

Systemic Theory and International Relations

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Definitions

Systemic theory in international relations

Theorizing impact of agents on structure and vice-versa

Agents

States; typically major powers

Structure

Distributions of things that matter to states

Balances of power

Balances of ideology (source of political legitimacy)

History

General systems theory

Ludwig von Bertalanffy

Framework for theorizing about systemic interactions

Ancestor of modern complex systems research in many disciplines

Systemic theories in international relations

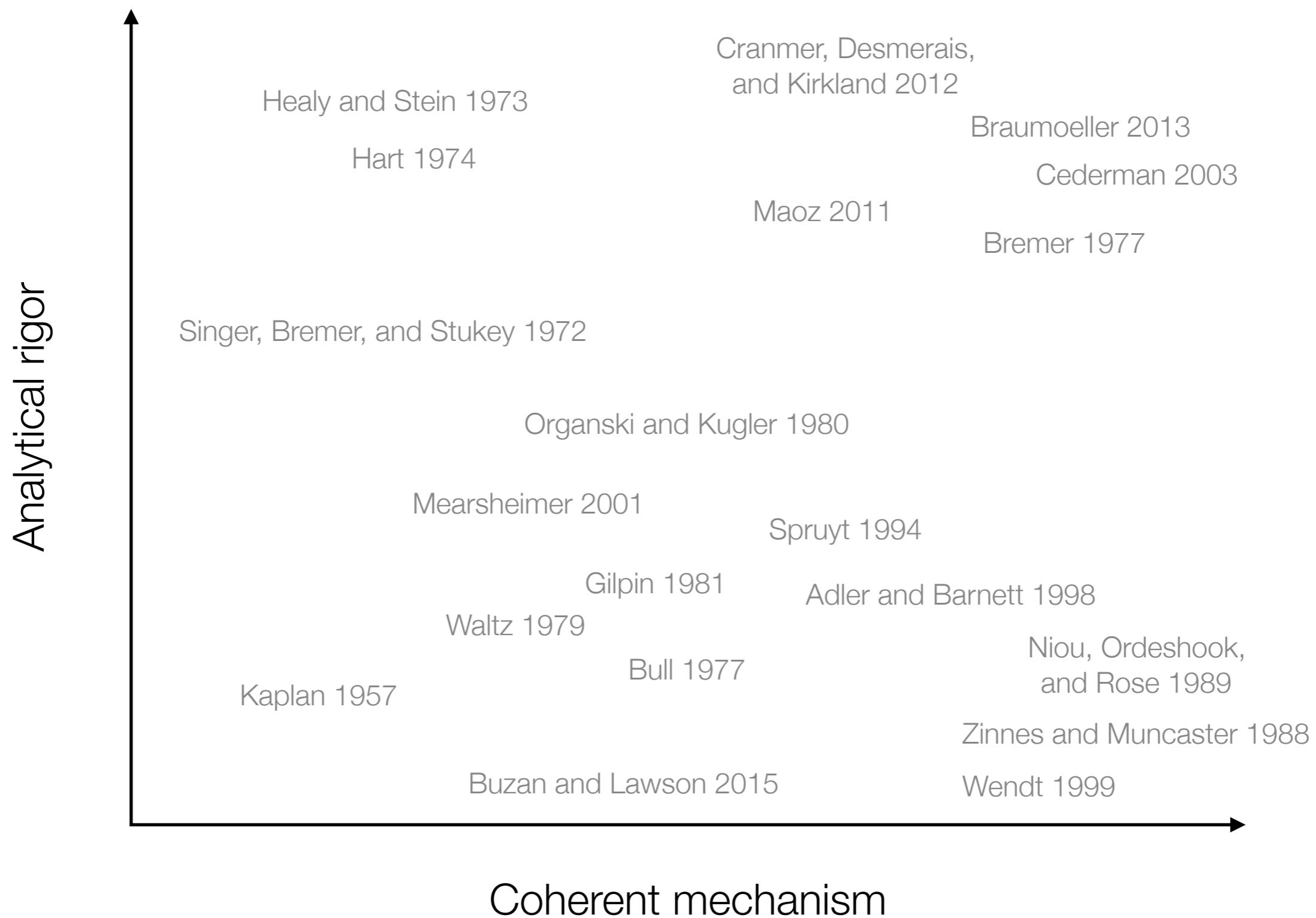
Morton Kaplan, *System and Process in International Relations* (1957)

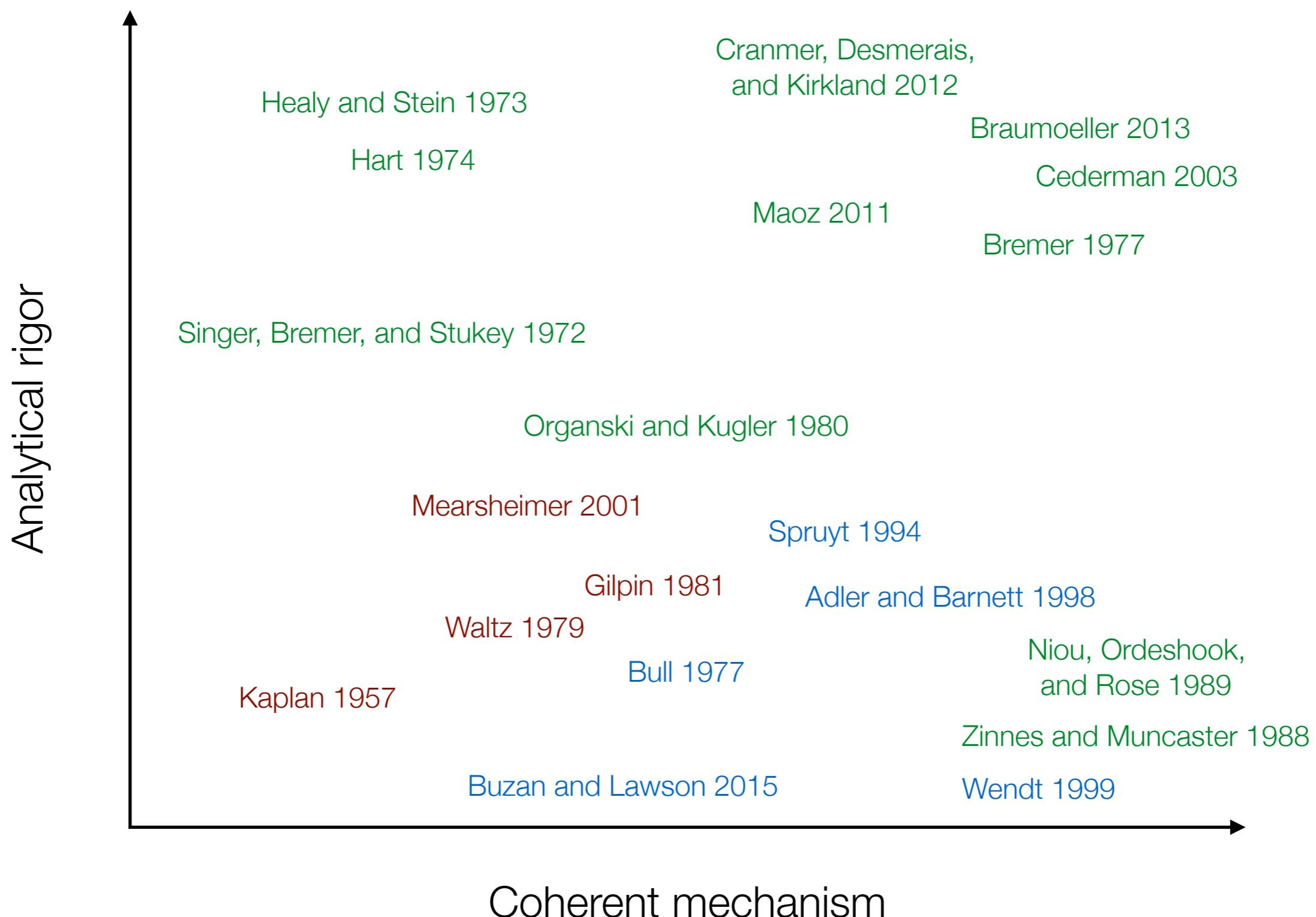
Kenneth Waltz, *Theory of International Politics* (1979)

Alexander Wendt, *Social Theory of International Politics* (1999)

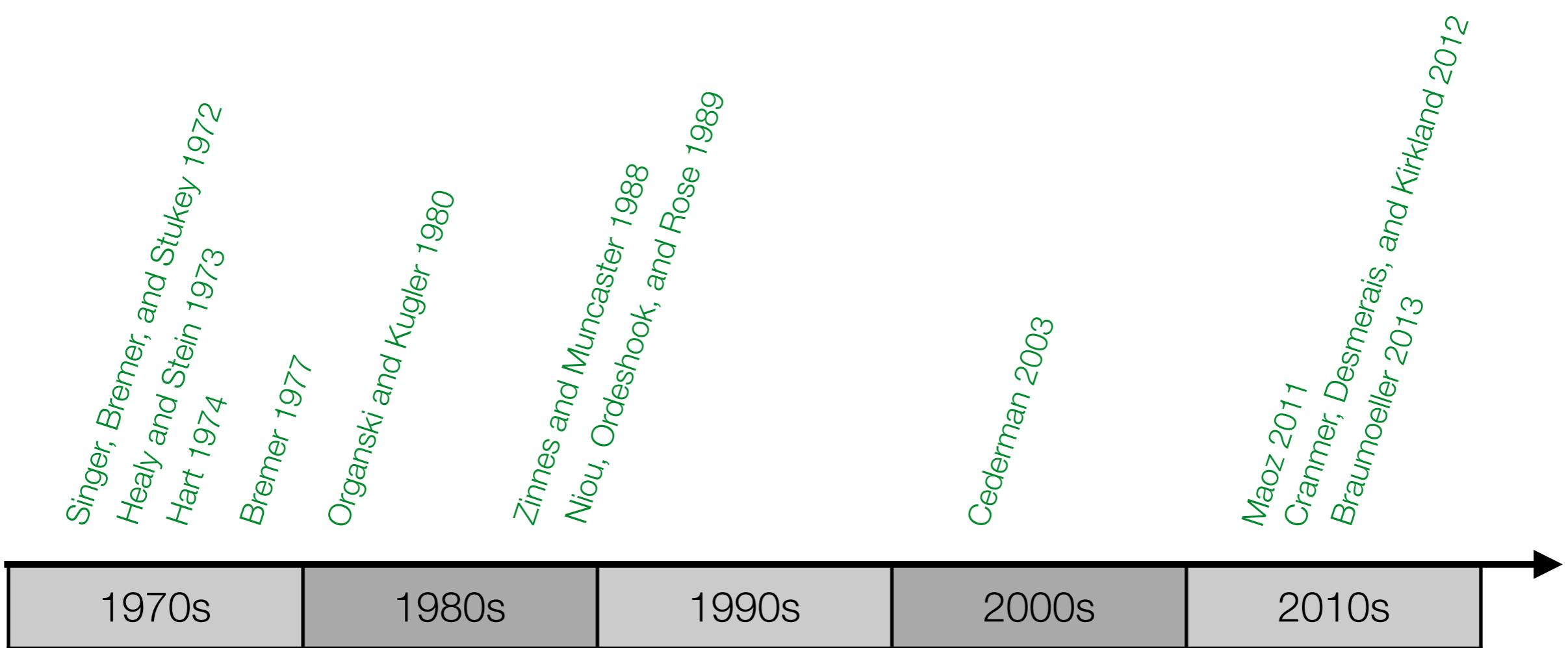
Lars-Erik Cederman, “Modeling the Size of Wars: From Billiard Balls to Sandpiles” (2003)

Bear F. Braumoeller, *The Great Powers and the International System* (2013)





The Lost Decades



What happened between 1990 and 2010?

Peace science crowd turned away from systemic theory

“Age of Regression”

Belief that single equation models with lots of RHS variables can solve any problem

Proliferation of data best suited to monadic and dyadic studies

Correlates of War data on alliances (1966), war (1972), militarized interstate disputes (1984), capabilities (1987), interstate distance (1991), etc.

International Crisis Behavior (ICB) data (1975)

Events data: COPDAB (1980), KEDS (1994), WEIS (1999), TABARI (2000), CAMEO (2000), GDELT (2013), PETRARCH (2014)

Braumoeller, *Great Powers and Int'l System*

Fully systemic theory of international relations

Agents influence structure and vice versa

Arguments

Dissatisfaction with the structural status quo (distance between *status quo* and ideal points along salient dimensions) prompts states to act

States change structure in proportion to their dissatisfaction and their capabilities

Other states' actions also influence structure of the system

Agents and structure, 1815-1991

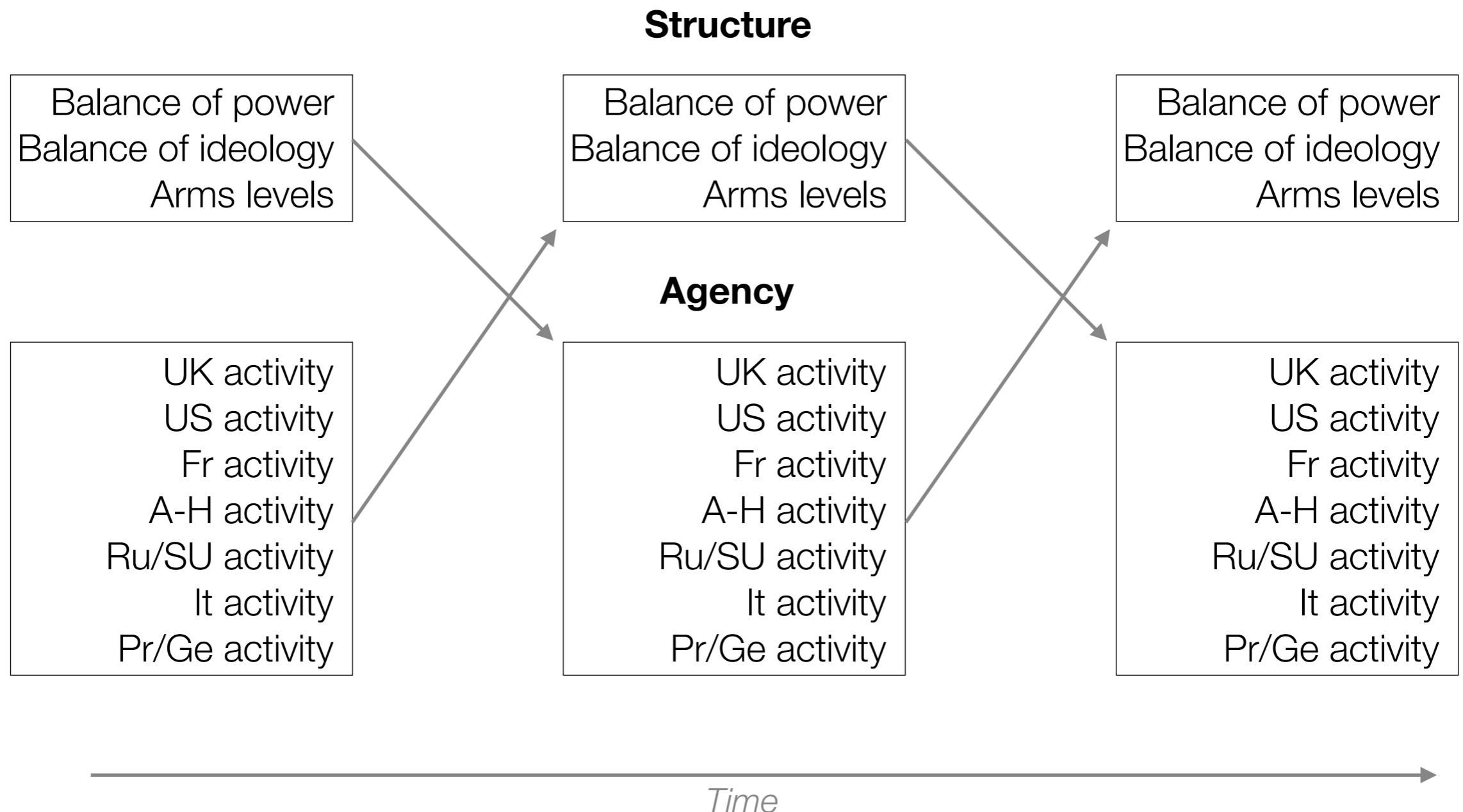
Structure

Balance of power
Balance of ideology
Arms levels

Agency

UK activity
US activity
Fr activity
A-H activity
Ru/SU activity
It activity
Pr/Ge activity

Reciprocal agent-structure interaction



Braumoeller, *Great Powers and Int'l System*

Theory

Formalized as system of differential equations

Analogy: macroeconomic models

Empirics

Full information maximum likelihood (FIML)

Historical case studies

Data

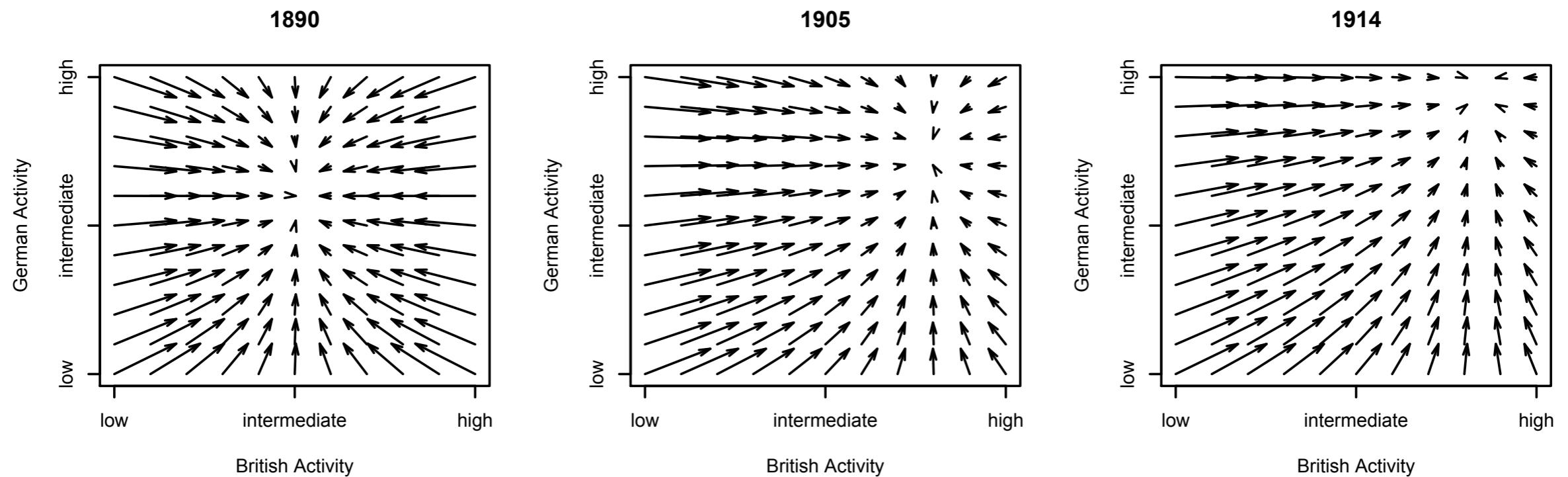
	19 th Century	Interwar Period	Cold War
Balance of power	Standard deviation of latent capabilities of GPs	German percentage of GP realized capabilities	Diff. between US and Soviet realized capabilities
Arms levels	N/A	Total military expenditures	Mil. spending + nuclear warheads
Balance of ideology	Average regional Polity score	Average regional Polity score, rescaled	Average regional Polity score
Latent capabilities	Urban population Iron/steel production	Urban population Iron/steel production Energy consumption EOY gold reserves	Urban population Iron/steel production Energy consumption
Realized capabilities	Military expenditures Military personnel	Military expenditures Military personnel	Military expenditures Military personnel Nuclear warheads
Worldviews	Assessed via survey of diplomatic historians		
State Activity	Assessed via survey of diplomatic historians		

The table with the stars

	19 th Cen.	Interwar	Cold War
H_{St1} : <i>Great Power security activity</i> → Balance of Power Balance of Ideology Arms Levels	32.84*** 13.82	10.78*** 16.89*** 24.29***	8.98* 34.24*** 139.65***
H_{A1} : <i>Structure</i> → <i>security activity of...</i> UK France Austria/A-H Prussia/Germany Russia/USSR Italy USA	20.10*** 18.79*** 24.65*** 18.56** 21.40***	22.99*** 51.10*** 21.46*** 109.56*** 19.25*** 75.21***	32.37*** 11.62
H_{R1} : <i>Reject reduction of model to...?</i> Power-only model Ideology-only model	132.76*** 221.41***	20.82*** 49.03***	40.70*** 319.73***

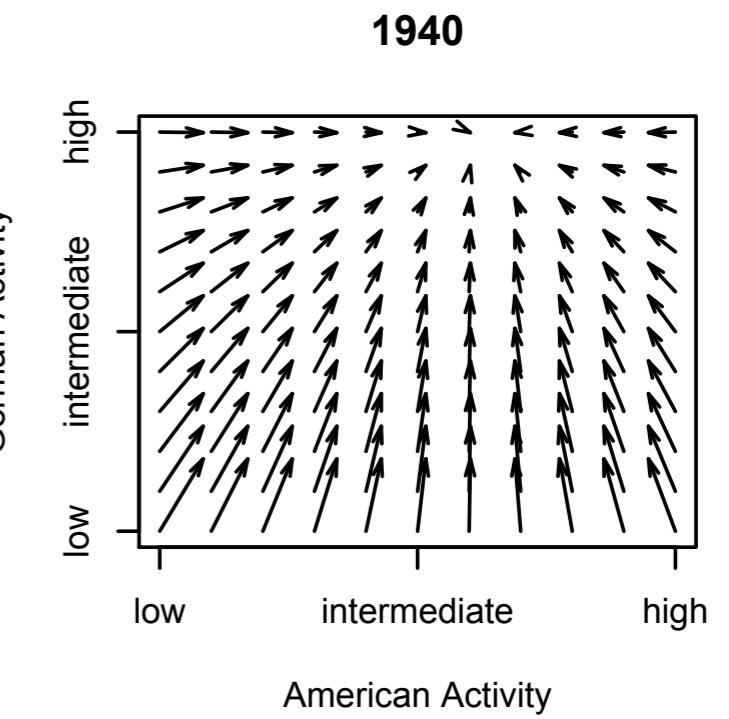
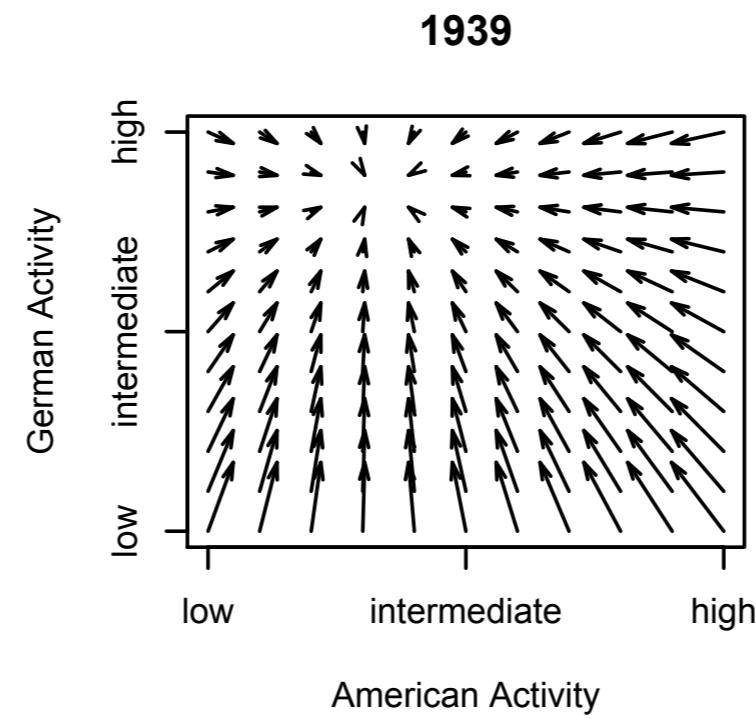
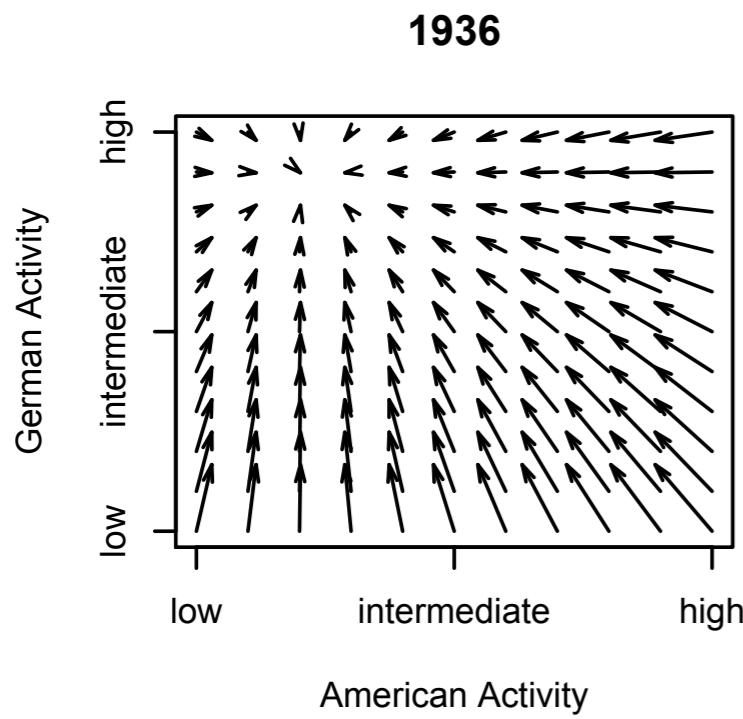
The eyeball test

Anglo-German arms race prior to WWI



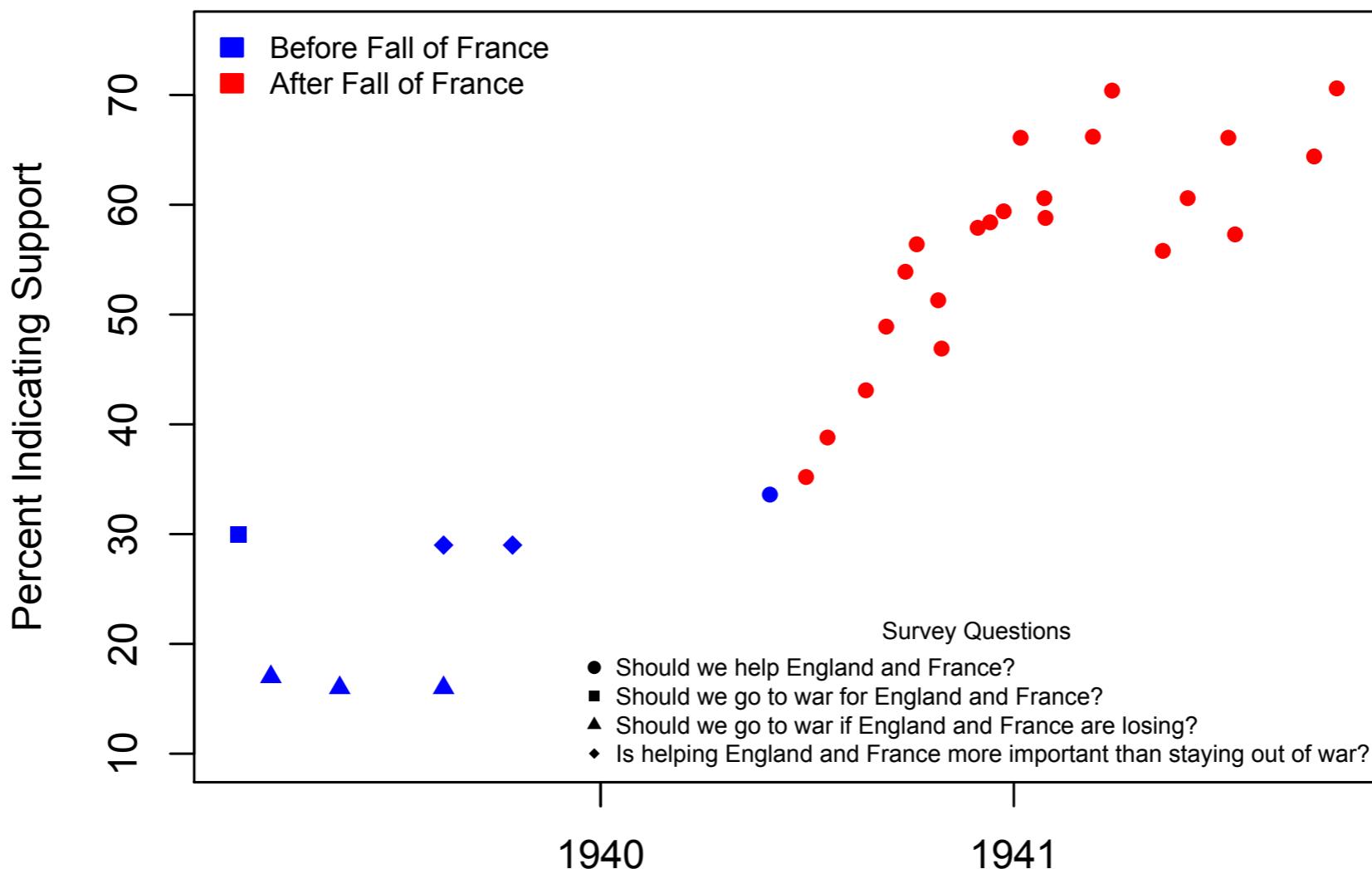
The eyeball test

Pre-WWII American “isolationism”



The eyeball test

Pre-WWII American “isolationism”



Predicting international conflict

Theory is agnostic regarding form of activity

Arms vs. alliances, e.g.

Compatible with lower-level theories of conflict

Deterrence model: Conflict arises when target fails to deter aggressor

Spiral model: Conflict arises when attempts to deter create hostility spirals

Dilemma: Best response in one world is worst response in the other

Which situation is most common?

Predicting international conflict

Braumoeller, *Systemic Politics and the Origins of Great Power Conflict (2008)*

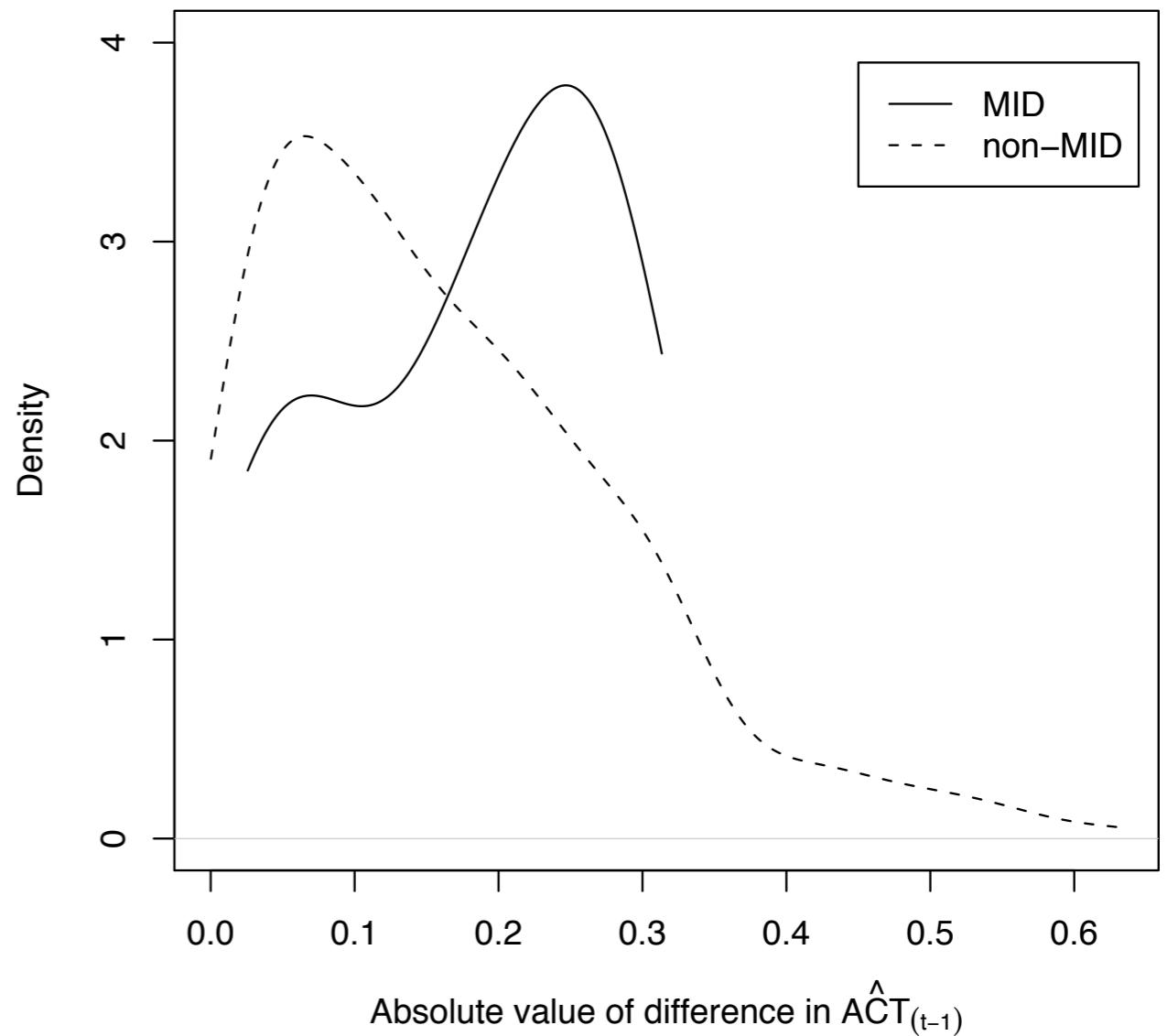
Systemic model predicts level of Great Power activity

Spiral model predicts that high levels of activity will precede conflict

Deterrence model predicts that an imbalance of activity will precede conflict

Both supported

Deterrence model more supported



Work in progress

Determinants of systemic levels of conflict

Has there been a steady decline in the rate of international conflict initiation? (*nope*)

Why are some historical periods more warlike than others?

Determinants of the deadliness of warfare

Sources of change in power-law slope coefficient for war intensity

Origins of international order

Agent-based model explaining formation and dissolution of political orders

Applications to, e.g., current threats to Western liberal order

Conclusions

Systemic theorizing is making a comeback

Well, a few of us are trying, anyway

Today's big problems are often systemic in nature

Implications of rise of China

Russia, Brexit, populism, and western solidarity

Failed/failing states and nation building

NAS can help

Systemic research often more familiar to scientists outside of political science

Thank you very much.