the Six-Day War
- Shares similarities with the Prisoner's Dilemma...

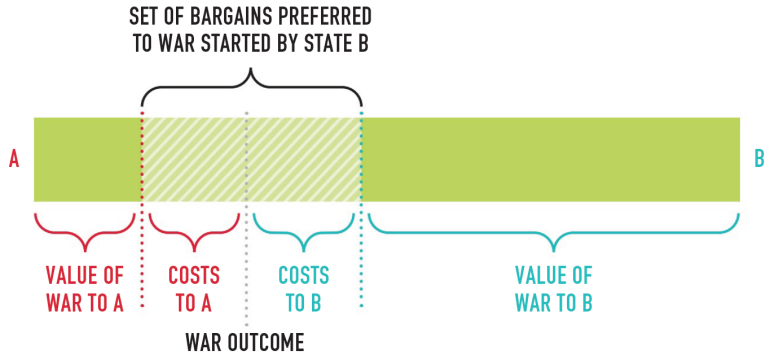


State A Attacks First





State B Attacks First





Example: 1967 Six-Day War





Example: 1967 Six-Day War

- Background: escalating tensions between Israel and Egypt over strategic territory (Straits of Tiran - vital shipping corridor).
- Egypt mobilizes its forces and ejects UN peacekeepers from the Israel-Egypt border.
- Israeli air force preemptively strikes Egyptian air force, catching it completely by surprise.
- Egyptian air force crippled; Israel routs Egypt and its allies Syria and Jordan.



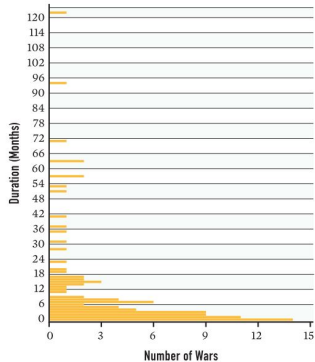
Commitment Problems and War Length

- Weisiger (2016) examines 103 interstate wars since 1816.
- Wars due to incomplete information tend to be short because during the war previously private information becomes public. Under reduced uncertainty, it is easier to strike a bargain.
- Wars stemming from commitment problems tend to last longer.
- The longest wars have been fought between declining and rising states when preventive war motivations are strong.



War Duration

FIGURE A *The Duration of Interstate Wars, 1816–2014*



Source: Meredith Reid Sarkees and Frank Wayman, *Resort to War: 1816–2007* (Washington, DC: Congressional Quarterly Press, 2010).



Commitment Problem Solutions

- Solutions generally focus on finding a third party to guarantee a deal.
- If a third party can prevent one side from taking advantage of its shift in power, then the other side may not feel the need to engage in preventive or preemptive war.
- Frequently accomplished via use of UN peacekeeping forces, in cases that involve territory (ex: UN forces in Golan Heights between Israel and Syria).
- Peacekeepers serve as both deterrent and early warning mechanism, decreasing uncertainty.



War Due to Indivisibility

- Thus far, we have assumed that the crisis bargaining is over some **divisible good**: a good that can, in theory, be divided.
- Territory has been our go-to example, but other divisible goods exist (policy choices, economic treaties, etc.)
- However, some goods cannot be divided without substantially diminishing or destroying their values. These are **indivisible goods**.
 - Ex: 100 pennies versus \$1 dollar bill



Indivisibility

- Bargaining breakdown will occur if states are bargaining over an indivisible good.
- Why? **By definition, such a good cannot be divided, meaning any bargain will involve one side getting all of it. This will be unacceptable to the other side.**
- Most commonly cited example is Jerusalem.



- But should we be skeptical that indivisible goods exist?
 - Weak enforcement mechanisms may cause actors to claim indivisibility when the real issue is commitment.
 - States have bargaining incentives to claim indivisibility.
 - Indivisibility can be socially constructed (ex: 1950s Jerusalem UN control proposals).



Some solutions have been proposed:

- **Shared control:** both sides keep control of the valuable good.
- **Issue linkage:** one side gets everything they want on one issue, while ceding another issue to the other side.

Neither of these solutions strictly work within the confines of Fearon's rational model, but both are plausible.



South China Sea





- What do the points raised in the Mastro article tell us?
- Actual conflicts are generally far more complicated than two-player models suggest.
 - Multiple players, multiple simultaneous crisis bargaining interactions...
- Information and commitment problems abound, often at the same time.
 - What about indivisibility?
- Both the US and China are struggling with issues of credible signalling and future sources of power.
- Do the US policies Mastro proposes address the heart of the bargaining issue?



Is Interstate War Obsolete?

- The bargaining model proposes three features of war:
 - 1 Conflicting interests
 - 2 Costs of war
 - 3 Bargaining failure because of information, commitment, or indivisibility problems
- Some scholars have argued that changes in the international system have impacted these features, making interstate war obsolete.



Is Interstate War Obsolete?

These changes include:

- International organizations: development of more IOs can decrease private information and help with commitment problems.
 - They can decrease private information by providing neutral observers of a state's military activities.
 - They can make it easier to resolve commitment problems by monitoring and enforcing agreements.



Is Interstate War Obsolete?

These changes also include:

- Spread of democracy: “democratic peace” makes war less likely in the aggregate as the number of democracies increases.
- Increased costs as technology advances (especially nuclear weapons).
- Decreased interest in claiming territory.
- Globalization and increased economic interdependence raise costs of war.

Ultimately, all of this explains why interstate wars are rare, but “obsolete” is probably too strong a term.



Bargaining Summary 1

- The central puzzle of the bargaining model: why do states fight rather than reaching a negotiated settlement, given the costs of war.
- Explanations:
 - 1 Private information and incentives to misrepresent it
 - 2 Credible commitment problems
 - 3 Indivisibility issues (even if socially constructed)



Bargaining Summary 2

- Averting war means finding ways to solve each of these problems.
 - 1 Decrease private info via tying hands and promoting transparent communication.
 - 2 Find ways to enforce commitments (often via third parties like IOs)
 - 3 Address indivisibility issues with linkage or power sharing.
- Increasing the costs of war also works in most cases.



Final Thoughts

- This provides an answer to a pivotal question of political science: why war?
- These explanations can be applied to most interstate conflicts.
- Do you find this collection of explanations to be a satisfying theory of interstate conflict?
- What is it missing?