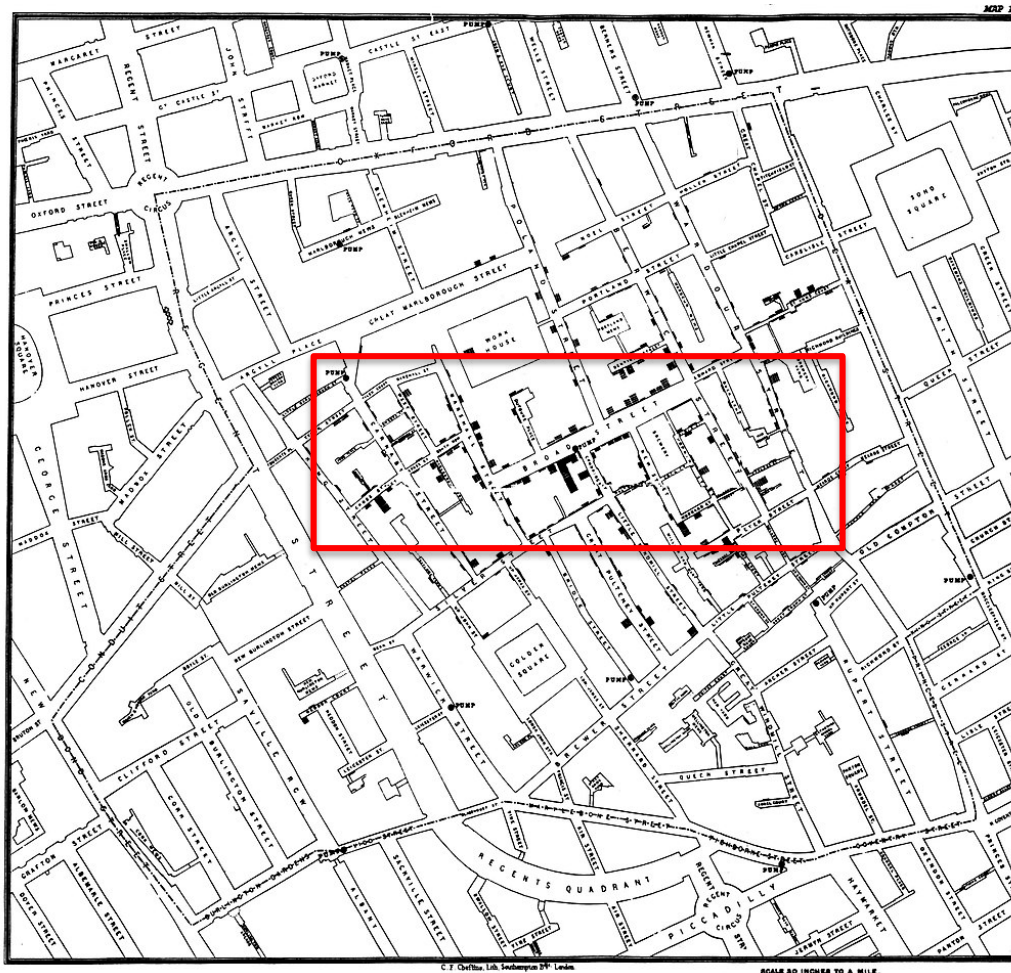


# INTRODUCTION INTO NATURAL EXPERIMENTS

**Jost Sieweke**

Vrije Universiteit Amsterdam

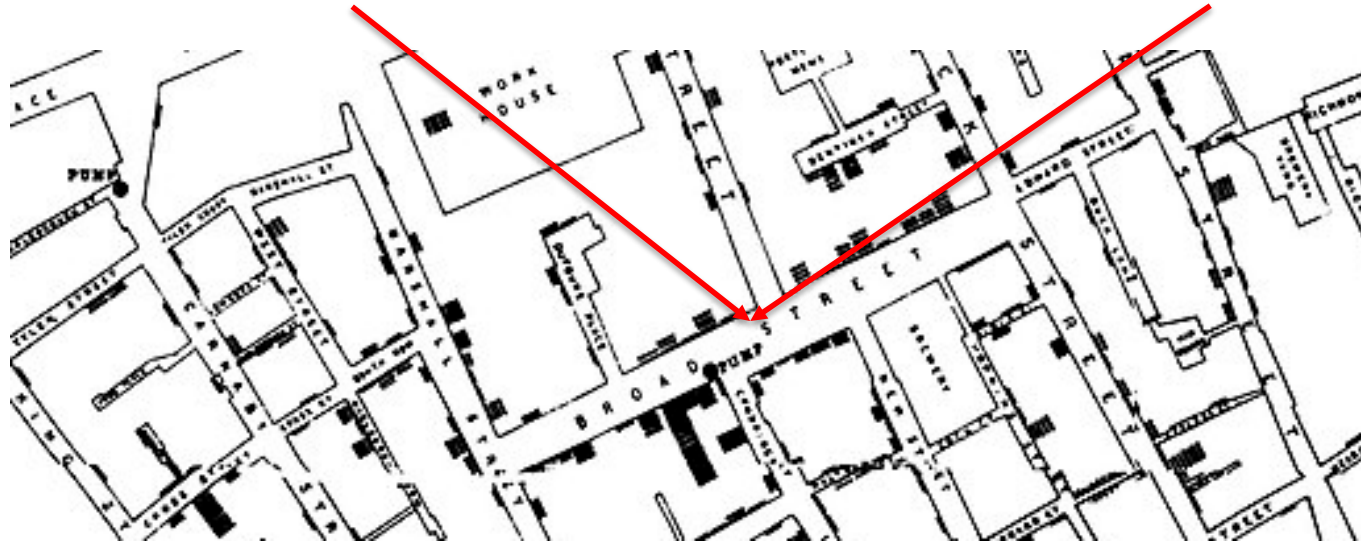
# THE 1854 LONDON BROAD STREET CHOLERA – THE (PROBABLY) 1<sup>ST</sup> NATURAL EXPERIMENT



# THE 1854 LONDON BROAD STREET CHOLERA – THE (PROBABLY) 1<sup>ST</sup> NATURAL EXPERIMENT

**Lambeth Waterworks Company**  
Water intake: Seething Wells

**Southwark and Vauxhall Water Company**  
Water intake: Sewage of London



“[...] people of both sexes, of every age and occupation, and of every rank and station, [...] were divided into two groups without their choice, and, in most cases, without their knowledge; one group being supplied with water containing the sewage of London, and, amongst it, whatever might have come from the cholera patients, the other group having water quite free from such impurity.” (Snow, 1855, p. 75)

# CHARACTERISTICS OF NATURAL EXPERIMENTS

	Treatment and control group	Assignment	Intervention under researcher's control	Research setting
Laboratory experiment	Yes	Random	Yes	Laboratory
Natural experiment	Yes	As-if random	No	Field
Observational study	Yes	Non-random	No	Field

# NATURAL EXPERIMENTS: TWO EXAMPLES

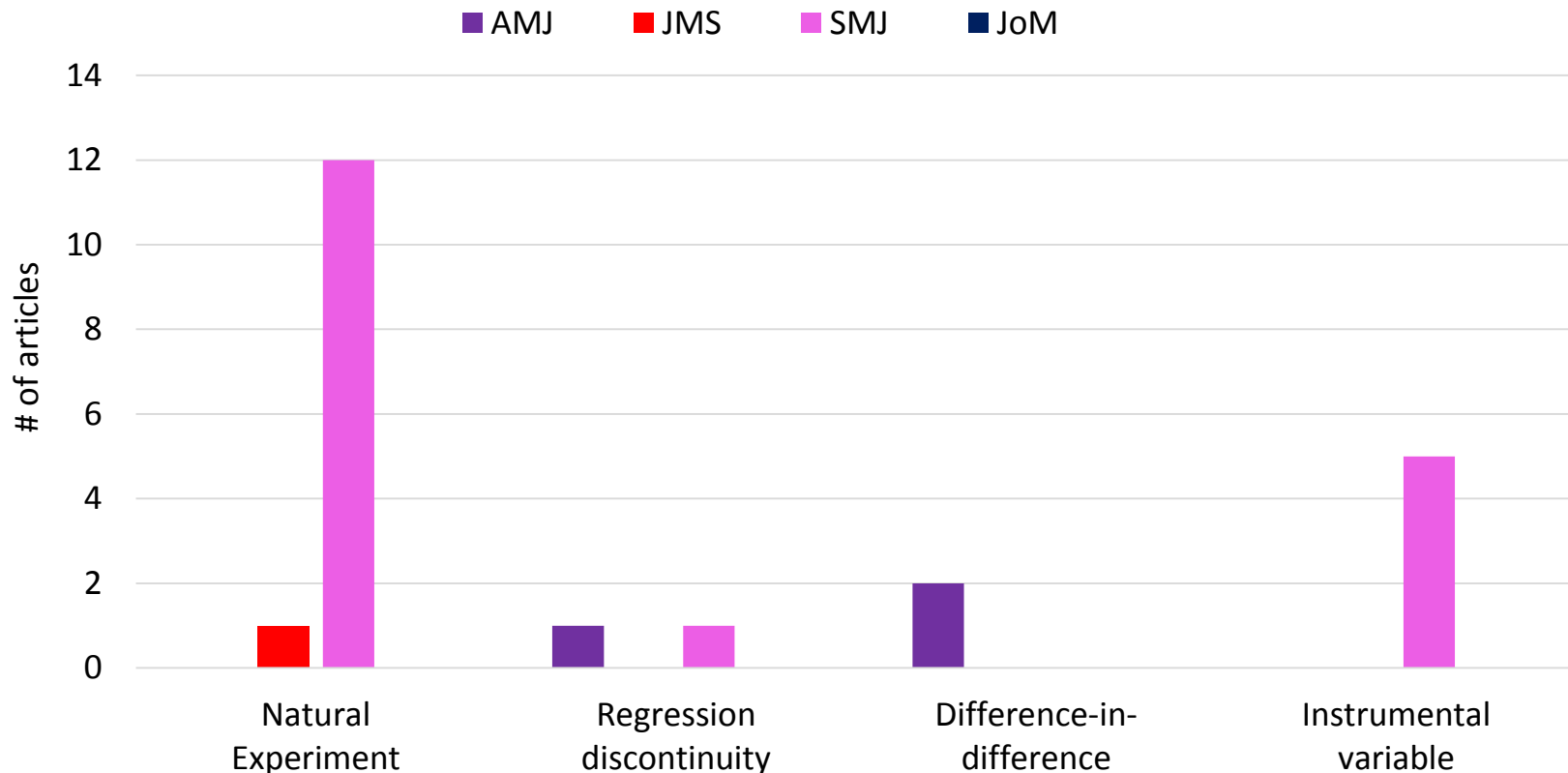
## Work attitudes as predictors of attendance on a specific day (Smith, 1977, JAP)

- IV: Job satisfaction
- DV: Work attendance
- Exogeneous event: snowstorm

## The legitimacy of inequality: Integrating the perspectives of system justification and social judgment (Haack/Sieweke, 2018, JMS)

- IV: Living in a system in which inequalities are legitimized
- DV: Perceived legitimacy of inequality
- Exogenous event: German divide in 1949 (socialist state and capitalist state) and reunification in 1990

# NATURAL EXPERIMENTS IN MANAGEMENT AND ORGANIZATION STUDIES



Search for keywords „natural experiment“, „regression discontinuity“, „difference-in-difference“, and „instrumental variable“ in abstract in Academy of Management Journal (AMJ), Journal of Management Studies (JMS), Strategic Management Journal (SMJ) and Journal of Management (JoM). Date of search: 08/07/2018

# CONCLUSION

- Natural experiments have the potential to provide insights into causal relationships
- Management scholars rarely apply natural experiments
- Goal: Familiarize scholars with natural experiments