Clarifying Survey Questions
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"But I would like to explore a lesser-known debate triggered by 9/11. Exactly how many events took place in New York on that morning in September?...The 9/11 cardinality debate is not about the facts, that is, the physical events and human actions that took place that day...But the construal of those facts: how the intricate swirl of matter in space ought to be conceptualized by human minds. As we shall see, the categories in this dispute permeate the meanings of words in our language because they permeate the way we represent reality in our heads."

Sources of Comprehension Problems

- Vague concepts or conceptual variability
  - Unclear boundaries
  - Variations or gradations along a scale

- Lexical ambiguity
  - More than one meaning
  - Polysemy describes words that have different, but a family of related senses

- Mappings
  - Simple versus complicated
  - Central versus non-central categories
Solutions

- Interviewer interventions
  - Allow interviewers to provide clarification collaboratively
- Definitions
  - Accuracy is highest when always provided
- Instructions
  - Attracting attention through the use of visual cues improves performance
- Examples
  - Subcategories that are meant to illustrate the category being asked about

Obstacles and Research Questions

- Conversational Order
  - Anticipate the end of a question & interrupt
  - Does placing clarification before the question improve accuracy of the estimates?
- Visual Cues
  - May or may not catch attention
  - Does placing the clarification in the same font as the question help?
Obstacles and Research Questions

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- Working Memory Overload
  - Taxes working memory when long and complex
  - Does incorporating the clarification into the questions and asking multiple questions rather than one question improve accuracy?

Providing Clarifying Instructions in a Web Survey

- Study items patterned after on-going federal surveys
  - Residents
  - Shoes
  - Coats and jackets
  - Hours worked last week
  - Trips
  - Furniture purchases
  - Rooms
  - Bedrooms

Example of Clarifications

- Modified clarifications
  - To reduce the counts reported
  - To increase the size of effects

- How many pairs of shoes do you own? For the purposes of this item, do not include boots, sneakers, athletic shoes, or bedroom slippers. Include sandals, other casual shoes, and dress shoes. If you do not own a pair of shoes (as we have defined them), enter "0."
No Clarification

The next question is about your footwear.
How many pairs of shoes do you own?
Number of pairs of shoes

Clarification After Question

The next question is about your footwear.
How many pairs of shoes do you own? For the purposes of this question, do not include boots, sandals, athletic shoes, or bedroom slippers. Include sandals, other casual shoes, and dress shoes. If you do not own a pair of shoes (as we have defined them), enter "0." How many pairs of shoes do you own?
Number of pairs of shoes

Clarification Before Question

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Number of pairs of shoes
Italicized Clarification After Question

The next question is about your footwear:

How many pairs of shoes do you own? For the purposes of this question, do not include boots, sneakers, athletic shoes, or bedroom slippers. Include sandals, other casual shoes, and dress shoes. If you do not own a pair of shoes (as we have defined them), enter "0." How many pairs of shoes do you own?

Number of pairs of shoes

Multiple Questions

The next question is about your footwear:

How many pairs of shoes do you own?

Number of pairs of shoes

When you reported the pairs of shoes that you own, how many pairs of sandals, other casual shoes, or dress shoes, if any, were included?

Number of pairs of shoes include sandals, other casual shoes, or dress shoes
Data Collection & Sample

- August 1-October 31, 2009 as part of a probability based Web survey conducted by Abt SRBI under NSF grant to Krosnick (FFRISP)
- Sample selected from U.S postal lists and offered a free laptop
- 913 of the 1000 recruited had completed it by the end of October
- 38.8% Response Rate (AAPOR RR4)

Mean Response to Items With and Without Clarification

Average Percent Reduction
Standardized Mean Response by Order of Presenting Clarification

- Standardized Mean
- Residents
- Shoes
- Coats
- Hrs Wkd
- Trips
- Furniture
- Bedrooms
- Rooms

- $p < .10$
- $p < .05$
- $** p < .01$

Standardized Grand Mean Response by Font

- Standardized Mean
- Residents
- Shoes
- Coats
- Hrs Wkd
- Trips
- Furniture
- Bedrooms
- Rooms

- $p < .10$
- $p < .05$

"Validity" Questions

For Shoes
When you reported the pairs of shoes that you own, how many were:

- boots?..............................................
- sneakers and/or athletic shoes?.....
- bedroom slippers?………………
- sandals?……………………………..
- other casual shoes?………………..
- dress shoes?..........………………...

X Denotes an invalid response

For Hours Worked
When you reported the hours you worked for either pay or profit last week, how many were spent:

- doing tasks required of your job or place?
- telecommuting or working from home?
- surfing the Web, working on personal matters, or socializing?

X Denotes an invalid response
Percentage of "Valid" Responses With and Without Clarification

Percentage of "Valid" Responses by Order

Percentage of "Valid" Responses by Font
Mean Seconds per Item by Order

Mean Seconds Per Item by Font

Summary

- Providing clarification was effective
  - 20% reduction in mean response
- If restricted to asking one question, modest support for placing clarification before the question
  - 5% reduction in mean response
- No difference due to font
- Asking a series of questions appears to be most effective
  - 33% reduction in mean response
Future Research

- Extend from visual to aural channel
- Eye-movement research
- Mail surveys

Thank you

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