# Hosted by Department of Philosophy, Logic and Scientific Method Lakatos Award Lectures

**Dr Thomas Pradeu**CNRS and University of Bordeaux

Dr Brian Epstein
Tufts

Professor Hasok Chang Chair Cambridge





## Rebuilding the Foundations of the Social Sciences

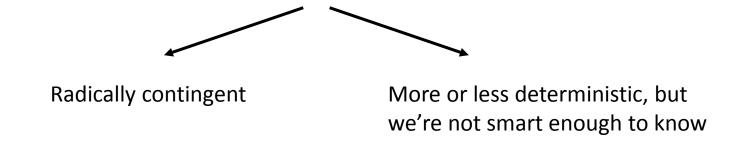
Brian Epstein

**Tufts University** 

Lakatos Lecture, November 2017

### Social turbulence

- Financial crisis, Arab spring, recent referenda and elections
- Erosion of confidence in social science
  - Not just turbulent, but seems unpredictable



 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

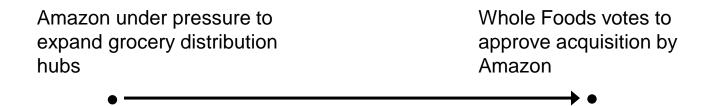
- A crowd
- A jazz ensemble
- A marketplace
- A corporation
- A university
- A dollar bill
- A piece of property
- A law
- A gender category
- A racial category
- What are these? How are they built?



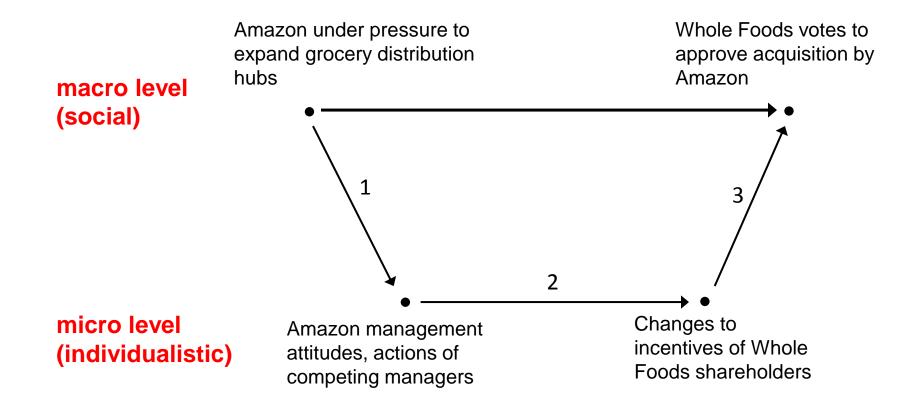
### Some aims of *The Ant Trap*

- 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

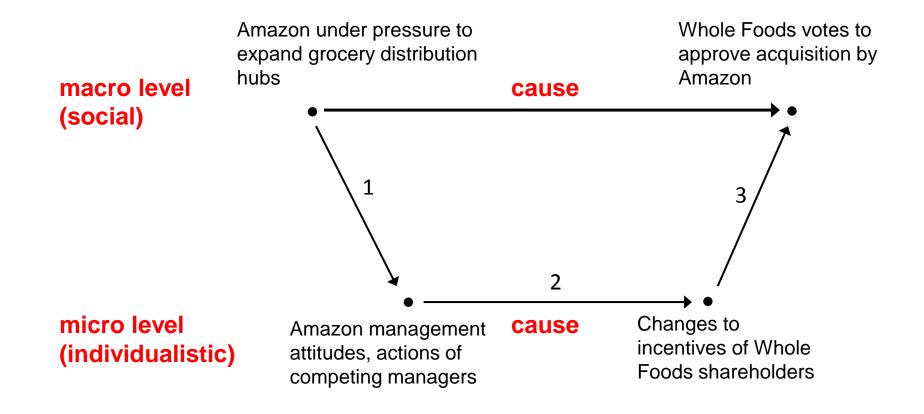


## Coleman's diagram

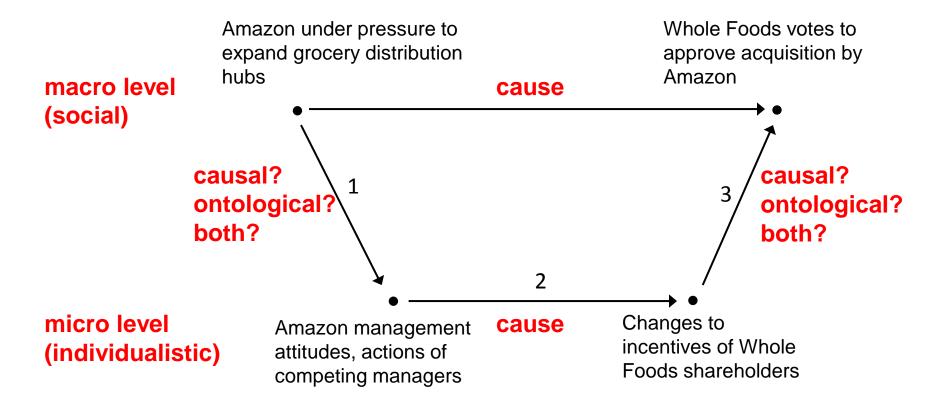


- "Good social explanations" in terms of individuals
- Individualistic, but not the most extreme form of individualism

### Horizontal arrows



## Diagonal arrows



- Do the social phenomena "consist of" the individualistic ones?
- What kind of "dependence" do arrows 1 and 3 represent?

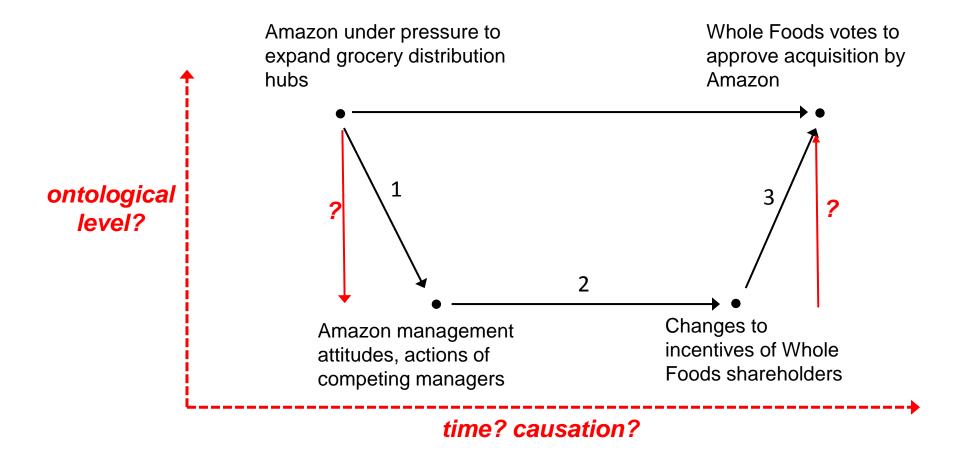
## Failure to separate ontology from causation

Amazon under pressure to expand grocery distribution hubs

Whole Foods votes to approve acquisition by Amazon

- 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?

In connection with this, problems with the dimensions of the diagram



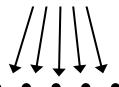
Square the diagram?

### Ontology versus causation

Amazon under pressure to expand grocery distribution hubs



Ontological building blocks

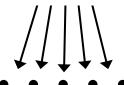


The things that constitute or determine this social fact (or event or process)

Whole Foods votes to approve acquisition by Amazon



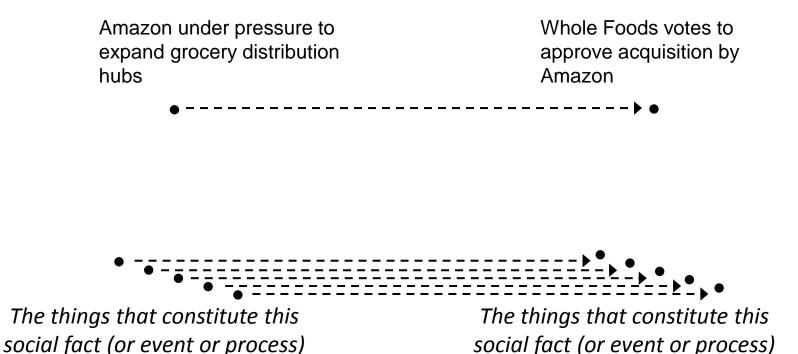
Ontological building blocks



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

## A more fundamental question about Coleman and much social explanation

Amazon under pressure to expand grocery distribution hubs

Whole Foods votes to approve acquisition by Amazon



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

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- 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.

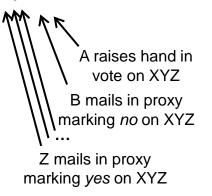
- Lots of ways to understand this relation
- Grounding
  - Metaphysically sufficient explanation of one fact by a set of other facts
- An ontological relation, not a causal one
  - The fact that every seat is occupied ontologically determines the fact that the auditorium is full.

## The heterogeneous grounds of a typical social fact: Example: action of the Facebook stockholder group

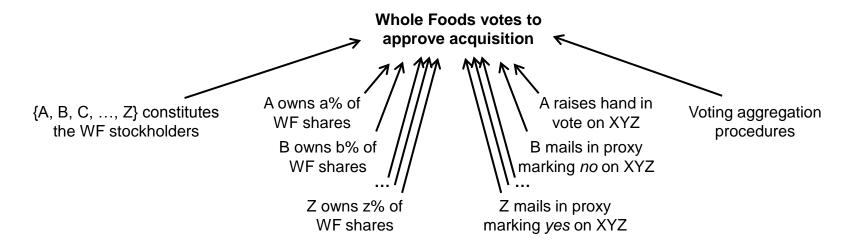
Whole Foods votes to approve acquisition

### Grounds of a social fact: Some obvious determining facts

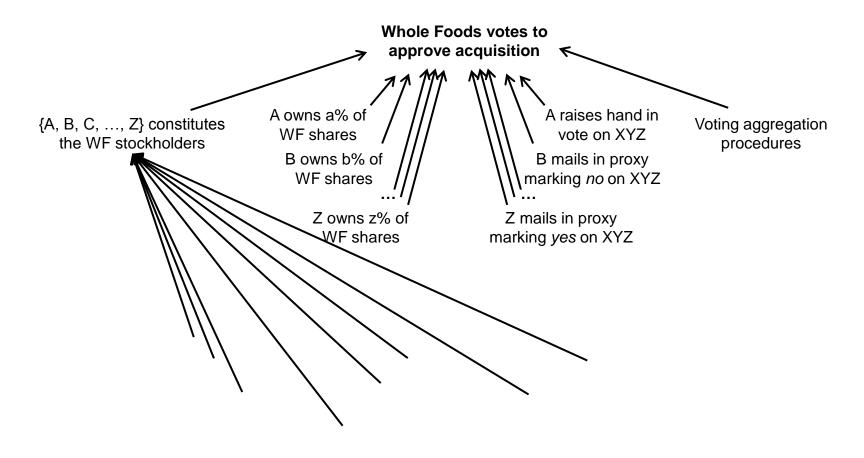
Whole Foods votes to approve acquisition



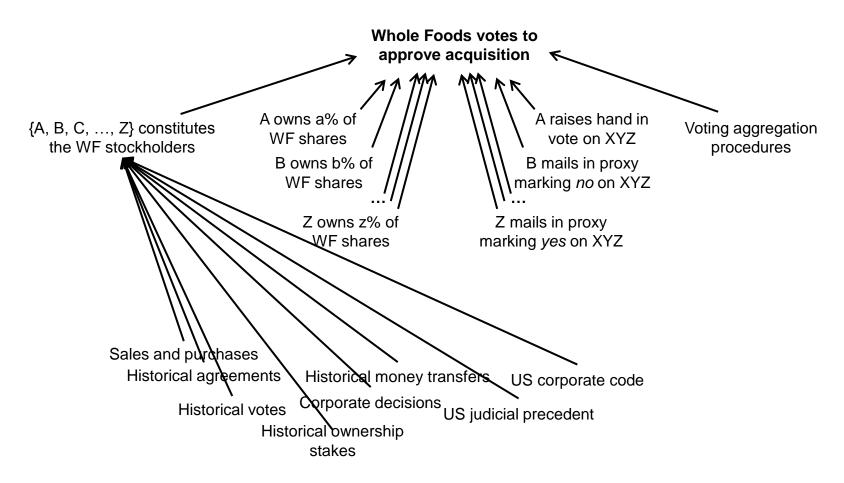
### Grounds of a social fact: Aim for comprehensiveness



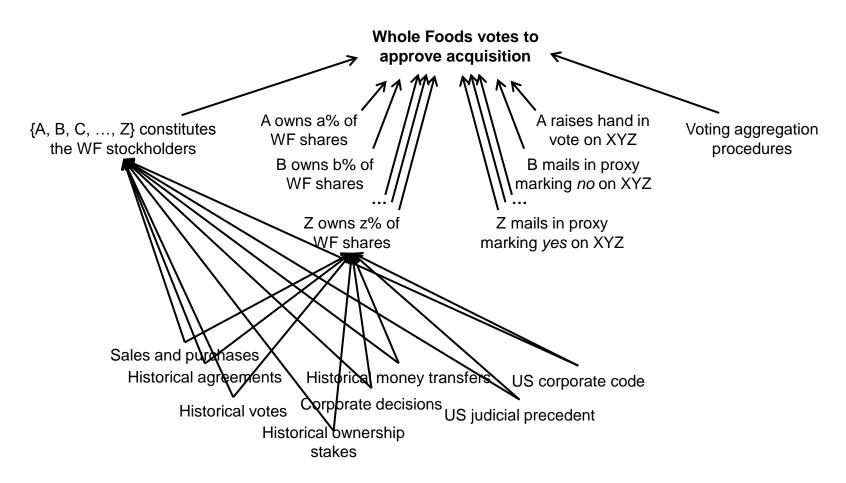
#### Grounds of a social fact: Break down into more detail



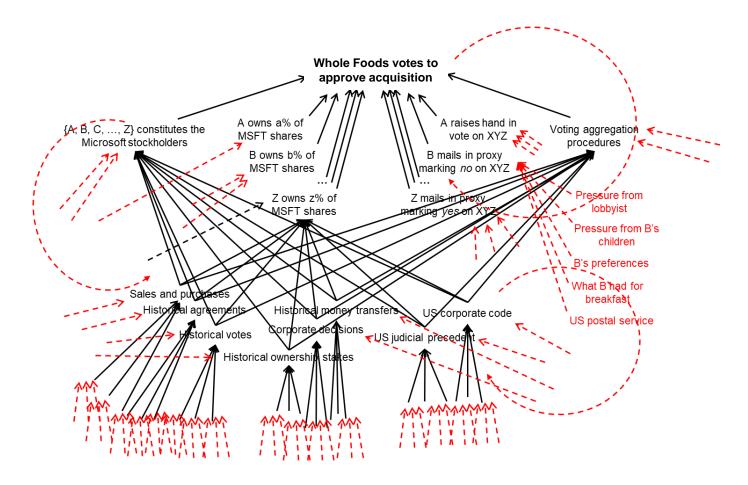
#### Grounds of a social fact: Heterogeneous types of grounds



#### Grounds of a social fact: Unexpected dependencies



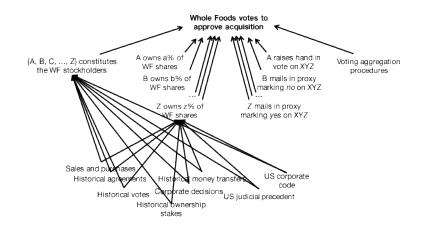
#### Causal structure

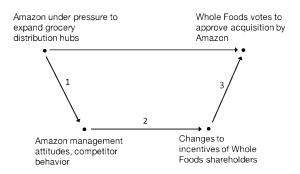


Causal models are built atop ontological structures

### 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?