

SOME IMPORTANT IMPLICATIONS OF FORMAL MODELING LITERATURE FOR EMPIRICAL RESEARCH

1) *Paths not Chosen:*

Explanation/analysis of non-events is central part of the theoretical model and therefore of empirical tests (Issue of selecting on the DV)

2) *Observed Cases May Reflect Prior Choices by State Leaders:*

Non-random assignment of “challengers” or “attackers” based on IVs can be important part of theoretical explanation for cases included in data set (Problem of selection effects)

3) *Incomplete Information and Player Types:*

Short-term diplomatic or military actions that signal resolve or reveal information about military capabilities are often central to understanding the outcomes of game-theoretic models (Behavioral vs. static data on independent variables)

4) *Patterns of Strategic Behavior:*

Questions of initiation and response and timing of diplomatic and military behavior are central to logic of many formal models of conflict behavior and therefore empirical tests should reflect this (Directed-dyad data)

EXAMPLES OF DATA SETS WIDELY USED IN STATISTICAL TESTS OF INTERNATIONAL CONFLICT AND WAR

DEPENDENT VARIABLES

- 1) COW War data set
- 2) COW MID data set
- 3) ICB data set
- 4) Dyad-Year Use of COW or ICB data sets

INDEPENDENT VARIABLES

- 1) POLITY data set on political systems
- 2) COW National Capabilities data set
- 3) COW MID data set and “issue at stake” variable
- 4) ICB data on crisis bargaining behavior of states

SOME OBSERVATIONS ON EXISTING DATA SETS:

- 1) Problems of non-events and selection effects arise when using COW war data sets and ICB data sets
- 2) Limits of dyad-year data sets
- 3) COW data sets on IVs weak on capturing signaling behavior and short-term bargaining interactions while ICB is more useful for this

CONCLUSIONS:

Empirical Tests and Formal Models:

- a) Quality of Data vs. Number of Observations
- b) Need to supplement existing data sets with new data collection efforts

AT THE INTERSECTION OF EMPIRICAL RESEARCH AND FORMAL MODELS: A FEW EXAMPLES

FIRST EXAMPLE

Schultz, *Democracy and Coercive Diplomacy*

Analysis of Deterrence

Player-Type and Signaling: new data collected on opposition party leadership support for government during deterrence crises in order to test hypothesis on credibility of signaling resolve by democratic states

SECOND EXAMPLE

Gelpi, *APSR* article June 1997

Analysis of Crisis Behavior

Player-Type and Signaling: new data collected on crisis bargaining behavior of target state coupled with re-coding of data from ICB on prior crisis settlement to test hypothesis on contingent impact of bargaining strategies

THIRD EXAMPLE

Huth, *Standing Your Ground* and *The Democratic Peace and Territorial Conflict in the Twentieth Century*

Analysis of Territorial Disputes:

- a) Selection Effects: creation of multiple, linked data sets for testing that includes potential disputes, dispute, initiation of military dispute, escalation of military dispute, initiation and outcome of negotiations
- b) Directed-Dyad Analysis: DV data collected on diplomatic and military actions of both challenger and target states
- c) Signaling Behavior: data collected on diplomatic and military bargaining behavior of democratic target states in early stages of military dispute or round of negotiations