

James Fearon, “Causes and Counterfactuals in Social Science”

Explores the feasibility of increasing the size of small-N case studies through the careful use of counterfactuals. Concludes that (proper) use of counterfactuals is difficult and extremely limited. Suggests that can only be used in highly local situations, “in which the hypothetical antecedent and consequent are close together in time and separated by a small number of causal steps”.

Benefit of counterfactuals: forced clarity regarding 1) delimitation of even being explained; 2) set of alternative outcomes considered; 3) type of causes sought.

Two main questions:

1. How can one know what would have happened if the (hypothetical) causal factor had been absent?
2. What do we really mean by “cause”?
 - Conceivable causes: things that actually could have happened, that could really have been different. Appropriate for explaining specific events.
 - Miracle causes: no requirement of possibility (eg, WWII if the British & French had rearmed faster). Generally accepted when seeking to explain class of events, rather than specific events.

The key analogy: Cellular Automata

Imagine huge computer screen divided into grid of equal cells (eg 100x100). Cells are either green or yellow. Create relatively simple stochastic decision rule (cell turns yellow with probability .7 in period t if two neighbors were green in t-1, etc.). Result:

1. Extremely complex system
2. Very small changes have tremendous effects later on
3. Difficult/impossible to determine decision rules from observation
4. Local predictability and regularity
5. Global chaos, unpredictability and history dependence.

Even if one knew the whole pattern at time t, and all decision rules, would be impossible to predict the pattern at t+50.

Consider analogy to social world: everyday life highly regular, predictable. But long range – unpredictable, subject to enormous variation due to small/random factors.

Implications for social scientists: figure out the local transition rules that provide local predictability. At global level, can only describe (in retrospect) why one path occurred instead of another.

2 interesting observations: 1) Some small events have huge impact later on, others have none; 2) analogy admits possibility of statistical regularities (and therefore statistical predictability) at global level.

Analogy applied to 2 tasks: testing factor proposed as cause of class of events; or testing factor proposed as cause of single event. One can either try to evaluate whether factor is regularly associated with explanandum across cases or use counterfactual method: would event have occurred without X present? Counterfactual approach works by combining knowledge of initial conditions with knowledge of transition rules. Must have a theory/decision rule.

BUT: analogy implies that counterfactual approach extremely limited: even full knowledge of initial conditions & decision rules will not allow prediction beyond limited time forward. Counterfactual arguments only valid within a few steps of causal sequence.

For above reasons, the more interesting counterfactuals (what would have happened in 1992 if Gorby had never been premier?) rarely can act as independent empirical tests. Rather, are simply “spotlights” that might illuminate a more local, relevant claim.