The Objects of Social Sciences: Idea, Action, and Outcome
[From Ontology to Epistemology and Methodology]

Shiping Tang
Fudan University
Shanghai 2013-05-07/Beijing, 2013-09-09
Copyright@ Shiping Tang
Outline

• Introduction
• Confusion and its Consequences
• Ontology: phenomenon vs. levels (or scales)
• Implications for Epistemology and Methodology
• Issues that cannot be settled (at least for now)
• Concluding Remarks
Basic Premises/Core Arguments

• There are three different objects or explananda in social sciences: idea, action (i.e., intentional behavior), and (social) outcome. These objects are ontologically different.

• Explaining these three different objects or explananda most likely requires different epistemological perspectives and methodological tools, because these three explananda are ontologically different.

• Yet, much, if not most, of the existing discussion on epistemology and methodology implicitly, if not explicitly, assumes that explaining them is pretty much the same.

• This invalid assumption has been a major cause behind the unproductive debates among different epistemologies and methodologies and a major cause behind much confusion at the level of epistemology and methodology.

• Sorting out some of the thorny issues behind these three objects will pave the way for further scientific progress.
### Three Objects/Explananda of Social Sciences:
#### An Ontological Primer

<table>
<thead>
<tr>
<th>Scale</th>
<th>Idea</th>
<th>Action</th>
<th>Outcome</th>
</tr>
</thead>
<tbody>
<tr>
<td>Only individual</td>
<td>Individual</td>
<td>Collective</td>
<td>Macro (e.g., Revolution, Industrial Revolution)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Micro (e.g., within a small community)</td>
</tr>
</tbody>
</table>
Some Key Caveats

• Ultimately, explaining the origin of an idea is not possible for social sciences, and it is mostly a task for neuroscience.

• If an idea becomes ideology and diffuses among a population, this is a social outcome, no longer just the origin of an idea.

• When we study ideas, we are more concerned with their impact upon our actions and social outcomes (if Hugo has been right!).

• Some social outcomes are directly driven by actions. For instance, a large-scale and direct attack upon a state almost inevitably causes a war. But such social outcomes are few. Most social outcomes are not the direct product of a single or even a host of actions.

• Most social scientists have focused on actions and outcomes, partly because our welfare have been more directly shaped by social outcomes, and hence, indirectly shaped by actions, through time and space.
Ontological Differences

• Any action has a reason (as ideas) before its actuality. This is especially true for individuals’ actions: often, they are the immediate manifestations of motives and drivers. External factors (such as socialization and other agents) can only impact an agent’s action by impacting the agent’s motives and drivers.

• In contrast, outcomes cannot have a reason: outcomes can only have causes (including actions as possible causes), as Malle (2004) correctly pointed out.

• All social outcomes are partly driven by actions, but most often than not, not driven by actions alone. Instead, outcomes are usually the emergent products of action, context, and interactions, often unintended, delayed, and indirect. As such, equalifinality (as a form of systemic effect) is a far more common factor in driving social outcomes than driving actions.

• Actions, despite being intentional, may produce unintended outcomes. Actions can also generate non-outcomes. In contrast, although some social outcomes are directly driven by actions alone, outcomes can also be unintended outcomes (from agents’ point of view), or a mixture of intended and unintended outcomes.
Fig. 1: Explaining: The Challenges
Fig. 1: Further Elaborations

- All arrows in Figure 1 have double connotations: they indicate both the tasks for explaining a particular object and the necessity of having factors from the other two objects when explaining a particular object.

- For instance, when explaining social outcomes, we need to have both ideas and actions, plus other contextual factors (e.g., “structural factors”). Purely structural explanations are inherently inadequate (e.g., Moore; Skocpol).

- Likewise, when explaining actions, we need to have both ideas and contextual factors (i.e., outcomes from previous round/period/time). Purely ideational explanations of actions too are inherently inadequate.
Epistemological Implications: General Statements-I

- Explaining results at higher levels inevitably requires inputs from lower levels. Thus, because outcomes are necessarily partly driven by actions and actions are necessarily partly driven by ideas, explaining outcomes necessarily requires action and in turn ideas whereas explaining actions requires ideas.
- At the same time, however, explaining results at lower levels also requires inputs from higher levels because results at higher levels come back to shape results at lower levels.
- Results at one level can also be shaped by other results at the same level.
- Thus, explaining actions with ideas or/and actions is not enough, because actions are shaped by the social environment as outcomes in previous rounds.
- By the same token, explaining ideas with only ideas too is inadequate because agents’ ideas are too shaped by the social environment (Elias 1939[1994]; Foucault 1977; 1982; Bhaskar 1979[1998]; Archer 1995).
Epistemological Implications:
General Statements-II

• To jump over one level (say, from ideas to outcomes; or from outcomes to ideas) is usually difficult. Between two adjacent levels: things are slightly easier.

• The epistemological challenges from lower level to higher level are somewhat different from the challenges from higher level to lower level: There is an asymmetry to them. From lower level to higher level: the key challenges are emergent outcomes and multiple causality (equifinality). In contrast, from higher to lower level, the challenges are equifinality and infinite regression.

• Because emergent properties and equifinality is far more severe in driving social outcomes, an adequate explanation of social outcomes, especially at the macro level, is far more challenging, *ceteris paribus*. Mechanisms are thus far more critical for explaining social outcomes than for explaining ideas and actions, precisely due to the prevalence of equifinality in (macro) social outcomes: merely correlation between a social outcome and some micro or macro conditions does not tell us much about the making of the social outcome. To compensate for this, we have to rely more heavily on mechanism(s) to substantiate our explanations of social outcome by demonstrating the validity of a mechanism-based explanation thus limiting the possible other paths toward the social outcome (Bunge 1994; 1997; Mayntz 2004; Falletic and Lynch 2009; author, n.d.).
Epistemological Implications: General Statements-III

• Explaining actions (and ideas) needs micro foundation explicitly, whereas explaining outcomes can afford to gloss over the micro foundation of actions but need to take into consideration of the more macro-level factors (system, not structure).
  – This explains why some of the major treatises on macro social outcomes (such as revolution, industrial revolution, democratization) are all mostly based on secondary materials rather than first-hand materials from polls and surveys.
  – This also explains why systemtism (structuralism being a narrower form of systemtism) has remained so influential among social scientists who are mostly concerned with macro social outcomes (Tang 2013; 2014-15)

• Explaining action is just a process of attribution (of actions). As such, explaining actions will be much improved if you can follow a more rigorously formulated framework for attribution as detailed in Tang 2012 (for an earlier discussion, see Malle 2004). Explanations of behaviors that do not follow the rigorous framework inevitably miss some important easy solutions (e.g., Schweller 2006).
Epistemological Implications: Specific Statements

• Psychological (including social psychology)
• Hermeneutics
• Behavioralism (e.g., game theory)
• Methodological Individualism (really, epistem.)
• Neoclassical Economics (NCE) and Rational Choice (RCT)
• Structuralism (as a narrow form of Social System Paradigm)
• Social System Paradigm (approach)
• Social Evolution Paradigm (approach)
<table>
<thead>
<tr>
<th>Epistemological Positions</th>
<th>Ideas</th>
<th>Actions</th>
<th>Outcomes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Psychology (including psycho-analysis)</td>
<td>Essential. But, ultimately ideas cannot be explained.</td>
<td>Essential, when understood as actions are driven by partly ideas.</td>
<td>Essential, when understood as actions are driven by partly ideas, and outcomes are shaped partly by actions.</td>
</tr>
<tr>
<td>Hermeneutics &amp; Sociology of knowledge</td>
<td>Essential but never sufficient.</td>
<td>Not essential, perhaps really trivial</td>
<td>Not essential, perhaps really trivial</td>
</tr>
<tr>
<td>Behavioralism</td>
<td>Not applicable.</td>
<td>Valid, but only for immediate factors, unable to understand the deep (often historical and social causes) behind the immediate factors.</td>
<td>Essentially invalid, unless for extremely simple social outcomes (e.g., barter trade). Functionalism is especially unhelpful.</td>
</tr>
<tr>
<td>Structuralism</td>
<td>Of very limited use.</td>
<td>Mostly invalid, easily falling into structural functionalism</td>
<td>Structure is essential but insufficient.</td>
</tr>
<tr>
<td>Social system approach</td>
<td>Essential, as part of sociology of knowledge</td>
<td>Essential: all actions unfold within the system</td>
<td>Essential</td>
</tr>
<tr>
<td>Social evolutionary approach</td>
<td>Essential as part of history of ideas (selection of ideas by social forces)</td>
<td>Essential: all actions unfold within the system that is social evolutionary.</td>
<td>Essential</td>
</tr>
</tbody>
</table>
Methodological Implications-I

• **Survey, Polls, Interviews (as data gathering)**
  – useful for understanding individuals’ ideas (or perceptions) of specific objects. They are also useful for understanding actions to some extent, because actions are partly driven by ideas. Not of much use for understanding social outcomes.
  – More importantly, these methods are mostly methods for gathering data: by themselves, they do not explain actions and outcomes. Indeed, they do not even explain ideas.

• **Formal Modeling (game theory/rational choice):** useful for revealing specific mechanisms that lead agents’ behaviors via interactions, under specific social constraints. It is also useful for understanding some outcomes that are mostly driven by actions alone. Yet, the method is of very limited use for understanding complex social outcomes (e.g., revolution) that are not the direct products of actions.
Methodological Implications-II

- **ABM (agent-based modeling) simulation & other tools of simulation (e.g., System Dynamics):** useful for showing that some purported mechanisms may be valid in driving a particular social outcome. AMB has strength in simulating emergence from micro drivers to macro outcomes, whereas system dynamics has strength in simulating how macro processes driver macro outcomes.

- **Experimental:** Like simulations (although in a more realist setting), experiments have very limited value for generating genuine explanations for social outcomes but they are useful for showing that some purported mechanisms may be valid in driving a particular social outcome. Experiments may be more useful for explaining ideas and actions (this is the bread-and-butter of social psychology).
Methodological Implications-II

• Large N (quantitative, esp. regressions) & QCA (Medium N) : versatile
  – Its strength lies in identifying (the impact upon outcomes of) potential factors and some of the potential interactions by a very few factors (up to three at most). QCA improves upon conventional statistics (mainly regressions) not on the front of generating causal explanations but on the front of understanding the combined causal effects of several factors. As such, QCA points to potentially more fruitful paths for uncovering causal mechanisms. Yet, large N or QCA methods themselves are of limited help on uncovering mechanisms, thus not really useful for constructing a causal explanation of any particular outcome or outcomes.

• Small N, with in-depth (process-tracing) case studies: versatile
  – Unlike regression and QCA, small N case studies are weak on identifying many factors. Instead, small N case studies are strong on understanding potential interactions of factors and uncovering mechanisms. As such, small N with process tracing is more powerful in constructing a causal explanation for a particular outcome or outcomes.
  
  – For different objects, investigators can deploy more specific techniques for their research goals such as going to archives or relying on public statements and public (macro) data (see below).
Explaining Action: Toward a Disciplined Exercise

• The process of (behavioral) attribution is an attempt to explain (intentional) behavior (Malle 2004; Tang 2012).

• Tang (2012), a new attribution theory provides a framework for constructing more disciplined explanation for actions: four internal factors, and the external environment impacts agents’ action via impacting the four internal factors (interest, capability, intention, and resolve). Following this framework, we will have much better structured explanation of actions.

• The explanatory framework is an INUS: the five factors are jointly sufficient, and each of them is necessary.
### Key Clarifications-I: The Role of Experimental Reasoning in Social Sciences

<table>
<thead>
<tr>
<th>Experimental Studies:</th>
<th>Non-experimental Studies (Observational): causal inference and causal explanation are more difficult.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Causal inference (of a treatment) is relatively easier.</td>
<td>Genuinely experimental: subjects are drawn and assigned to treatment, randomly. N is usually very large (&gt;80).</td>
</tr>
<tr>
<td></td>
<td>Most observational studies. Equilfinality (too many causal factors and pathways). N can be either large or small.</td>
</tr>
<tr>
<td>Quasi-experimental: subjects are not drawn, randomly. N is usually very large (&gt;80).</td>
<td>“natural experiments”: many possible confounding variables have been controlled by nature. But still the danger of missing conditions looms large. Usually very small N.</td>
</tr>
</tbody>
</table>
The Strength and Weakness of Experiments

- Shadish, Cook, and Campbell (2002, 18): “The Strength of experimentation is its ability to illuminate causal inference. The weakness of experimentation is doubt about the extent to which that causal relationship generalizes.”

- For example, can we extrapolate what we have learnt from mice to human, or even from rabbits, moneys to human? The answer is that “we do not know. [Hence, more experiments.]”

- This should alert us to the general difficulties of generalizing findings, from either quantitative studies (which are explicitly based on an experimental approach) or qualitative studies (which are based on thin/in-depth knowledge of a few cases/observations)