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Lakatos Award Lectures

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Rebuilding the Foundations of the Social Sciences

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Social turbulence

• Financial crisis, Arab spring, recent referenda and elections
• Erosion of confidence in social science
  • Not just turbulent, but seems unpredictable
  • Radically contingent
  • More or less deterministic, but we’re not smart enough to know

• Warranted skepticism about understanding and improving the social world
Grounds for pessimism, grounds for optimism

• Dead ends, obstacles, failed promises
• Many unexplored directions
  • Opportunities
• Increased recognition that what matters is social policy, institutional structure, fixing political systems
Many options for improving the social sciences

• Focus on just one

• Social ontology
  • An interesting and foundational topic
  • Quite theoretical, though with practical applications

• The field has ancient roots, but the inquiries have always been oddly limited
  • Remains underexplored
Social ontology: The nature of the social world

- A crowd
- A jazz ensemble
- A marketplace
- A corporation
- A university
- A dollar bill
- A piece of property
- A law
- A gender category
- A racial category

What are these? How are they built?
Some aims of *The Ant Trap*

- Critique widespread assumptions about how the social world is built, and especially the role of individual people in constituting social things
- Develop a new framework for social ontology
  - The “grounding” and “anchoring” model
- Focus on widely discussed cases
  - E.g., group agents
- Set the stage for applications to models in the social sciences

**Today:**
- Explain and motivate foundational work in social ontology
- Start with an example of a simple (and problematic) model
  - James Coleman’s 1990 model for social explanation
  - Somewhat dated, but remains influential, and useful for clarifying why it’s helpful to think about ontology
Explaining a social phenomenon

Amazon under pressure to expand grocery distribution hubs

Whole Foods votes to approve acquisition by Amazon
“Good social explanations” in terms of individuals

Individualistic, but not the most extreme form of individualism
Amazon under pressure to expand grocery distribution hubs 1

macro level
(social)

cause

Whole Foods votes to approve acquisition by Amazon 3

micro level
(individualistic)

Amazon management attitudes, actions of competing managers 2

cause

Changes to incentives of Whole Foods shareholders
Do the social phenomena “consist of” the individualistic ones?

What kind of “dependence” do arrows 1 and 3 represent?
Failure to separate ontology from causation

- Ontology: What are these events, social phenomena, or social facts?
- Causation: How does the sequence work? What are the relevant causal relations and/or mechanisms?

Amazon under pressure to expand grocery distribution hubs

Whole Foods votes to approve acquisition by Amazon
In connection with this, problems with the dimensions of the diagram

- Square the diagram?
  - ontological level?
  - time? causation?

Amazon management attitudes, actions of competing managers

Changes to incentives of Whole Foods shareholders

Amazon under pressure to expand grocery distribution hubs

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Changes to incentives of Whole Foods shareholders
Ontology versus causation

Ontological building blocks

Amazon under pressure to expand grocery distribution hubs

Whole Foods votes to approve acquisition by Amazon

The things that constitute or determine this social fact (or event or process)

• Ontological building blocks need not be synchronic
  • Coleman’s diagram cannot make sense, and the idea of “horizontal” and “vertical” determination is very misleading
Ontology versus causation

• How we construct causal explanations tacitly depends on prior commitments regarding the ontology.

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The things that constitute this social fact (or event or process)

The things that constitute this social fact (or event or process)
A more fundamental question about Coleman and much social explanation

• Why would one think that either the building blocks or the important causal factors would be individualistic?
  • The model ignores the heterogeneity of building blocks
  • The model ignores the heterogeneity of causal factors
Rethinking the ontology

• The motivation for investigating social ontology:
  • Not just the intrinsic interest of the nature of the social world
  • But applications to model building and explanation

• Other fields invest much more substantially in ontology, or “what is it” questions
  • Biological sciences:
    • Genomics
    • Proteomics
    • Connectome mapping
    • Etc.
  • Social sciences:
    • Minimal

• How to approach inquiries into the nature of the social world?
A key notion: ontological determination

The auditorium is full.

Every seat in the auditorium is occupied by a person.

• Lots of ways to understand this relation
• Grounding
  • Metaphysically sufficient explanation of one fact by a set of other facts
• An ontological relation, not a causal one
  • The fact that every seat is occupied ontologically determines the fact that the auditorium is full.
The heterogeneous grounds of a typical social fact:
Example: action of the Facebook stockholder group

Whole Foods votes to approve acquisition
Grounds of a social fact:
Some obvious determining facts

Whole Foods votes to approve acquisition

A raises hand in vote on XYZ
B mails in proxy marking no on XYZ
...
Z mails in proxy marking yes on XYZ
Grounds of a social fact:
Aim for comprehensiveness

Whole Foods votes to approve acquisition

\{A, B, C, \ldots, Z\} constitutes the WF stockholders

A owns a\% of WF shares

B owns b\% of WF shares

\ldots

Z owns z\% of WF shares

A raises hand in vote on XYZ

B mails in proxy marking no on XYZ

\ldots

Z mails in proxy marking yes on XYZ

Voting aggregation procedures
Grounds of a social fact:
Break down into more detail

\[ \{A, B, C, \ldots, Z\} \text{ constitutes the WF stockholders} \]

\[ A \text{ owns } a\% \text{ of WF shares} \]

\[ B \text{ owns } b\% \text{ of WF shares} \]

\[ Z \text{ owns } z\% \text{ of WF shares} \]

\[ \text{Voting aggregation procedures} \]

\[ A \text{ raises hand in vote on XYZ} \]

\[ B \text{ mails in proxy marking } no \text{ on XYZ} \]

\[ Z \text{ mails in proxy marking } yes \text{ on XYZ} \]

\[ \text{Whole Foods votes to approve acquisition} \]
Grounds of a social fact: Heterogeneous types of grounds

Whole Foods votes to approve acquisition

- A owns a% of WF shares
- B owns b% of WF shares
- Z owns z% of WF shares

Voting aggregation procedures
- A raises hand in vote on XYZ
- B mails in proxy marking no on XYZ
- Z mails in proxy marking yes on XYZ

Historical agreements
- Historical money transfers
- Historical ownership stakes

US corporate code
- US judicial precedent

Sales and purchases
- Corporate decisions

Historical votes

{A, B, C, ..., Z} constitutes the WF stockholders

Z owns z% of WF shares
Grounds of a social fact: Unexpected dependencies

{A, B, C, ..., Z} constitutes the WF stockholders

A owns a% of WF shares
B owns b% of WF shares
Z owns z% of WF shares

Voting aggregation procedures

Whole Foods votes to approve acquisition

A raises hand in vote on XYZ
B mails in proxy marking no on XYZ
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Historical agreements
Historical votes
Historical ownership stakes
Historical money transfers
Corporate decisions
US corporate code
US judicial precedent

Sales and purchases
Causal models are built atop ontological structures
Dealing with complexity

• Complex structures like this are ubiquitous

• Misleading to start with a shoddy ontology
  • It matters that we get the ontology right
  • Also matters that we include the heterogeneity

• Not arguing against simple models

• Rather, arguing against choosing the same kinds of simple models over and over
Tip of the iceberg

• More to social ontology than arrows of grounding

• Two sets of questions, corresponding to two kinds of ontological determination

• What grounds the fact?

• What sets up these social categories?
  • What makes these the grounds for being a stockholder vote?
  • What makes these the grounds for being a stockholder group?
  • What makes these the grounds for being an American C-type corporation?

• The theory of anchoring
Taking stock

• Rich field of social ontology
• But even this much reveals the opportunity
  • The heterogeneous nature of social entities
  • Concrete projects to pursue and synthesize
  • Far reaching implications for expanding how we model
    • Qualitative, analytic, computational

• Improving the social world?