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Reflections on Impact Evaluation of Interventions in Social Organisations: A Strategic SWOT Analysis

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Introductory Remark

Last two decades

- **Increasing intensity** of **organisational interventions** (OI) (e.g. quality management (QM) & organizational development (OD)) in **social organisations**, particularly higher education institutions (**HEIs**)
- **Quality discourses** followed by debates about and attempts of **evaluating OI effectiveness/ impact**

That's why it seems time for a **conceptual cleanup** of **'evaluation'** and **'effectiveness/impact evaluation of OI'**.

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Research Question

What are the **methodological options, requirements** and **limitations** of **effectiveness/impact evaluation of organisational interventions in social organisations** (particularly HEIs) in theory and practice?

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Content

- **Methodologies of impact evaluation** of organisational interventions
- **Strategic SWOT analysis of impact evaluation in social organisations**
- **Summary/Conclusion**

- Appendix: About the meanings and types of **'evaluation'**

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Methodologies of impact evaluation of organisational interventions

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- **Experiment: simple linear systems, foremost basic models in the natural sciences**

  Allows to analyse **if** and **when** and **how** effects have been achieved – **reproducibility/complete control over model system and its context** – counterfactual available – **attribution problem solved** (e.g. by controlled boundary and initial conditions and dynamic equations)

- **Experiment, broadly conceived: non-linear complex systems, especially, but not exclusively in the social sciences**

  Investigators know about and (attempt to) **control the allocation of interventions** to the system under study and the **other relevant characteristics** of the **system** and its **context**; however, usually **no reproducibility/complete control** over model system and its context; **first of all, attribution problem unsolved**

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Methodologies of impact evaluation of organisational interventions

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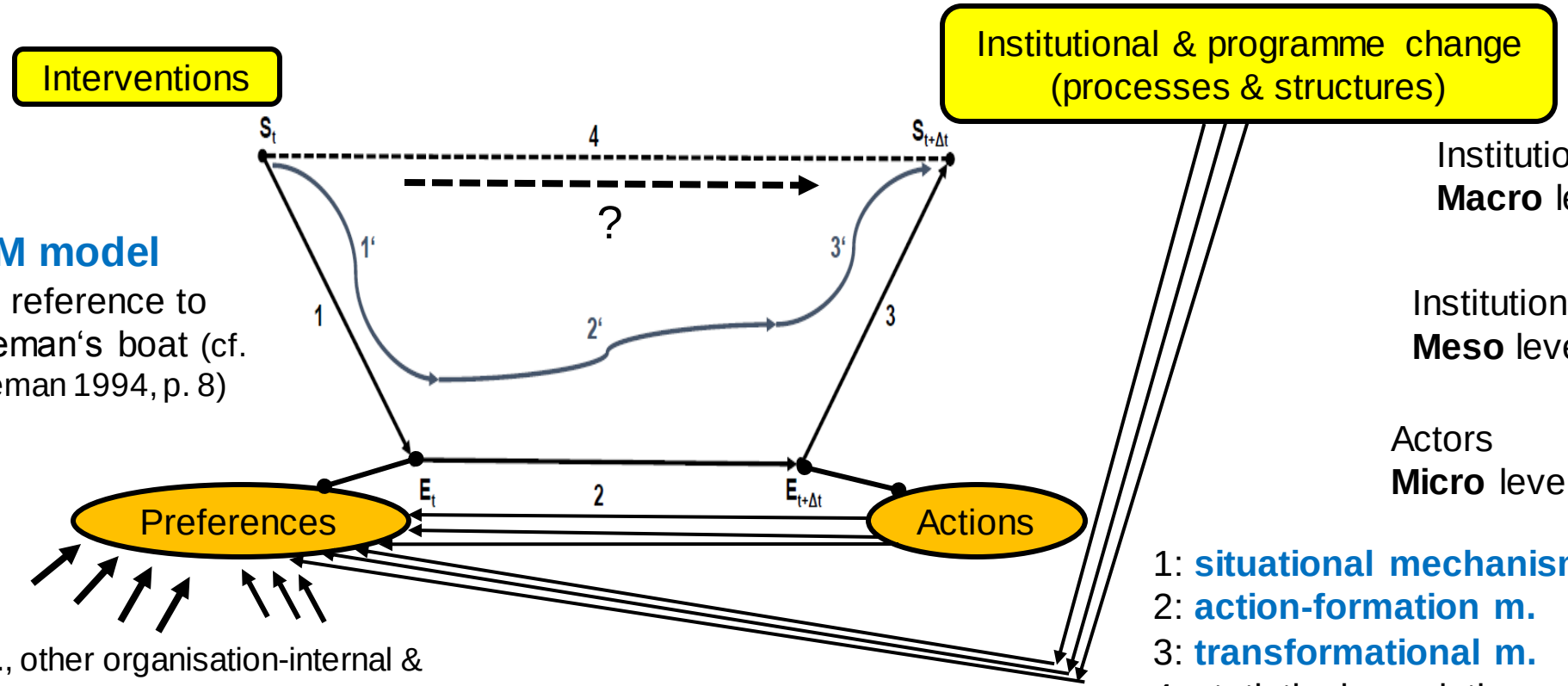
- **Causal social mechanism hypotheses (experiment, broadly conceived)**

  Investigators have (qualitative) **hypotheses in which ways effects are generated** by interventions - **counterfactual available under ideal conditions**



CSM model
with reference to Coleman's boat (cf. Coleman 1994, p. 8)

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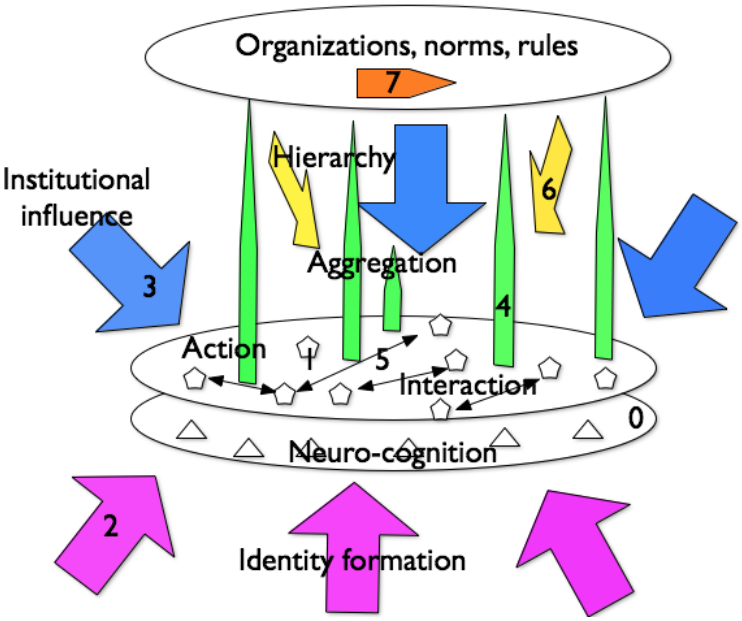
About the meanings of 'causal social mechanisms'

- Epistemological idea of causal networks or **"causal social mechanism"** (Gross 2009; Hedström & Ylikoski, 2010; Little, 2011; Little, 2015a; Steel, 2011) is **"that we explain not by evoking universal laws, or by identifying statistically relevant factors, but by specifying [causal] mechanisms that show how phenomena are brought about"** (Hedström, 2005, p. 24).
- CSMs are "complexes of interacting individuals, [bodies and institutions] usually classified into specific social categories that generate causal relationships between aggregate-level variables. A mechanism will be said to be from the variable *X* to the variable *Y* if it is a mechanism through which *X* influences *Y*" (Steel, 2004, p. 59).
- In a nutshell, a CSM is "the [**social**] **pathway or process by which an effect is produced or a purpose is accomplished**" (Gerring, 2007, 178).



from: Daniel Little, **Classifying mechanisms by location**, August 02, 2014, http://www.google.de/imgres?imgurl=http%3A%2F%2F2.bp.blogspot.com%2F-HAluvk5b-5U%2FUMFIPAu_uRI%2FAAAAAAAAAG_Q%2FWcWfXnK2iNc%2Fs1600%2FScreen%252BShot%252B2012-12-06%252Bat%252B8.34.41%252BPM.png&imgrefurl=http%3A%2F%2Fundsoc.org%2Ftag%2Fmechanism%2F&h=325&w=477&tbnid=VaTtYnxYjIdJGM%3A&docid=ygBUSB19425hWM&ei=fwzwVa6RDYqtU9zdofAP&tbm=isch&iact=rc&uact=3&dur=170&page=1&start=0&ndsp=43&ved=0CCEQrQMwAGoVChMI7szA1eHpxwIVitYUCh3cbgj-

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About the meanings of 'causal social mechanisms'

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Table 3: Choice of mechanisms mediating **quality management** influence on **social organisations**, particularly **higher education institutions** (adapted from Mark & Henry 2004, p. 41)

Type of mechanism/ outcome	Mechanisms/outcomes		
	Individual	Interpersonal	Collective
General influence	Elaboration; Heuristics; Skill acquisition	Justification; Persuasion; Change agency	Ritualism; Coalition formation; Standard setting; Policy consideration
Cognitive and affective	Opinion/ attitude valence	Local descriptive norms	Agenda setting; Policy-oriented learning
Motivational	Personal goals and aspirations	Injunctive norms; Social reward	Structural incentives
Behavioural	New skill performance; Individual change in practice	Collaborative change in practice	Program change; Institutional change; Policy change

(Leiber, Stensaker & Harvey, 2015, 293, Table)

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Methodologies of impact evaluation of organisational interventions

- **Random control trial (RCT)** design / **With-without comparison** design **(experiment, broadly conceived)**

  Random assignment of 'individual cases' to treatment group and control group – **counterfactual available under ideal conditions** of 'perfect' RCT (= same conditions except intervention treatment)

- **Before-after comparison (BAC)** design **(experiment, broadly conceived)**

  Comparison of system before and after treatment – **counterfactual available under ideal conditions** of 'perfect' BAC (= no other influence except intervention treatment)

  - **Participants' assessments of intervention effects** (e.g., via **standardised surveys** and **structured interviews with** key informants, experts, …)
  - **Analysis of documents & data/observations**

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Methodologies of impact evaluation of organisational interventions

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- **Ex-post analysis (non-experimental; observational)**
  Analysis of system (distinctly) after treatment – generally **no counterfactual available** (except CFSE)

  - **Participants' assessments of intervention effects** (e.g., via **standardised surveys** and **structured interviews with** key informants, experts, …)
  - **Analysis of documents & data/observations**
  - **Counter-factual self-estimation (CFSE)** (Müller et al., 2014)
  - **Regression analysis (statistical designs)**

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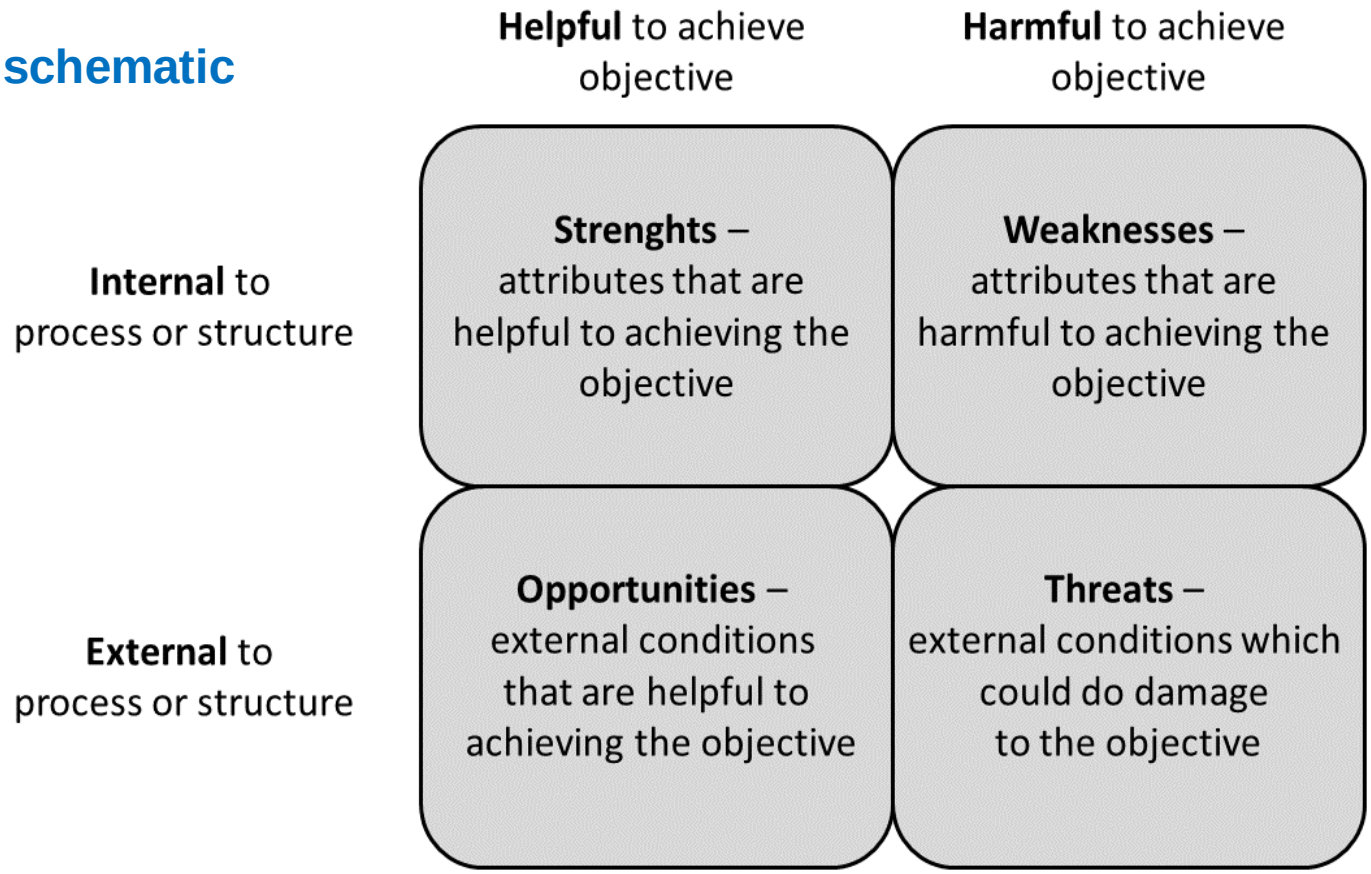
SWOT analysis of impact evaluation in social organisations

SWOT analysis - schematic



(Leiber, Stensaker & Harvey, 2018, 353, Figure 1)

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SWOT analysis of impact evaluation in social organisations

Strategy matrix for SWOTs of a selected area of analysis

	Weaknesses (W) (clearly defined; prioritized)				**Opportunities (O)** (clearly defined; prioritized)				**Threats (T)** (clearly defined; prioritized)			
	1.	**2.**	**3.**	**...**	**1.**	**2.**	**3.**	**...**	**1.**	**2.**	**3.**	**...**
Strengths (S) (clearly defined; prioritized)	**Strengths-based strategies to overcome weaknesses (S/W)**				**Strengths-based strategies to take advantage of opportunities (S/O)**				**Strengths-based strategies to avoid threats (S/T)**			
1.												
2.												
3.												
...												

(Leiber, Stensaker & Harvey, 2018, 355, Table 3)

Strategy matrix "aims at **utilising strengths to overcome weaknesses, exploit opportunities and avoid threats**" (Leiber, Stensaker & Harvey, 2018, 355).

The "SWOT analysis shall contribute to identify the most reliable methodology and methodological elements of impact evaluation" of organizational interventions „as well as suggestions for tackling the weaknesses, opportunities and threats through taking advantage of the strengths" (Leiber, Stensaker & Harvey, 2018, 356).

Methodological SWOTs of RCT impact evaluation and its strategy matrix

STRENGTHS	WEAKNESSES
1. **(Attempt to) Control of system, its context and interventions by comparison of treatment and control group** (field and survey "experiments" under complexity conditions; definite independent variables)	1. **No explicit causal counterfactual available** 2. **No context-mechanism-outcome (CMO) configuration (= CSM)** 3. **Hard to detect unintended effects**
OPPORTUNITIES	**THREATS**
1. **Devising the causal network:** develop ideas for CSM and **complement** by causal social mechanisms and other impact evaluation designs	1. **Proper implementation of methodology** 2. **Attribution problem** 3. **Difficulty to find/construct equivalent control groups** 4. **Stability/sameness of boundary conditions for treatment and control groups contested/ questionable** (e.g. limited control of "constant context" because of contingencies of causal dynamics; difficulty to verify same-in-everything-else condition; bias of readiness for change in selected treatment group; reliability of constructed indep. var.) 5. **Withhold of intervention in control group (probably) unethical** 6. **Withhold of RCT design (probably) unethical** (Cook et al., 2010, 112) 7. **Expenditure** (workforce, time, money)

	W			O	T						
	1.	2.	3.	1.	1.	2.	3.	4.	5.	6.	7.
S	S/W			S/O	S/T						
1.	–	– *	– *	Use RCT data to develop hypotheses about causal network mechanisms (CMO/CSM)	–	Indirect use of S to avoid T_2: Use hypotheses about causal network mechanisms to approach attribution problem	–	–	– *	–	–

Methodological SWOTs of BAC impact evaluation and its strategy matrix

STRENGTHS	WEAKNESSES
1. **Avoidance of complete dependence on ex-post available data**	1. **No explicit causal counterfactual available** 2. **No context-mechanism-outcome (CMO) configuration (= CSM)** 3. **Hard to detect unintended effects**
OPPORTUNITIES	**THREATS**
1. **Devising the causal network: complement** by causal social mechanisms and other impact evaluation designs 2. **Feasibility of dense longitudinal analyses**	1. **Proper implementation of methodology** 2. **Attribution problem** 3. **Maintaining same-in-everything-else condition** (ceteris paribus) **difficult** (e.g., fluctuating respondent groups; further undetected causes/ interventions; undetected varying CSMs) 4. **Expenditure** (workforce, time, money) 5. **Dependence of impact evaluation on biases of evaluation informants** (partiality)

	W			O		T				
	1.	2.	3.	1.	2.	1.	2.	3.	4.	5.
S	S/W			S/O		S/T				
1.	–	– * *	– *	Use data of simultaneous before-after surveys to develop hypotheses about causal network mechanisms	Carry out dense series of surveys to establish dense longitudinal analyses	–	Indirect use of S to avoid T_2: use hypotheses about causal network mechanisms to approach attribution problem	– *	–	– *

* = to be treated by other methodologies

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Summary/Conclusion

- **Control group designs** (e.g. RCT) **are hardly successfully applicable** for impact evaluation of organisational interventions in social organisations, particularly HEIs, for reasons of their **diversity**, **dynamicity** of organisations and their **context** and **ethical issues**
- Under such conditions, **BAC-based approaches** and **causal social mechanisms (CSM)** would be preferable for methodological reasons ("What works for whom in which circumstances?"; Nielsen & Miraglia, 2017). However, there are **also severe limitations** to these approaches:
  - BAC mainly suffers from pragmatic restrictions of the temporal density of succession of surveys
  - Impact evaluations based on causal mechanisms (e.g. agenda setting; coalition formation; persuasion; collaborative change in practice) are confronted with entangled mechanisms mixtures, require very detailed knowledge of the specific mechanisms in place at a certain organisation and depend on the accessibility of well-engaged stakeholders and their willingness for participation, e.g., in interviews

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Summary/Conclusion

- **Certain weaknesses** of impact evaluation **can be overcome**, e.g. budget and process time restrictions, while **others cannot**, e.g. systematic limitations of methodologies

- **Certain threats** of impact evaluation **can be tackled**, e.g. proper implementation of methodologies, **while others** at most can **only approximately** be solved, e.g. attribution problem

- **No best single cross-case methodology for warranting reliable causal inference**

- **In practice, all methodologies remain approximative: "Usually no easy solutions** to more profound weaknesses and threats of methodologies and practice of impact evaluation, i.e. these are unavoidably with us to a certain extent, and […] researchers as well as practitioners have to deal with them discoursively" (Leiber et al. 2018, 361)

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Summary/Conclusion

Methodological pluralism incl. **mixed-methods** combining quantitative and participatory qualitative approaches incl. theory-based evaluations (if applicable): Impact evaluation of organisational & social interventions should **not be reduced to one puristic strand of methodology** (such as RCT; BAC; EPA; CSM; …)

- Different methodologies have different context-dependent SWOTs: **no rigorous case-independent priorization of SWOTs possible**
- Impact evaluation methodology must be chosen according to evaluation problem (e.g. system type; intervention type; objectives of intervention; the type and availability of data and information)
- In general: **mix of methodologies appropriate which supplement each other**

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Summary/Conclusion

Principles of 'theory-based' **impact evaluation** (Leiber, Stensaker & Harvey, 2015, 294 f.)

- **Devising the causal network**
  - **Understanding the context**
    (take into account institutional, social, economic, political framework conditions which are influential to interventions and its effects, …)
  - **Designing the causal network model**
    (CSM; counterfactual statement and its approximations: RCT, BAC, EPA, …)
- **Methodological pluralism** (including **mixed-methods**):
  Methodological 'gold standard' (loosely after Aristotle)**: choose design and method according to task, and not vice versa**

- **Slight theoretical preference for causal social mechanisms approach**

"It would be wonderful to be a true believer; but I can never manage it; almost everything is grey to me, albeit different shades of that 'color'"

(Tom Cook: Cook et al., 2010, 115).

Thank you very much for your attention!