experiment sandbox



resource: experimental design 4 the life sciences 4e

@cjlortie

pseudoreplication is a pseudoissue

Oksanen 2001

mean of sample close to the mean of population representativeness



independence is the measure of one sample not influenced by the value of another

most simple stats assume independence & an accurate scope of inference (and conclusions) benefits from true breadth

replicates that are unduly influenced by one another or a third variable are **pseudoreplicates**



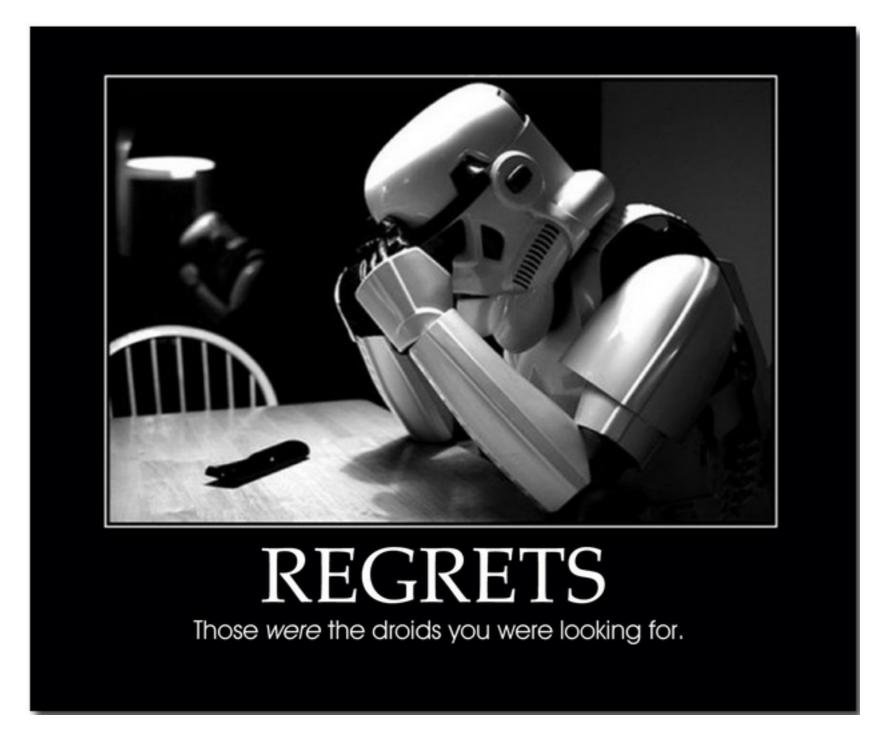


N versus n is a simple, powerful concept in design

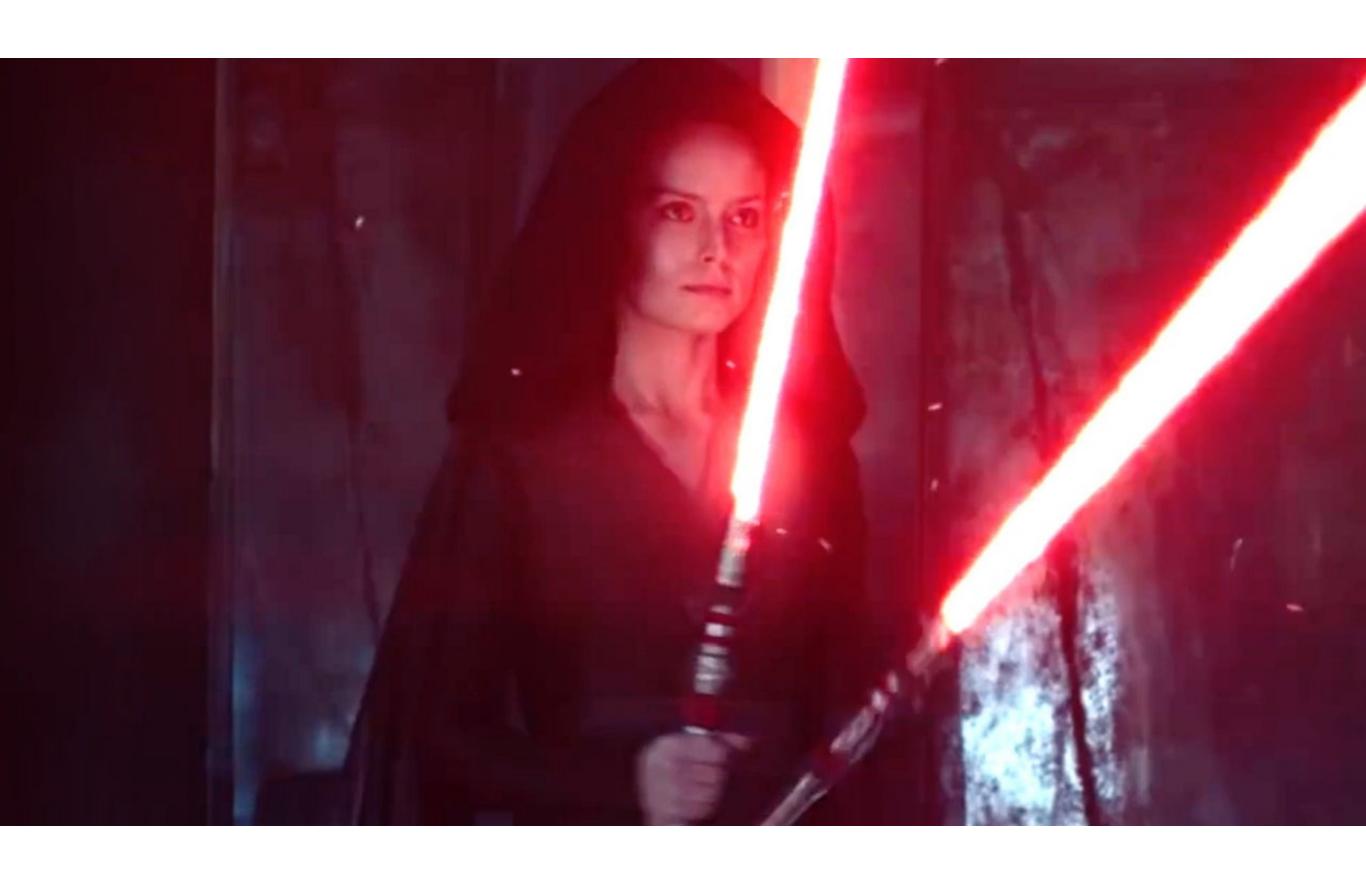
why does it matter?

falsely inflates sample size ignores third variables does not sample extent of true variation

solution change scope of inference

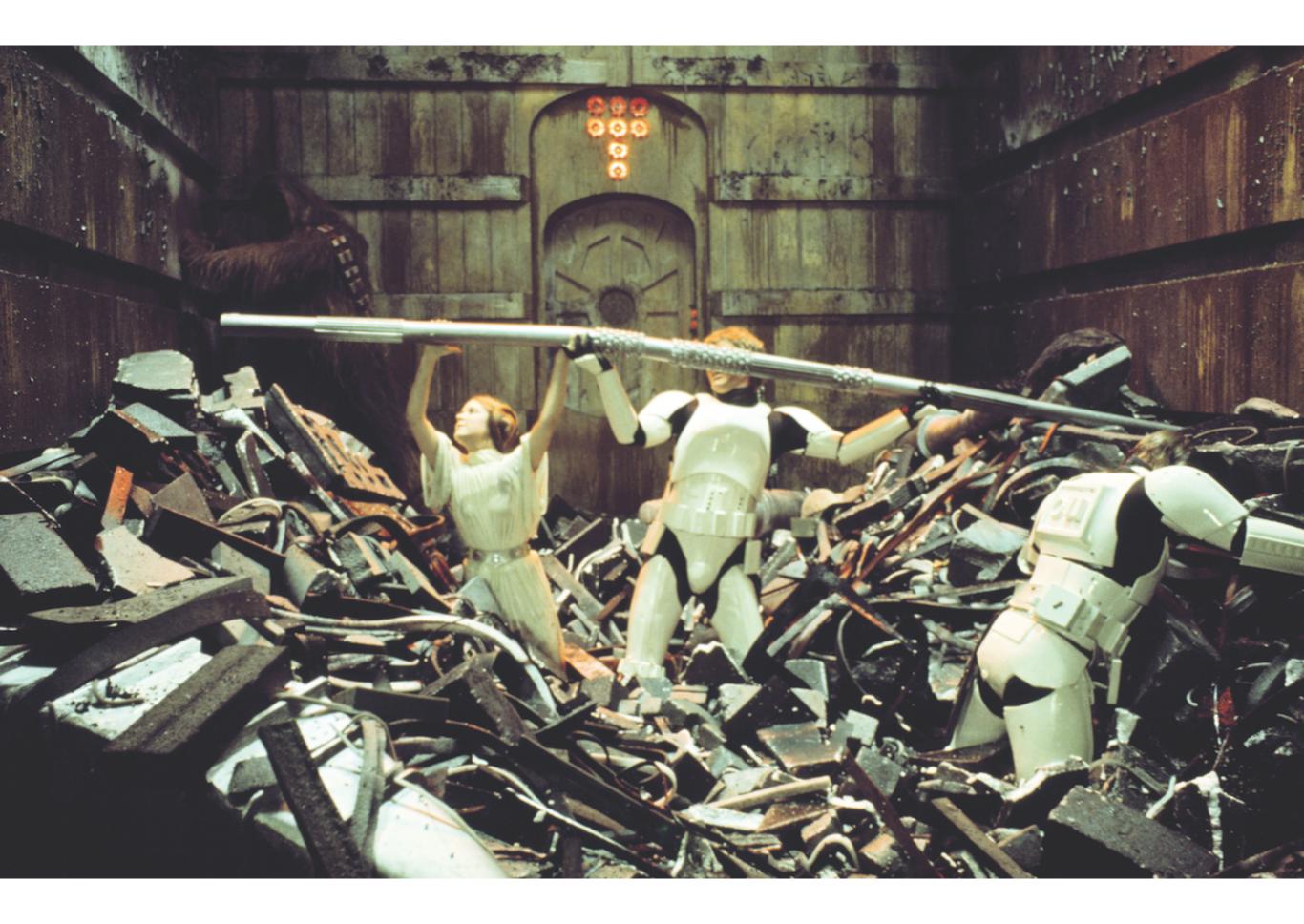


discuss and interpret the scale that you sample



sources

shared enclosure common environment relatedness shared stimulus individuals within environment time species traits



design not necessarily statistics





choose scale **wisely**

global regional local site plot individual

subjects



cross-sectional study
is a snapshot of a population
a single point in time



can lead to cohort effects

longitudinal study follows individuals through time



shift the focus & clearly state design objectives

