Scientific Theory

- deals with abstract constructs
- proposes causal relations
- generalizes to many types of people, places, and times.

Research that aims to test theory must have

- construct validity
- internal validity
- external validity

which are threatened by

- effects of undesired constructs
- alternative causal explanations
- limitations to generalizability

and can best be strengthened by

- use of multiple measures and manipulations
- use of experimental design
- replication with many types of people, many settings, many cultures.

Replicated research with high validity
- competition with other theories
- consistency with general cultural values

all influence the evaluation of theories.

Scientists have ethical responsibilities to

- science, to describe findings truthfully
- their subjects, to prevent harm and treat with respect
- society, to use results for good ends.