

Experimenter Bias

- *when the beliefs and/or expectancies (conscious or otherwise) of the experimenter influence the results*

e.g., the experimenter knows that Condition A is predicted to produce higher scores than Condition B

the experimenter, wittingly or unwittingly, behaves in a manner that could raise scores in Condition A as compared with Condition B

since experimenter behavior is correlated with condition (i.e., is different between conditions), it's a confound

Experimenter Bias

- reducing the chance of experimenter bias
 - 1) reduce the involvement of human experimenters
 - 2) standardize the behavior of human experimenters
 - 3) remove the human experimenters' knowledge

Experimenter Bias

- checking for experimenter bias

if you haven't been following the standard advice,
then run an experiment that does

if you have been following the standard advice,
(and you're still worried about this issue for some reason)

then run a "null-manipulation" experiment

(this is a type of control experiment)

or run a parametric experiment

Participant Bias

- *when the beliefs (conscious or otherwise) of the participant concerning how they should behave influence the results*
- several sub-types
 - some act like confounds
 - some influence the results more generally

Participant Bias

- Demand Characteristics + “good subject” behavior
 - is driven by the conditions
 - causes different behavior in different conditions
 - therefore
- Evaluation Apprehension
 - is driven by the entire experimental context
 - has the same general effect on all conditions
 - therefore

Participant Bias

- reducing the chance of participant bias

“good subject” type:

reduce the demand characteristics
or bury them in a load of “filler”

evaluation apprehension type:

make the experiment less “social”
and/or convince the Ss that data are anonymous

Categorizing Bias

- standard Experimenter Bias
 - is a confound
 - therefore, reduces **internal** validity
- Demand Characteristics + “good subject” behavior (sub-type of Participant Bias)
 - acts like a confound
 - therefore, reduces **internal** validity
- Evaluation Apprehension (sub-type of Participant Bias)
 - doesn't act like a confound
 - reduces **construct** (and **external**) validity, instead