Unfair Fights: Power Asymmetries and Preventive War

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Overview

Summary: What conditions increase the likelihood of preventive war? With intuitive extensions to existing bargaining models of war I generate a previously unconsidered relationship with testable implications. Specifically, larger initial dyadic power asymmetries increase the probability of preventive war by reducing the magnitude of power shift necessary to undermine bargaining. Empirical tests relaxing assumptions employed in prior studies of preventive conflict corroborate this proposition.

Preventive War's Logic: Anticipated shifts in relative power motivate declining states to start conflict under the initially favorable conditions as rising states cannot credibly commit to bargains struck before power shifts. Knowledge of adverse bargaining outcomes are the key, not survival fears.

Preventive War's Importance: Arguably the most often invoked cause of conflict from the Peloponnesian War to the Iraq War.

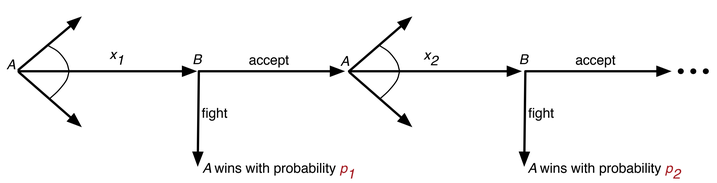
A Bargaining Model of War

Preliminaries:

- Division of resource with shifting power (Fearon 1995, Powell 2006)
- Two-player infinitely-repeated take-it-or-leave-it bargaining
- Power shifts between first and second round only
- Rejected proposal yields a costly lottery (war) determining which player receives the full resource in perpetuity

Notation and Game Tree:

Symbol	Description	Specification
A	player with rising power	
B	player with declining power	
R	resource to be divided	$R \in [0,1]$
x_i	amount A retains of R in round i	$x_i \in [0,1]$
p_i	probability A wins war in round i, reflects dyadic power balance	$p_i \in [0,1]$
c_A	A's costs of war	$c_A \in [0,1]$
c_B	B's costs of war	$c_B \in [0,1]$
δ	common discount factor	$\delta \in [0,1]$



Preventive War Constraint:

- When will B rationally reject any offer? Reject if

$$\underbrace{\delta p_2 - p_1}_{\text{Size of Shift}} > c_B(1-\delta)^2.$$

- **Key:** Size of shift needed to preclude bargaining is not related to the initial power balance — p_1 does not appear on the right-hand side.

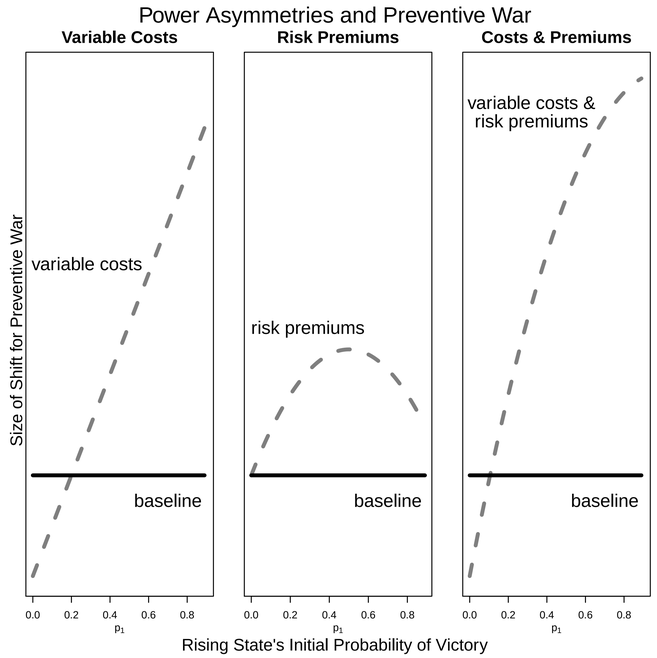
A Theory of Asymmetry and Prevention

Variable Costs of War:

- **Intuition:** War costs are a function of capabilities. Intuitively, fighting a weak state (Nauru) is less costly than fighting a strong one (China).
- **Analysis:** Size of shift for preventive war constraint is increasing in p_1.

Risk Premiums:

- **Intuition:** War outcomes are uncertain. Risk averse actors will tolerate larger shifts in power when victory is particularly uncertain.
- **Specification:** War is modeled as a Bernoulli trial. Let the variance of war outcomes $p_i(1-p_i)$ reflect its uncertainty and the risk premium.
- **Analysis:** Risk premiums are an added cost of war. Size of shift for war constraint is increasing in p_1 for $p_1 < 0.5$, and decreasing otherwise.



Empirical Implication: In dyads with anticipated shifts in power, increasing the declining state's initial share of dyadic capabilities will increase the probability it initiates preventive conflict. Formally, lower $p_1 \rightarrow$ more conflict.

Research Design

Design:

- **Unit of Analysis:** Directed Anticipated-Shift Dyad Episode (or Year)
  - Rivals with nuclear programs ($n = 113$)
  - Major power capability shifts ($n = 16$)
- **Outcome Variable:** Preventive conflict
- **Explanatory Variable:** *Relative Capabilites* (CINC: military spending)
- **Controls:** *Contiguity, Regime, Political Relevance, Shift Duration*
- **Model:** Rare-events logistic regression

  Concern: Anticipated-shifts are not randomly assigned. Problematic if pre-shift power asymmetry affects anticipated-shift occurring at all.

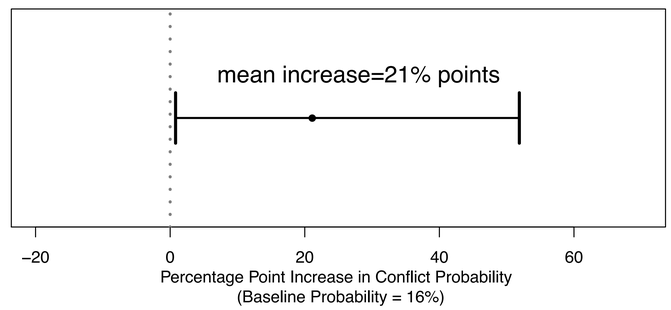
Results & Discussion

Finding: In dyads with anticipated shifts in power, increasing initial asymmetry elevates the probability of preventive conflict (significant at 99%).

Substantive Effect:

- Consider two observations indicative of parity and asymmetry:
  - *Parity:* Egypt-Iraq 1976-2002 $\rightarrow$ *Relative Capabilities*=0.44
  - *Asymmetry:* US-Iraq 1987-2000 $\rightarrow$ *Relative Capabilities*=0.98

Marginal Effect of Asymmetry on Conflict
(Shift from Egypt–Iraq to US–Iraq)



Asymmetry more than doubles the probability of conflict.

Implications:

- **Power transitions need not be problematic.** Large shifts are necessary to undermine bargaining when near parity $\rightarrow$ positive for US-China
- **WMD proliferation by weak states is an acute bargaining problem.** US, or those privy to its protection, will be foremost advocates of preventive strikes against conventionally weak states with nuclear programs.