INTERPRETATION, MEASUREMENT AND MIXED METHODS

Tuukka Ylä-Anttila

HELSINGIN YLIOPISTO
HELSINGFORS UNIVERSITET
UNIVERSITY OF HELSINKI

Valtiotieteellinen tiedekunta

WHO AM I AND WHAT DO I DO?

- **Tuukka Ylä-Anttila, PhD (sociology) 2017 (University of Helsinki)**
  - "The Populist Toolkit: Finnish Populism in Action 2007–2016"
    - Data: texts by Finns Party, its candidates, and its supporters; online discussions
    - Methodological framework: interpreting far-right 'discourse' (broadly speaking)
      - But not with (poststructuralist) 'discourse theory' (Laclau, Foucault etc.)
      - Rather: justification theory (Boltanski & Thévenot), political sociology (Swidler), theory of populism (Canovan, Laclau, Moffitt, Taggart…)
      - Motivation to measure: super contentious political topic, many scholars also political
        - Which is fine if you're open about it!
        - Still, to explain meanings you should try to understand (Weber: *Verstehen)* (doesn't mean accepting)
        - Basic research striving at non-normativity also important (Aslanidis 2017; Hansen 2016): e.g. to what extent do right-wing populists *really* oppose experts? (Ylä-Anttila 2018) (typical answer: it's more complicated…)

MY METHODOLOGICAL STARTING POINT

- **Qualitative text analysis:**
  - Whatever your theory, you closely read texts and find repeating meaning-patterns
    - Discourses, frames, justifications…
- **Justification theory (Boltanski & Thévenot)**
  - In disputes, people justify their position based on certain culturally shared foundations
    - "civic" (equality)
    - "industrial" (efficiency)
    - "market" (money)
    - "inspired" (spirituality)
    - "fame" (celebrity)
    - "domestic" (tradition)

justification: environmental

justification: equality

"Unchecked climate change will place the world's natural resources under incredible stress … It will hit the poorest hardest and fastest, but none of the world's 6.8 billion people will be exempt. Science tells us that if we don't act now, an estimated 1 billion people will be uprooted because of climate change between now and 2050." – Kumi Naidoo, Executive Director, Greenpeace International, New York Times 10 Dec 2009

justification: scientific

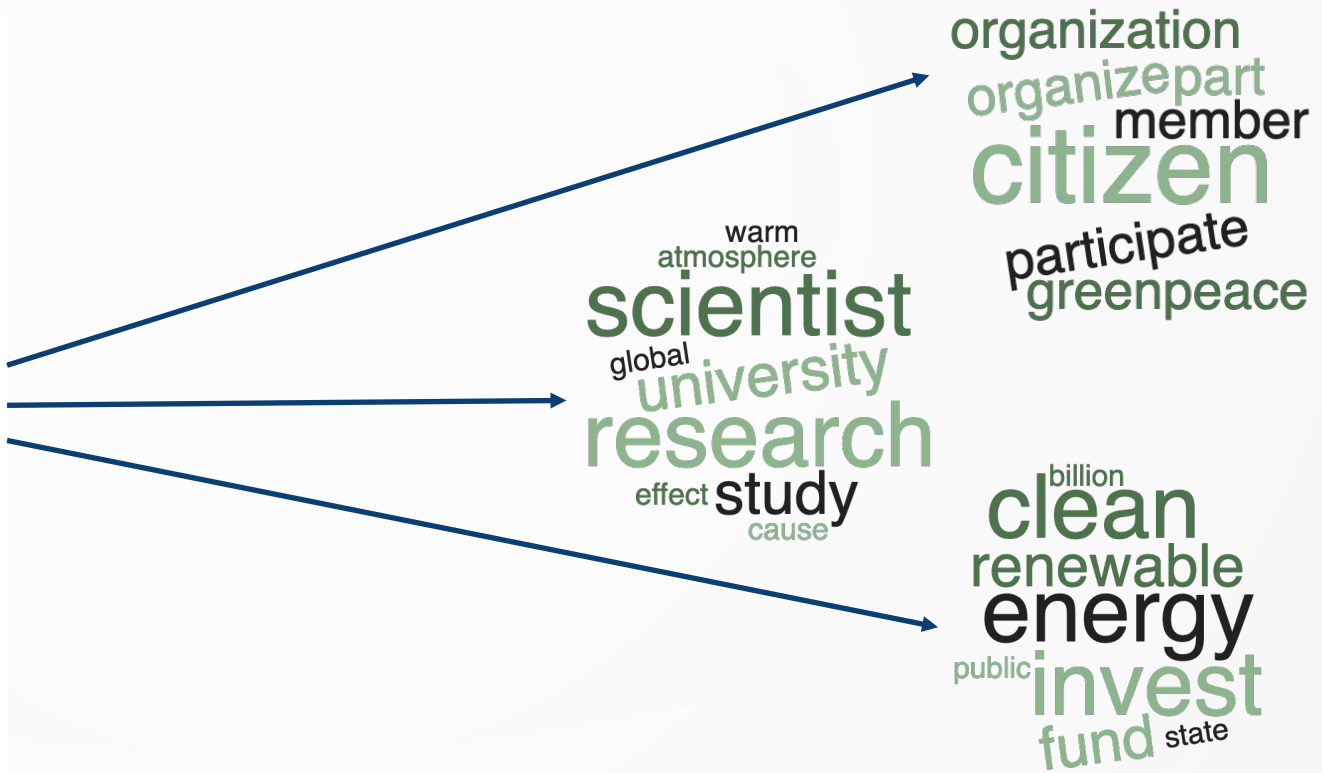
Table 4. Codebook and respondents for Question 28 on municipal administrations (%)

	Rural	Urban	Total
Opposed to state-led consolidation	80	68	73
Regional democracy and services (civic)	20	32	27
Economic efficiency (industrial)	18	22	20
Anti-elitism	8	7	8
Local way of life (domestic)	4		2
For state-led consolidation	14	12	13
Regional democracy and services (civic)			
Economic efficiency (industrial)	6	3	4
Anti-elitism			
Local way of life (domestic)		3	2
(n)	(49)	(69)	(118)

The way of life and values of residents must also be taken into account, a municipality is not a production unit, but a home [”*kunta ei ole tuotantoyksikkö, vaan koti*”]. Everything cannot be measured in money. (M, 37, Pyhtää, rural)

FIRST COMPUTATIONAL IDEA:

- **Could computers identify justifications in text? There could be two benefits:**
  - 1. Larger datasets analysed faster, 2. Maybe a new perspective, find something new
- **Let's try topic modeling (Ylä-Anttila, Eranti & Kukkonen [2014] 2021)**



TOPIC MODELING

List of Topics

1. indian sea water increas forest today ocean region risk rate
2. level rise year temperatur increas degre cent global small panel
3. st ja vuoden pit eu ne mukaan ymp jos ll
4. nation unit state treati commit economi major respons american recent
5. action week copenhagen project hope plan strong forward repres month
6. concern clear don give document tax accept base thing main
7. warm global scientist research univers atmospher caus studi effect releas
8. issu work group polit intern set damag paper loss challeng
9. emiss cut greenhous industri gas gase call system adopt declar
10. part make citi organis green member differ number initi greenpeac
11. econom technolog cost compani energi fuel power money price mani
12. china target reduct chines growth intens current reduc plan oblig
13. climat chang dr address fight real tri make model word
14. peopl govern environ environment protect campaign tree speak everi human
15. copenhagen leader summit deal accord bind agreement end legal told
16. meet minist confer mr day prime singh thursday announc attend
17. negoti kyoto agreement effort rich global agre protocol put promis
18. ett ja ovat ei mp se eiv ole ilmakeh singer
19. mr made director institut senat polici critic ad lead signific
20. india posit draft includ interest ramesh parti south text china

TOPIC : indian sea water increas forest today ocean region risk rate ...

top-ranked docs in this topic (#words in doc assigned to this topic)

2. (130) s__pro_exp15.txt-667words.txt
3. (97) s__pro_gov246.txt-477words.txt
4. (85) s__pro_exp13.txt-467words.txt
5. (62) s__pro_exp153.txt-301words.txt
6. (48) s__pro_exp158.txt-458words.txt
7. (47) s__pro_multigov77.txt-335words.txt
8. (47) s__pro_exp162.txt-249words.txt
9. (43) s__pro_gov247.txt-897words.txt
10. (43) s__pro_exp157.txt-98words.txt
11. (39) s__pro_exp79.txt-2176words.txt
12. (38) s__pro_ind63.txt-309words.txt
13. (35) s__processed_civicorg12.txt-346words.txt
14. (32) s__pro_exp163.txt-108words.txt
15. (32) s__pro_exp159.txt-415words.txt
16. (21) s__pro_exp26.txt-125words.txt
17. (19) s__processed_civicorg23.txt-107words.txt
18. (18) s__pro_intergov72.txt-555words.txt
19. (18) s__pro_exp35.txt-211words.txt
20. (17) s__pro_exp56.txt-476words.txt

1. Intense Lobbying Against Global Warming Treaty

NYT U.S. By JOHN H. CUSHMAN Jr.Published: December 7, 1997

WASHINGTON, Dec. 6— If the Clinton Administration is struggling to strike a deal on global warming at talks in Kyoto, Japan, that is partly because warring domestic interest groups have spent many months -- and millions of dollars -- on highly effective lobbying campaigns designed to limit the White House's options.

Environmental groups, traditionally closely allied with the Administration, have succeeded in convincing the public that the threat of climate change caused by emissions of greenhouse gases is a settled scientific reality that must be confronted head-on. They say the Administration's proposal for a treaty is too mild, and that a European alternative would be better.

But powerful business interests have emphasized the economic risks and the need to bring developing countries into any binding new treaty, arguments that have strongly influenced the Senate, where any pact must be ratified. They say the Administration is going too far and too fast, the more so since the Third World is balking at a bigger role.

The private-sector lobbying, more intense, prolonged and costly than usual in the realm of diplomacy, has reached a fevered pitch this week in Kyoto, but it has been playing out in Washington for years.

The antagonists include big corporations with revenues larger than the economies of little nations, labor unions with more members than some countries' armed forces, industrial trade associations with headquarters grander than embassies, and a corps of professional environmentalists that rivals the diplomatic corps in polish and pinstripes.

''It is as if a large chunk of the lobbying community from the capital has been transported from Washington to Kyoto for two weeks,'' Senator Joseph Lieberman, Democrat of Connecticut, marveled in a telephone interview from Kyoto, where he is an observer.

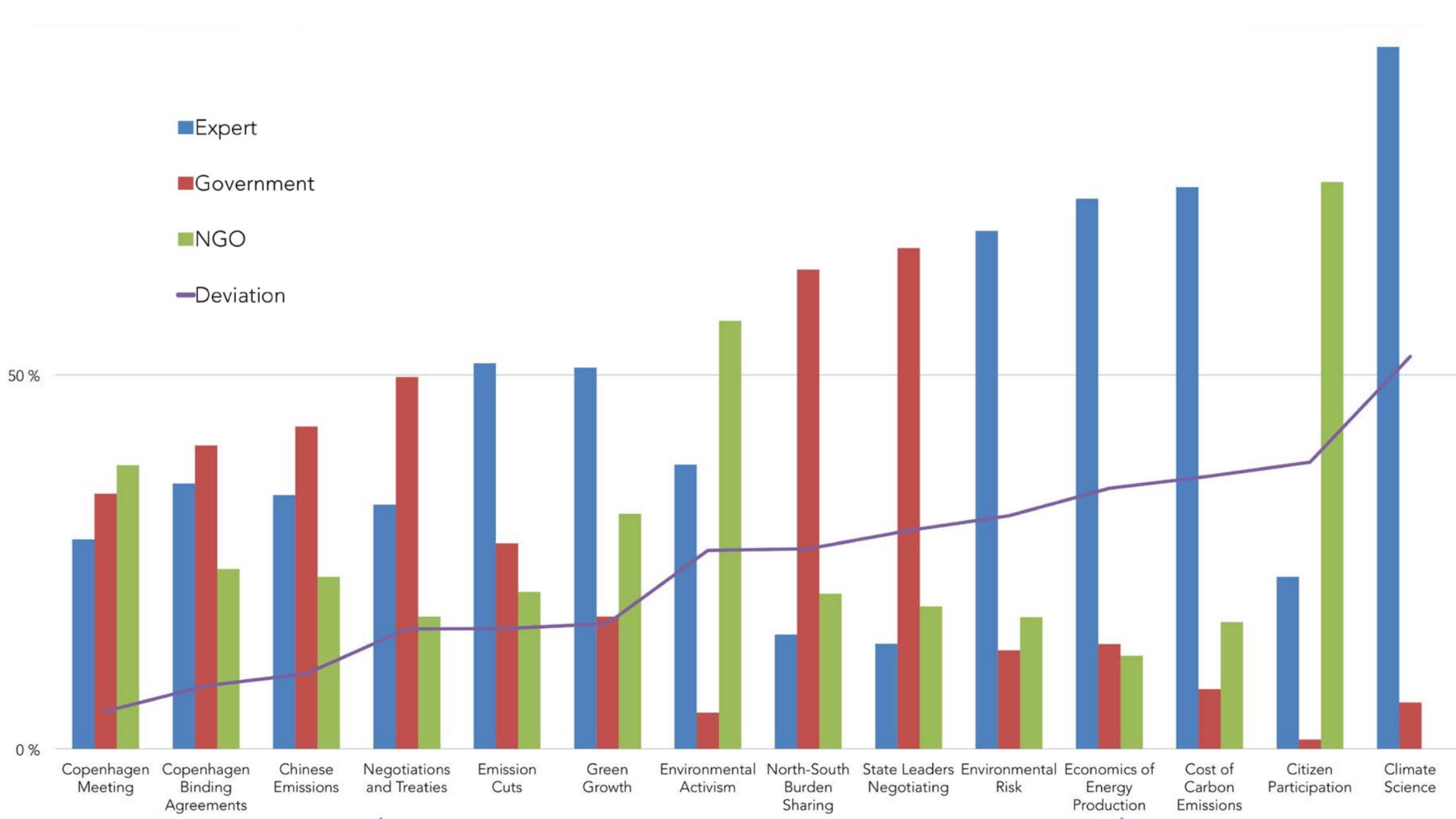
Although the lobbyists are in Kyoto in force, they are relegated to the sidelines. ''Every night the U.S. delegation will come in and brief the 100 or so industry nongovernmental organizations who are present,'' said Constance Holmes, a lobbyist in Kyoto for the Global Climate Coalition, which represents major United States industries. ''They brief the U.S. business community for half an hour, and then they brief the environmental community for half an hour.''

For the past two years, more than 150 nations have been trying to devise a new, stricter treaty to replace the largely voluntary one that they agreed upon five years ago in Rio de Janeiro. It is intended to set binding limits on emissions of greenhouse gases by industrial nations.

Because confronting global warming means altering energy patterns throughout society, a solution to the emerging risk of climate change affects practically every conceivable interest group.

Opposing a binding treaty are car makers and corn farmers, steel mills and oil refineries, electricity producers and the coal miners who stoke their boilers. They claim that cutbacks in emissions would raise energy costs sharply, rippling through the economy, creating inflation and destroying jobs or sending them overseas.

Favoring a treaty are the main national environmental groups, who have spent a decade putting the issue on the global agenda. Among their most influential allies are businesses involved in conservation and renewable energy.


Expert
Government
NGO
Deviation
50 %
0 %
Copenhagen Meeting
Copenhagen Binding Agreements
Chinese Emissions
Negotiations and Treaties
Emission Cuts
Green Growth
Environmental Activism
North-South Burden Sharing
State Leaders Negotiating
Environmental Risk
Economics of Energy Production
Cost of Carbon Emissions
Citizen Participation
Climate Science

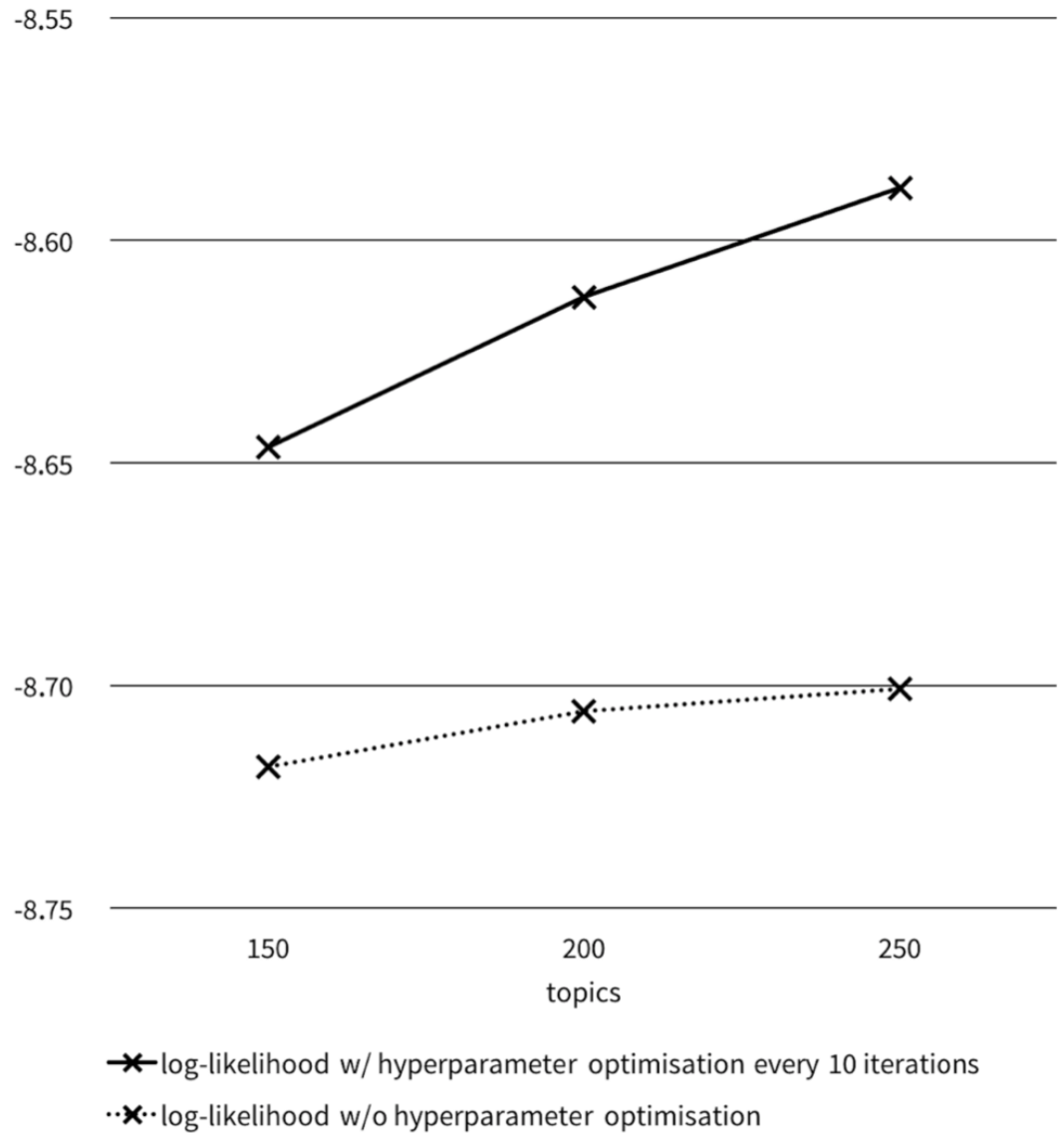
WHAT DID WE LEARN?

(YLÄ-ANTTILA, ERANTI & KUKKONEN 2021)

- **Cultural stuff such as frames *can* be measured computationally …at least in principle**
- **BUT it's not easy AND you still have to do A LOT of qualitative (interpretive) work**
  - …especially if you want your results to MEAN anything
- **Topic modeling will not confirm your theoretical preconceptions as such**
- **"All models are wrong, but some are useful." (George Box)**

NEXT ATTEMPT: LET'S MODEL BETTER

- *Model fit:*
  - If you ran the analysis backwards, could you produce your original data?



HELSINGIN YLIOPISTO
HELSINGFORS UNIVERSITET
UNIVERSITY OF HELSINKI

KNOWLEDGE

truth (#73)	understanding (#110)	beliefs (#151)	research (#163)	academia (#186)
truth (2028)	understand (1278)	believe (1385)	research (1748)	university (1786)
conversation (1909)	complete (710)	actually (905)	relate (752)	professor (1167)
media (1796)	reason (681)	realise (878)	example (742)	researcher (1029)
opinion (1743)	thought (542)	understand (866)	result (726)	research (noun) (783)
present (1546)	problem (531)	feel (759)	effect (634)	expert (447)
claim (noun) (1527)	reality (491)	live (739)	reason (595)	helsinki (432)
fact (1450)	habit (467)	reason (737)	found (582)	science (307)
claim (verb) (1291)	about (426)	know (731)	difference (554)	political (282)
try (1108)	think (388)	reality (709)	often (538)	research (verb) (261)
speak (1076)	belief (377)	business (692)	phenomenon (508)	discipline (234)

COUNTERKNOWLEDGE

climate change (#7)	medicine (#108)	quantification (#133)	intelligence (#162)	wtf (#166)
temperature (522)	doctor (1241)	amount (3171)	intelligence (795)	wtf (6506)
degree (305)	treatment (781)	percentage (2668)	race (508)	newspaper (6394)
rise (341)	patient (695)	number (2402)	gene (457)	mainstream media (1790)
climate (322)	disease (586)	great (1566)	evolution (445)	story (1611)
cause (303)	hospital (577)	last (1545)	intelligent (441)	media (1602)
warm (288)	illness (472)	finland (1400)	african (421)	reader (1270)
warming (260)	medicine (438)	statistics (1199)	species (410)	publish (1080)
atmosphere (257)	treat (421)	calculate (1039)	iq (363)	ilja[5] (1056)
water (257)	cause (397)	part (908)	test (348)	write (1029)
climate change (254)	hiv (304)	research (822)	africa (345)	finland (943)

CONSPIRACY

power (#11)	jews (#37)	mainstream media (#128)	eurabia (#183)
political (4203)	jew (2656)	media (5251)	europe (3175)
power (1970)	israel (2072)	journalist (4273)	people (1030)
politician (1690)	nazi (419)	story (3601)	world (845)
act (1361)	palestinian (370)	yle[6] (2782)	great (816)
politics (1287)	arab (273)	article (2662)	european (803)
great (1200)	palestine (262)	news (2157)	war (793)
people (1043)	holocaust (256)	hesari[7] (2066)	new (731)
benefit (962)	israeli (254)	newspaper (1501)	power (691)
leader (914)	germany (249)	read (1362)	destroy (600)
action (893)	area (244)	write (1227)	country (556)

WHAT DID I LEARN?
(YLÄ-ANTTILA 2018)

- **You can think of research as *creating a model of reality***
  - You have to make two choices:
    - Are you ***theory-driven*** or ***data-driven?*** Which comes first
      - Do you want to describe the world in terms of a theory ***or*** come up with terms to describe the world?
    - How fine-grained do you want the model to be?
      - If you make the model really nuanced, you can describe reality very ***accurately,*** but you can't see the forest for the trees; model does very little work
      - If you make the model really simplifying, you can describe reality very ***effectively,*** but you'll cut corners; model does a lot of work

RESOLUTION

SO... HOW TO COMBINE MEASUREMENT AND INTERPRETATION SYSTEMATICALLY?

Go back and forth between distances! (distant reading, Moretti 2013)

"If we want to understand the system in its entirety, we must accept losing something."

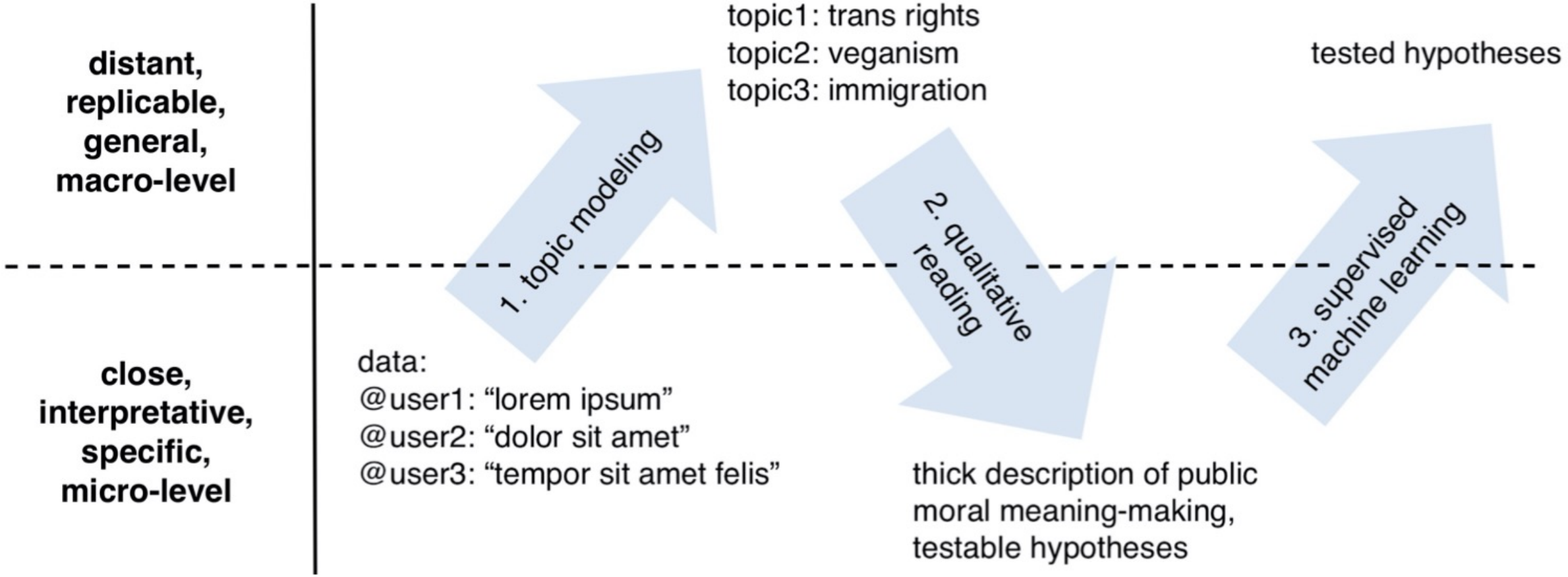
(Moretti 2013: 49, *distant reading)*

- For example:
  - First, look close at small data and come up with a theory: e.g. study 10 people who believe in conspiracies and notice that many have had bad experiences with authorities ***(inductive theory construction)***
  - Then, zoom out: conduct a survey of 1000 people asking about bad experiences with authorities and conspiracy beliefs, see if there's a *generalizable* correlation ***(deductive theory testing)***
    - Now, you already have a theoretical mechanism explaining the correlation -> ***causality?!?***
- Or:
  - First, look at big data from afar and come up with a research interest: e.g. run an unsupervised machine learning algorithm on Twitter data and notice that lots of people talk about immigration
  - Then, zoom in: conduct a discourse analysis on ***how*** they talk about immigration, what meanings do they assign to immigration, what does it mean to them
    - Now, you already have a justification for your in-depth work, e.g. "36% of Twitter talk was about immigration in 2015! Let's look at what happened"
- Note: these can be two studies, done by different ppl

- Postdoc: *moral polarization*
- Populists polarize debates:
  - either you're with us or against us
  - there's no middle ground
- Politics, for populists, is a **moral** battle; there's *good* and *evil*
- Is this a broader phenomenon, not limited to 'populists'?

- Methodologically:
  - Two new methods in research plan
    - ***Mixed-distance reading***
    - ***Justification Network Analysis (JNA)***

MIXED-DISTANCE READING



SELF-CRITICISM: I'M OVER-SIMPLIFYING

- Qualitative
- Interpretation
- Detailed
- Micro
- (Constructionism)
- (Meanings)
- (Not causal)
- Culture as toolkit (Swidler 1986)
- Morality in sociology

- Quantitative
- Measurement
- Generalizing
- Macro
- (Realism/positivism)
- (Variables)
- (Causality)
- Culture as motivator (Vaisey 2009)
- Morality in psychology

- Aslanidis, P. 2015: Is Populism an Ideology? A Refutation and a New Perspective. *Political Studies.*
- Boltanski, L., & Thévenot, L. (1999). The Sociology of Critical Capacity. *European Journal of Social Theory.*
- Hansen, M. P. 2016: Non-normative critique: Foucault and pragmatic sociology as tactical re-politicization. *European Journal of Social Theory.*
- Moretti, F. 2013: *Distant Reading*. Verso.
- Swidler, A. 1986: Culture in Action: Symbols and Strategies. *American Sociological Review.*
- Vaisey, S. 2009: Motivation and Justification: A Dual-Process Model of Culture in Action. *American Journal of Sociology.*
- Ylä-Anttila, Tuukka 2012: *What is Finnish about The Finns Party? Political Culture and Populism.* Master's thesis.
- Ylä-Anttila, Tuukka 2017: *The Populist Toolkit: Finnish Populism in Action 2007–2016.*
- Ylä-Anttila, Tuukka 2018: Populist knowledge: 'Post-truth' repertoires of contesting epistemic authorities. *European Journal of Cultural and Political Sociology.*
- Ylä-Anttila, Tuukka; Eranti, Veikko & Kukkonen, Anna. 2021. Topic Modeling for Frame Analysis: A Study of Media Debates on Climate Change in India and USA. *Global Media and Communication.*