

# Proxy Wars: Repeated Bargaining between Principals in Principal-Agent Relationships

Anna H. M. Kung, Nils W. Metternich

Department of Political Science, University College London



## ABSTRACT

Proxy wars occur when principal states provide military support to agents in civil wars, in order to advance particular political gains. Given the rise of internationalised conflict, it is common for the same principals to engage in multiple proxy wars involving different agents. Such interaction between principals is modelled as a two-level sequential bargaining game with asymmetric information, where each round represents a new proposed political settlement in any of these proxy wars. The model provides a framework to demonstrate the mechanisms by which principals learn and make decisions over time, which determine conflict outcomes, and how the inclusion of agents distorts these mechanisms. Testing of the model against empirical conflict data preliminarily suggests that escalation of a proxy war is linked to prior escalation in related conflicts, and that the under- or over-performance of an agent may have an impact on the outcome of related proxy wars.

## THEORY

### What do we know about proxy wars?

A proxy war is fought between two principal-agent pairs.

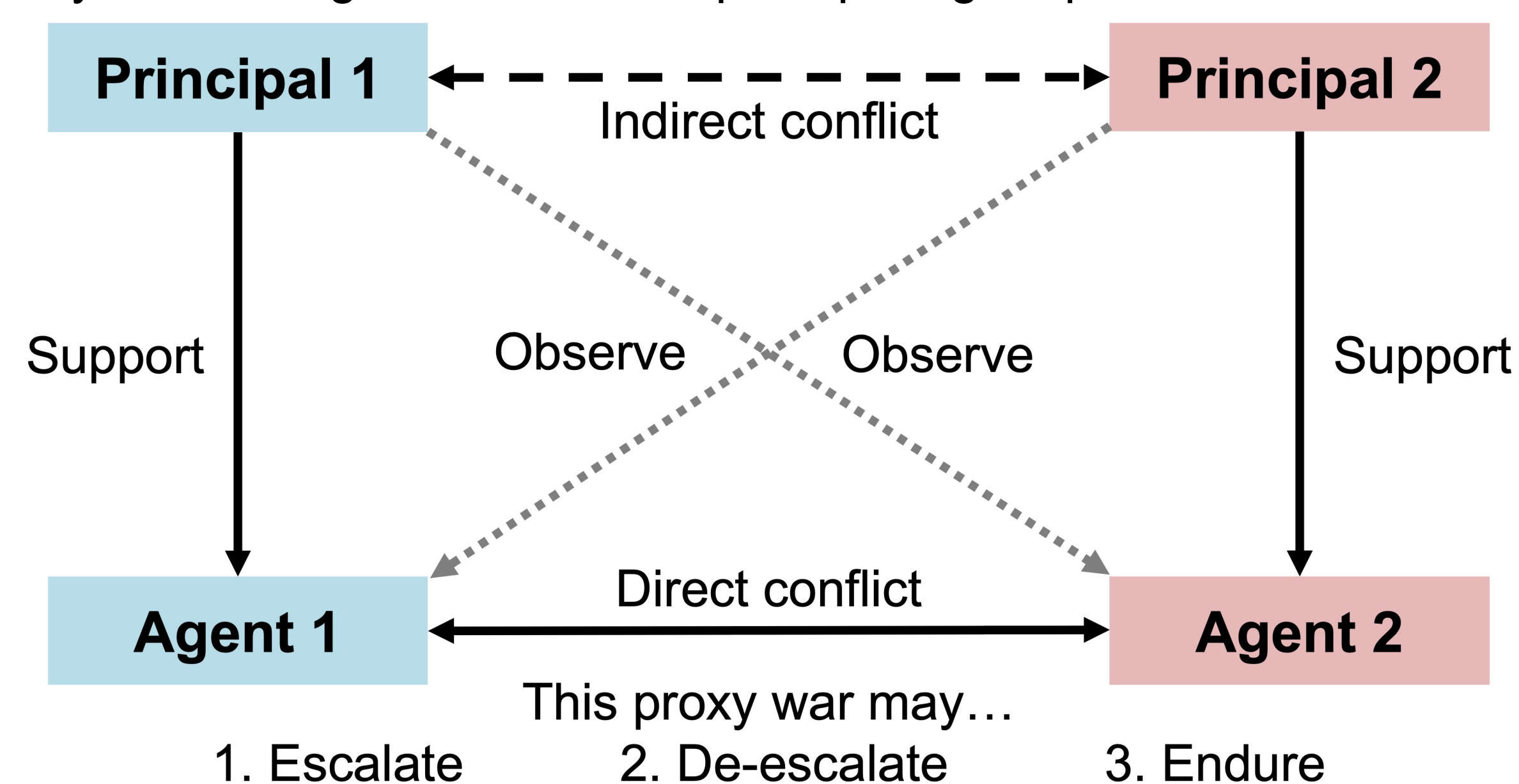
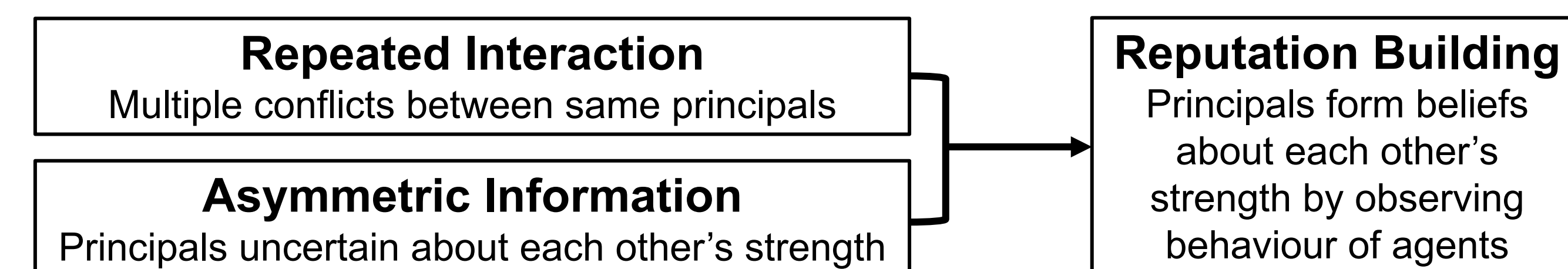


Fig. 1: Interaction between actors in a proxy war.



### What do we want to know about proxy wars?

- How are proxy war outcomes connected?  
How does escalation in one conflict affect outcomes of related conflicts?
- How does the principal-agent relationship affect proxy war?  
How does agent performance in one proxy war affect outcomes of related conflicts?

## THEORY

### How do we model proxy wars?

Proxy wars can be represented as two-level, sequential bargaining games with repeated information. At the base level, bargaining occurs between principals over the division of a shared whole (Powell, 2004). S is satisfied with the status quo division, while D is dissatisfied.

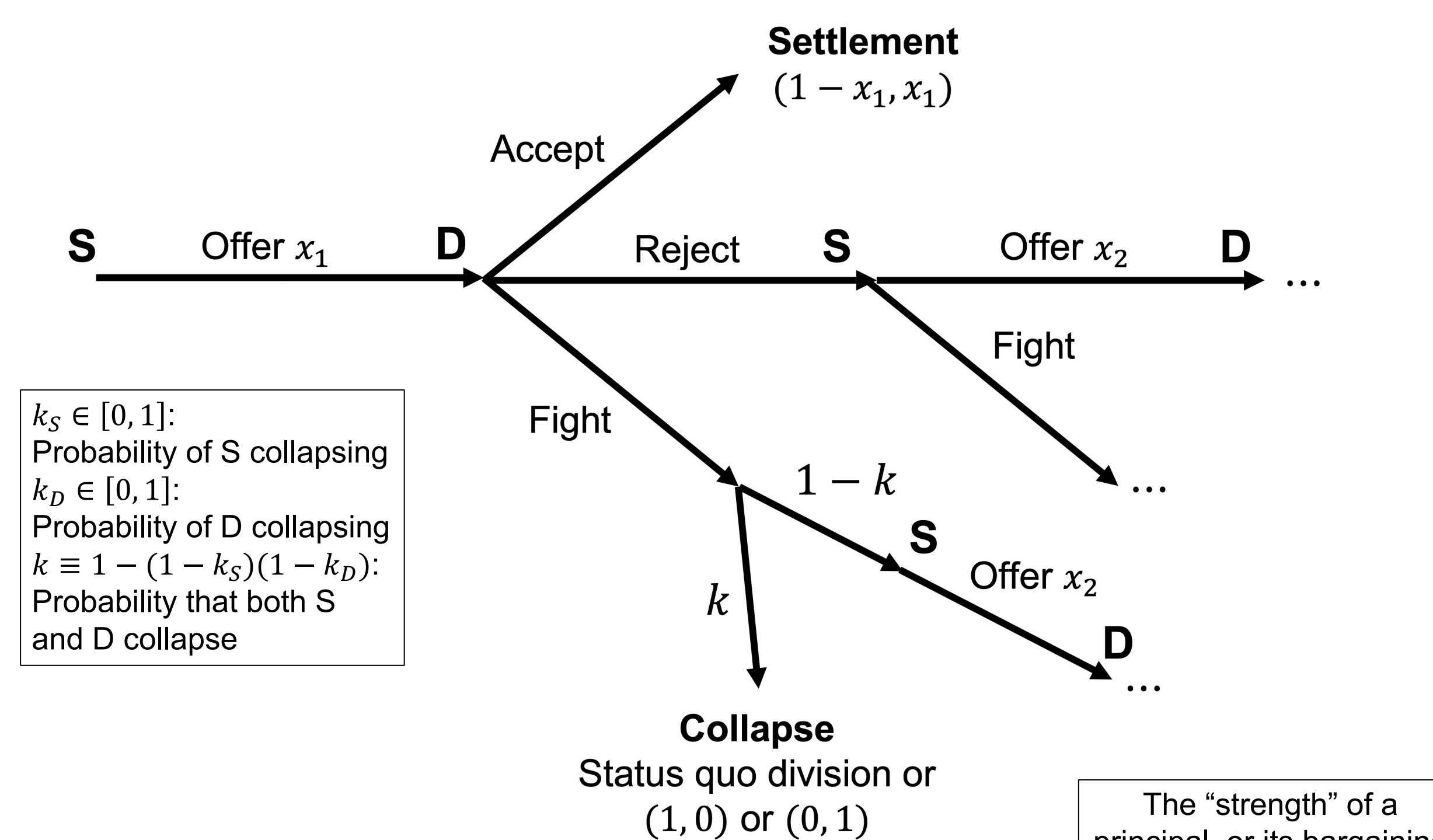


Fig. 2: Bargaining process between principals.

### How do agents affect the bargaining process?

To develop more accurate beliefs about D's bargaining power, S screens D. This is the process by which it updates its beliefs based on D's choices in each round. Because S cannot observe D directly, it observes the behaviour of D's agent. If D's agent under- or over-represents D's bargaining power, this changes D's reputation with S, which informs S's next offer to D.

## HYPOTHESES

**Proposition 1:** If escalation occurs in round  $n$ , and D prevails, the ratio  $x_{n+1}/x_n$  is greater than the ratio  $x_n/x_{n-1}$ .

**Hypothesis 1:** If the cumulative number of battle deaths in related proxy wars increases from year  $n-2$  to year  $n-1$ , and the number of ongoing conflicts between principals increases from year  $n-2$  to year  $n-1$ , then the number of battle deaths in a proxy war increases from year  $n-1$  to year  $n$ .

**Proposition 2:** If D's agent in round  $n+1$  underperforms compared to the agent in round  $n$ , the ratio  $x_{n+1}/x_n$  is smaller than the ratio  $x_n/x_{n-1}$ .

**Hypothesis 2:** If the cumulative number of battle deaths in related proxy wars declines from year  $n-2$  to year  $n-1$ , and the number of ongoing conflicts between principals does not decline from year  $n-2$  to year  $n-1$ , then the number of battle deaths in a proxy war increases from year  $n-1$  to year  $n$ .

## RESULTS

### How are proxy wars linked?

This mapping shows the conflicts in the Uppsala Conflict Data Programme's External Support dataset. There is a link between them if the same pair of warring principals are involved.



Fig. 3: Mapping of conflicts with common principal dyads.

### What effect does one proxy war have on another?

There is some support for Hypothesis 1. This suggests that the escalation of one conflict may result in escalation in related conflicts, as one state predicts a greater concession of the other and seeks to maximise its gains by taking advantage of this.

There is less support for Hypothesis 2. This suggests that there is currently insufficient support to conclude that the performance of an agent in one conflict has an impact on the outcome of related proxy wars.

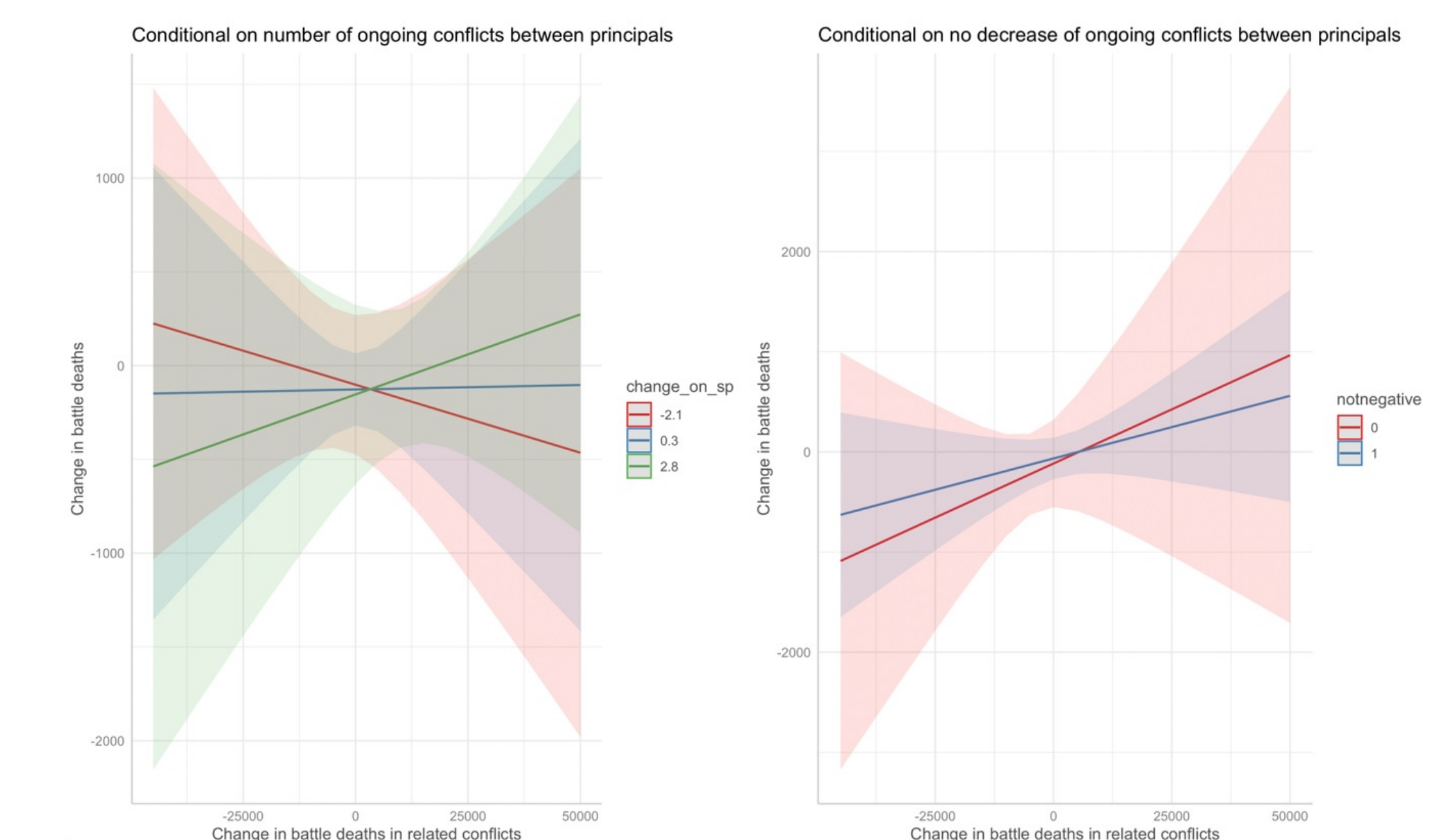


Fig. 4: Modelling of hypotheses 1 (left) and 2 (right), showing the relationship between the change in battle deaths in a given conflict and the change in battle deaths in related conflicts between the same principals.

## References:

- Powell, Robert. 2004. "Bargaining and Learning While Fighting." *American Journal of Political Science* 48 (2): 344-61.
- Högbladh, Stina, Therése Pettersson, and Lotta Themné. 2011. "External Support in Armed Conflict 1975-2009." 52nd Annual International Studies Association Convention, Montreal, Canada, 16-19 March 2011.



Any questions or ideas?  
Please contact: [anna.kung.21@ucl.ac.uk](mailto:anna.kung.21@ucl.ac.uk)