News as Data, News as Action

Current Issues in the Study of News Coverage and Protests

Pamela Oliver

Plan for the talk

- Introduction – Co-evolution of news/politics/protest
- News as data
- Transitions
  - **Data quality concerns**
  - **News holes**
  - **Looking for protest effects on news**
- News as action by strategic responsive actors among other strategic responsive actors
  - **Agenda setting**
  - **Filtering communication**
  - **Reinforcing others' actions**
  - **News holes, issue competition, and media/movement cycles**
- News as action and data

Coevolution of Protest, Politics, News

- **Movements change in coevolutionary relationships with political regimes, news media, and other actors**
- **All may be thought of as sets of actions by diverse actors**
- **Statistical distribution of actions evolve over time**
- **Actions affect other actions**
  - **Diffusion of actions & ideas**
  - **Strategic interaction between different actors**
  - **Flows of resources or information**
  - **Others' actions can have reinforcing effects**

The goal is to theorize the ways in which grassroots protest movements, institutional politics, and the news media co-evolve over time, and the ways the logic of news-writing effects the system.

Today's talk poses the question, rather than answers it!

News as Data: Protest Events Research

- **Newspapers are the most readily available source of information about protests and social movements**
- **Newspapers are published routinely and regularly**
- **A great deal of research takes newspapers as given sources of information**
- **Event-oriented studies: code events from the news and then study them over time**
- **Detailed studies of event series reveal important evidence about how processes work**
- **I will flash through examples**

Doug McAdam "Tactical Innovations"

- **Uses plots of the sequencing of events in the Civil Rights Movement to argue**
  - **New tactics explain steep rises in events**
  - **Dynamics of the CRM: protest first, then segregationist response, then federal response**
- **Data are from the New York Times Index**

Civil Rights Events Fig 1 (McAdam)

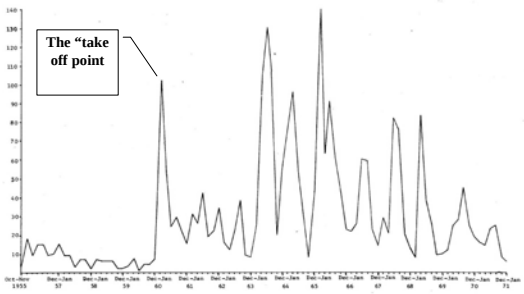


Figure 1. Movement-Initiated Actions, Oct–Nov 1955 through Dec–Jan 1971

Source: *Annual Index* of the *New York Times*. 1955–1971

Doug McAdam, "Tactial Innovations," ASR 1093

Civil Rights Events Fig 2 (McAdam)

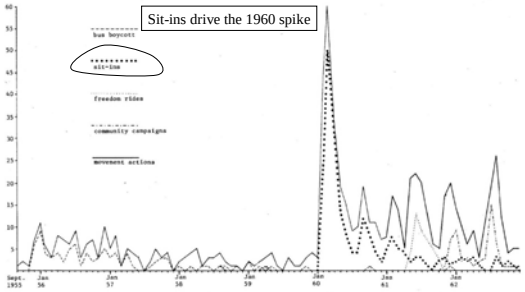


Figure 2. Movement-Initiated Actions, September 1955 through December 1962

Source: *Annual Index* of the *New York Times*, 1955–1962.

Doug McAdam, "Tactial Innovations," ASR 1093

Civil Rights Events Fig 3 (McAdam)

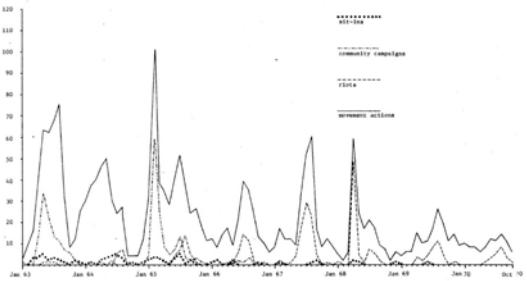


Figure 3. Movement-Initiated Actions, January 1963 through October 1970

Source: *Annual Index* of the *New York Times*, 1963–1970.

Doug McAdam, "Tactial Innovations," ASR 1093

Civil Rights Events Fig 4 (McAdam)

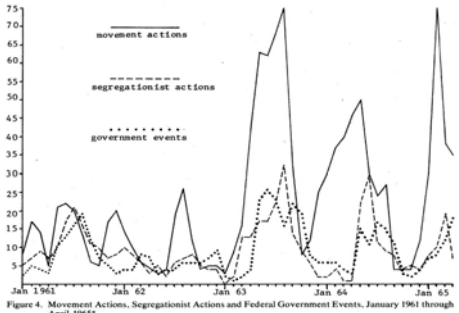


Figure 4. Movement Actions, Segregationist Actions and Federal Government Events, January 1961 through April 1965*

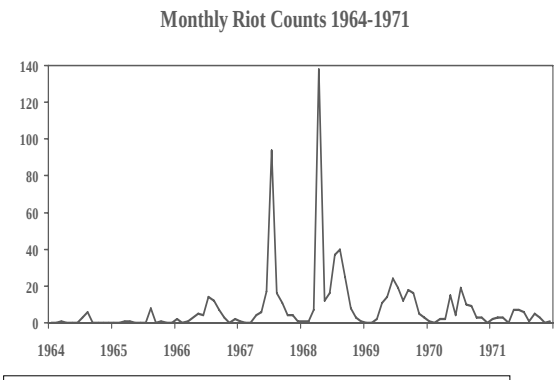
Source: *Annual Index* of the *New York Times*, 1961–1965

The plot shows that movement actions, the solid line, generally leads an action peak, followed by segregationist and government actions

Doug McAdam, "Tactial Innovations," ASR 1093

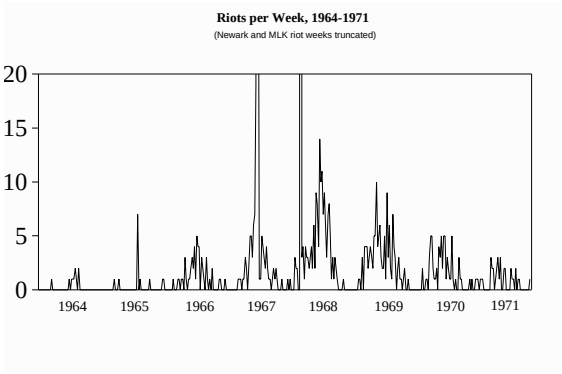
1960s Black Urban Riots

- **Data compiled by newspaper clipping service from local newspapers**
- **Data set originally constructed by Gregg Carter**
- **Daniel J. Myers did extensive analysis using event-history modeling techniques. After the seasonal cycles are controlled, there are clear diffusion effects**
  - **Big riots diffused nationally**
  - **Smaller riots diffused regionally**
  - **Television broadcast areas account for the regional diffusion patterns**



Source: Data originally collected by Gregg Carter, compiled by Dan Myers

1960s Riots, Weekly Counts (truncated)



1960s Riots Myers ASR 1997

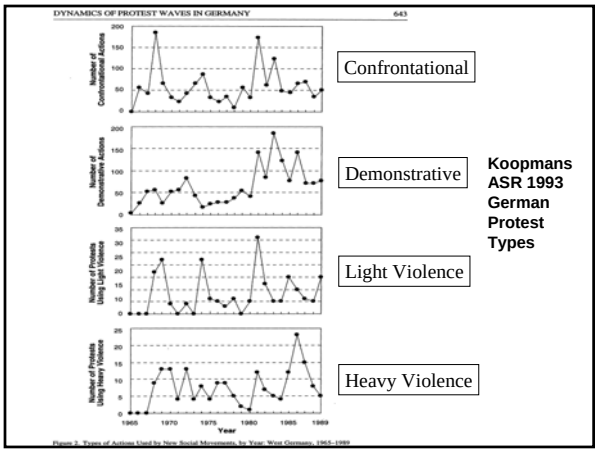
Table 4. Partial-Likelihood Estimates Showing the Effects of Competition and Diffusion Variables on Hazard Rates for Racial Riots: 410 U.S. Cities, 1961 to 1968

Independent Variable	Model 1	Model 2	Model 3	Model 4
Ln of number of non-White unemployed (in 1000s)	.617*** (.059)	.625*** (.059)	.644*** (.061)	.482* (.203)
Median manufacturing wage (in 100s of dollars)	.026** (.008)	.024** (.008)	.021** (.008)	.024** (.008)
Unemployment rate	−.081* (.035)	−.101** (.036)	−.139*** (.036)	−.113* (.048)
Percent foreign-born	.020 (.011)	.023* (.011)	.035** (.011)	.034** (.011)
Ln non-White unemployed × percent foreign-born	−.013* (.006)	−.012* (.006)	−.004 (.006)	−.005 (.006)
Spatial diffusion (c_t)	.034*** (.007)	.024** (.008)	.025** (.009)	.025** (.009)
National-level diffusion (M_{t-1})	—	.295*** (.025)	.170*** (.029)	.170*** (.030)
National-level diffusion squared $(M_{t-1})^2$	—	−.005*** (.000)	−.003*** (.001)	−.003*** (.001)
Dummy indicating years 1967–1968	—	—	2.48*** (.260)	2.48*** (.260)
Ln of non-White population	—	—	—	.166 (.199)
Prior rioting (control)	.202*** (.033)	.132*** (.036)	−.0470 (.042)	−.047 (.042)
Model chi-square (d.f.)	412.49 (d.f. = 7)	525.98 (d.f. = 9)	629.86 (d.f. = 10)	630.5 (d.f. = 11)

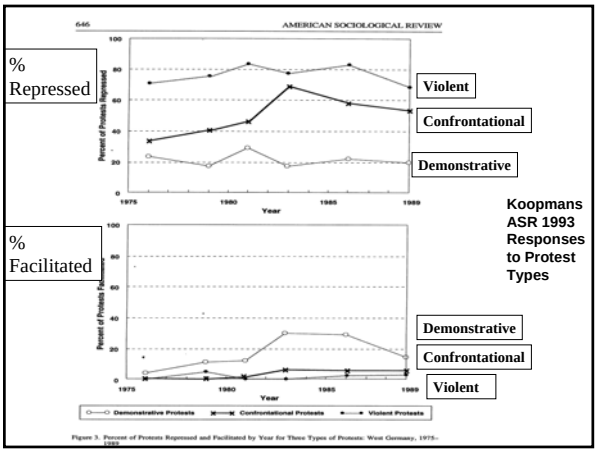
German Protests

- **Ruud Koopmans (ASR 1993) examines the mix of confrontational, demonstrative and violent actions over time**
- **Argues the dynamics are driven by repressive actions by regime and facilitative actions by political and organizational elites**
- **Data are coded from the *Frankfurter Rundschau***

German new social movements protests, quarterly counts of events (Source: Ruud Koopmans)

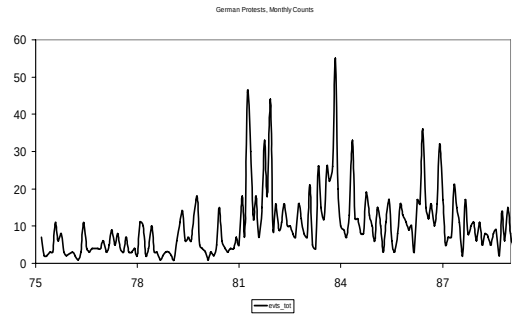


Koopmans ASR 1993 German Protest Types

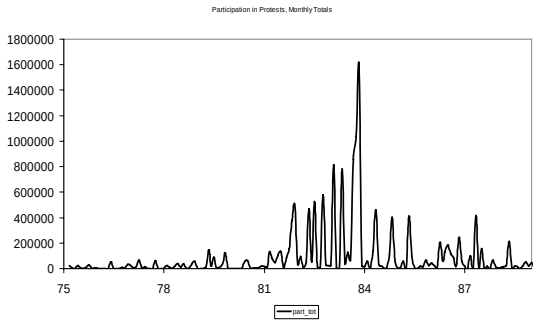


Koopmans ASR 1993 Responses to Protest Types

German Protest Events, Monthly Counts



German Protest Participants, Monthly Totals



Iran Revolution

- **Karen Rasler (ASR 1996) examines the effects of repression on protest, arguing that it initially suppresses protest, but then there is a later rebound effect through spatial diffusion of protest to other areas**
- **Data are several news sources**

Rasler, Iran Revolution (ASR 1996)

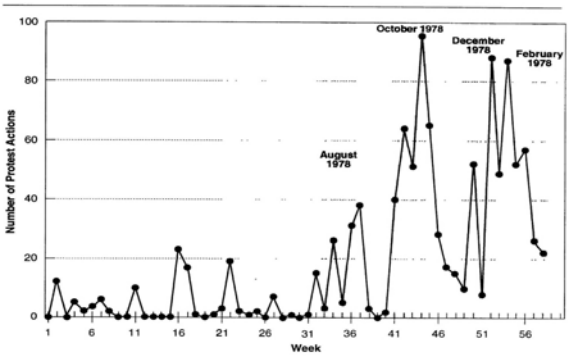


Figure 2. Number of Protest Actions by Week: Iran, December 1, 1977–February 14, 1979

Rasler, Iran Revolution (ASR 1996)

Table 1. Coefficients for Poisson Regression of Protest Actions on Concessions, Repression, Strikes, and Spatial Diffusion: December 1, 1977–February 14, 1979

	Dependent Variable		
Independent Variable	Total Protests	Violent Protests	Nonviolent Protests
Constant	1.778** (24.068)	1.433** (14.684)	.546** (4.426)
Spatial diffusion$_{(t-1)}$	.019** (6.908)	.002 (.362)	.029** (8.597)
Strikes$_{(t-1)}$	.012** (2.516)	−.004 (−.480)	.004 (.608)
Concessions$_{(t-1)}$	.173** (10.383)	.129** (5.111)	.201** (9.216)
Government inconsistency	.220** (4.001)	.248** (3.089)	.693**a (9.399)
Repression$_{(t-1)}$	−.312** (−6.164)	−.269** (−3.598)	−.676** (−7.541)
Repression$_{(t-6)}$	.113** (13.115)	.167** (12.887)	.077** (5.826)
Lagged dependent variable$_{(t-6)}$	.010** (7.545)	−.001 (−.241)	.014** (4.059)
News strike	.099 (1.157)	.389** (2.659)	.317** (3.031)
Log likelihood	−401.992	−290.536	−222.077
Number of weeks	52	52	52

Note: Numbers in parentheses are *t*-statistics.
[a] Government inconsistency is lagged one week for the nonviolent protests model.
*$p \leq .05$ **$p \leq .01$ (one-tailed tests)

And MANY More

- **Event approaches and newspaper (news archive) data are the only viable source of longitudinal data on protest events (and many other types of events)**
- **Underpinnings of quantitative event-oriented approaches to understanding dynamics of collective action and politics**
- **Lots of interesting & important research problems to explore**
- **BUT . . .**

We're Ignoring Something

The Elephant in the Living Room

- These studies of over-time dynamics assume that newspapers capture "true" picture of events: "events in newspapers" are treated as equivalent to "events"
- Assumption that "all" events are captured is obviously wrong, never actually defended
- Authors generally argue (hope) that newspaper coverage of events is "unbiased" statistically
  - A constant % of events
  - OR Essentially random
  - OR AT LEAST a CONSISTENT selection structure (so changes over time are validly assessed)

News as Data: The "Selection Bias" Problem

- "Bias" used in the statistical sense to refer to the selection structure: from the pool of events of interest that actually occurred, what got into the news?
- There is no data available to support the assumption of "unbiased" event sampling in newspapers, in fact theory & research suggest the opposite
- Even the hope of a consistent selection structure over time is unsupported by data

Selection Bias Studies

- Need an external reference source for comparison
- Police permit records & Police logs
  - McCarthy, McPhail & Smith
  - Oliver et al Madison study
- Or inter-media comparisons
  - Long tradition of comparing local & national news sources or of comparing different national sources

McCarthy, McPhail, Smith (ASR 1996)

- Washington DC "First Amendment" Event Permits
  - Compare 1982 & 1991
- New York Times Index + Full-text read of Washington Post
- Event size is the major factor predicting coverage, but proportion of events covered was quite different in the two years

McCarthy, McPhail, Smith ASR 1996

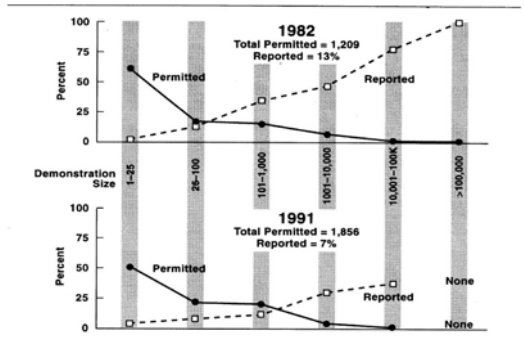


Figure 1. Percent of Demonstrations Permitted and Reported in the Media, by Size of Demonstration: Washington, D.C., 1982 and 1991

McCarthy, McPhail, Smith 1996 ASR

Table 4. Percentages of Demonstrations and of Demonstration Participants Reported in Media Sources During 1982 and 1991

Media Source	Percent Reported in 1982		Percent Reported in 1991	
	Permitted Demonstrations[a]	Demonstration Participants[b]	Permitted Demonstrations[a]	Demonstration Participants[b]
The New York Times	4.1	67.0	1.8	20.3
The Washington Post	7.9	74.7	5.8	29.2
ABC, CBS, NBC	2.1	62.0	2.1	20.0
Any media source[c]	13.1	80.1	7.2	29.8

[a] Figures represent the percentage of all demonstrations for the year reported by each source.

[b] Figures represent the percentage of the aggregate number of demonstrators in each year that were part of demonstrations reported in each media source.

[c] Any media represents the aggregate coverage across all three media sources.

McCarthy, McPhail, Smith 1996

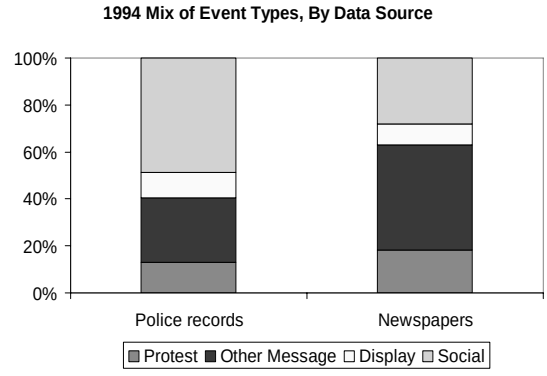
Multiple logistic regression for "any coverage"significant effects:

- **Size of event**
- **Not on a weekend**
- **Issues had widely varying probability of coverage. Highly covered issues:**
  - **1982: Middle East/Lebanon War, against nuclear weapons, ERA**
  - **1991: Gulf War, health care, jobs/economy.**
  - **(1991 less coverage than average: veterans, environment)**

The Madison Project

- **Compiled records of public events from police agencies:**
  - **Madison police parade permits**
  - **Madison police log (1994 only)**
  - **Capitol police permits**
  - **Capitol police log**
  - **University police log**
  - **Street Use Committee**
- **Used Nexis searches to find these events in archives of Capital Times and Wisconsin State Journal**
- **Which events known by police are in the news?**

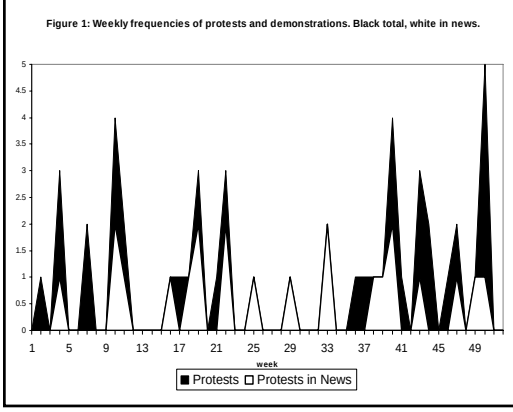
Madison project 1994: Types of Events



Madison Study 1 (Oliver & Myers AJS 1999)

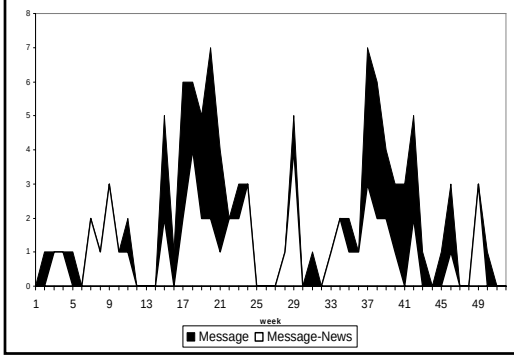
- **Focused on all public events in 1994**
- **Compared protests to other event forms**
  - **Protests often involve conflict and received more news coverage than most other event forms**
  - **Non-conflict message events (e.g. health, charity) were less likely to receive news coverage**
  - **Location of event mattered as well as size**
- **News hole effects**
  - **Day of week**
  - **Number of other events**
  - **Whether legislature was in session**

1994 Madison Protests & Demonstrations



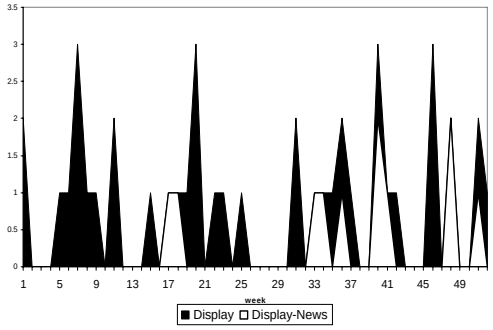
1994 Madison: Other Message Events

Figure 2: Weekly frequencies of other message events. Black total, white in news.



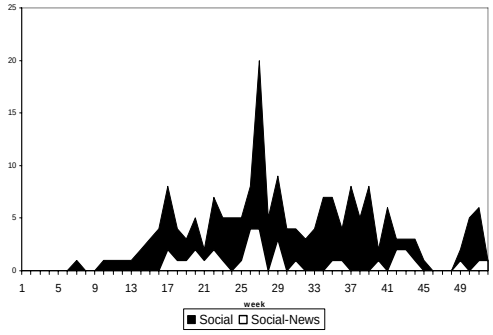
1994 Madison. Displays

Figure 3: Weekly frequencies of displays. Black total, white in news.



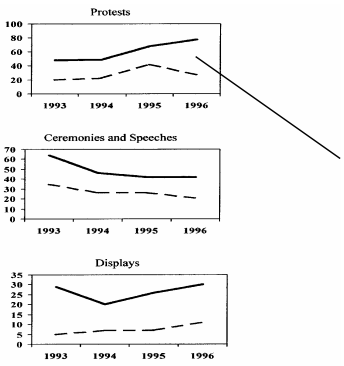
Madison 1994 Social & Entertainment Events

Figure 4: Weekly frequencies of social & entertainment events. Black total, white in news.



Madison Study 2 (Oliver & Maney AJS 2000)

- **1993-1996**
- **"Message events" only: apparent purpose is to influence the actions or opinions of non-participants**
  - **Protest forms: marches, rallies, vigils, unpermitted protests**
  - **Other forms: speeches, ceremonies, miscellaneous**
  - **Displays**
- **Overall, content (specific issue addressed) affects news coverage more than event form (except size)**
- **Again, analysis of events in police records, to see which are in newspapers**



Yearly Variations

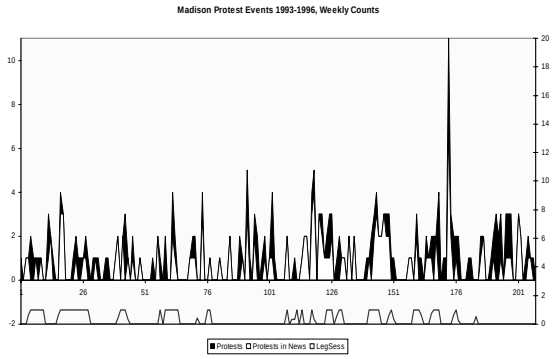
Published article stresses that newspapers showed fewer protests in 1996 when, in fact, there were more

FIG. 1.—Total events actually occurring (top solid line) as compared with those mentioned in news accounts (bottom dashed line), by type of event. The plot of ceremonies and speeches includes a few other event forms. News accounts make protest appear to be declining in 1996 when it is not.

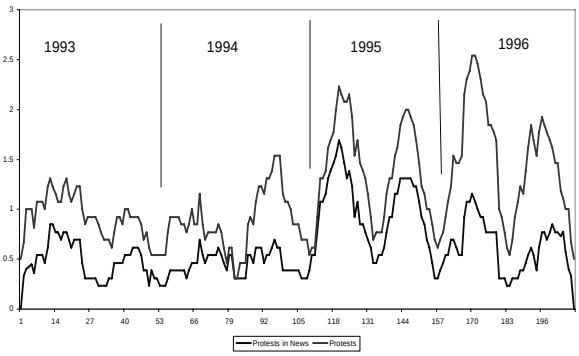
Madison protest cycles

The next few slides show different images of police versus newspaper records of events

Madison Protests: Total (black), in news (white)



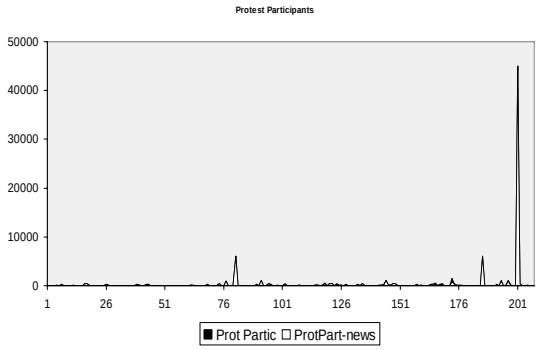
Protests in Madison, 13-week moving averages



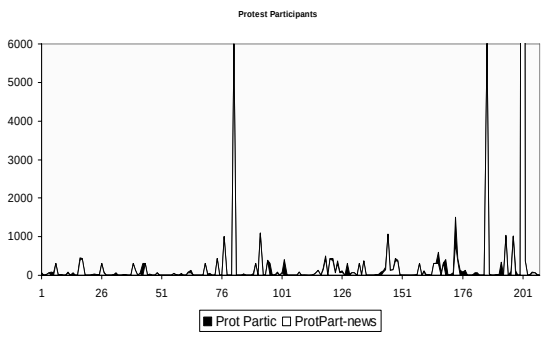
Protest participants vs. protest events

- **Most events are small, involve relatively few people**
- **A few events are much larger**
- **The larger events are much more likely to get news coverage**
- **Note that McCarthy et al. found a huge decline in proportion of protests getting news coverage between 1982 and 1991, even for the largest events**
- **But in Madison, weighting events by numbers of participants shows that the Madison news DID cover the large share of protest participants**

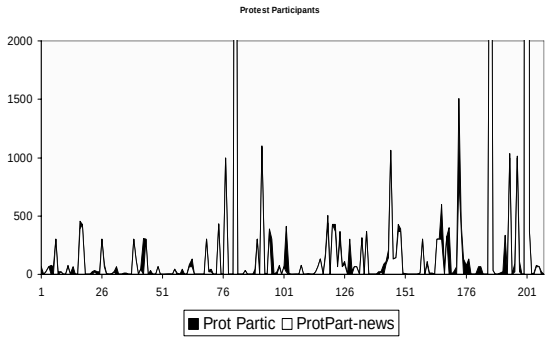
Participants in Madison Protests 1993-1996



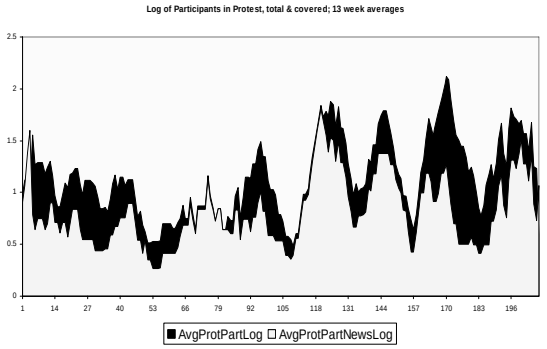
Protest Participants 1993-6 (Truncated view)



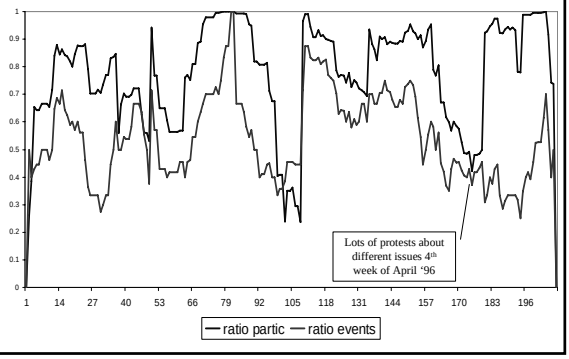
Participants in Madison Protests, Close Up



Madison Protests, 13-week average of log(participants)



Proportions of Protests and Protest Participants in News (13 week averages)



Issue, Form, Year & News Coverage

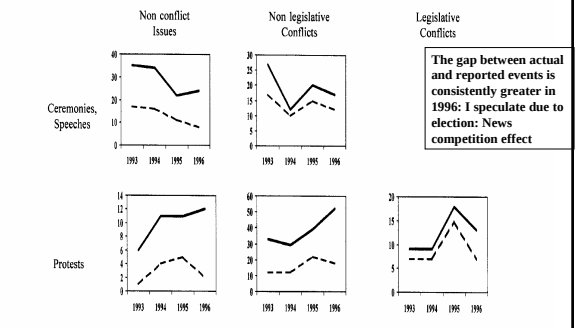
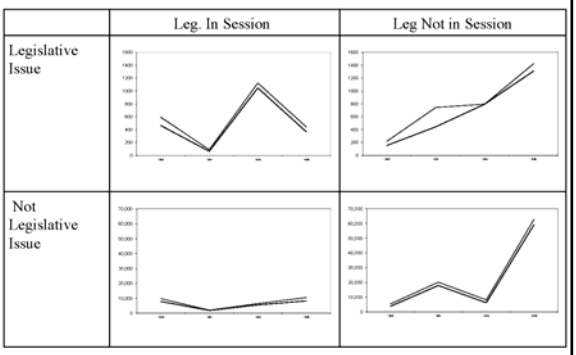


FIG. 2.—Total events actually occurring (top solid line) as compared with those mentioned in news accounts (bottom dashed line), by type of event and type of issue. (Three ceremonies and speeches involving legislative conflicts are excluded.) Protest about nonlegislative issues increased sharply in 1996 while news coverage of them declined.

Total Participants in Protests, Actual & News



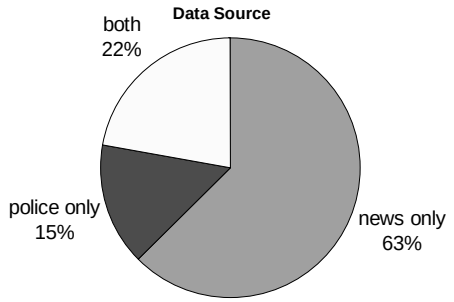
However, this analysis assumed the police data were "true" data

In fact, there are also selection biases in police data

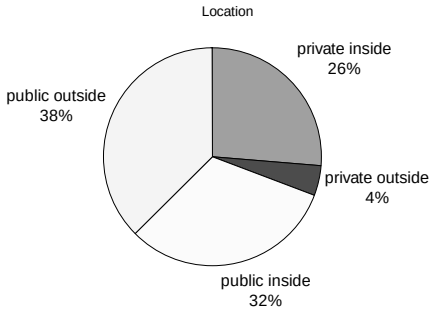
Police records are also selective (Maney & Oliver 2000)

- **For one month (May 1994), searched newspapers for all records of public events**
- **Compared this to police records**
- **There were A LOT of public events described in newspapers that were not in police records**
- **Police records can have as much selection bias as newspapers**
- **The selection logics of different sources are different**

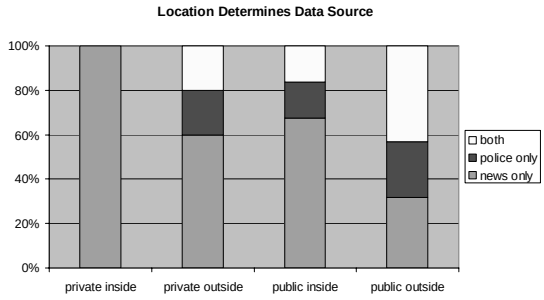
Data source for public events, May 1994



Locations of Public Events



Source and location: logic of jurisdiction



Back to newspapers?

- **Many studies show that news coverage of events is generally more complete the closer the news source is to the events**
- **Local newspapers cover might higher proportions of the events in their catchments than "national" newspapers**
- **All newspapers (including the New York Times) are "local" newspapers. All give much more attention to their locality.**
- **Probably the best available data for protest events is a collection of local newspapers, supplemented and cross-validated by other sources (police records, movement organization records, etc.)**

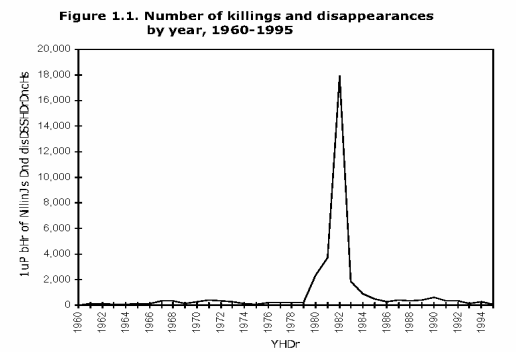
What about news coverage of repression?

When we use news sources for protest-repression dynamics, can we trust the data? (Or police data, for that matter!)

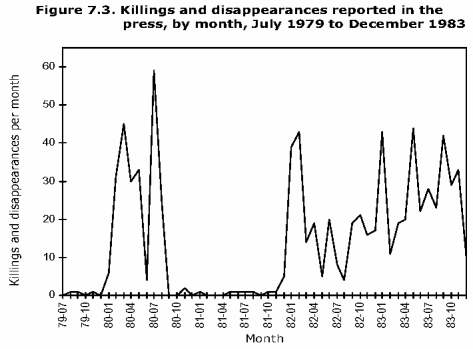
Terror in Guatemala

- **Source: Report by Patrick Ball for American Association for the Advancement of Science Human Rights Data Collection project, "State Violence in Guatemala, 1960-1996: A Quantitative Reflection" (1999)**
- **Three sources of data: newspaper accounts, documents, interviews**
- **There was government intimidation of the press during the height of the terror**

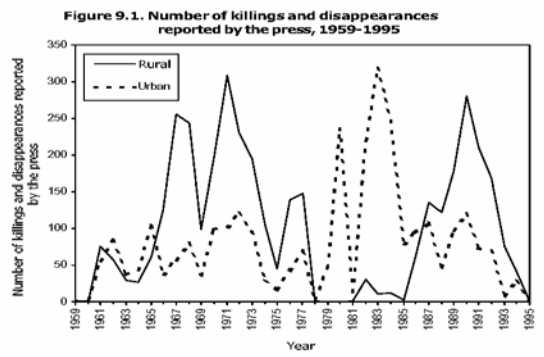
Terror in Guatemala



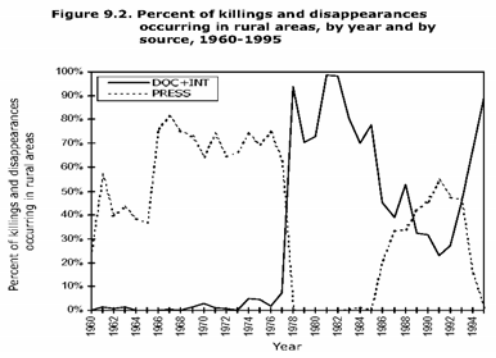
Guatemala: News Coverage



Guatemala: News accounts, Rural vs. Urban



Guatemala: Proportion Rural

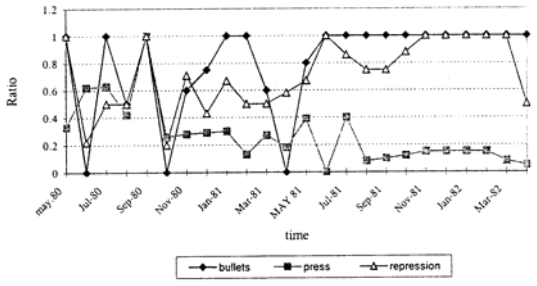


What about milder repression in democracies?

- **Wisler and Giugni, Mobilization 1999**
- **Police and newspaper data**
- **Dynamics of police repression of protesters and news coverage in Switzerland**
- **Repression initially erratic while "civil rights" is debated in the media. Later, "law and order" becomes dominant, the media stop covering the protests and the police lock in to repression.**
- **News covers neither the protest nor the repression just as the repression is highest**

Wisler and Giugni Figure 2

Figure 2. Development over Time of Press Coverage, Police Intervention, and the Use of Rubber Bullets during the Protest Wave in Zurich, 1980-1982 (ratio)



Conclusions about news coverage of repression

- Repression against dissidents is often linked to tacit support of the news media OR to repression of the news media
- News coverage of repression is often likely to be lower precisely when repression itself is higher
- In other cases, the general public supports repression and news coverage increases repression
- The interplay of repression and protest is affected by the news media, but how can we assess this when the news is our only source of data?

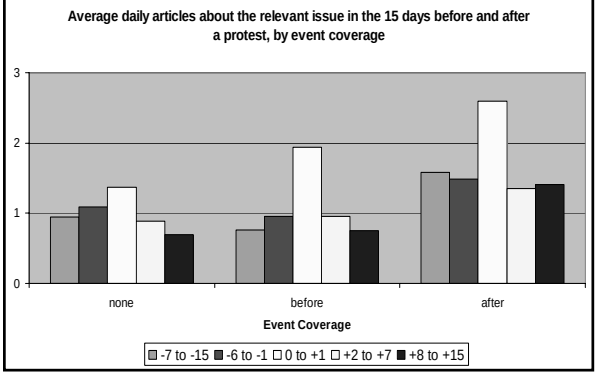
Towards News As Actor

Do events cause news, or does news cause events?

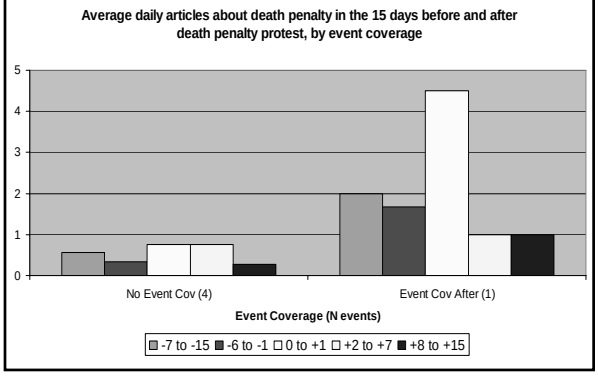
Does protest "work"for gaining news coverage?

- Idea of protest is to draw attention to an ISSUE. Does it work? Does protest increase issue coverage?
- Implies a model of tapping news coverage of an issue over time, seeing if protest events intervene
  - Have to control for prospective coverage of planned events
- We did a preliminary investigation of 4 issues: abortion, Crandon mine, death penalty, funding for disability services
- Average news coverage of ISSUE tended to be either the same or even somewhat LOWER after a protest than before it!

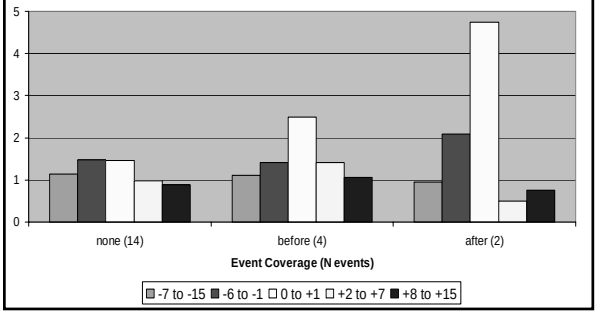
All Four Issues Taken Together



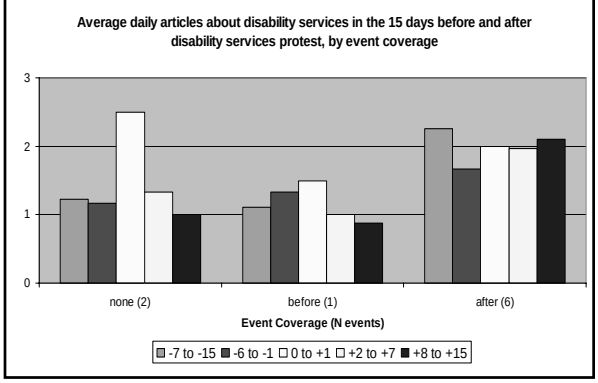
Death Penalty



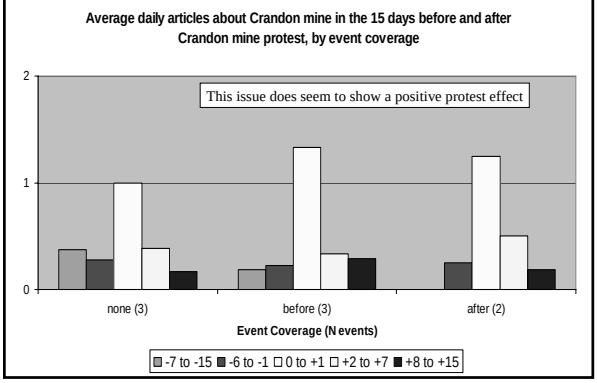
Abortion



Disability Services Funding



Crandon Mine



News Coverage and Protest

- **News coverage of an issue can spark protests about that issue**
- **This is logical, people made aware of a problem**
- **Many/most of these "problems" originate in institutional politics**
- **But this makes the news media an "actor" in the coevolving relationships between protesters and regimes**
- **Forces us to THEORIZE the relationship between news and protest to understand news as data**
- **Requires theorizing news coverage of "issues" in coevolutionary terms**

News as a set of actions

- **Like a social movement, news is an evolving set of actions**
- **If you plot news stories about issue, you get event plots that look a lot like the protest plots I showed you**
- **Reading of the "issue" coverage over time showed how it went up and down, sometimes randomly, sometimes in response to outside events**
- **Like protest dynamics, news story production has some internal logic and dynamics, but is also responsive to outside actions**
- **Actions by one kind of actor influence the subsequent actions by other actors (of the same & different kinds)**

News as action responds to other actions

- **This is the whole point of "news": it is supposed to respond to external actions by reporting on them.**
- **Like anyone else, news reporters become sensitized to issues and events. Not only to those reported in their own newspaper, but those arriving through other communication channels.**
- **News reporting is deeply constrained by the news hole and competition between issues & stories for space.**

News as action affects other actions

1. **Direct action: News initiates its own actions which affect the perceptions of other actors about social issues/problems. Investigative journalism, crusading reporters/editors. "Agenda setting."**
2. **Indirect effect on diffusion: News "selects" which actions will influence other actions by selecting which are reported on. Acts as a communication channel. Only reported actions can affect others.**
3. **Reinforcement effect: When actors "succeed" in getting news coverage of their actions, this acts as a positive reinforcement, encourages them to do more.**

Agenda setting

- **There has been a lot of research the relation between media political institutions on political agenda-setting**
- **Protest & social movement researchers need to recognize the agenda-setting function of the news media for protesters as well**

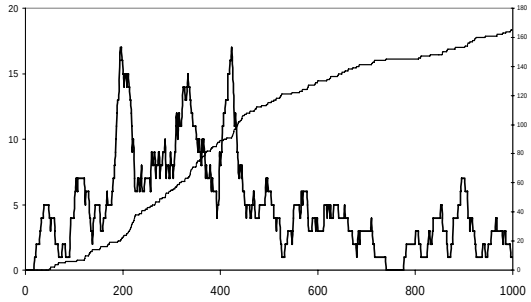
Filtering diffusion

- **Protest spreads when people learn about the protests of others**
- **Mass media news coverage is the key mechanism whereby protest information spreads outside a single social network**
- **Shutting down newspapers suppresses rebellion not only because it silences critics, but because it hampers diffusion of protest information**
- **But, of course, diffusion also affects news coverage: bigger events are more likely to be covered. This is a positive feedback system: diffusion increases news coverage, news coverage increases diffusion**
- **We need to talk about why the process stops**

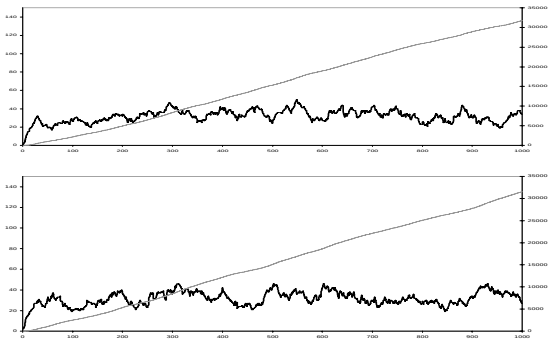
Reinforcement

- **Getting news coverage of a protest is a "success" for that protest, is reinforcing**
- **Reinforced behaviors tend to be repeated**
- **In working to find models that can replicate real protest events series, I learned that "external random (or intermittent) success" is a plausible mechanism producing realistic-looking event plots (see next plot)**
- **A model of simple mutual reinforcement (news and protest reward each other) is less able to look like empirical plots**

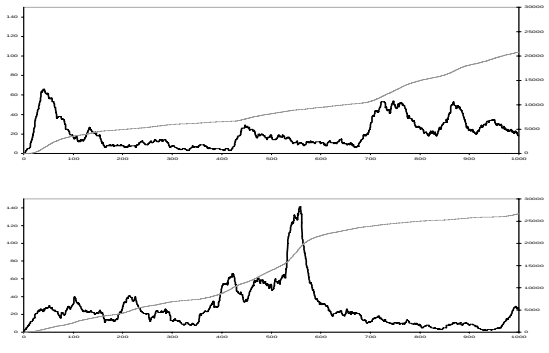
Sum Across 5 Independent Actors



50 Actors Reinforced Independently



50 Actors Reinforced in Common



Theorizing News Hole Effects

- **News Hole Effects. The central feature of the news. Rarely theorized.**
- **News coverage of any issue can never evolve solely from its own internal logic, must always coevolve in competition with other issues**
- **Evolve here = go up and down in frequency of mention AND change in its themes/content over time**
- **Two distinct components:**
  1. **On a given day, it is fixed.**
  2. **It varies, especially in newspapers. Varies by day of the week, season of the year**

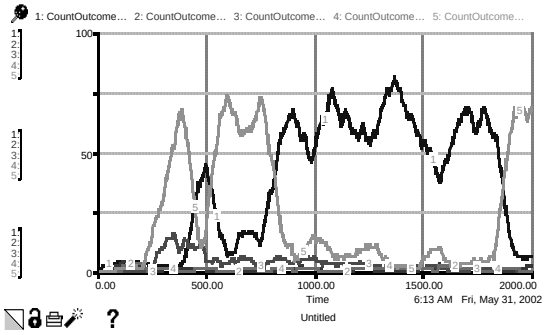
Competition for space in the news hole

- **The likelihood of any event or issue making the news is never just a function of its own properties (or news organization properties) but is ALWAYS affected by the competition from other potentially-newsworthy events**
- **Things that have nothing at all to do with the events/issues of interest affect their likelihood of appearing in the news**
- **"Big stories" crowd out everything else, "slow news periods" open space for new issues to get a hearing**
- **Movement issues have to take turns, leading to issue attention cycles.**

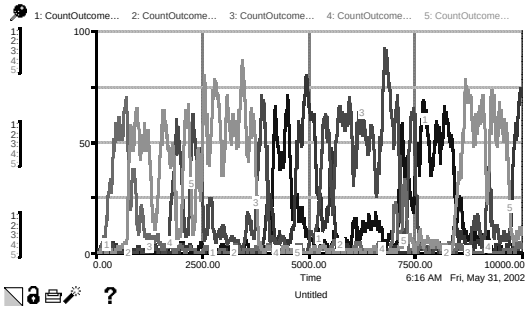
News hole competition can create protest cycles

- **A model of mutual reinforcement between news and protest without competition rapidly produces the unrealistic result that both protest and news coverage about the issue become constant**
- **But introducing a constraint that only one issue at a time can be dominant, coupled with a bias toward continuing with the same issue and a random element that lets protesters slacken occasionally, produces contingent and variable cycles among issues.**
- **The next few plots show some examples.**

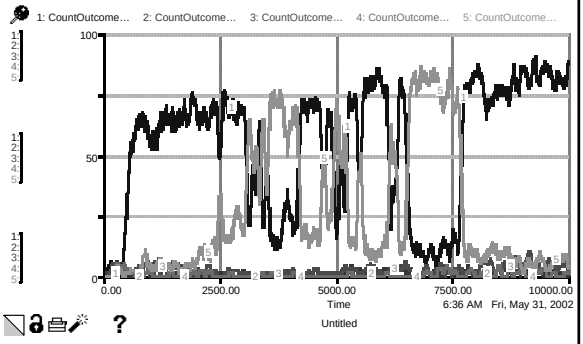
Example of Two Actors Alternating



Example of actors taking turns across iterations



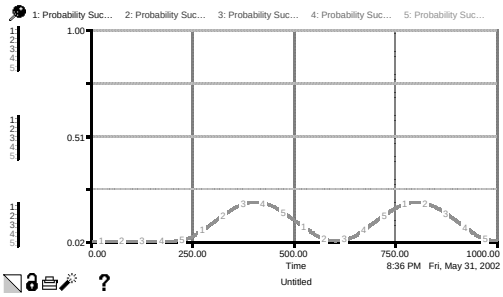
Two actors compete for dominance



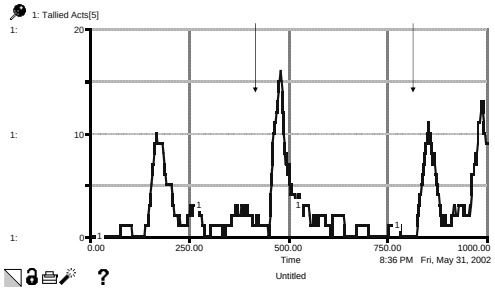
Variability in news hole size

- **Newspaper news holes are driven by ads, and vary cyclically**
  - **Weekly**
  - **Seasonal**
  - **Economic trends (generic and specific to the news organization)**
- **Newspaper news holes change when layout, font sizes, etc. change**
- **These mundane changes can affect the news coverage of particular issues and, through feedback effects, the movements themselves**

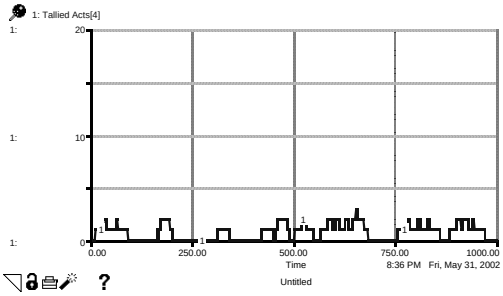
Sin wave probability of success



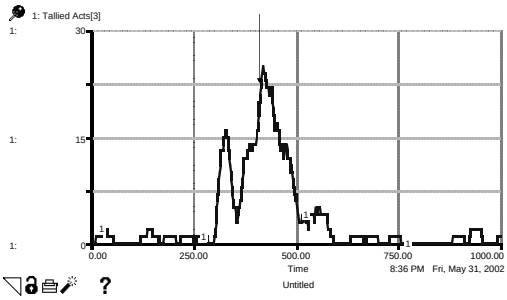
This actor randomly generated action before the probability went up



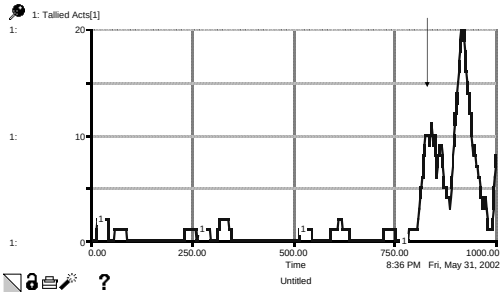
This actor's actions were never reinforced, despite shifting probabilities



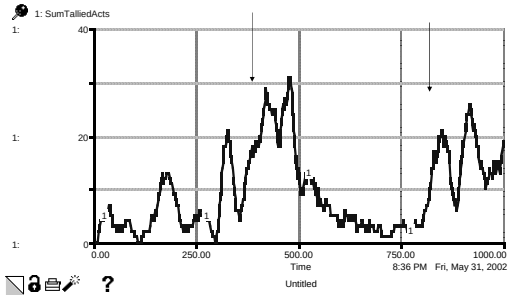
This actor was influenced by the first cycle but not the second



This actor responded to the second cycle but not the first



Summing across 5 actors shows more influence of the cycle



News as Data and Action

Selection bias and coevolution as an integrated theory of the relation between news, politics, and protest

The vision

- **Theorize the underlying interactive reinforcement relationships**
- **Theorize the logic of news media selection processes, especially the news hole effects**
- **Use simulations to test whether patterns in the observable news data (coupled with cross-validation checks) can be diagnostic of the underlying relationships that generated them**
- **Struggling with the methodological problem opens the door to a new world of theorizing**