Policy Conflict Framework

with Illustrations from Some Decent Data on Oil and Gas Politics in Colorado

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Policy Conflict Framework

• Conflict over public policy issues or “policy conflict” tends to be a concept in the theoretical background in much of political science and public policy – it needs to be brought to the theoretical foreground

• Policy Conflicts may occur across three polycentric levels of action: political system, policy subsystem, and policy action situation (venue)

• Model of the Individual

• Policy conflicts are integral – but neither good nor bad – in shaping the outcomes of governance and politics of any society.
Fig. 1 Flow diagram of the Policy Conflict Framework
Fig. 2 Intensity spectrum of policy conflicts
Illustrative Population Distributions of Policy Actor’s Aggregated Policy Conflict Intensity
Some Primary Dynamics of Policy Conflicts

• The intensity of the cognitive and behavioral characteristics across individuals vary (and thus also for collective …)

• Policy conflicts are dynamic not static & episodes of policy conflicts are interdependent and evolve over time

• Cognitive and behavioral characteristics of policy conflict will correspond, possibly in complex ways

• Policy conflicts and settings condition each other

• Policy conflicts are unequal

• Many policy conflicts are often about structuring government to suppress or allow them.

• Others…
Matt Damon: the water has been on fire since 1669.

Fracking = Jobs

Projected a few years off:
Economic benefits as high as:

NO FRACKING

Protect Our Rights
Save Our Future
Natural Gas Nov
Illustrations with Hydraulic Fracturing Debates in Colorado and the U.S.
Policy Conflict Framework

Attributes of Policy Setting

- Levels of Action
  - Political System
  - Policy Subsystem
  - Policy Action Situation
- Policy Actors
- Events
- Policy Issue

Policy Conflict

- Cognitive Characteristics
- Behavioral Characteristics

Feedback

- Outputs
- Outcomes
Policy Conflict Framework: Today’s Focus

Attributes of Policy Setting
- Levels of Action
  - Political System
  - Policy Subsystem
  - Policy Action Situation
- Policy Actors
  - Events
  - Policy Issue

Policy Conflict
- Cognitive Characteristics
- Behavioral Characteristics

Feedback
- Outputs
- Outcomes
### Policy Conflict Characteristics

#### Cognitive Characteristics

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Divergence in policy positions</strong></td>
<td>The degree to which actors express differences on the formation, adoption, or implementation of public policies.</td>
</tr>
<tr>
<td><strong>Degree of perceived threats from policy positions of others</strong></td>
<td>The degree to which actors believe that the policy positions of others will impose costs, harm, or other negative consequences to themselves or society.</td>
</tr>
<tr>
<td><strong>Unwillingness to compromise</strong></td>
<td>The degree to which policy actors are willing to change their views on a policy position.</td>
</tr>
</tbody>
</table>

#### Behavioral Characteristics

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Political strategies or tactics</strong></td>
<td>Efforts by individuals to directly (e.g., lobbying, voting) or indirectly (e.g., narrative debates, forming coalitions, organizing protests) influence outputs and outcomes and how those efforts are conducted.</td>
</tr>
</tbody>
</table>
Policy Actor Attributes That Condition Policy Conflict Characteristics

1. Intrapersonal attributes
   - Deep core beliefs
   - Policy relevant knowledge
   - Risk and benefit perceptions
   & rigidity of perceptions

2. Interpersonal attributes
   - Network insularity
   - Organizational affiliation
Hydraulic fracking makes it possible to extract large amounts of natural gas by drilling into rock to depth of 7,000 feet or more. Here's how it works:

1. Pumper truck
2. Sand, water, and chemicals are pumped into ground at high pressure to fracture shale
3. Fractures enable natural gas to flow into the well
4. Natural gas flows out of well and stored in tanks
5. Recovered water stored in pit before treatment

Oil and Gas Wells of Colorado courtesy of COGCC
Summary of Research Methods

**Study Population**

‘Policy Actors’ (Govt., NGOs, Industry, Consultants, Academics, etc.)

**Study Location**

Colorado

**Data**

1. Policy actor interviews (n=9)
2. 2015 survey to 456 policy actors with 236 responding (52%)
Measures of Cognitive Conflict Characteristics

**Divergent positions**
Please indicate what comes closest to your current position in relation to oil and gas development that uses hydraulic fracturing. It should be …

**Perceived threats**
Do the views and actions of those you disagree with on oil and gas development that uses hydraulic fracturing threaten you personally / threaten you professionally…?

**Unwillingness to compromise**
I would support government decisions that would significantly EXPAND [LIMIT OR STOP] oil and gas development that uses hydraulic fracturing in Colorado if...

**Cognitive Index**
Re-scaled each individual dimension (1-3); then multiplied across the three dimensions
Measure of Behavioral Conflict Characteristics

Over the past two years have you engaged in the following activities: mobilizing the public, providing information to the news media, countering arguments from opponents, coordinating with allies, providing information to government officials, sharing opinions with government officials, and brokering agreements between parties?

If respondents engaged in these activities, they were coded as a 1 and 0 if not engaged.

Added the eight response items into an index to measure the level of behavioral characteristics (on a scale of 1-8) for each respondent.
Measures of Intrapersonal Attributes

Deep Core Beliefs
When it comes to politics, do you usually consider yourself…. (extremely liberal, liberal, moderate, conservative, extremely conservative)

Policy Relevant Knowledge
Please indicate your level of experience related to oil and gas development and/or operations with the following…
Please indicate your highest educational degree….

Risk/benefit perceptions
To what extent do you agree or disagree that the following are potential benefits / potential risks of oil and gas development that uses hydraulic fracturing….
Since I became involved or aware of oil and gas development that uses hydraulic fracturing… I have become more/less convinced / views have not changed
Measures of Interpersonal Attributes

Insular Networks
To what extent are the interactions with the following groups important in achieving your personal and professional goals related to oil and gas development that uses hydraulic fracturing…

Organizational Affiliation
Coded respondent affiliations by sector and type (Industry, Env/citizen group, Government)
Results:

Density-Distribution Sunflower Plot for Conflict Composite and Behavioral Composite Indexes
## Results: Ordered Logit Models

<table>
<thead>
<tr>
<th></th>
<th>Cognitive Composite Index</th>
<th>Behavioral Composite Index</th>
<th>Cognitive &amp; Behavioral Composite Index</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Intrapersonal Attributes</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Political Ideology</td>
<td>0.69*</td>
<td>1.03</td>
<td>0.74</td>
</tr>
<tr>
<td>Experience</td>
<td>0.96</td>
<td>1.25***</td>
<td>1.10**</td>
</tr>
<tr>
<td>Education</td>
<td>0.89</td>
<td>1.22</td>
<td>1.03</td>
</tr>
<tr>
<td>Risk-Benefit Perceptions</td>
<td>1.06</td>
<td>0.98</td>
<td>1.02</td>
</tr>
<tr>
<td>Risk-Benefit Rigidity</td>
<td>3.02***</td>
<td>1.42</td>
<td>3.16***</td>
</tr>
<tr>
<td><strong>Interpersonal Attributes</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Insular Networks</td>
<td>1.39***</td>
<td>0.94</td>
<td>1.28**</td>
</tr>
<tr>
<td>Oil &amp; Gas Industry Affiliation</td>
<td>3.23**</td>
<td>0.85</td>
<td>2.39**</td>
</tr>
<tr>
<td>Env. or Citizen Group Affiliation</td>
<td>1.53</td>
<td>3.18**</td>
<td>3.51**</td>
</tr>
<tr>
<td>Cognitive Composite Index</td>
<td>--</td>
<td>1.02</td>
<td>--</td>
</tr>
<tr>
<td>Behavioral Composite Index</td>
<td>1.19**</td>
<td>--</td>
<td>--</td>
</tr>
</tbody>
</table>
Policy actors involved in hydraulic fracturing debates in Colorado exhibit varying degrees of conflict characteristics.

People exhibiting high levels of behavioral characteristics, exhibit both high and low levels of cognitive characteristics.

Behavioral characteristics may precede cognitive characteristics, could be reflective of a more mature subsystem.
Conclusions (2)

Policy actor attributes are associated with conflict characteristics, but relate to cognitive and behavioral differently

1. **Interpersonal** – especially experience and rigidity of risk/benefit perceptions
2. **Intrapersonal** – especially insular networks and organization

But these attributes may play out differently in other contexts
Conclusions (3)

The PCF requires applications in other settings and over time.

How we measure the components of PCF may differ depending on data source.

PCF can be compatible with policy process theories, but more research is needed in linking other policy concepts (e.g. the ACF’s conceptualization of coalitions) to measures of conflict.
Past, Current, and Future Effort to Understand Policy Conflicts on Oil & Gas Development

1. Provided an overview of the PCF (see Weible & Heikkila, 2017 in *Policy Sciences*)

2. Linked policy setting to cognitive characteristics of policy conflict (see Heikkila & Weible, 2017 in *Policy Sciences*)

3. Compared over hydraulic fracturing conflicts in Colorado to the National level (see Heikkila et al. 2017 in *Environment Magazine*)

4. Submitted the paper behind this presentation to a journal

5. Plan to write a book pulling it all together

6. Waiting on final confirmation for a recommended grant award from the NSF grant to continue this effort across 15 states

7. Working on automating polycentricity of public policies and relating this to measures of conflict
Thank You

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