

Where To?

Identifying the Next Frontiers in Cognitive Interviewing Methodology

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The state of the field has matured considerably

- The general character and various forms of cognitive interviewing data collection have become clearly established
- Significant progress has been made on development frameworks for analyzing cognitive interview data
- Are there any substantial methodological areas left to explore?

1) Accumulating insights from cognitive interviewing

- Schwarz criticism: cognitive testing yield insights only about individual questions, nothing that can be applied to subsequent tests
- There's no obvious reason why this *couldn't* happen...
- ... so after all this time, why hasn't it?

Methodological guidance for particular questions

- When asking how often respondents engage in particular behaviors
 - Is it better to ask about last week or a typical week? Does this vary based on the behavior?
- When asking whether a very specific event took place
 - At what level of detail should this be split into two questions?
- When asking about the frequency of common and uncommon events
 - How should the reference period be chosen to maximize accuracy of recall?

Questions with complex concepts

- Not self-evident in meaning, or subjective
 - How often you do strenuous activities
 - Whether a blood relative has a particular condition
 - Whether you've had a genetic disease
- Is it better to illustrate through *examples* or *definitions*?
- What's greater, risk of bias from examples or poor prompting from definitions?
- Does the best choice vary by question topic?

Problems and solutions

- Version 1: “In the last week, since [day], how many times did you eat vegetables, including corn, green beans, spinach, or any others?”
 - Evaluation: The examples tend to limit the vegetables they think of; recommend deleting to allow general frame of reference
- Version 2: “In the last week, since [day], how many times did you eat vegetables?”
 - Evaluation: Question fails to job memory– addition of some examples would be helpful.

2) Expressing findings in more quantitative terms

- This does not refer to weak attempts to tabulate qualitative data
- Rather, demonstrating in quantitative terms how much the errors we discover are *likely to affect survey statistics*
 - How much bias or increase in variance is attributable to various measurement errors
 - How much do these errors vary between and within question types?

Measurement error may take the back seat to other concerns

- Trend data (changes must be highly justified)
 - Stakeholder commitment to particular words and concepts
 - Cost/space on questionnaire
 - Statistical consequences
- But the single biggest reason that such concerns are ignored is that they are not expressed to decision makers— statisticians— in language that they respect and understand

A significant paradigm shift

- Reducers: Identify sources of error and identify alternatives that produce less
- Modelers: Quantify error sources and adjust for them
- Cognitive interviewing need not abandon the former, but may need to take in more of the latter
- Will require using qualitative data to develop theories, experimental data, and modeling from mathematical statisticians
- Are we prepared to live with the outcome of such efforts?

3) Learning more about how sponsors use our findings

- Although cognitive interviewing tells a great deal about how questions function from a users perspective... what do we know about the needs of our own sponsors/collaborators?
- How well do our reports and feedback “work”:
 - How are they used?
 - Are some components more useful than others?
 - What are the characteristics of feedback that proves useful and that which doesn't?

Broad categories of feedback on questions

- 1) There is a **problem** with this question
- 2) This question **does not have any** [known/obvious] **problems** [as far as we know]
- 3) Here are **insights into the basis of responses** to this question

Feedback on “questions with problems”

- 1) What is the nature of the problem?
- 2) What is the evidence that it exists?
- 3) What are the likely consequences of this problem (in terms of data quality) and how serious are they likely to be?
- 4) What viable alternatives are there?
- 5) (If known): What are the potential consequences of the proposed fix?

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- 2) This question **does not have any** [known/obvious] **problems** [as far as we know]
- 3) Here are **insights into the basis of responses** to this question
 - Will this question do what I want, or not?
 - What information can you provide to help me decide between Option A and Option B?