

The Joy of Research

“It's an experience like no other experience I can describe, the best thing that can happen to a scientist, realizing that something that's happened in his or her mind exactly corresponds to something that happens in nature. It's startling every time it occurs. One is surprised that a construct of one's own mind can actually be realized in the honest-to-goodness world out there. A great shock, and a great, great joy.” (Leo Kadanoff, Chaos)

Can we systematically study
human social behavior?
YES!

- Research methods = rules
- Theory vs. observation
- Theories & paradigms
- Observations & social regularities



Percentage Voting for Presidential Candidates (2004), by Sex

<u>Candidate</u>	<u>Men</u>	<u>Women</u>
Kerry	44	51
Bush	55	48
Total	99%	99%

Source: New York Times, Nov. 7, 2004 (sample: n=13,600 voters)

Percentage Voting for Presidential Candidates (2004), by Race

<u>Candidate</u>	<u>White</u>	<u>Black</u>	<u>Hispanic</u>	<u>Asian</u>
Kerry	41	88	56	58
Bush	58	11	43	41
Total	99%	99%	99%	99%

Source: New York Times, Nov. 7, 2004 (sample: n=13,600 voters)

Percentage Voting for Presidential Candidates (2004), by Age

<u>Candidate</u>	<u>18-29</u>	<u>30-44</u>	<u>45-59</u>	<u>60+</u>
Kerry	54	46	48	46
Bush	45	53	51	54
Total	99%	99%	99%	100%

Source: New York Times, Nov. 7, 2004 (sample: n=13,600 voters)

Percentage Voting for Presidential Candidates (2004), by Religion

<u>Candidate</u>	<u>All Protestants</u>	<u>White Protestants</u>	<u>Catholics</u>	<u>Jews</u>
Kerry	40	32	47	74
Bush	59	67	52	25
Total	99%	99%	99%	99%

[note: religion variable not mutually exclusive, nor exhaustive]

Source: New York Times, Nov. 7, 2004 (sample: n=13,600 voters)

Percentage Voting for Presidential Candidates (2004), by Education

<u>Candidate</u>	<u><HS Grad</u>	<u>HS grad</u>	<u>Some college</u>	<u>College grad</u>	<u>Post graduate</u>
Kerry	50	47	46	46	55
Bush	49	52	54	52	44
Total	99%	99%	100%	98%	99%

Source: New York Times, Nov. 7, 2004 (sample: n=13,600 voters)

Percentage Voting for Presidential Candidates (2004), by Family Income

<u>Candidate</u>	<u>< \$15,000</u>	<u>\$15,000- \$29,999</u>	<u>\$30,000- \$49,999</u>	<u>\$50,000+</u>
Kerry	63	57	50	43
Bush	36	42	49	56
Total	99%	99%	99%	99%

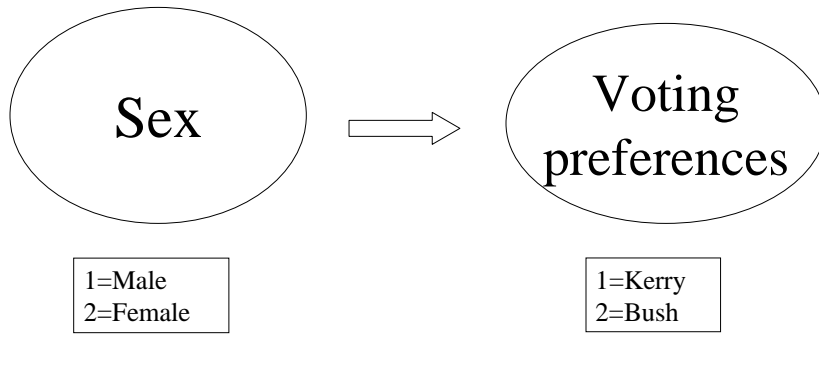
Source: New York Times, Nov. 7, 2004 (sample: n=13,600 voters)

Percentage Voting for Kerry vs. Bush (2004), by
Other Relevant Variables

<u>Variable</u>	<u>Kerry</u>	<u>Bush</u>
All voters	48	51
Percentage of first-time voters	53	46
Gay, lesbian, or bisexual	77	23
Attend church at least once/week	39	61
Feel better financially today than four years ago	19	80
Feel worse financially today than four years ago	79	20

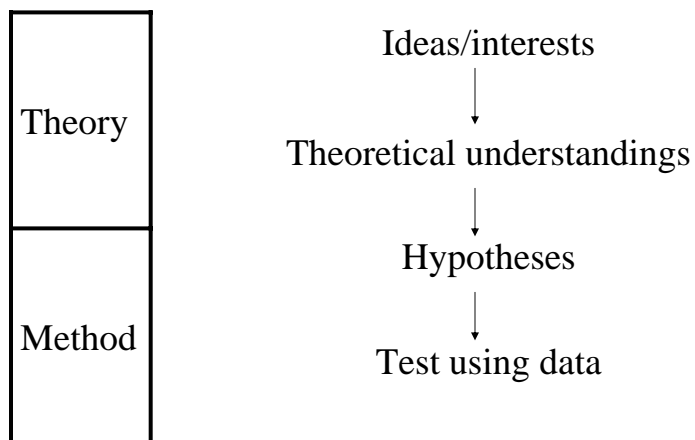
Source: New York Times, Nov. 7, 2004 (sample: n=13,600 voters)

Social Regularity:



Remember:
DATA ARE!

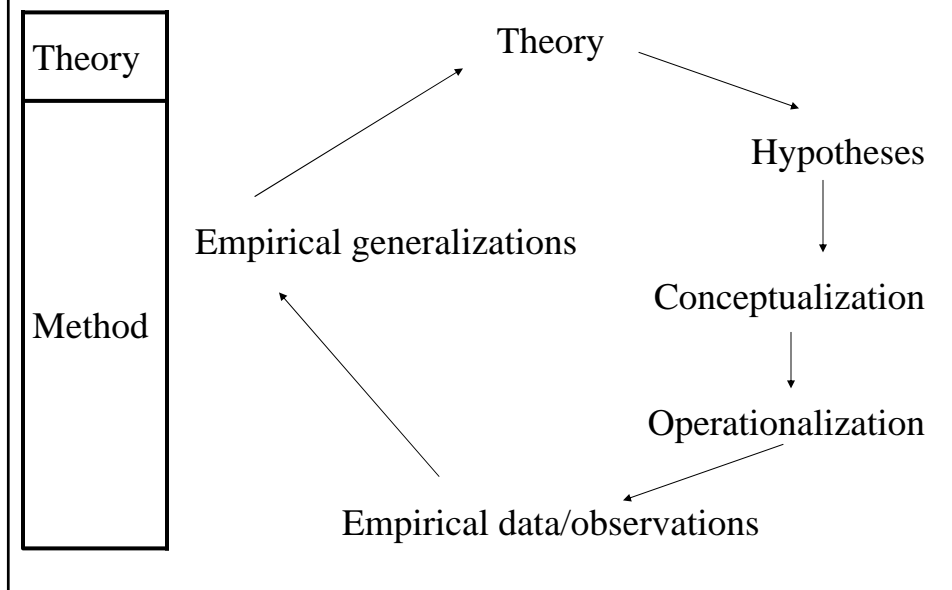
Traditional Model of Science



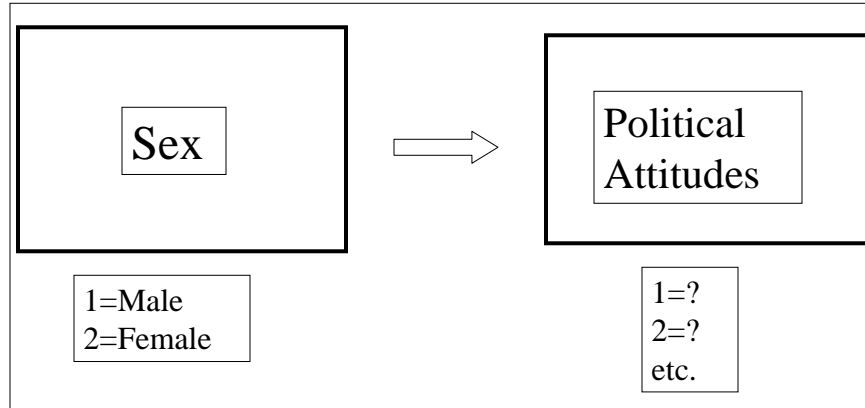
Traditional model of science: Definitions

- **Theory:** proposition to explain social regularity
- **Hypothesis:** expectation derived from theory
- **Method:** translate into testable hypotheses
- **Deduction:** using theory to derive hypotheses
- **Problems?**
- **Induction:** reformulating theory

How Science Really Works



Empirical example



How Science Really Works: Definitions

- **Theory:** proposition or set of propositions
- **Hypothesis:** formal statement (express direction)
- **Conceptualization:** how to measure
- **Operationalization:** exact measurement
- **Empirical data collection/Data analysis**
- **Empirical generalization**
- **Reformulating theory:** feedback