The responsibility-gap in self-organized social systems

Can empirical approaches in modeling social science and neuroeconomics help to close it?

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Overview

Roadmap:

- Definition: responsibility / responsibility gaps
- Observations
- Which responsibility gap?
- Setting the framework: “social network”, “social space”, “space of reasons”, “self-organization”
- Integrating responsibility as a “moralization function”
- Limits of responsibility (but nor morality)
Assumption: The minimal conceptual structure of “moral responsibility” involves three entities (that may coincide in their physical realization on a certain level of resolution):

- Responsibility subject (“who?”)
- Responsibility object (“for what?”)
- Responsibility instance (Instanz; “to whom?”)

Using the word “responsibility” in a specific social context can then be understood as an act of creation (or an act of unveiling) of these three entities.
**Responsibility gap**

**Responsibility gap (1):** One of the entities in a responsibility relation is unqualified to do its job (i.e. misses certain criteria in order to become a subject, object or instance of responsibility).

Ways out:

1) Change the criteria
2) Find a new entity that qualifies
3) Understand the problem as a (moral) problem that has nothing to do with responsibility.

**Responsibility gap (2):** We have a “compliance problem” regarding the responsibility subject/instance toward its responsibility object (maybe caused by the first interpretation of a responsibility gap).

4) Enhance the capacity of the entity (mostly S)
5) Reduce the number of Os
Three observations (mostly Switzerland-based)

1) “Responsibility” in public discourse
   
2) Addressing “Responsibility” on the legal level

3) Claiming a “lack of responsibility”

Zeitzeichen

Rede und Antwort stehen

Die Finanzkrise lässt sich auch als Verantwortungskrise begreifen
A responsibility gap?

These observations show conflicting opinions on the size of the set of “responsibility objects” (there I would localize a “gap”).

However: there are two different kinds of “gaps” possible:

**Drucker Institute:** “A great distance has opened up between our obligations and our actions.”

**Andreas Matthias (2004):** The responsibility gap: Ascribing responsibility for the actions of learning automata.
Setting the framework (1)

**Social networks:**
(spatio-temporal dynamics)
- Setting system boundaries
- Individual agent as node
- Choose type of interaction (edge)
- Choose timescale
- Differ between descriptive/normative networks

Symbols:
- Customer
- Unit leaders
- Team leaders
- Employees
- Administrative workforce
Setting the framework (2)

Social space:  
- (at least) three types of nodes  
- nodes (partly) emerge from clustering of data gained on the social network level  
- descriptive and normative “entanglement” in the measurement process (in particular when determining edges)
Setting the framework (3)

“Space of reason”:  
- (infinite) number of propositions that could serve as reasons in a given context 
- Agent has access to some part of this space 
- Justification-needs turn proposition in reasons
Some notes on “self-organization” (a tricky concept):

• It was defined in a (more or less) precise way in non-equilibrium thermodynamics

• It turned into a “buzzword” with low explanatory power (“Selbstorganisation des Universums”)

• But has now become (at least in agent-based modeling and the like) a more or less “stable concept” describing the emergence of “large-scale patterns” (structures, dynamics) out of the interaction of many single agents.

• And is in social science probably best expressed as the process that may emerge when liberty-rights are used (e.g. founding companies)
Integrating Responsibility (1)

Responsibility as a “moralization function”:
- $f : \{N \times E \times P\} \rightarrow \{S, O, I\}$
- Psychology of responsibility: local character (an important help to deal with `hidden normativity’)

![Diagram of Responsibility Concept](diagram.png)
Possible contributions of (modeling) social science towards the problem of responsibility (non-exhaustive list):

1. **Gap 1:** Understand the formation of candidates for “large-scale” S/O (entities in a social space) using (e.g.) a clustering framework.
   *But:* Problem of `hidden normativity’ in this measurement process AND normative status of the fact that these entities form as a result of a `self-organization process’.

2. **Gap 2:** Evaluation the effect of causal embedding of single agents in a multitude of activities towards agent’s capacity.
   *But:* Definition of the capacities in the model is a normative act itself.
Limits of responsibility (speculative)

- Duty
- Humility
- Honor
- Respect

Degree of offered freedom

Responsibility everywhere?

zero to maximal control ability

zero to maximal offered freedom