If You See a Bandwagon, Is It Really Too Late?: Testing Theories of Alliance Dynamics and Systemic Polarity

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Presentation Outline

- Presentation of Research Question
- Literature Review
- Importance of Research and Purpose
- Research Design & EITM Framework
- Presentation of Hypotheses
- Presentations & Discussion of Results
- Next Stages
- Questions

Research Questions

- Under what conditions will states form alliances?
- What is the relationship between systemic polarity, stability, and alliance formation?
- If states form alliances, what types of states and/or under what conditions will states engage in balancing versus bandwagoning behaviors?
- What are the systemic implications of the different types of alliance behaviors?

Overview of Literature

- Polarity, Stability, and Balance of Power
  - Kenneth Waltz (1979) – *Theory of International Politics*
    - International system is anarchic, therefore the system is one of self-help in which states seek to maximize their own survival
    - Bipolar is most stable because two great powers will balance each other; states balance internally rather than externally
      - Internal balance: states build offensive capabilities to rely on in the event of the emergence of hegemon or revisionist power
      - External balance: states rely on alliance formation as primary goal to build security networks
    - Unipolar is least stable because the overextension of hegemonic power is a threat to other states who will take action to preserve balance
    - Multipolar is also unstable because lines between allies and adversaries are blurred and actions of one may be perceived as threatening by the others

Overview of Literature

- Alliance Dynamics
  - Stephen Walt (1987) - *The Origins of Alliances*
    - States form alliances as a way to ensure their own security
    - States ally to balance against power and against threat; motivation for alliance is to balance (promote security) rather than shared ideology or other benefit (foreign aid or political penetration)
    - Alliance behaviors fall into two categories: **balancing** and **bandwagoning**
      - **Balancing** is "allying with others *against* the prevailing threat"
        - At systemic level: great powers of equal strength ally against aggressor or threat
        - Also considered at regional level
        - Implies a desire to maintain status quo
      - **Bandwagoning** is "alignment with the source of danger"
        - Small/weak states ally with revisionist power
        - Occurs only under duress or unstable/uncertain conditions
        - Implies a desire to induce systemic change; destabilizing behavior (Schweller 1994)

Overview of Literature

- Great Powers and Weak States
  - Theoretical focus is on great power states
  - Can weak states balance against threat or can they only bandwagon?
    - Early literature seems to imply that weak states are more likely to bandwagon than great power states
    - Weak states will balance when facing a threat of roughly equal capabilities and will remain neutral or bandwagon when facing a great power threat (Rothstein 1968, Walt 1987, Levy 1989)
    - Also implies that weak states may not balance or may not have the capacity to balance against revisionist threat
    - Recent literature suggests weak states may balance in non-traditional ways (soft balance, trascendence) or (Sheehan 2004, Whitaker 2010
    - Bipolar systems offer weak states more flexibility in choice of action; great powers are focused on balancing each other leaving weak states the freedom to 'test the waters' (Paul, Wirtz, & Fortman 2004)

Overview of Literature

- Power Transition Theory and Revisionist States
  - Status quo powers are those powers that have effectively designed and carry out the dominant rules/norms of the international system (Organski 1958)
  - Revisionist states (aggressors) are challengers to the status quo, seeking to change systemic order in attempts to secure a position of greater power for themselves in the international system
    - Generally smaller state, with stronger powers and regional allies
    - Express dissatisfaction with and desire to change current arrangement, norms, and institutions
    - Engage in destabilizing behaviors in hopes of bringing about a new systemic order

Recap

- Polarity
  - Bipolar systems = most stable
  - Unipolar = least stable
  - Multipolar = somewhere in between
- Alliance Dynamics
  - Balance = ally against aggressor; expectation to preserve status quo
  - Bandwagoning = allying with aggressor; expectation to change status quo
- Great Power and Weak States
  - Great power states balance against power and threat
  - Weak states are more likely to bandwagon with aggressor, especially in face of duress or instability
- Revisionist States (Aggressor)
  - Smaller states with strong power who are dissatisfied with the status quo and seek to change the dominant norms or to change their place within the system

Why is this Important?

- Prior empirical work focuses primarily on regional dynamics
- Waltz's & Walt's theories of the balance of power & threat have not been empirically tested or formally modeled; yet has been an assumption of truth for many future alliance studies and dynamic interactions of states including:
    - Power transition theory
    - Theories of International Cooperation and Organization
    - Hegemonic stability theory (assumes BoP to be flawed)
- June 3 : Washington post releases article about the lack of balancing alliances against Iran
    - http://www.washingtonpost.com/blogs/monkey-cage/wp/2015/06/03/why-isnt-there-an-anti-iran-alliance/
    - Essentially, there should have been a Saudi-Israeli-Turkish alliance formed aimed to counter Iranian threat, but no such alliance has formed
    - Identifies existing puzzles in the alliance literature that have yet to be solved; signifies contemporary need to revisit theories of alliance dynamics

Research Design

- This analysis will examine three systemic arrangements in the context of rising revisionist conflict.
  - Multipolar: during and prior to WWII
  - Bipolar: Cold War, where the US and USSR represent the two poles. Unipolar: post 1990, where US is the hegemonic power.

Research Design

- States have a choice in engaging in alliance as well as which type of alliance behavior they will choose
- Sims (2003) and Matejka and McKay (2015) find that the probability of an actor chosing one option over others in a discrete choice situation most closely results in a "probabilistic choice" that follows a modified logit model (assuming optimal information processing strategy and utility maximization)
- Data will be analyzed using a **multinomial logistic regression**

EITM Framework

- EITM Step 1: Alliance Formation: states form alliances to maximize security and choose from a few alliance type behaviors
  - Theoretical Concept: decision making/strategic interaction
  - Statistical concept: multi-nominal choice
- EITM Step 2:
  - Behavioral analogue: Utility maximization (where security is ultimate goal)
  - Statistical analogue: mutli-nominal choice modeling
- EITM Step 3: Theories of alliance formation expect that states will choose different types of alliance behaviors in order to maximize their own security (an extension of utility). Given certain systemic conditions, we have different expectations about the probability of an actor choosing any one particular action, bandwagoning, balancing, or neither, over the others.

Presentation of Hypotheses

- Walt, Schweller, Hopf and others argue balancing to be the most frequent behavior in alliance formation. It is even more frequent in stable rather than unstable systems. Bipolar systems are the most stable
  - **H1: In a bipolar system, balancing behavior should occur more frequently than bandwagoning behavior**

Presentation of Hypotheses

- Great power (status quo) states balance against revisionist power and threat and weak states bandwagon more often than they balance, especially in times of duress of instability. Unipolar is the most unstable systemic arrangement, however, we expect states to balance against the hegemonic power. Multipolar system is also unstable, but leaves room for great powers and small states to engage in different behaviors.
  - **$H2_A$: In a unipolar system, all states (non hegemonic) are more likely to balance against the hegemonic power than to bandwagon with it. Therefore balancing behavior should occur more frequently than bandwagoning behavior.**
  - **$H2_B$: In a multipolar system, status quo states are more likely to balance against than bandwagon with a revisionist power.**
  - **$H2_C$: In a multipolar system, weak states are more likely to bandwagon with a revisionist power than to balance against it.**
  - **$H2_D$: In any systemic arrangement, small states are more likely to bandwagon than status quo states**

Presentation of Hypotheses

- Bandwagoning behavior in small states only occurs when they are facing duress or instability

  - **H3: Small states experiencing internal duress are more likely to bandwagon with a revisionist power than to balance against it.**
  - **H4: State that fear revisionist threat are more likely to bandwagon than to balance, except when systemic arrangement is bipolar.**

Dependent Variable

- Measuring Balancing and Bandwagoning Behavior
  - Prior literature has neglected to test theories of alliance formation at the systemic level, and have instead relied upon dyadic studies and the relationship between alliances and MIDs. However, the theoretical literature clearly presents alliance formation as a systemic or structural concept seeking to promote stability and security, that does not have any direct connection to the onset of militarized conflict.
  - For all hypotheses, the interest is in the frequency of balancing and bandwagoning behavior and the conditions, either internal or systemic, that induce those behaviors
  - The DV is a polychotomous unordered variable of a state's choice to balance (2), bandwagon (1), or neither (0, remain neutral or otherwise)
  - Uses ATOP dataset, as well as originally created variables

Independent Variables of Interest

- Data comes from EUGene data management (includes ATOP, COW, Polity IV, BDM utility theory)
- **Relative Power (relpow)**: Relative capabilities of weakest state is dyad to total capabilities of the dyad. Ranges from 0 to .5, where .5 equals power parity
- **Systemic Polarity**: Bipolar (3), multipolar (2), unipolar (0)
- **Internal duress** (internal instability): composite measures of Polity IV regime transition score, state failure score, and COW MIDs; if a state is in a regime transition, is a failed state, or is engaged in a militarized dispute it is coded as 0 = unstable; 1 = internally stable
- **Relative Threat:** measured by proxy through level of hostility of aggressor state (COW MIDs)

year	Freq.	Percent	Cum.
1936	2	6.45	6.45
1937	2	6.45	12.90
1938	2	6.45	19.35
1939	1	3.23	22.58
1940	1	3.23	25.81
1941	1	3.23	29.03
1942	1	3.23	32.26
1943	1	3.23	35.48
1949	1	3.23	38.71
1958	2	6.45	45.16
1959	1	3.23	48.39
1961	1	3.23	51.61
1962	2	6.45	58.06
1963	1	3.23	61.29
1972	1	3.23	64.52
1973	1	3.23	67.74
1975	2	6.45	74.19
1976	1	3.23	77.42
1980	1	3.23	80.65
1981	1	3.23	83.87
1982	1	3.23	87.10
1986	1	3.23	90.32
1991	1	3.23	93.55
1994	1	3.23	96.77
1999	1	3.23	100.00
Total	31	100.00	

Total Cases where bandwagoning occurred

Most cases are regional, though some are not. Examples of dyads in this category are:

Iraq-Sudan (1960s)

Algeria-Morocco (1962-3)

Ecuador-Peru(1960s)

Bolivia-Paraguay

Yemen PR-Oman

Libya-Oman

Indonesia-Australia

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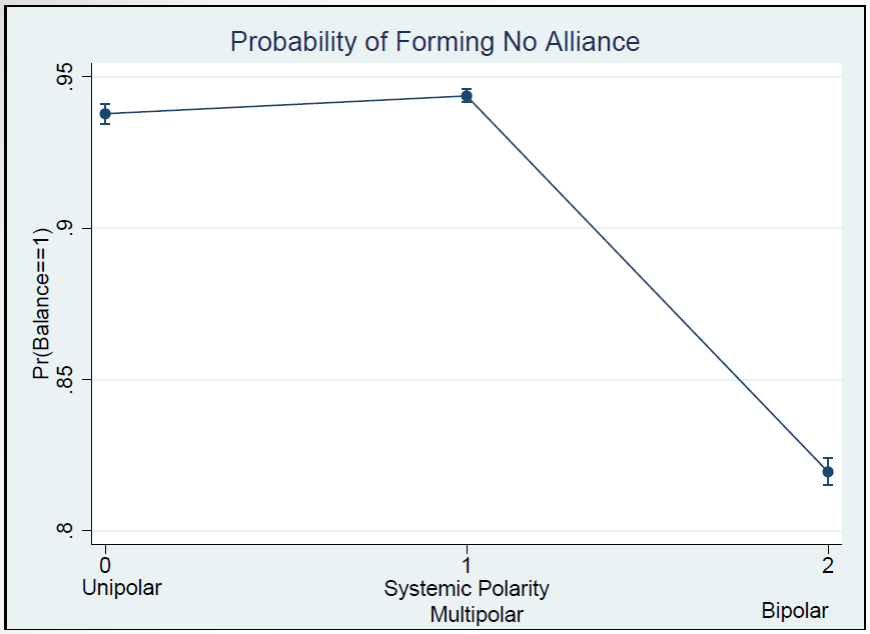
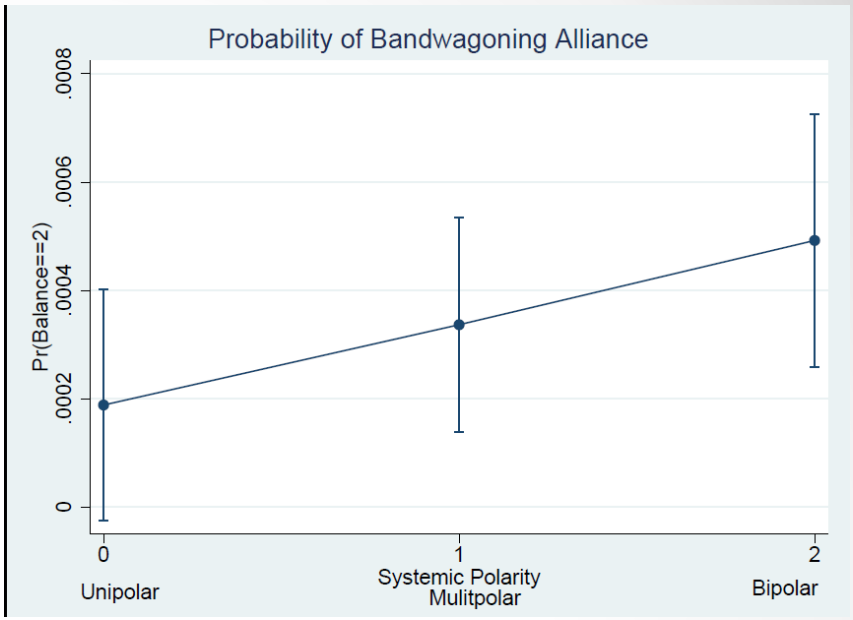
Iteration 5:   log likelihood = -20658.868
Iteration 6:   log likelihood = -20658.866

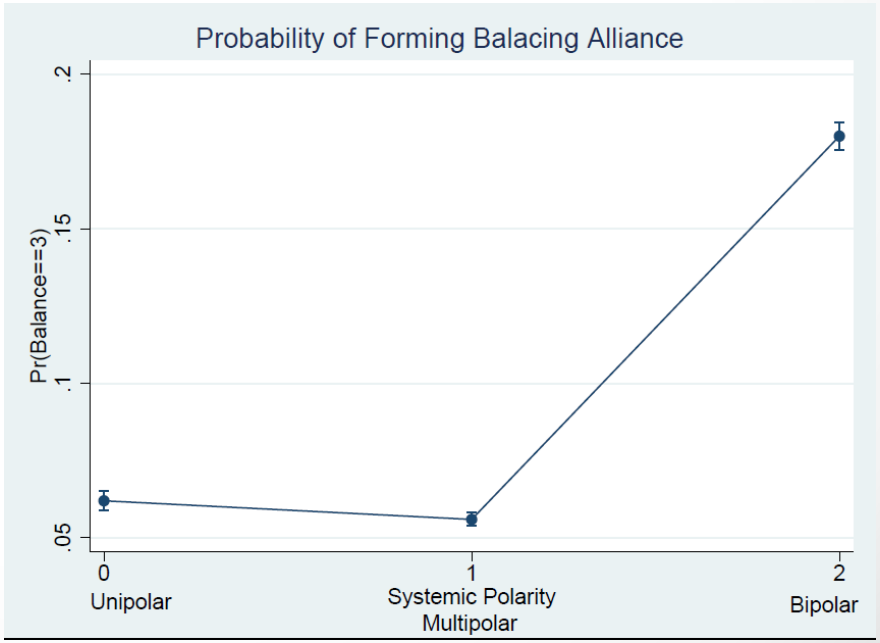
Multinomial logistic regression                 Number of obs   =      83107
                                                LR chi2(14)     =    9958.34
                                                Prob > chi2     =     0.0000
Log likelihood = -20658.866                     Pseudo R2       =     0.1942
```

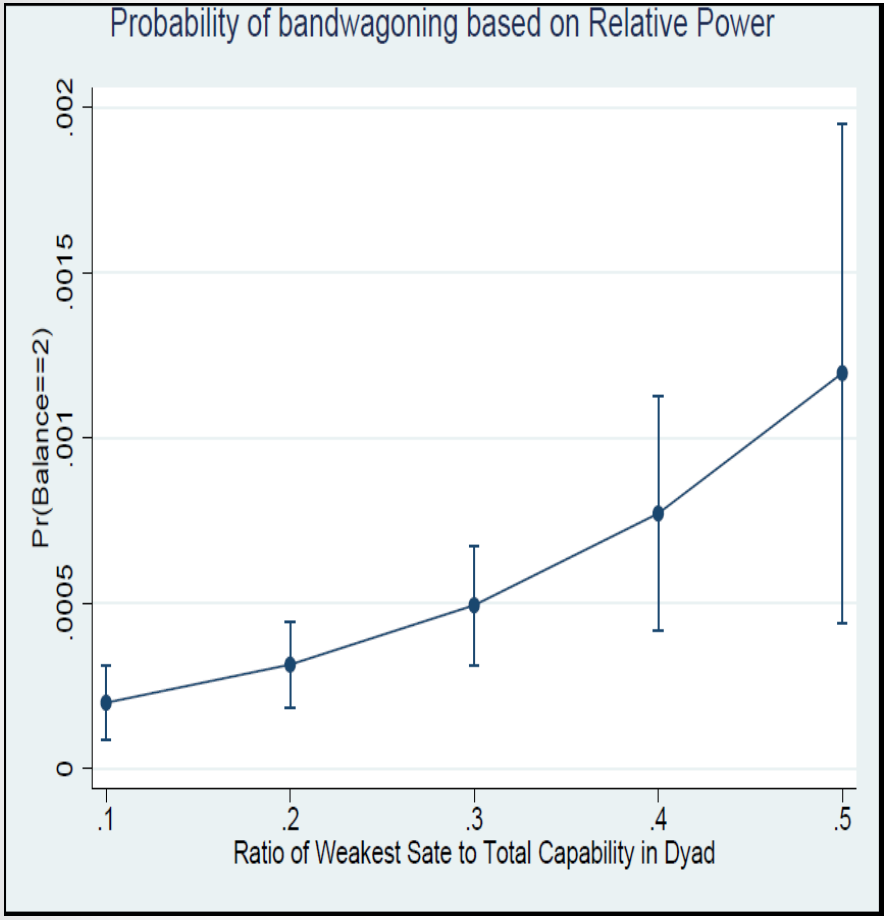
balance	RRR	Std. Err.	z	P>|z|	[95% Conf.	Interval]
1	(base outcome)					
2						
polarity						
1	1.773453	1.164477	0.87	0.383	.4896741	6.422914
2	3.582961	2.273027	2.01	0.044	1.033334	12.42349
relpow	135.2433	168.0887	3.95	0.000	11.83559	1545.403
reg_dyad	8.75138	6.684507	2.84	0.005	1.958434	39.10606
duress	1.585464	1.171148	0.62	0.533	.3727283	6.744044
threat	1.979408	.2377297	5.69	0.000	1.564245	2.504758
contiguity	3.61783	1.751682	2.66	0.008	1.400597	9.345082
_cons	2.44e-06	2.95e-06	-10.67	0.000	2.27e-07	.0000261
3						
polarity						
1	.8872767	.034773	-3.05	0.002	.8216746	.9581164
2	4.104788	.1521091	38.11	0.000	3.817228	4.41401
relpow	4.828892	.5155374	14.75	0.000	3.917169	5.952818
reg_dyad	7.110344	.2224258	62.71	0.000	6.687493	7.559932
duress	1.81321	.1309194	8.24	0.000	1.573942	2.088851
threat	.7426376	.011209	-19.71	0.000	.7209901	.7649351
contiguity	2.342824	.0774465	25.75	0.000	2.195845	2.499642
_cons	.0097702	.0007838	-57.69	0.000	.0083487	.0114338

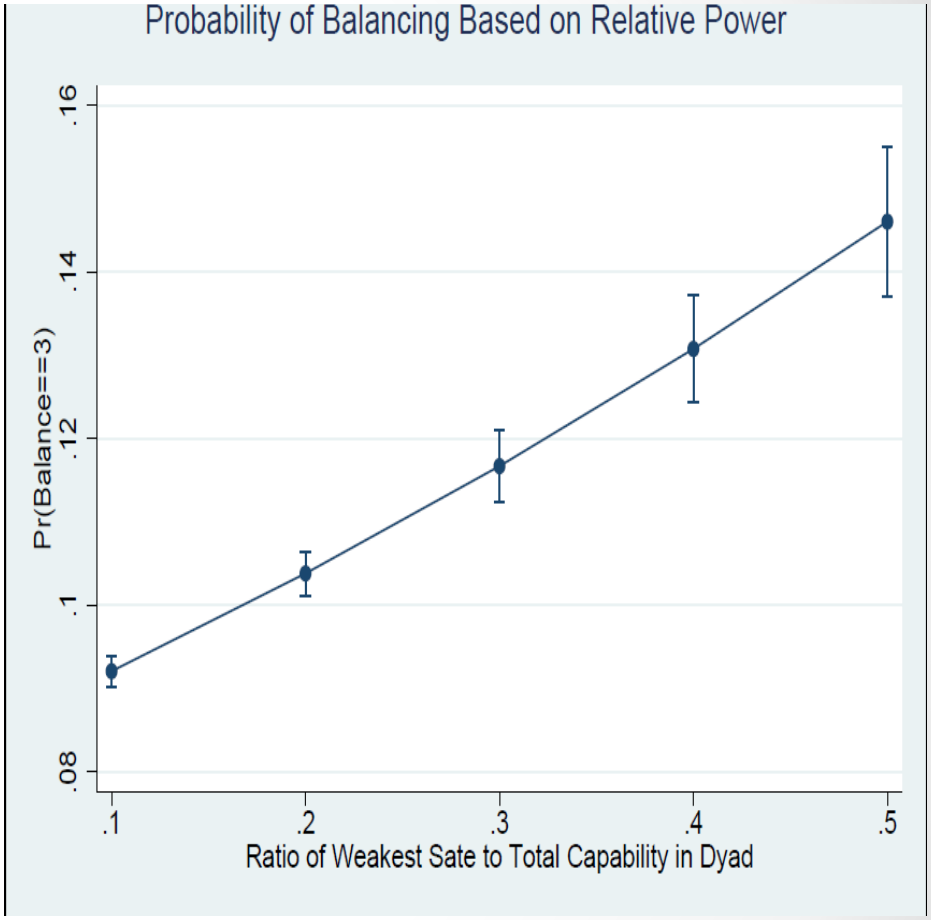


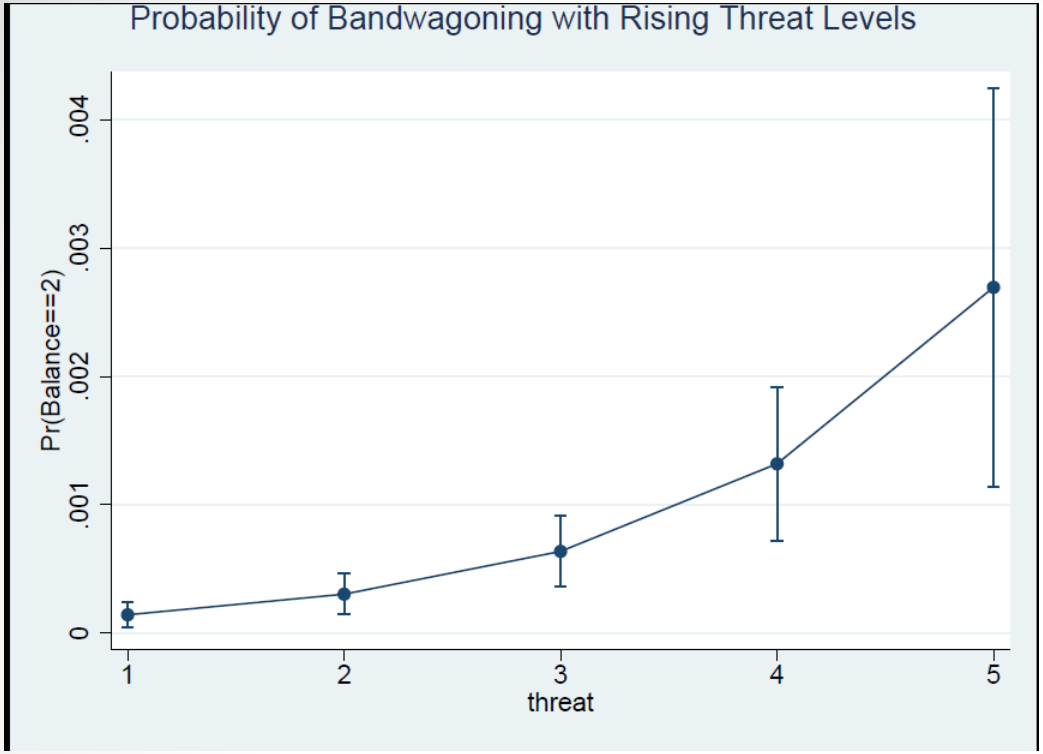


Predictive Margins of Polarity




Probability of bandwagoning based on Relative Power
Pr(Balance==2)
0
.0005
.001
.0015
.002
.1
.2
.3
.4
.5
Ratio of Weakest Sate to Total Capability in Dyad


Probability of Balancing Based on Relative Power
Pr(Balance==3)
.08
.1
.12
.14
.16
.1
.2
.3
.4
.5
Ratio of Weakest Sate to Total Capability in Dyad


Probability of Bandwagoning with Rising Threat Levels
Pr(Balance==2)
0
.001
.002
.003
.004
1
2
3
4
5
threat

Discussion

- Empirical Results do not always match theoretical expectations, especially when bandwagoning is the resulting alliance formation
- Vasquez (1993) wrote theories of alliance formation are a long way from empirical validation. In fact, he writes alliance patterns are too dynamic to be documented.
  - Suggested the way to "get at" alliance patterns and formation is to develop multilevel model. First level, gets at national level decision making procedure on alliance choice and second level is the dyadic level, which empirically demostrates formation of alliance types around certain criteria

Discussion

- Attempts at multilevel modeling of systemic level theory has not been attempted; though has been attemtped at regional level (Morrow, Lemke 2002, Walt 1987)
- National level Decision Theoretic & Utility Functions: Bruce Berkowitz (1983), Bruce Bueno de Mesquita (1980), Jim Morrow (1991)
- Game theoretic model: Parkhe 1993, Snyder 2007

Berkowitz Model

- The Berkowitz probability model suggests that increased perception of threat might increase tendency toward defection from the status quo, and encourage weak states to align with aggressors and revisionist states. This would hold true is all cases except cases in which the weak state is already a member of a status quo alliance (as cost of leaving alliance to bandwagon would be too high). The weak state will also have expectations about the probability of revisionist win or failure

Berkowitz Model

- $E(U_i) = p_w(U_{o_w}) + p_f(U_{o_f})$
  - p_w= Probability of revisionist win
  - U_{o_w}= value of revisionist win
  - P_f= probability of revisionist failure
  - U_{0_f}= value of revisionist failure
- $E(U_m) – E(U_i)$
  - Expected advantage gained by entering bandwagoning alliance as opposed to doing nothing

My Questions for You

- How can the Berkowitz Model be used to create a utility function for the formation of various alliance types?
- Standard empirical testing of alliance dynamics employ standard logistic regression with the use of time series data. Is the use of time series data, which is largely temporally, and possibly spatially dependent, problematic when using these analytic techniques? If so, what options should we consider?