wrapping up

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outline

conclusion (p.240-254 Wheelan, 2013)

reg ps comments

- some confuse IV and DV!
  - big mistake
  - remember that DV is usually in the header of the table
  - and IVs are always in the rows: if you talk about IV that is not in one of the rows with assoc coeffs, it doesnt't make sense
  - and note the dummies and omitted/baseline/ref cat–always the omitted one
- standardized or 'beta' coefficient–can compare magnitude across apples and oranges; and interpretation is one std dev increase in x leads to β std dev change in Y
- idealy don't forget about substantive/practical significance in addition to statistical significance

outline

conclusion (p.240-254 Wheelan, 2013)

data, data everywhere

- eg goog timeline https://support.google.com/maps/answer/6258979
- again see: www.economist.com/node/15557443
- Wheelan (2013) discusses uses of data, eg:
- Target predicts better pregnancy of your daughter
  - she buys unscented lotions, vitamins, etc (Wheelan, 2013, p252-3)

so what?

- use data! (do stats)
- or read about using it (lit rev)
- AND ALWAYS think about it! (critique research)
- this is *important* for final project in this class
- and use stat software (Python, etc): a job skill!

remember stats is positive, not normative

- it says what it is
- not what it should be
- for the latter we need something like philosophy or religion
- https://en.wikipedia.org/wiki/Positive_statement
- dog fighting used to be socially acceptable, but not anymore
  - same thing may happen to football (p242-244)
- simlarly, research can help evaluate damage from say cigars v cigarettes
  - but cannot tell us what to do about it

be skeptical

- eg correlation $\neq$ causation
  - MMR vaccine, autism (p245,246)
- also: measurement
  - many ways to measure the same thing
  - no measure is perfect
  - all measures oversimplify
- eg: teacher ratings, school ratings (p246-249)

do experiments!

- again, experiment is the gold standard
  - (superb internal validity, but usually poor external)
- eg: force Indian teachers to show up by recording them
  - randomly assign cameras (p250)

the end!

- let's keep in touch
- keep me posted about your research endavours!
- email me, stop by
- let's have a coffee

Mohr, L. B. (1995): Impact Analysis for Program Evaluation, Sage, Beverly Hills CA, second edition ed.

Shadish, W. R., T. D. Cook, and D. T. Campbell (2002): Experimental and quasi-experimental designs for generalized causal inference, Wadsworth Cengage learning.

Wheelan, C. (2013): Naked statistics: stripping the dread from the data, WW Norton & Company.