A large crowd of kayakers in a harbor with an offshore oil rig in the background. The kayakers are in various colored kayaks (yellow, blue, red, green) and are paddling towards the camera. The oil rig is a large yellow structure with a tall tower and cranes, situated in the background. The sky is overcast and grey. The water is dark and calm. The kayakers are wearing life jackets and some have flags on their kayaks. The overall scene suggests a protest or a large-scale environmental demonstration.

# Linking Action to Meaning in Complex Data

Laura K. Nelson  
Northeastern University

# Social Movements

Group *action*, oriented toward a collective *goal* of promoting or halting social change.

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Group *action*, oriented toward a collective *goal* of promoting or halting social change.

Actions:

- Lobbying
- Mass protest
- Boycotts
- Social media campaigns
- Collective gardening
- Art shows / music festivals

# Social Movements

Group *action*, oriented toward a collective *goal* of promoting or halting social change.

Goals:

- Policy and legal change
- Regulations
- New institutions / transform institutions
- Cultural change
- Discursive change
- Individual behaviors and practices

# Social Movements

Group *action*, oriented toward a collective *goal* of promoting or halting social change.

## Mission?

**Discourse** connects a series of actions  
and claims into a coherent **mission**.

(Benford and Hunt 1992; Brulle 2000; Ferree et al. 2002;  
Laclau and Mouffe 2001; Snow et al. 1986; Benford and Snow 2000)

Full Ecology of Claims  
Full Ecology of Tactics

Full Ecology of Claims  
Full Ecology of Tactics  
??

Mission:

Discourse connecting these two ecologies



# Case Study: The Environmental Movement



# Patterns through diversity:

- Environmental Movement Organizations (527 total)
- Data: News Media Sources (406 total, >350,000 articles)
- Goals and Tactics (not just policy change and protest)

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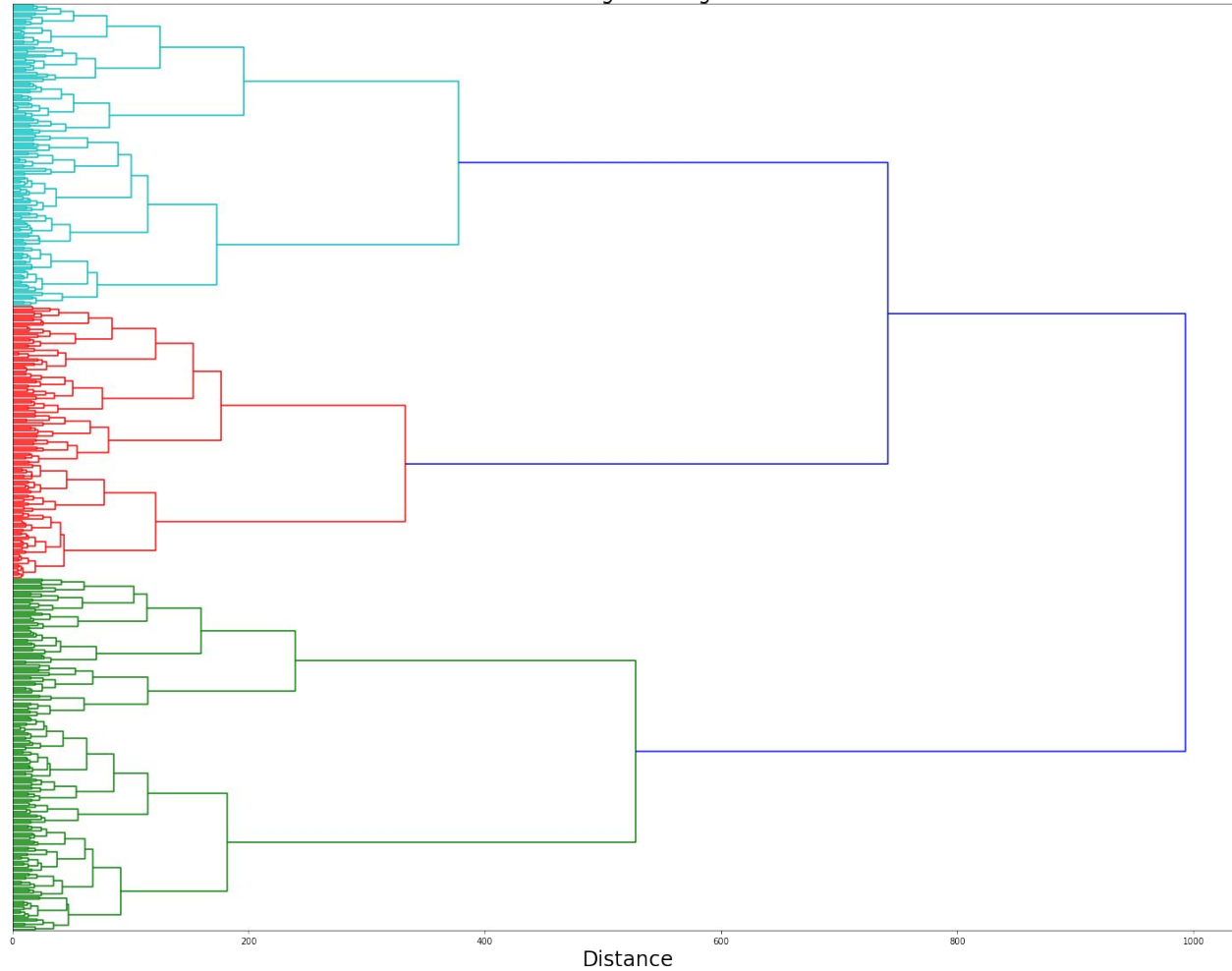
## Methods:

- Data-driven, inductive, interpretive
- C-H-C`
- topic models; hierarchical clustering; POS tagging

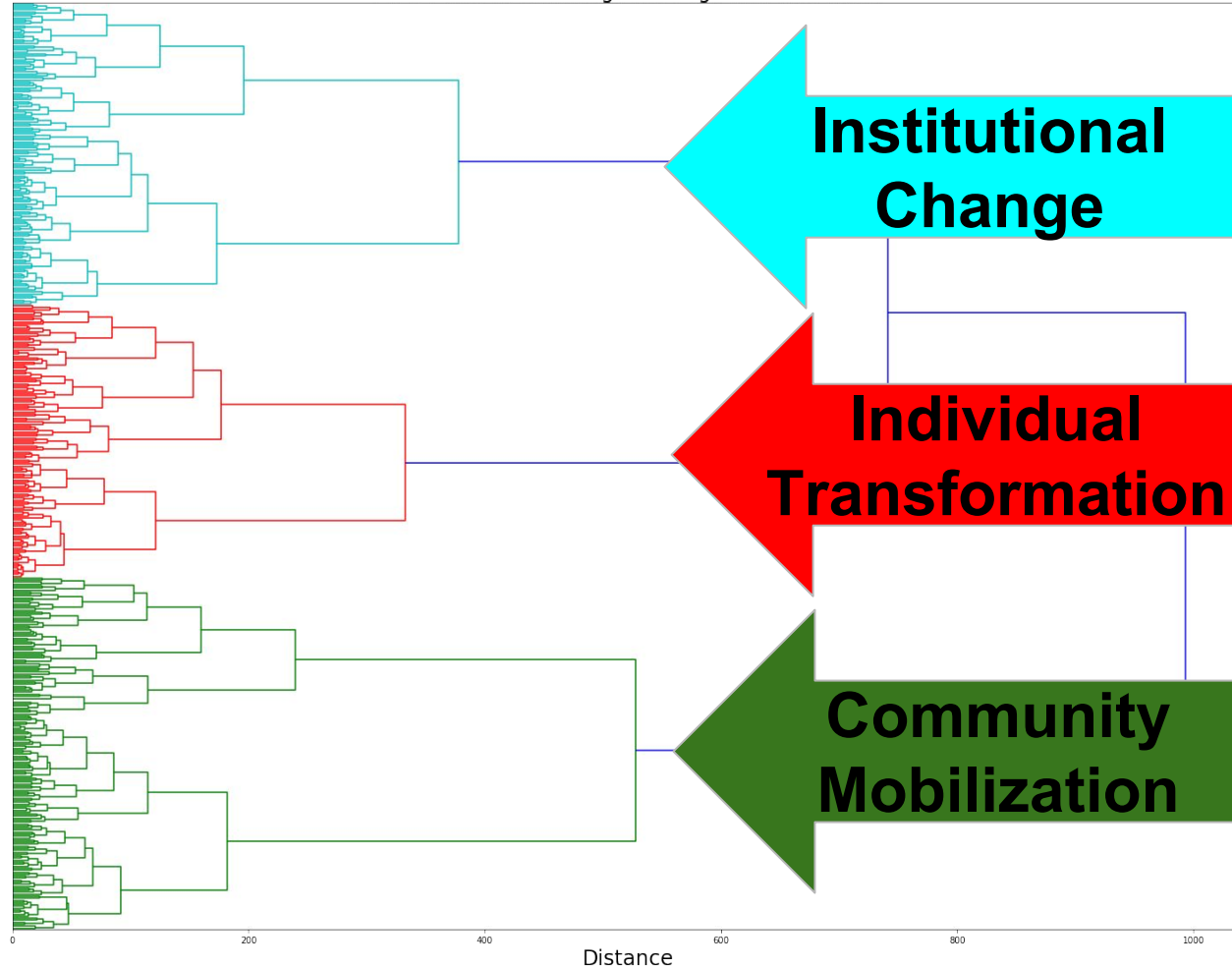
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Hierarchical Clustering Dendrogram: 1998-2014



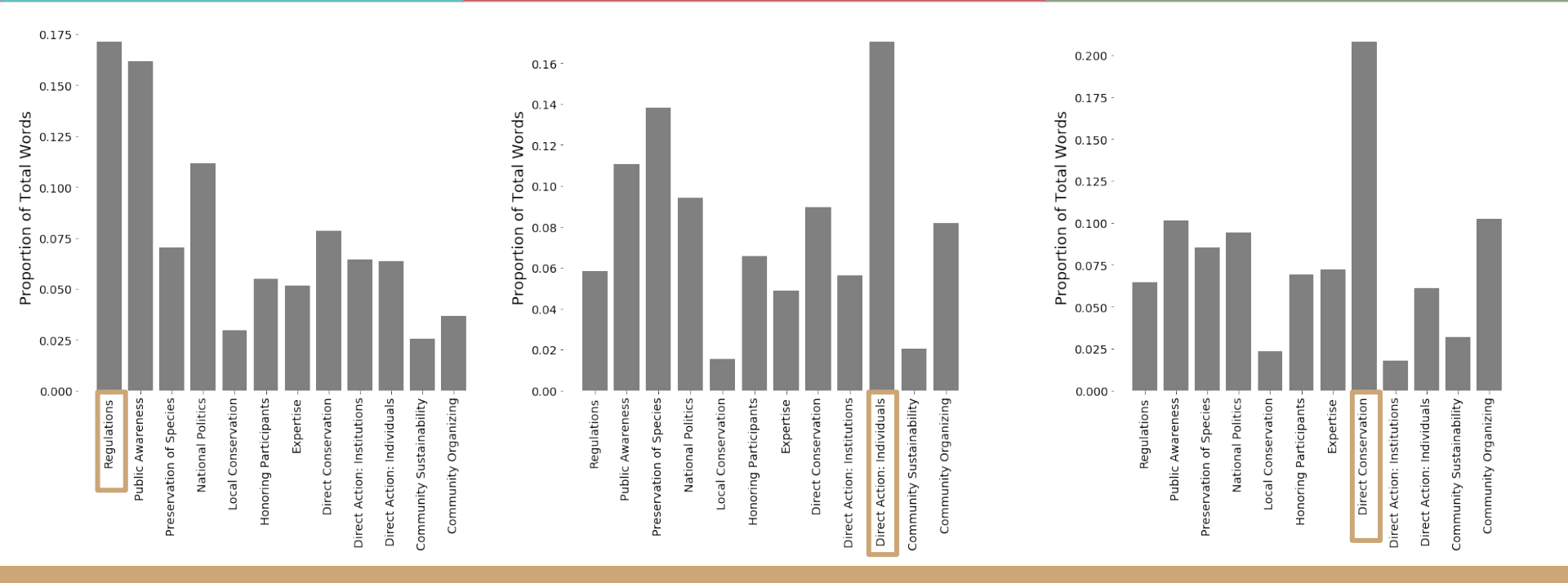
Hierarchical Clustering Dendrogram: 1998-2014



# Goal-Orientation

What level of society is responsible for change?

Institutional Change	Individual Transformation	Community Mobilization
Greenpeace WWF Sierra Club UN Environ. Program	PETA Humane Society National Wild Turkey Fed. Defenders of Wildlife	Nature Conservancy Ducks/Trout Unlimited National Wildlife Federation National Audubon Society





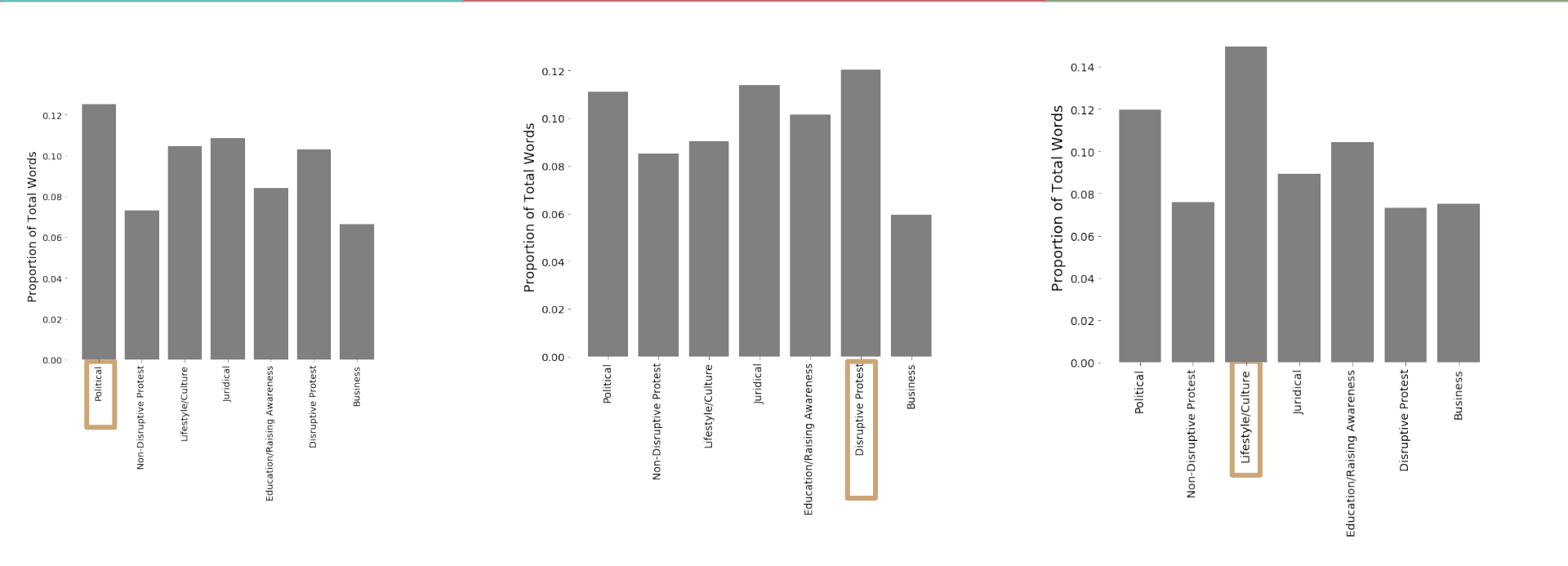
# What do organizations do?

Non-Disruptive Protest	Disruptive Protest	Political	Juridical	Education/ Raising Awareness	Direct Environmental Protection	Lifestyle/ Culture	Business
chant	blockade	campaign	audit	editorial	build	kayak	boycott
demonstrate	chain	donate	enforce	outreach	improve	harvest	brand
organize	prevent	elect	inspect	publish	preserve	trek	downsize
petition	damage	endorse	represent	report	protect	cycle	export
protest	sabotage	regulate	testify	tweet	recycle	cook	subsidize
challenge	naked	amend	prosecute	teach	pollinate	beekeep	purchase
rally	obstruct	debate	summon	distribute	retrofit	appreciate	sponsor
march	rappel	ratify	ban	study	volunteer	backpack	certify
parade	videotape	repeal	fine	write	weed	garden	assess

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# How do actions gain meaning?



## 7 Great Tips from Guides

Top waterfowling pros offer sage advice for honing your duck and goose hunting skills



Photo © David Patterson

9 MIN READ

By John Pollmann

When it comes to waterfowling, professional guides have a decided advantage over the rest of us. It's what they do for a living. They spend more days afield and have the inside track on where to find the birds and how to lure them into shooting range. Fortunately, some guides are willing to [share their secrets](#). Here's the inside scoop from seven of the nation's top waterfowling experts on how you can improve your chances for success next season.

# Tactic = Hunting

[About](#)[Hunting](#)[Conservation](#)[Events](#)[Resources](#)

Hunt Wild Turkeys

## The ABCs of hunting wild turkeys



A

**Ammunition** — One of the necessities for turkey hunting, ammunition (ammo) refers to turkey shot shells that are loaded into the firearm and used to harvest a turkey. Turkey loads typically have higher pellet counts than other hunting shot shells.

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## Community Mobilization

## Individual Transformation







**Tactic = Buycott**





# Tactic = Buycott

Community Mobilization ↗

Individual Transformation ↘



# KEEP AMERICA BEAUTIFUL PRESENTS



**Tactic = Recycling**



**WHERE IS YOUR E-WASTE BEING SHIPPED TO?**

Watch Citizens at Risk and find out.



# KEEP AMERICA BEAUTIFUL PRESENTS



**Tactic = Recycling**



Community Mobilization

Institutional Change



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# What did we learn?

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"You're right. It's not much of a mission statement."

# Discourse Connecting Actions to Meaning



C - H - C'

## Computers + Humans

