The Expansion of War

POSC 3610 – International Conflict

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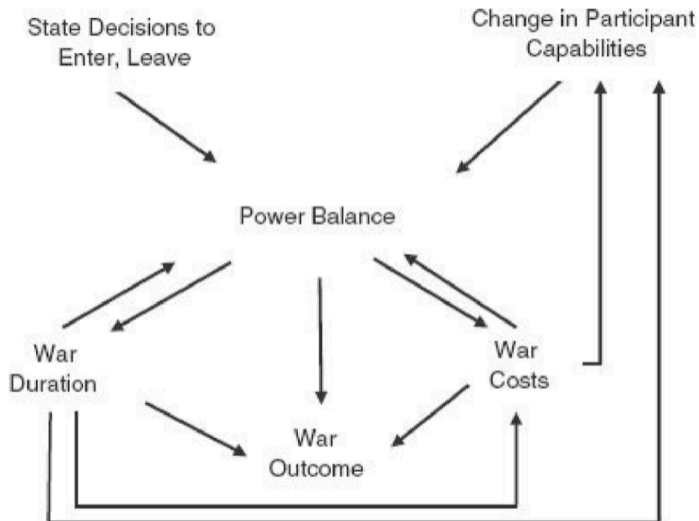# Question for Today

What happens when war starts?

When War Starts

You'll notice we've talked about causes of war with saying little about war.

- Most our analyses have focused on MID onset.
- We just finished with MID escalation.

In other words: we belabored the first two conflict "phases" without addressing the third.

A Framework for Studying the Evolution of War

Not All Wars Look Like WWII

The Football War Might Actually Be Closer to Typical

Are All Wars Comparable?

The disparity leads some to assume they're different phenomena.

- Most classic scholarship cares about "big wars."
- In contrast, more recent scholarship is interested in "small wars."
  - Better descriptor: "nonsystemic wars"

"Born Big?"

Most scholarship assumes these "big wars" are "born big."

- If so, there's nothing left to explain about its evolution.

However, this would be misleading. Examples:

- WWI: started as an Austrian threat to use force against Serbia.
- WWII: started as a British/French threat against Germany re: Poland
- Gulf War I: started as an Iraqi threat to Kuwait re: slant drilling.
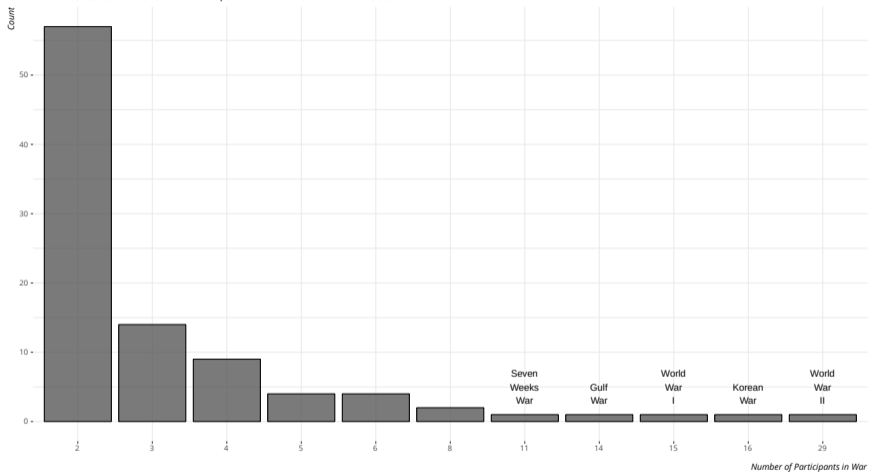
There's a corollary issue of selection bias.

- Again: these are *not* typical cases of war.

Most Wars (60%) are Bilateral

There is still substantial variation in war expansion even as wars like WWII are outliers.

Number of Participants in War

Data: Correlates of War Inter-State War Data (v. 4.0)

Explaining Expansion

How do we explain the wars that do expand?

- Opportunity/willingness
- Expected utility theory

Opportunity/Willingness

The opportunity/willingness framework translates well from MID onset to war evolution.

- Problem: how do you measure it?

Opportunity/Willingness

Siverson and Starr (1991) offer the following measurements.

- Opportunity: warring border states
  - measurement: contiguity (broadly defined)
- Willingness: warring alliance partners
  - measurement: alliances (vary by type)

Table 1: Warring Border States OR Alliance Partners and War Involvement (1816-1965)

War Involvement	No	Yes	TOTAL
No	2,320	1,335	3,655
Yes	8	86	94
Total	2,328	1,421	3,749

Data come from Siverson and Starr (1991)

Limitations With This Approach

This scholarship implicitly treats war as a "disease" you "catch."

- Importantly: war is a choice that state leaders make.
- They make these choices weighing costs and benefits.

War Expansion by Rational Choice

Altfeld and Bueno de Mesquita (1979) use expected utility to model third-party decisions to join war.

Expected Utility for War

The intuition is simple:

- Joining a war is an expected utility calculation.
- One decision is preferred to the other when the **expected** utility for one is greater than the other.
- Importantly: utility is weighted by probability.

The Parameters in the Calculations

Let State B's decision for joining an A-C War be modeled with:

- U_{ba} (U_{bc}): utility for B of A (or C) winning the war.
- K_{ba} (K_{bc}): costs B expects to endure for helping A (or C) win the war.

$\frac{b}{a+b+c}$: probability *B*'s participation matters (as modeled by CINC scores) to the outcome.

When Does B Prefer to Help A Beat C?

$$(\frac{b}{a+b+c})(U_{ba}) - K_{ba} > (\frac{b}{a+b+c})(U_{bc}) - K_{bc}$$

$$(\frac{b}{a+b+c})(U_{ba}) - (\frac{b}{a+b+c})(U_{bc}) > K_{ba} - K_{bc}$$

$$(\frac{b}{a+b+c})(U_{ba} - U_{bc}) > K_{ba} - K_{bc}$$

Table 2: Predicted and Actual Third-Party War Choices (Altfeld and BdM (1979))

Actual Choice	p(Join Weaker)	p(Stay Neutral)	p(Join Stronger)
Join Weaker	16	4	0
Stay Neutral	1	104	3
Join Stronger	1	5	10

War Duration

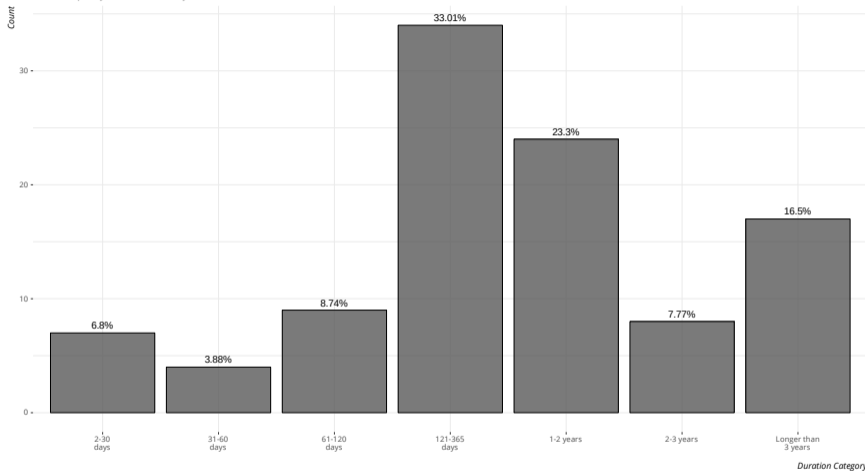There is considerable interest in how long wars last.

- Longer wars typically indicate substantially higher (broadly defined) costs.

Yet, there's substantial variation among wars.

- Vietnam War lasted more than 10 years.
- The Football War lasted a few days.
- The Six Day War lasted... well, six days.

Your Typical War Is Going to Last 365 Days or Fewer

...and still plenty wars last several years.

Count

6.8%	
3.88%	
8.74%	
33.01%	
23.3%	
7.77%	
16.5%	

30 —

20 —

10 —

0 —

2-30 days   31-60 days   61-120 days   121-365 days   1-2 years   2-3 years   Longer than 3 years

Duration Category

Data: Gibler-Miller-Little MID Data (v. 2.03)

What Explains War Duration?

Per Bennett and Stam (1996), wars generally last longer when:

- Terrain is "rougher" relative to more "open."
- Power is balanced among disputants.
- More troops are committed to combat zones.
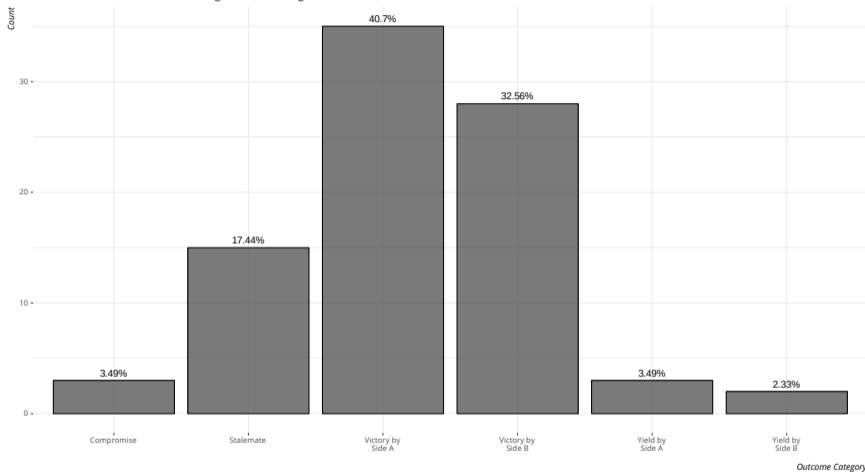- *Fewer* states are involved.

War Outcomes

Who wins the war? Seems like an important question.

- Like war duration, though, we won't know until war is over.

Most Wars End in a Victory for One Side or the Other

but almost 20% of wars end with no change to the motivating issue that caused the war.

Count

40.7%

32.56%

17.44%

3.49%

3.49%

2.33%

30 -

20 -

10 -

0 -

| Compromise | Stalemate | Victory by Side A | Victory by Side B | Yield by Side A | Yield by Side B |

Outcome Category

Data: Gibler-Miller-Little MID Data (v. 2.01)

War Outcomes

Initiators generally win their wars.

- Yet there's still substantial variation and even more confusion distinguishing between MID/war initiation.

Conventional wisdom holds power matters most.

- Its likelihood of winning a war should increase monotonically with increases in relative power.

The Traditional View of the Impact of Power on War Outcomes

Conventional wisdom holds for a linear relationship between power and war outcomes.
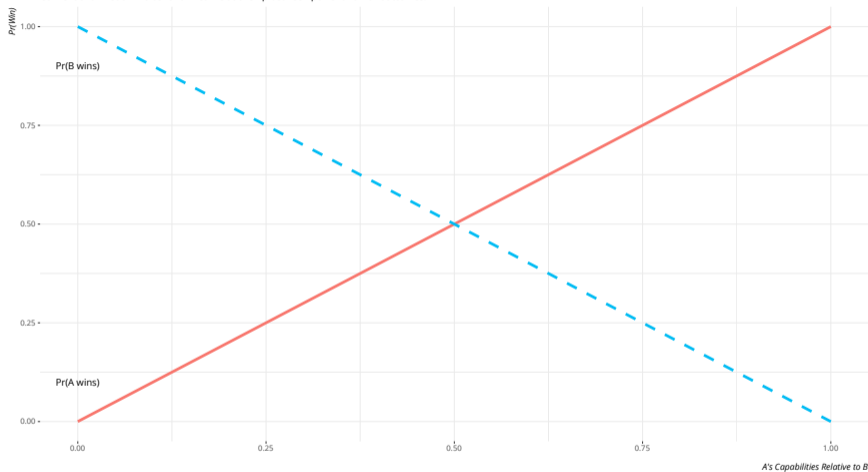
Pr(Win)

Pr(B wins)

Pr(A wins)

A's Capabilities Relative to B

Stam III, Allan C. 1996. Win, Lose, or Draw: Domestic Politics and the Crucible of War. Ann Arbor, MI: University of Michigan Press

A Better View of Power and War Outcomes

The conventional wisdom is missing much about the nature of war.

- Wars can (and do) end in stalemates or draws.
- States see benefits and costs associated with continued combat.
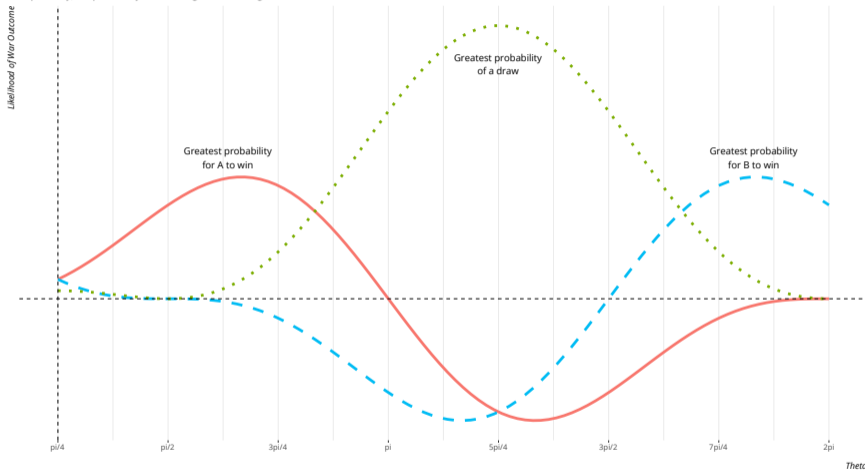- "Costs" can be understood as wherewithal to absorb damage from opponent.

Understanding war as mutual coercion in a cost-benefit analysis better approximates how wars can end.

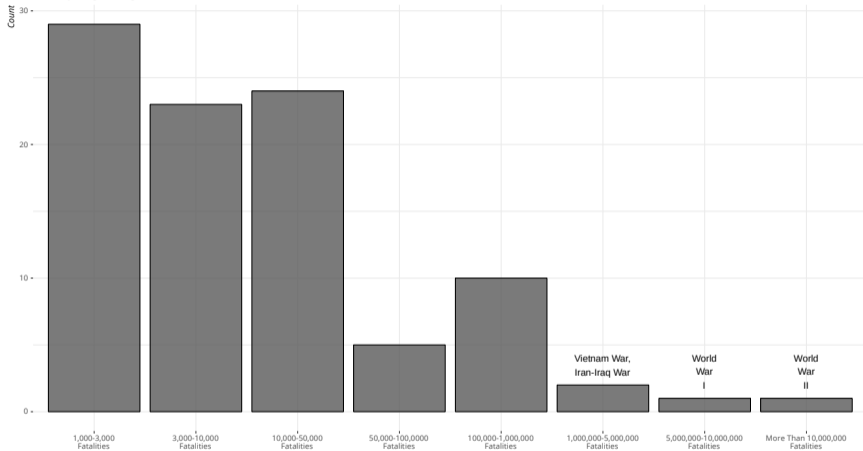Actor A's Cost-Benefit Balance
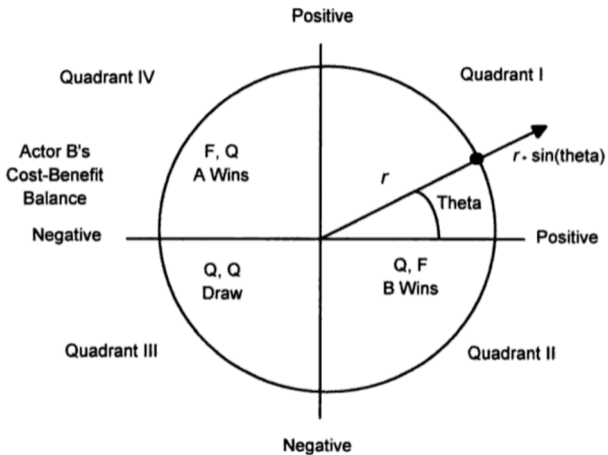
Likelihood of War Outcomes

Importantly, the probability of A winning and B winning can both rise at the same time.

Likelihood of War Outcome

Greatest probability
for A to win

Greatest probability
of a draw

Greatest probability
for B to win

pi/4   pi/2   3pi/4   pi   5pi/4   3pi/2   7pi/4   2pi

Theta

Stam III, Allan C. 1996. Win, Lose, or Draw: Domestic Politics and the Crucible of War. Ann Arbor, MI: University of Michigan Press

The Median War Claims Fewer Than 10,000 Fatalities in Combat

...and, by the grace of god, wars like the world wars are rare events.

Count

30 –

20 –

10 –

0 –

| 1,000-3,000 Fatalities | 3,000-10,000 Fatalities | 10,000-50,000 Fatalities | 50,000-100,0000 Fatalities | 100,000-1,000,000 Fatalities | 1,000,000-5,000,000 Fatalities | 5,000,000-10,000,000 Fatalities | More Than 10,000,000 Fatalities |

Vietnam War, Iran-Iraq War (bar at 1,000,000-5,000,000)

World War I (bar at 5,000,000-10,000,000)

World War II (bar at More Than 10,000,000)

Number of Estimated Fatalities in Combat

Data: Correlates of War Inter-State War Data (v. 4.0)

Conclusion

Most conflict studies dance around war dynamics but few address it.

- Most analyses are concerned with MID (or war) onset and less properties of the war itself.

Big questions: when does war expand?

- Bilateral wars seldom carry systemic consequences.
- Opportunity/willingness provide some clues.
- Certainly: war expansion is more choice than contagion.

Conclusion

War is a fatality threshold for which there is substantial variation. Descriptively:

- Most wars last a year or less
- Most wars end in victory, but stalemates are still common.
- Most wars claim fewer than 10,000 fatalities.

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