I   Research Question

(1) What is a Research Question?

(2) How can I identify a research question?

(3) How should I select between different possible research questions?

- Path dependence of research projects: A "good" research question is of utmost importance for the quality of your research project

- Ask a (descriptive or causal) question!

- A good research question leads to at least a few plausible answers

- Divide your potential answer into a number of empirically testable hypotheses, by (a) descriptive inference, (b) causal inference

- Design your research so that it is potentially possible to arrive at causal inferences

- Seek to find causal relationships that can be generalised

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Identifying a relevant research question

- What contribution to the literature are you going to make?

- Start with a systematic analysis of the state of the art, then

(a)   test so far untested hypotheses or

(b)   test a hypothesis from the literature that you think is wrong or

(c)   identify logical inconsistencies of a given theory or

(d)   identify critical cases or

(e)   develop a new concept or

(f)   formulate an alternative explanation or

(g)   apply a given theory to a new empirical domain or

(h)   synthesize different theories or

(i)   introduce new conceptual tools/methods

► standard approach, but: implies that we have cumulative body of knowledge.

Alternative approach: start with a topic on a country, region or time span you are really interested in and then systematically collect empirical information on the universe of cases.

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Relevance criteria

- Methodological appropriateness

- Theoretical relevance (peer perspective): Does the contribution increase social scientists' analytical leverage?

- Social relevance (non-peer perspective): Who is affected? How can the results be evaluated? Which advice can be offered? But: It is not "the people" who decide whether your research is socially relevant.

- Is there a trade-off between theoretical and social relevance? My position: research question has to be theoretically relevant. If you can additionally show the social relevance of your research – fine!

Other Relevance criteria

- Research grants

- Publications

- Citations

- Public attention

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II Causality

Descriptive vs causal inference

Descriptive inference: deducing/inferring from observed facts (behaviour, event ...) on non-observed facts.

Causal inference: deducing/inferring from observed facts on the causal factors that lie behind.

Different causality concepts in the social sciences:

Minimal definition: „Minimally, causes may be said to refer to events or conditions that raise the probability of some outcome occurring (under ceteris paribus conditions)" (Gerring 2005: 169).

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Two problems with regard to capturing causality

Fundamental problem of causality: If I wish to identify a causal relationship between X and Y without doubt, I have to test the same case with and without an impact of X. This is only possible in lab experiments.

Problem of distinguishing between systematic and non-systematic components of an impact.

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Solution
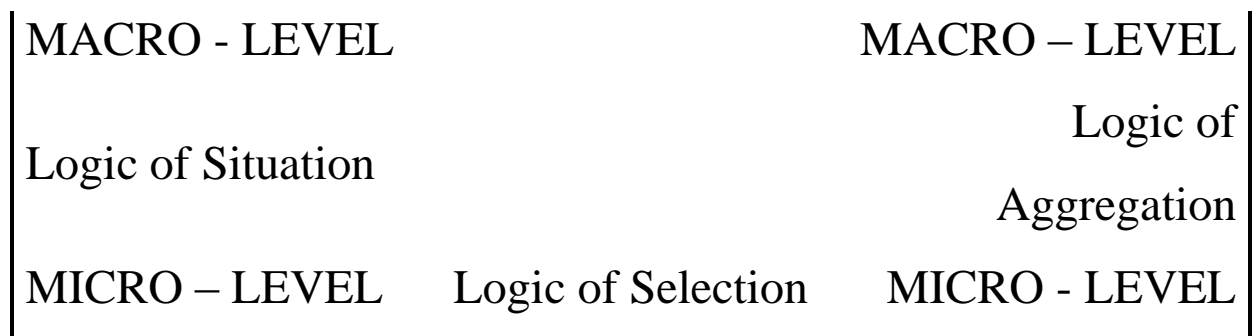
homogeneity of units of analysis: if lab conditions are not feasible, second-best solution is to choose homogeneous units of analysis

Concept of causal effects (King/Keohane/Verba)

- Focus: effect/impact of X on Y.

- Causal effect: difference between the value of Y when X has an impact and when X does not exist/does not have an impact (contrafactual case)

- Causal effect is given when the difference between the values stays the same under as many replications as possible.

- Replications cancel out different non-systematic effects.

Concept of causal mechanisms (Geddes)

- Focus on processes

- Processes often cannot be reduced to simple causal relationships between X and Y (longer causal chain)

- Then we have to divide the chain into small steps: A leads to B, B leads to C, C leads to D and so on.

- The different steps are analysed regarding actor behaviour.

- Bath tub model of identifying causal mechanisms:

MACRO - LEVEL		MACRO – LEVEL
Logic of Situation		Logic of Aggregation
MICRO – LEVEL	Logic of Selection	MICRO - LEVEL

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Concept of multiple causality (Ragin)

- combinations of factors have an impact

- employs Boolean algebra

Others

- irreversible causes (ratchet effect-relationships)

- non-linear causes: relationships with take-off or threshold value

- path-dependent causes and critical junctures: relationships where causes at time point t_0 have long-term effects

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Conclusion

- Two different strands: correlational vs mechanismic understanding of causality, with different consequences for research design, but same standards/criteria (see Gerring 2005)

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X-centered vs Y-centered research designs

(Ganghof 2005)

- X-centered research: forward-looking, asks about impact/effect of one or more independent variables. => What is the effect of X?

- Y-centered research: backward-looking, asks about causes for a given Y. => What explains Y? (Puzzle perspective)

► Has enormous consequences for the research design.

- It is not parallel to the one between quantitative (causal effects) and qualitative (causal mechanisms) research designs:

	Y – centered Research Strategy	X – centered Research Strategy
Quantitative Method	Large R^2; Critique: „kitchen sink"-regressions	Partial effects of specific expl. variables; Short causal chains, minimum of intervening variables
Qualitative Method	'Lego Strategy'; Splitting of more complex questions into small ones	Aims at an encompassing explanation

- These strategies can also be combined, mixed-methods designs.