The Socioeconomic Machine

Philosophy of Economics

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Contents

Interventionist Accounts

- X causes Y if and only if an appropriate manipulation of C results in a change of E (or the probability distribution of E)
- Basic idea: what if we could manipulate a specific causal factor independent from any other causal factors?

- What is an appropriate manipulation? Simplifying, I is an intervention variable for C with respect to E iff
  1. I causes C
  2. I can "switch off" other causes of C
  3. I does not directly cause E—any effect I has on E goes through C
  4. I is independent from any other variable which causes E and does not go through C

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Ceteris Paribus Clauses

“Ceteris paribus” = “other things being equal”

- “Ceteris paribus, agents prefer a larger bundle of goods over a smaller bundle of goods”
- “Ceteris paribus, an increase in the quantity of money will lead to inflation”
- “Ceteris paribus, bad money will drive out good”

Comparative versus Exclusive

- **Comparative CP claims** require that factors not mentioned in the antecedent or the consequent of the law remain unchanged.
  - Ceteris paribus, an increase of the blood alcohol level of a driver leads to an increased probability of a car accident.
- **Exclusive CP claims** assert that a certain state or event-type *A* leads to another state or event-type *B*, provided disturbing factors or influences are absent.
  - Ceteris paribus, planets have elliptical orbits.

- CP claims might be both; indeed, in economics, we should expect them to be both

Definite versus Indefinite

- In **definite CP claims** there is a specified (or specifiable) list of factors that are held constant or absent
- For **indefinite CP claims** there is no such list

- Definite CP claims are a form of lazily stating something we know (why?)
- CP claims in economics are almost always indefinite

Lange's Dilemma

> Whenever the temperature of a metal bar of length L_0 changes by T, the length of the bar changes by $L = kL_0T$

- Understood literally, this claim is false (as there could be other factors influencing L_0) So what must be meant is

  > Ceteris paribus, whenever the temperature of a metal bar of length L_0 changes by T, the length of the bar changes by $L = kL_0T$

- But what is included in "Ceteris Paribus"? If the CP clause is definite, there's not a big problem:

  > If noone is hammering the metal bar, then, whenever ...

- However, if the CP clause is indefinite, we are in danger of saying that

  > $L = kL_0T$ whenever there is nothing that undermines that $L = kL_0T$

Lange's Dilemma

Ceteris paribus, A causes B

"For many a claim that we commonly accept as a law-statement, either that claim states a relation that does not obtain, and so is false, or is shorthand for some claim that states no relation at all, and so is empty." (Lange 1993, 235)

Horn 1. If interpreted literally (A always causes B, or in some determinate set of circumstances, A causes B), there are always more counterexamples not covered by the CP clause. Thus, considered as a law of nature, the claim is false.

Horn 2. If we allow indefinite CP clauses in the formulation of a law, then it seems that the law lacks empirical content—it seems to say "A causes B unless A does not cause B"

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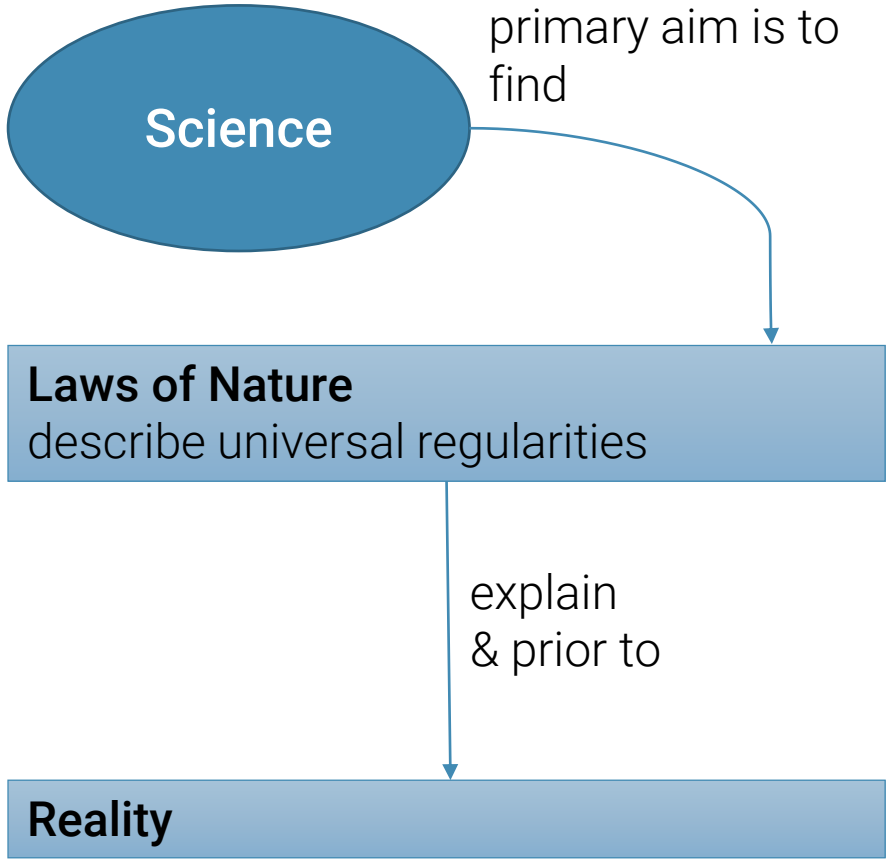
Cartwright: Two Models

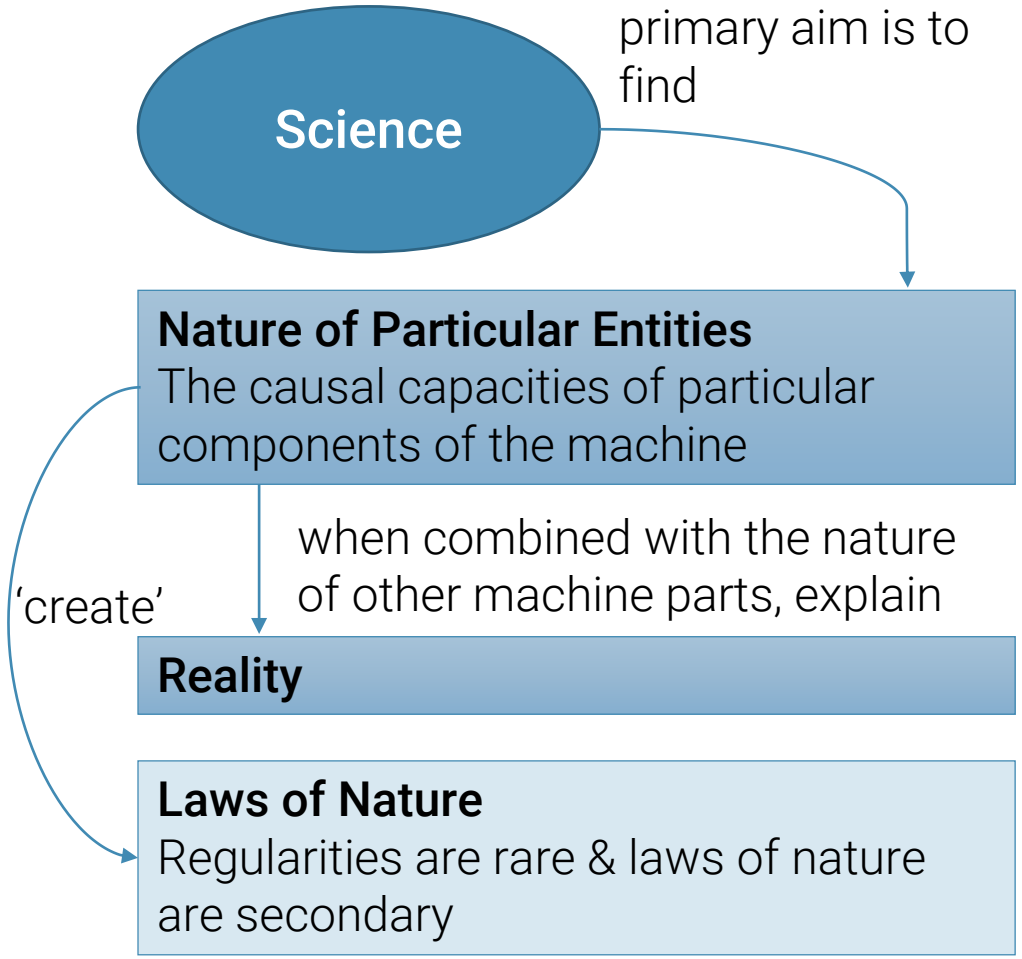


Covering-Law Account

- To explain something is to show how it is covered by a law
- A law describes some universal regularity
- There are a few, powerful laws which describe most of reality
- Ceteris paribus clauses are suspect, as they diminish the universality of the laws

(Is this a strawman?)

Cartwright: Two Models



Causal Capacity Account

- Scientists try to identify the causal capacities of individual "machine components"
- These components work together as part of a "machine" to create the observed world
- Regularities are rare, explanatorily secondary, and have to be carefully created
- Ceteris paribus claims play a crucial role in investigating causal capacities

Questions

1. Does Cartwright's approach offer us a way out of Lange's dilemma?
2. Is there really such a fundamental difference between Cartwright's approach and the Covering-Law approach?
3. What would it mean for causal capacities, rather than laws of nature, to be fundamental?
4. What difference would accepting Cartwright's approach make to economic research?

Building the Economic Machine?

- It's a common strategy in textbooks to start with simple models which are then made more sophisticated:

1. $Y = C + I + G$
2. $Y = C(Y, T) + I + G$
3. $Y = C(Y, T) + I(Y, i) + G$
4. $Y = C(Y, T) + I(Y, i) + G + X - IM$
5. $Y = \ldots$

The hope: building the socio-economic machine by carefully understanding each of its mechanical parts separately