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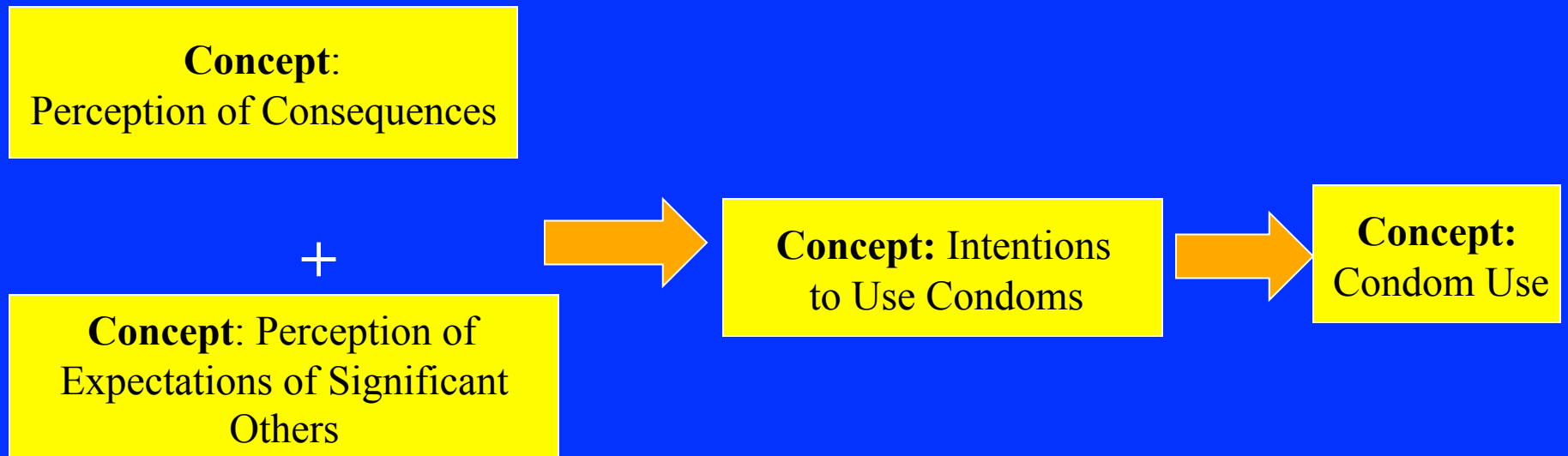
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# ISSUES IN SURVEY RESEARCH

Operationalization and Measurement

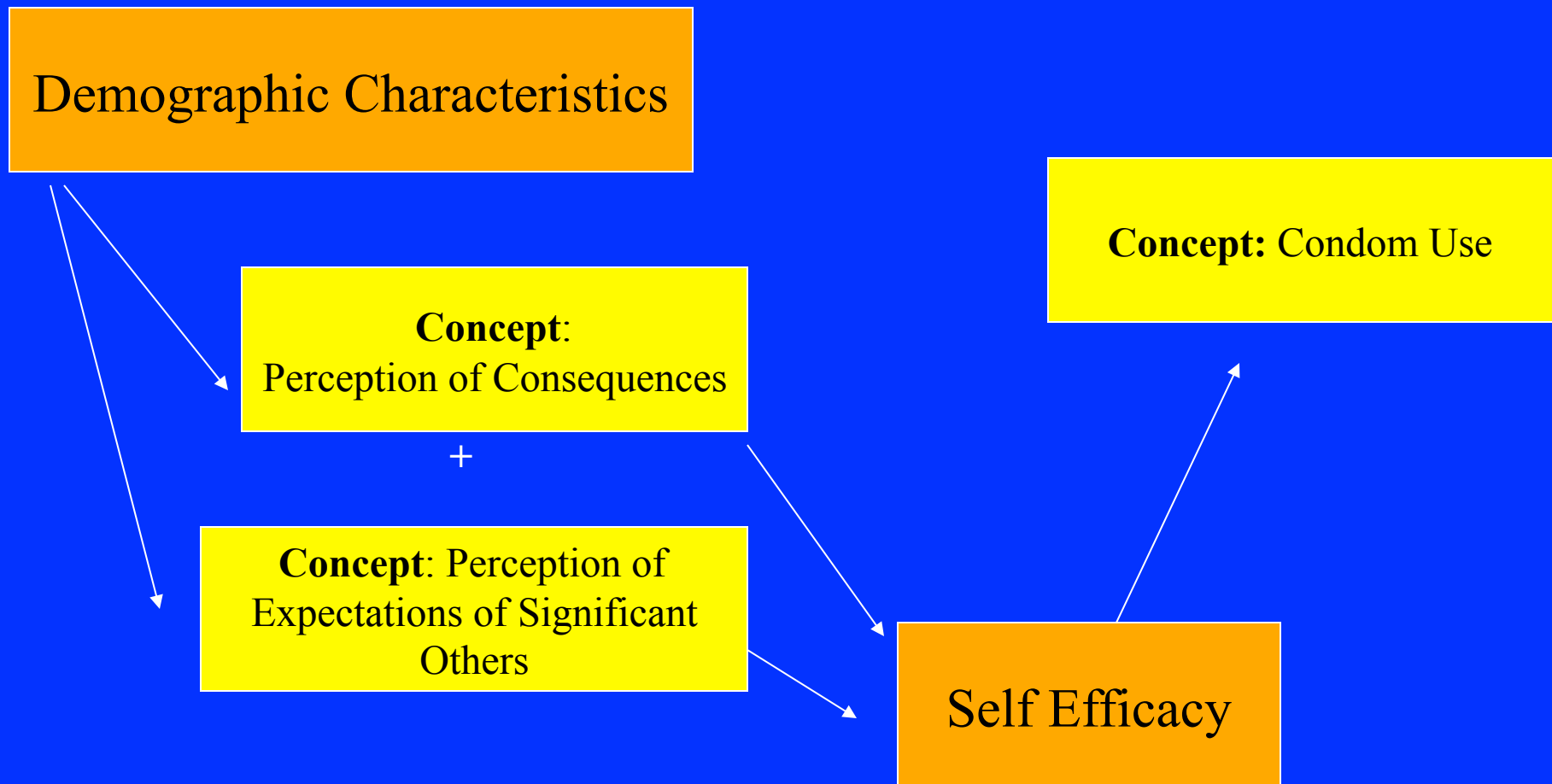
# Principle 1

- Think through your theoretical framework (relying on thorough literature search/ exploratory qualitative work/ etc)
  - The Theory of Planned Behavior



- Think through mediating and moderating constructs
- Develop list of concepts that need measuring

# Conceptual Framework



# Ways to Measure Concepts

- Interviews/Questionnaires
- Other ways?
  - Data Abstraction
  - Observation
  - Collection of biomarkers

# Data Collection Overview: examples

## Concept

Perception:

Consequences

## Measures

*“If I use a condom*

*I will feel less*

*pleasure”*

## Source

Interview

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STI Infection

*“A Doctor has told me  
that I have an STD”*

*Positive or Negative STD  
Test*

Interview

Urine test

# Ashton & Melissa Example

- Conceptual Framework
- List of concepts that need measuring
- Source of info for each concept
- How to select actual items that measure concepts.



# Questionnaires & Interviews:

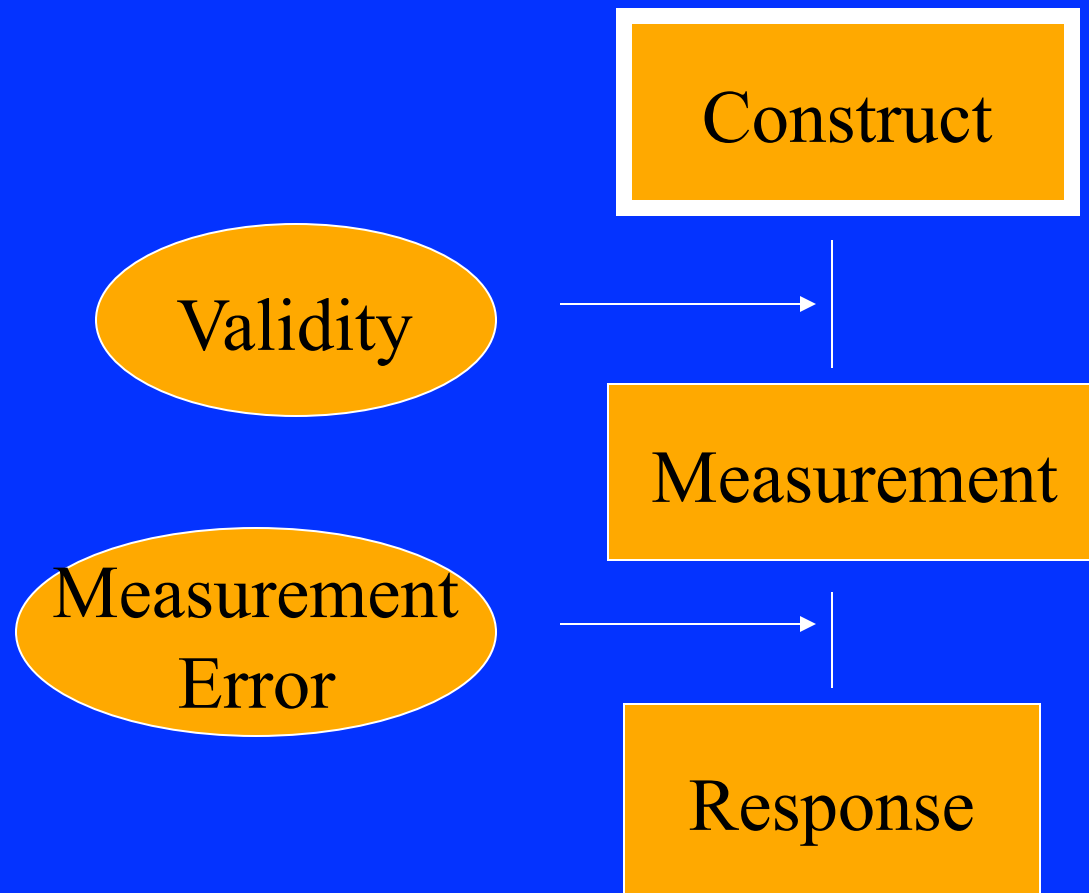
## Principle 2

- Do not start from scratch.
  - Where to look?
  - Why use existing measures?
  - How would you assess whether the measure is a good one for you?
  - What kinds of adaptations might need to be made based on population of interest & data collection strategy?
  - What would be good reasons to develop your own measures???

# Existing Resources

- Other Surveys and Studies
  - Especially those by reputable organizations:
    - The US Census
    - NORC
    - Institute for Survey Research , University of Michigan
    - National Center for Health Statistics
- Compendiums
  - Hersen, Michel. (Ed.). (2004). *Comprehensive handbook of psychological assessment*. (Vols. 1-4). New Jersey: John Wiley & Sons, Inc. (The Comprehensive Handbook of Psychological Assessment (CHOPA) consists of four volumes: 1) Intellectual and Neuropsychological Assessment; 2) Personality Assessment; 3) Behavioral Assessment; and 4) Industrial and Organizational Assessment.)
  - Goldman, B.A.& Mitchell, D. F. (2003). *Directory of unpublished experimental mental measures* (Vol. 8). Washington, DC: American Psychological Association.

# Sources of Error Related to Measurement



# Concerns in Measurement

- Validity—degree to which items measure what one intends to measure
- Reliability— on re-measurement individuals would respond in the same way
- Bias—systematic (eg reliable) deviation from true responses

# Implementation of Instrument: psychological perspective

- Quality of data is affected by
  - Cue provided by the instrument
  - How the cue is provided
  - How the respondent processes the question
  - Interaction between respondent and interviewer/instrument

# Questions require that respondents

- Comprehend the question & response categories
- Are able to retrieve information accurately
- Can estimate/judge answers
- Can report/communicate the answers

# Problems in Answering Survey Questions -- Validity? Reliability?

- Failure to encode information sought
- Misinterpreting questions or taking shortcuts (satisficing)
- Memory/recall problems
  - Recency
  - Distinctiveness--saliency
  - Telescoping
  - Bounding --(shorter period is better)
- Flawed judgment or estimation strategies-
  - Recall & count
  - Rate-based estimation
  - Impression based estimation
- Problems in formatting an answer
- Deliberate misreporting
- Failure to follow instructions

# Measures Depends on What is Focus: Type of Variable

Status Characteristics

Accounts of Behavior or Events

Attitudes, Values or Opinions

Accounts of Emotional States



# Status Characteristics

- Usually Nominal Measures (mutually exclusive categories)
- Race/Ethnicity Example
  - Measured categorically—nominal scale
  - How many dimensions?
    - White, Black, Other
    - Hispanic Origin
  - Mixed race or ethnicity
- Varied Effects of Offering Different Responses

# Accounts of Behavior/Events

- Contraception example
  - At last intercourse
  - Frequency?
    - Sometimes, always, never
    - Number of Condoms/Number of Acts of Intercourse
    - Proportion of times used
    - Partner by Partner
- Services received by clients

# Opinions/Values/Attitudes: next class

- Positive to Negative dispositions towards objects eg.
  - Policies, programs
  - Certain types of people
  - Behaviors
  - Ideals
  - Etc.

# Accounts of Emotional States: next class

- Frequency of Excitement/Boredom
- Depression
- Locus of Control
- Self Esteem

# Principle 3

- When your number of questions is limited choose reports of statuses, events and behaviors (unless opinions & attitudes are your main focus)
  - More concrete, less room for interpretation of the question and answers
  - Eg:
    - How important is religion to you –very, somewhat, not very, not at all important
    - How frequently did you attend religious services in last 12 months–daily, at least once per week, 1-3 times per month, a few times per year, not at all

# Examples of Problems with Accounts of Behavior

# Vague Response Categories

- How often did you attend religious services during the **past year**”

– Never

Not at all

– Rarely

A few times

– Occasionally

About once a month

– Regularly

About two to three  
times a month

week

About once a

More than once a

# Too Much Precision?

- How many hours a week do you work?  
\_\_\_\_\_Number
- Revision: How many hours a week do you work on the average?
  - I don't work
  - 1-10 hours
  - 11-20 hours
  - More than 20 hours
- Revision: How many hours did you work in the last 7 days



# Sensitive Questions

- Information requested is personal (e.g. income)
- Words convey implication about which respondents have negative feelings
- Questions that are incriminating (e.g. stealing)
- Can use self administered data collection mode but there are also other ways to address

# Use of Series of Questions

Have you ever shoplifted anything?

1. Yes

2. No

Revision:

As you may know, there is a great deal of discussion about shoplifting in this community, and questions as to how it should be handled. Some people feel it is a serious problem about which something should be done. Others feel that it is not a serious problem. How about yourself? Do you consider shoplifting to be a serious, moderate, slight or not a problem in our community?

1. Serious 2. Moderate 3. Slight 4. Not at all serious

During the past few years, do you think that the frequency of shoplifting has increased, stayed about the same or decreased in this community?

1. Increased
2. Stayed about the same
3. Decreased

Do you recall personally knowing anyone who took something from a store without paying for it?

1. Yes
2. No

How about yourself? Did you ever seriously consider taking something from a store without paying for it?

1. Yes

2. No

If you said yes, did you actually take it?

1. Yes

2. No

# Other Methods for Objectionable Questions

- Everybody does it- Even the calmest parent get angry with their children some time. Did your child do anything in the past seven days that made you angry?
- Assume the behavior- How many cigarettes do you smoke each day?
- Use authority to justify behavior- Many doctors now think that drinking wine reduces heart attack, have you drunk any wine in the past year?

- Casual approach- Did you happen to...
- Reasons why not-Many drivers report that wearing seat belts is uncomfortable and makes it difficult to reach switches such as lights and windshield wipers. Thinking about the last time you got into a car, did you use a seat belt?

# Other Method for Sensitive Question

- Randomized response technique
  - Respondents randomly assigned to sensitive or a non sensitive question
  - Interviewer does not know which question the respondent is answering
  - Example in book : ever arrested for drunk driving vs is your birthday in June
  - Calculation of point estimated based on known probability of getting the question (50%) and known probability of being born in June