The Fractal Polity
Why Schröder Failed at the Second Term

Haiko Lietz
Department of Sociology
Columbia University
hl@haikolietz.de
A Question of Governance

Two years ago: Red-Green government coalition under chancellor Gerhard Schröder failed during the second term

Agenda 2010: Shift of governance in labor policy domain from state to market transactions

Situation: Narrow gov’t majority in lower house, strong opposition majority in upper house

How can we explain Schröder’s failure of governance? (by just dealing with the lower house)
How can we explain Schröder’s failure of governance?

Success and failure = Policy outcomes

How is policy outcome produced?

Outcome = Action

How does social structure constrain action?

What is social structure?

Emergence and self-similarity are the keys
Neither “Network” nor Hierarchy

Policy networks as a *form of governance* between market and hierarchy
Criticism: implies that markets and hierarchies are not networked processes

**Interest intermediation school** (Marsh & Rhodes 1992)
Policy networks as *meso-level analytical concept* for institutionalized relations between state and civil society
Criticism: implies that micro-level of individual interaction and macro-level of social structure are not networked processes

**Networked Polity** (Ansell 2000)

*Networked polity* is a complex system of policy interest intermediation that embeds *networked organizations* which are themselves complex systems

**Heterarchy** (Hedlund 1994, Stark 1999): complex adaptive system of organization
**Heterarchy as Alternative Form of Governance to Hierarchy**

<table>
<thead>
<tr>
<th></th>
<th>Hierarchy</th>
<th>Heterarchy</th>
<th>“Network”</th>
<th>Market</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Communication</strong></td>
<td>asymmetrical</td>
<td>symmetrical</td>
<td>symmetrical</td>
<td>both</td>
</tr>
<tr>
<td><strong>Aggregation of Components</strong></td>
<td>centralized</td>
<td>decentralized</td>
<td>decentralized</td>
<td>none</td>
</tr>
<tr>
<td><strong>Self-organization</strong></td>
<td>no</td>
<td>yes</td>
<td>yes</td>
<td>none</td>
</tr>
<tr>
<td><strong>Organization of Diversity</strong></td>
<td>yes</td>
<td>yes</td>
<td>no</td>
<td>none</td>
</tr>
<tr>
<td><strong>Form of Governance</strong></td>
<td>yes</td>
<td>yes</td>
<td>no</td>
<td>no</td>
</tr>
</tbody>
</table>
Structural theory of social action (Harrison White Forthcoming)

A systemic perspective on social organization

... – Atoms – Molecules – Cells – Tissues – Organs – Organisms – biophysical Components

... – Persons – Groups – Communities – Crowds – ...

Feedback / Constraint

Higher levels emerge out of, and constrain, component interactions
Central concepts

**Identities** are the social components

Identities seek **control** (“footing”) in stochastic environment, amidst contenting control projects

Control by **avoiding social stress** (mismatch)

As identities settle and cluster they embed into “**social molecules**” called “**disciplines**”

Disciplines **steer** identity interaction
Identity and Control: Social “Arena” Molecule

Steers selection processes
Reduces social stress by severing ties to “impure” identities
Example: homophily inside political parties

Deterministic model first proposed by Barabási, Ravasz & Vicsek (2001)
Identity and Control: Social “Interface” Molecule

Steers flows
Identities commit to ensure quality of flow
Example: formal governance (hierarchy)

Deterministic model first proposed by Barabási, Ravasz & Vicsek (2001)
Deterministic model first proposed by Barabási, Ravasz & Vicsek (2001)

Identity and Control: Social “Council” Molecule

- Steers mediation processes
- Identities interact on the basis of prestige
- Example: informal governance (heterarchy)
Central concepts (cont’d)

**Institution**: a social process **taken for granted**, evolved and stable social structure (**skeleton** of social structure)

**Style**: **profile of uses** of institutions, “**sensibility**” towards other identities and their styles (**heartbeat** of social structure)

Identities seek control by **enacting styles on different levels**

Social structure is social space-time: Process is structure, structure is action

**Persons** already are complex emergent forms

Social structure has a fractal dimension
**Agenda**: Understanding of something that needs to be achieved

**Success**: Enactment of style, implementation of agenda

---

**Problem**: If styles are enacted rigorously, orderly structure will block action

**Solution**: “Getting action must continue to break u the hardening crust of issues and interests which congeal continually to block action.” (White Forthcoming: 7.3.2.)
Successful governance: implementation of gov’t agenda, embedding of style in the institution of legislation

Sufficient condition: enactment of gov’t style by coalition deputies

Necessary condition: heterarchical self-organization of coalitional and oppositional diversity to exploit the friction

Hypothesis: Either condition was not fulfilled in unsuccessful policy domains
Table 1: Number of affiliations of deputies in committees and non-parliamentary organizations

<table>
<thead>
<tr>
<th>Deputies</th>
<th>N</th>
<th>SPD</th>
<th>CDU/CSU</th>
<th>Green</th>
<th>FDP</th>
<th>PDS</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Committees</strong></td>
<td></td>
<td>532</td>
<td>496</td>
<td>116</td>
<td>94</td>
<td>2</td>
<td>1240</td>
</tr>
<tr>
<td><strong>Public</strong></td>
<td></td>
<td>192</td>
<td>249</td>
<td>30</td>
<td>33</td>
<td>—</td>
<td>504</td>
</tr>
<tr>
<td><strong>organizations</strong></td>
<td></td>
<td>877</td>
<td>686</td>
<td>145</td>
<td>150</td>
<td>6</td>
<td>1864</td>
</tr>
<tr>
<td><strong>Private</strong></td>
<td></td>
<td>152</td>
<td>303</td>
<td>29</td>
<td>55</td>
<td>—</td>
<td>539</td>
</tr>
<tr>
<td><strong>organizations</strong></td>
<td></td>
<td>128</td>
<td>5</td>
<td>9</td>
<td>—</td>
<td>2</td>
<td>144</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td>1881</td>
<td>1739</td>
<td>329</td>
<td>332</td>
<td>10</td>
<td>4291</td>
</tr>
</tbody>
</table>

Notes: Numbers in brackets are primary affiliations. Table shows only data for deputies that serve in committees. Public organizations: ministries, statutory corporations, agencies, etc.; private organizations: associations, clubs, foundations, think-tanks, etc.
* p < 0.01 (qui-square test for all affiliations except committees)
2-mode network of all 601 deputies and their affiliations

Color codes: SPD (red), CDU (black), CSU (blue), Greens (green), FDP (yellow), PDS (orange). Grey nodes are organizations. Size of nodes is degree.
Results

Scale-free property

Power-law degree distribution for the full parliament.
Scaling exponent is 0.94. R-squared (adjusted) is 0.74.

Small-world properties

Clustering Coefficient and Average Distance for the substructure of the full parliament
**Research Design**

**Foreign Policy Domain**: successful, mandate of armed forces repeatedly extended in 2002, 2003, and 2005 by large majorities in coalition and opposition

**Labor Policy Domain**: induced failure of whole government, caused demonstrations and “bad press”

Organizations selected that were relevant to the domain (Laumann & Knoke 1987)

2-mode networks are transformed into directed and undirected 1-mode networks (Breiger 1974):

<table>
<thead>
<tr>
<th>Affiliation of deputy A</th>
<th>Affiliation of deputy B</th>
</tr>
</thead>
<tbody>
<tr>
<td>Primary</td>
<td>Primary</td>
</tr>
<tr>
<td>A←B</td>
<td>A→B</td>
</tr>
<tr>
<td>Secondary</td>
<td>Secondary</td>
</tr>
<tr>
<td>A←B</td>
<td>A B</td>
</tr>
</tbody>
</table>
Results: *Foreign Policy Domain* (N = 140)

Prime example of **heterarchical** organization

Both coalition and opposition well positioned to organize their agendas: high densities from organizations in principal agreement with the gov’t agenda

**E-I Index** (Krackhardt & Stern 1988):

\[ E-I = \frac{\text{bridges} - \text{non-bridges}}{\text{realized ties}} \]

Between -1 (full polarization) and 1 (no internal ties)
Results: Labor Policy Domain (N = 95)

Coalition deputies mass-affiliated to unions and workers milieu org’s

Coalition deputies’ agenda **differed from gov’t agenda**

Highly negative E-I score
Initial question: How can we explain Schröder’s failure of governance?

Social structure emerges from, and constrains, the enactment of style by identities across different levels.

Avoidance of stress results in social “order” that comes to block action.

Fresh action necessarily confronts and exploits diversity: heterarchy.

Agenda 2010 contradicted the agenda of those deputies that were supposed to implement it.

At the same time Red-Green gov’t was successful: other policy domains.

Promising results, but more data needed.
**Heterarchy** is multi-level concept:
Person (White Forthcoming)
Firm level (Stark 1990, Beunza & Stark 2004)
Industrial production system (Nishiguchi & Beaudet 2000)
Economy (Stark 2001)
Urban governance (Davies 2005, Kearns & Paddison 2000)
Parliament

Our **institutions** are organized hierarchically:
Parties, parliaments

The **sociological concepts** we use are self-similar:
Discipline, style

*It is a fractal polity*
Real networks well described by **deterministic models** (Ravasz & Barabási 2005)

**Construction**: adding quadrads between modules: weak heterarchical organization

Hierarchy of correlated **hubs** and **community structure** emerge (Newman & Park 2003)