

Evaluating Research and Defining the Next Best Study

VI. RESEARCH AND ITS EVALUATION

A. Evaluating Research

- Critically reading research is central to fully understanding and learning from it.
- This means doing two opposite things at once.
 - Dealing with the specific details of the measures and procedures.
 - Assessing what the numbers mean; Judging measurement validity and reliability; Examining the appropriateness of the scales (and variability); Determining issues of reactivity.
 - Determining conceptual connections in the study.
 - Assessing the coherency of the relation between the hypothesis, procedures, results and discussion.

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B. Evaluating Research

- **1. Evaluating the Source**
- Critically reading research also means assessing the source of the study.
- Check the peer-review status of the source.
 - One some journals are peer review
 - Other journals may be from vanity publishers who charge researchers for publishing in their journal.
 - Few books are peer-review and some come from vanity publishers.

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B. Evaluating Research

- **2. Assessing the Study**
- All studies can be evaluated on two dimensions which address the adequacy of the conclusion, given the procedure of the study.
- **Internal Validity:** The extent to which the design of a study adequately tests its hypothesis. Poor tests of hypotheses may result from...
 - poor operationalization of the variables.
 - lack of validity or reliability of the measures.
 - the presence of extraneous variables.

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 B. Evaluating Research

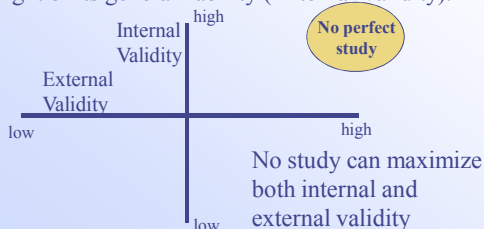
- But even a study high in internal validity may be flawed.
 - We have known for 35 years that violent TV watching causes aggressive behavior, yet the conclusions were not well accepted. Why?
 - While the procedure may support the conclusions, in the internal validity sense, the study has not sufficient to change policy regarding violent TV
 - How can that be? Is there another sense in which the conclusion is problematic given the procedure?

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 B. Evaluating Research

- The second dimension is External Validity.
- **External Validity:** The extent to which you can feel sure that the results obtain can generalize to other subjects...
 - who are in other research settings
 - who are measured using other instruments
 - who are studied by other experimenters.
 - who are living at other times.
 - etc.

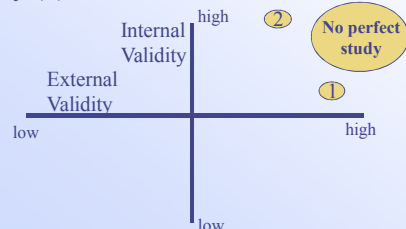
VI. RESEARCH AND ITS EVALUATION
 C. No Perfect Study

- The two evaluative dimensions are independent of each other. Each assesses the conclusions...
 - in light of the study's procedures (Internal Validity).
 - in light of its generalizability (External Validity).



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 D. No Perfect Student

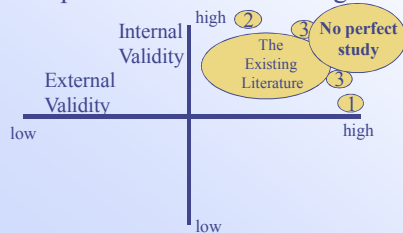
- An excellent correlational study at best maximizes external validity (1) and an excellent experimental study at best maximizes internal validity (2).



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D. The Next Best Study

- The next best study can maximize external validity at the expense of internal validity (1), vice versa (2), both (within limits, 3), or any other improvement of the existing literature.



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E. The Research Proposal

- A research proposal involves detailing the reason for and design of a research study.
 - A research proposal has two required sections and one I will be asking for:
 - Introduction: The general question motivating the research, the literature review, and the hypotheses.
 - Methods: The procedures for, details of, and justifications for a) the sample, b) the tests and measures, and c) the methods you plan to use.
 - Evaluation: Critical evaluation your own proposal, identifying its strengths and weaknesses.