# When Do States Say Uncle? Network Dependence and Sanction Compliance

Shahryar Minhas & Cassy Dorff

shahryar.minhas@duke.edu & cassy.dorff@duke.edu

Duke University

October 2, 2013

## **Motivating Question**

- When and why do states comply with economic sanctions?
- In this presentation we have demonstrate the necessity of incorporating network dynamics into understanding the time until sanction compliance
- We show that the connectivity between target and sender states—in terms of cultural similarities, geographical proximity, and alliance patterns—plays an important and previously overlooked role on sanction outcomes

### Sanctions and domestic factors

Previous literature has suggested sanctions "work" by destablizing leaders and other domestic factors

- Marinov 2005
- Lektzian and Souva 2003

In addition, such work has often utilized a duration modeling approach to capture the time dependent nature of sanciton dynamics:

- Bolks Al-Sowayel 2000
- McGillivray and Stam 2004

## Sanctions and Network Dynamics

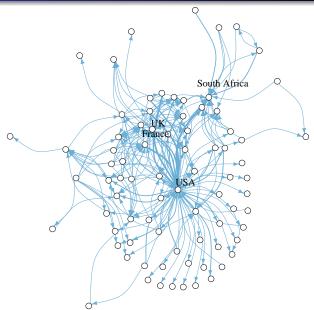
While domestic conditions are important, another vein of literature suggests cross-cutting relationships and network dynamics should play a key role in understanding sanction outcomes

 Martin, 1993; Drezner, 2000; Bapat and Morgan, 2009, Cranmer and Heinrich 2013.

The importance of multilateral coordination and network dynamics are intuitive given the broader work on networks in international relationships

- Hoff and Ward 2004
- Cranmer and Desmarais 2012

# Understanding the Network: 1984 Sanction Spaghetti Bowl



## Bridging the Gaps

We suggest that present duration approaches fail to incorporate the network pressures instrinstic to international sanction processes.

- Target states face sanctioners to whom they have a variety of relationships
- At any given point in time, target states may be faced with a multitude of sanction cases
- We present a duration model that incorporates these network dynamics
- In addition, we explore whether these network pressures interact with domestic institutions of the target state

## Network Pressure Hypotheses Sanction Case Network

#### Hypothesis 1

Sanction Case Network: The relationship between sender(s) and the target matters for sanction compliance:

- Sanction cases where relationships are more proximate will be more quickly resolved
- Sanctions involving coalitions of sender(s) should be able to assert greater pressure than sanctions sent by just one state

# Network Pressure Hypotheses Aggregate Network

#### Hypothesis 2

Aggregate Network: Targets of sanctions often face a multitude of sanction cases at any given point in time

 States under the pressure of a multitude of sanctions will more quickly resolve sanction cases than those facing only a few

## Institutions Hypothesis

### Hypothesis 3

Target states with stronger democratic institutions that are under the pressure of sanctions will more quickly comply than those with less democratic institutions.

Sanctions impose costs on groups within the country. Affected groups will try to lobby the government to reach an accommodation with sanctioning states, and the ability to lobby is conditional on political institutions.

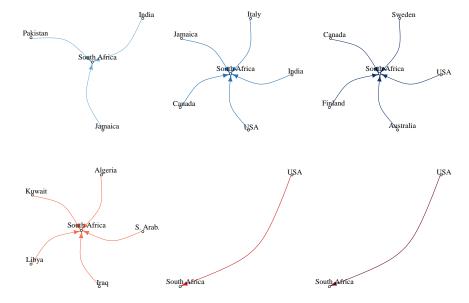
## Conceptualizing Networks

Two types of network effects that we want to capture:

- Sanction Case Network
  - Number of senders associated with sanction case
  - Alliances: The proportion of sender(s) that are allied with the receiver
  - Distance: The average distance between sender(s) and the receiver
  - Trade: The share of total trade that the sender(s) make up for the receiver
  - Religion: Similarity between religious group makeups between sender(s) and the receiver
- Aggregate Network
  - Sanctions Received: Total number of sanctions to which the target state is currently exposed

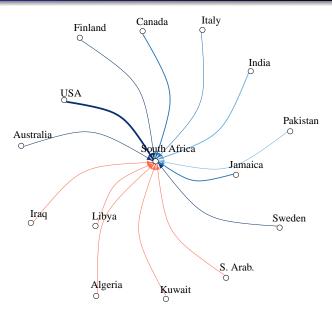
## Untangling the Spaghetti Bowl:

South Africa 1984 Sanction Case Network



## Untangling the Spaghetti Bowl:

South Africa 1984 Aggregate Network



#### Data

Sanction data from Threat and Imposition of Sanctions developed by Morgan (2009), covers 1,412 sanction cases from 1945 to 2005

Our focus is economic sanctions and the period of 1984 to 2005, leaving us with 184 sanction cases

#### Conceptualization of Dependent Variable

We define compliance as:

- Complete/Partial Acquiescence by Target to threat
- Negotiated Settlement
- Total/Partial Acquiescence by the Target State following sanctions imposition
- Negotiated Settlement following sanctions imposition

### **Estimated Duration Model**

#### Time-Varying Duration Model

$$\begin{aligned} \textit{Compliance}_{i,t} &= \textit{No. Senders}_j + \textit{Constraints}_{i,t} + \textit{Distance}_{j,t} + \\ & \textit{GDP Capita}_{i,t-1} + \textit{Internal Conflict}_{i,t} + \textit{Trade}_{j,t} + \\ & \textit{Ally}_{j,t} + \textit{IGOs}_{j,t} + \textit{Sanc. Rec'd}_{i,t} + \textit{Religion}_{j,t} + \\ & \textit{Constraints}_{i,t} * \textit{No. Senders}_j + \epsilon_{i,t} \end{aligned}$$

- *i* represents the target state
- *j* represents the relationship between the set of sender(s) for a particular sanction case and *i*
- t the time period

	Â	σ̂	Pr(> z )
Case Network Measures	Ρ		(>  = )
Number of senders	0.59	0.15	0.00
Constraints	0.02	0.04	0.69
Distance	-218.15	97.87	0.03
Trade	0.65	0.85	0.44
Ally	1.12	0.49	0.02
IGO	-0.03	0.01	0.04
Religion	-0.90	0.40	0.02
Full Network Measure			
Sanc. Recieved	-0.06	0.09	0.49
Controls			
GDP per Capita (lagged)	-0.00	0.00	0.43
Internal Conflict	-0.03	0.08	0.74
Time at risk $= 1027$			
Number of cases $= 154$			
Number of compliances = 44			

Minhas & Dorff

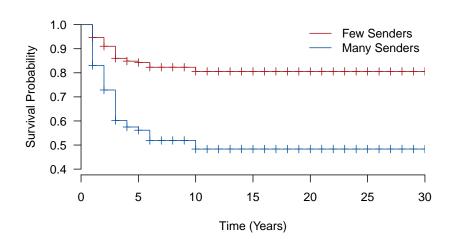
## Results: Duration Model with Interaction

	$\hat{eta}$	ô	Pr(> z )
Case Network Measures			
Number of senders	1.21	0.36	0.00
Senders*Constraints	-1.66	0.92	0.07
Distance	-253.00	102.73	0.01
Trade	0.50	0.84	0.55
Ally	1.44	0.54	0.01
IGO	-0.02	0.01	0.12
Religion	-1.33	0.45	0.00
Full Network Measures			
Rec'd Sanctions	-0.13	0.10	0.20
Controls			
Constraints	-0.58	1.61	0.72
GDP per Capita (lagged)	-0.00	0.00	0.38
Internal Conflcit	0.03	0.09	0.71

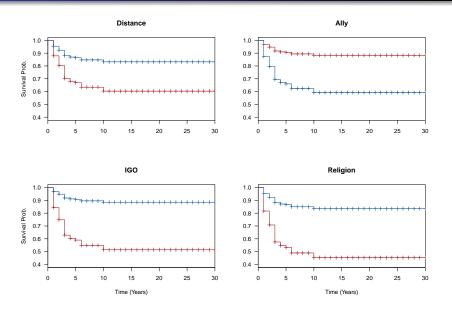
Time at risk = 1027

Number of cases = 154

Number of compliances = 44



#### Survival Probability by Other Network Variables Relating to Sanction Case



## **Next Steps**

#### Next Steps

- The relationships between sender(s) of a sanction and the target matter, and the specific facets of the relationship that matter extend beyond trade
- So far we have not found that the aggregate network structure faced by a state matters for compliance
  - There are other conceptualizations of aggregate network pressures that we can pursue
- We also did not find support for the institutions hypothesis
  - Greater specification of this hypothesis is likely necessary