

## SUMMARY

**When does sub-state conflict escalate from minor conflict to war? How does the strategic interaction between the state and rebel groups influence this process?** This paper develops a game theoretic model with incomplete information and a two-stage informational updating process to examine how rebel group capacity and state surveillance capabilities drive the escalation process. The model demonstrates how limitations in state surveillance capacity can hamper bargaining early in the process. It develops the counter-intuitive finding that strong states are among the most likely to experience escalation, precisely because they are less willing to bargain, since they are more secure in their ability to win a conflict.

## CONTRIBUTIONS

- Formal model of a dynamic game with incomplete information and two stages of incomplete information
- Shows how expectation of war can drive strategic behavior early in conflict, and how information gained/revealed early on influences later play
- Highlights critical difference between interstate and intrastate conflict: severity of information problems (for the state)
- Examines the role of the state and the role of the (prospective) opposition group

## LIV VS WAR

I argue that LIV and war are two qualitatively different stages of the same broader conflict process. Each stage affects the other, so we must consider them both when developing theoretical and empirical models.

Theoretical Differences		
	LIV	War
Violence scope	Minor, localized	Intense, widespread
Mobilization level	Incomplete	Complete
Amount of Info	Limited	Extensive

## INFORMATION ENVIRONMENT

### Definition:

Information available to state, rebel group about who they are facing, resolve and capacity of other side.

### Key point:

Key difference between intrastate and interstate conflict: in civil conflict, the initial info environment for the state is so poor that the state usually cannot even identify the specific group at risk of violent mobilization. In interstate conflicts, actors uncertain about other's type, payoffs, and/or goals, but each side can identify the other. Not always the case for intrastate conflict – state might know some of citizens are aggrieved, but does not know a priori if they are willing or capable of violent mobilization.

### Operationalized in model:

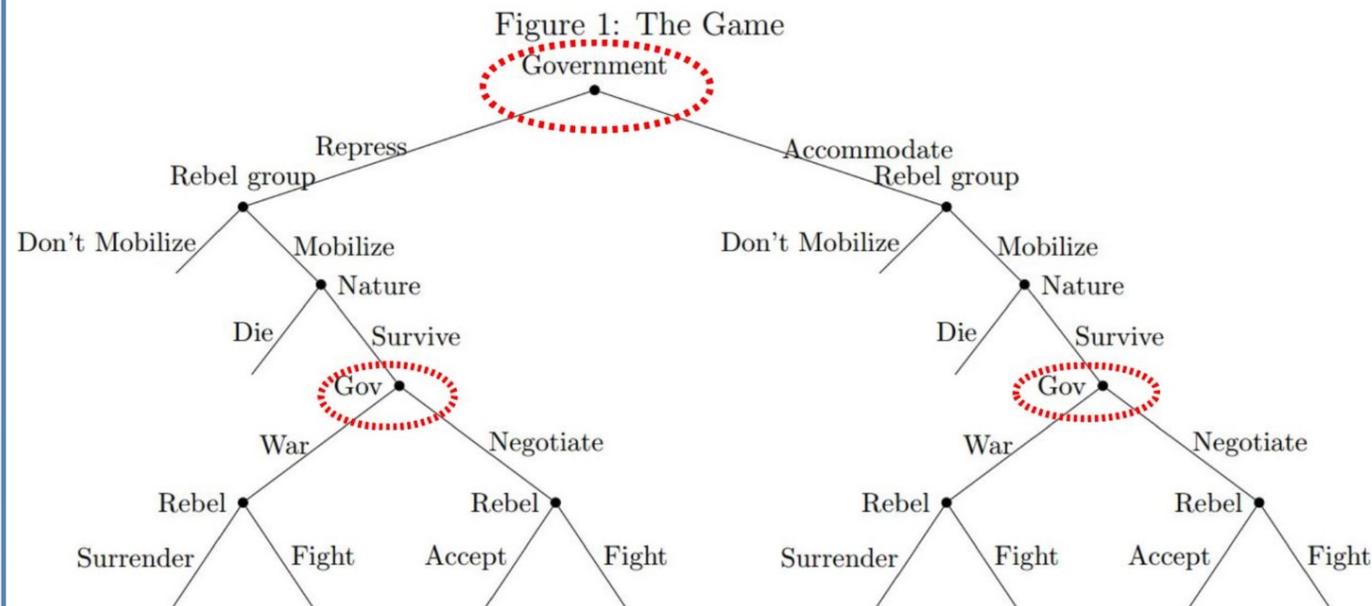
- 1) State's uncertainty over group type
- 2) Two stages of updating for the state, based on group's actions
- 3) Order of play

## THE MODEL

**Actors:** The formal model includes Nature plus two strategic actors, the government and a (prospective) rebel group. The rebel group can be one of three types: no violence, low, or high. Type ( $\theta$ ) is two-dimensional but resolves into a trichotomous set.

**Model set up:** The government knows that some component of the population is dissatisfied with the status quo, but it does not know the extent of this dissatisfaction. Specifically, the government does not know if a rebel group has even formed; by extension, this means it is uncertain about a group's capacity and/or resolve.

**Model stages:** The model has two stages: LIV and war. The second begins with the second move by G (war or negotiate).



The game tree shows one of three main subgames; the others are identical and correspond to play under each type of opposition group. Red dashed circles indicate nodes that are part of information sets.

**Updating:** The government updates its beliefs about the group's type: 1) if the group mobilizes and 2) if it survives

## PARAMETERS

Table 1: Summary of Parameters

Symbol	Meaning	Components	Values
SQ	value of govt control	–	1
$\gamma$	goodie offered by govt	–	$0 \leq \gamma \leq 1$
$\kappa$	portion of $\gamma$	–	$0 \leq \kappa \leq 1$
$\theta$	group type	–	NV, Low, High
$\alpha$	state capacity	–	positive, increasing
$c_R$	govt repression cost	$\theta, \alpha$	$c_R \geq 0$
$c_w$	govt war cost	$\theta, \alpha$	$c_w \geq 0$
$c_{GR}$	group repression cost	$\alpha$	$c_{GR} \geq 0$
$c_m$	group mobilization cost	$\theta, \alpha, \mathbb{1}\{Repression\}$	$c_{m,NV} \geq 1 \geq c_{m,L} \geq c_{m,H} \geq 0$
$c_f$	group fighting cost	$\theta$	$c_f \geq 0$

## STATE CAPACITY

**Stronger states deter more initial challengers, but are less likely to back down if they do face a threat.**

- State capacity,  $\alpha$ , affects a group's mobilization costs...
  - As  $\alpha$  increases, more groups deterred
- ... and the state's probability of winning
  - If a group does emerge, state is less likely to negotiate

**BLUF: Increasing capacity makes LIV less likely, war more likely (conditional on LIV)**

## REBEL GROUP TYPE

**Why might (prospective) rebel groups commit LIV and possibly escalate to war?**

- Lack of violence can be ideological and/or strategic
- Self-censoring – e.g. 1950s India (Lacina 2014)
- Mobilize but then eliminated – e.g. Uganda (Lewis 2017)

**Groups most likely to progress to LIV are the most capable/resolved, which shifts state's relative cost of bargaining**

- Fighting a stronger group is costlier for the state
- State preferences shift; bargaining is preferred

**BLUF: Stronger groups more likely to commit LIV, but lower prob. of war, b/c govt more likely to bargain**

## EQUILIBRIUM

**Solution concept:** Perfect Bayesian Equilibrium

- Government represses, and only strong groups mobilize
- Government updates its beliefs → negotiates
- Group accepts, avoiding escalation to war

**Key parameter values:**

- Negotiation goodie ( $\gamma$ ) sufficiently high
- State capacity ( $\alpha$ ) not too high
- Mobilization costs not too high (for  $\theta =$  high)

## CONCLUSIONS

- Different mechanism effects at different conflict stages
- In civil conflicts, information problems much more difficult for the state, which has to grapple with uncertainty over opposition identity (new), resolve, and ability
- Violence perpetrated by the opposition as it mobilizes provides key information to the state, making bargaining and negotiations more likely later on
- Stronger states deter more initial challengers, but become more likely to escalate if a rebel group does emerge
- Rebel groups will opt-out if costs too high; govt more likely to bargain with more resolved/capable groups