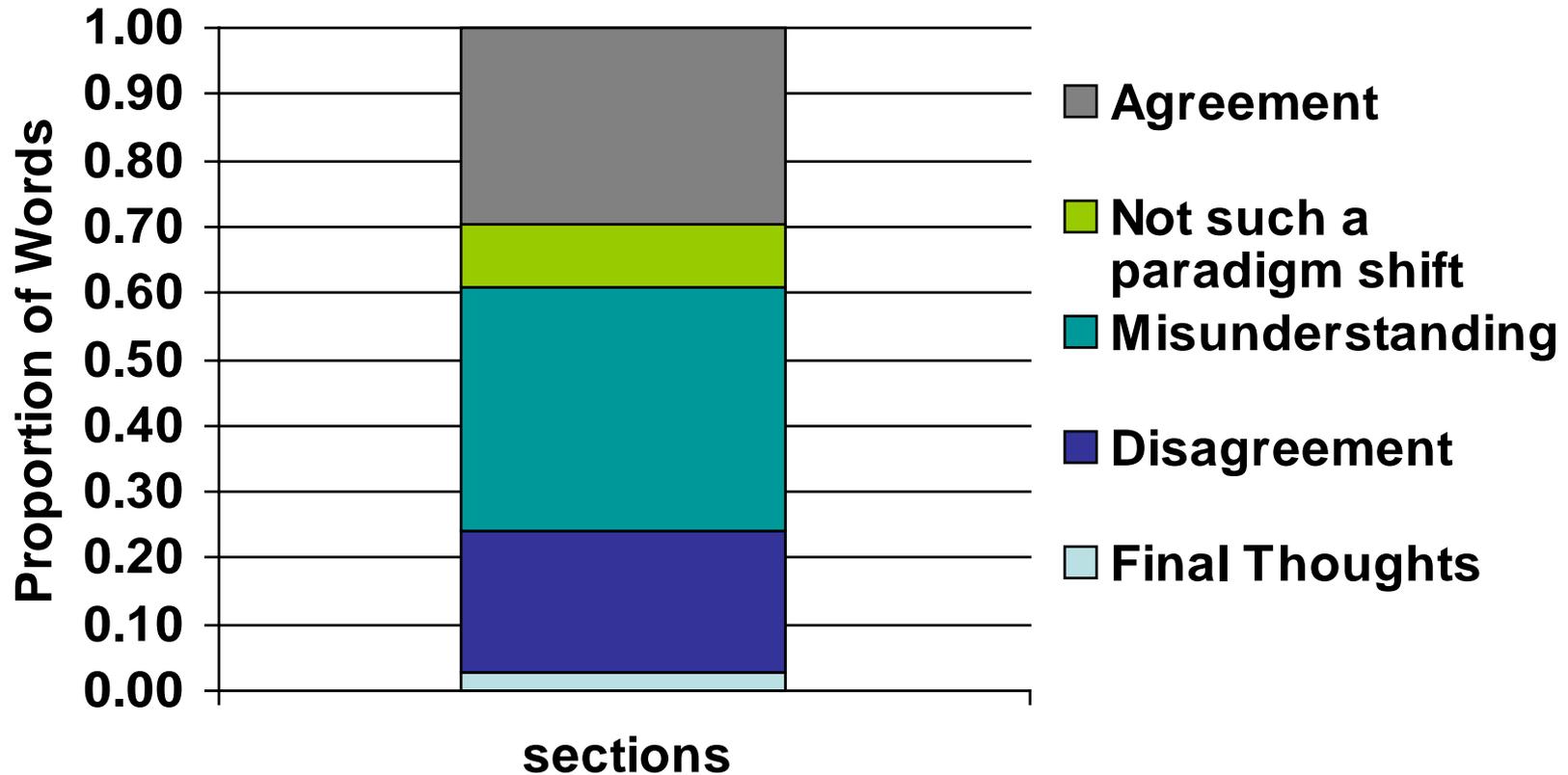


Reaction to Kristen Miller's  
*Cognitive Interviewing*

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# Outline



1. We agree about a lot
2. Quantification tells a story but there is more in the text

# Points of Agreement with Miller's "Integrative Approach"

*Rs actively interpret survey questions on basis life experiences; leads to variable interpretations and difficulty with a question*

*Ex: question about gum disease much easier for Rs who go to the dentist*

- Important reminder that word meanings are not as stable or universal as question designers sometimes assume
  - *The "one size fits all" approach*
- Conversational interviewing proposal (with Schober, e.g. 1997, 2000, 2002, 2004) centered on I-R collaboration
  - So not just *Rs* but *Rs* with *Is* make sense of *Qs*

I: Last week, did you have more than one job including part-time, evening or weekend work?

R: Um...I babysit for two families. Is that one job or two?

I: In this survey that would count as one job but two employers

# Points of Agreement (2)

*Cognitive Interviewing is fundamentally interactive*

*Narrative created through I-R interaction contains rich evidence of R's interpretative processes;*

*much would be lost under approaches that scrutinize the narrative less*

- Johnny Blair and I (Conrad & Blair, 2004, 2009) analyzed the interaction in cognitive interviews in order to determine that certain probes (I) were followed by problem descriptions (R) about which there was low agreement

**I:** Okay, would you say that getting AIDS is an extremely serious threat to a person's health, a very serious threat, somewhat serious or not too serious?

**R:** Um, extremely serious.

**I:** Okay and what were you, what do you think that question was asking?

**R:** Um, I don't know, I'm kind of confused. Maybe extremely or not extremely. Like, depending on like the size of the person or like the health condition they're in. Like how healthy they are, like their age.

# Points of Agreement (3)

*Cognitive interview results as metadata:*

*Analysis of Rs' interpretive processes can inform not only (re)design of questions but can also serve as auxiliary information for data users about origins of estimates*

- One can imagine on-line tables in which, by moving a mouse, users can expose cognitive interview analyses of question meaning for different kinds of Rs

# Points of Agreement (4)

*Analyses of Rs' narratives (verbal reports) are largely a black box and the procedures are unspecified*

*How do analysts sift through the narrative, combine segments of the narrative into coherent whole, reconcile inconsistencies, decide what to exclude, etc?*

- Cognitive Interviewers are often regarded as experts whose analytic techniques are proprietary
  - More transparency is badly needed
- ❖ Not clear what analytic approach Miller has used in the studies she reports

# Points of Agreement (5)

*Larger samples than are now typical are needed to ensure that a range of  $R$  perspectives is considered in analysis*

- Blair and colleagues (2006; in prep.) demonstrate that larger samples expose more problems
  - Problems found in larger samples include almost as many “high impact” problems as in small samples

# Not Such a Paradigm Shift

- Under current approaches, plenty of room for individual and group differences interpreting questions
  - If R's verbal report mentions personal history as source of difficulty, nothing to prevent including this in analysis of how question functions for people like her
- Hard to believe an analyst would give less weight to interpretation difficulties due to personal history than to grammatical or semantic ambiguity which presumably is independent of particular histories

# Not Such a Paradigm Shift (2)

- Most current versions of Cognitive Interviewing analyze data spread across the entire interaction, i.e., the sequence of speaking turns, stimulated by a question
  - Could go further by examining the impact of one turn on the next
    - would be particularly interactive
  - But certainly include content from the entire interaction

# Some Misunderstandings

- *From the CASM perspective, response process is universal so questions function identically for all Rs*
- No matter what one's intellectual orientation, it's hard to dispute that Rs need to understand, recall, estimate, map
- But this does not require that all Rs experience the question in the same way
- This view is about process not content
  - Rs' acquire content through individual experiences
  - so same processes can produce very different experiences depending on the information (content) that is processed
- Integrative and Information Processing approaches closer together than Miller would suggest

# Some Misunderstandings (2)

*Integrative approach is not about fixing question problems but about characterizing patterns of interpretation*

- As long as there is an intended interpretation for a question, then deviations are problems
- Stage of question development is relevant:
  - In early stages, cognitive interviewing can help designers become immersed in how Rs think about concepts
  - When questions are more mature and intended meaning better defined, fixing problems is more appropriate

# Some Misunderstandings (3)

*Interpretation drives the response process*

*“How respondents go about processing the retrieved information as well as to map that assessment onto the response categories are also rooted within interpretation”*

*e.g., Rs’ understanding of “pain” determines what pain episodes they retrieve and consider*

- Retrieval undoubtedly constrained by what Rs’ believe they are being asked to search for but people certainly carry out retrieval processes that are separable from interpretation
- and make errors when engaged in these processes
  - *e.g., forgetting, telescoping*

- Miller's view may reflect Cognitive Interviewing's strength in tapping into interpretation and weakness in tapping into retrieval processes (to which people do not have much access)
  - Conrad & Blair (2004) report more lexical (.13) and logical (.11) problems per question than temporal (.02) and computational (.04)

# Some Misunderstandings (4)

- Miller treats certain practices used to evaluate cognitive interviewing as if they are necessarily used to conduct cognitive interviewing
  - e.g. in order to compare different versions of cognitive interviewing it is necessary to convert results into apples and apples
  - Coding is ideal for this
  - Not necessarily a recommendation for practice

# Points of Disagreement

- Miller points out that quality of qualitative data can be assessed with respect to:
  - Credibility, transferability, dependability, confirmability
- But no mention of agreement between analysts
  - E.g. expert judgments about degree of overlap or code analyses and use measures like  $\kappa$
- Without confidence in reproducibility of results across replications or analysts how do we know results are not idiosyncratic
- I think this is reasonable to ask of a method
  - Two different analyses can't both be right

# Points of Disagreement (2)

- I am concerned about reactivity
  - Tendency for what one reports verbally to affect the processes about which one is reporting
  - Especially likely the more actively involved the interviewer is
    - Probing seems quite capable of affecting what R thinks
- Miller's view is different:
  - “The primary goal of the interviewer is to capture as much of the narrative as possible and to ask whatever questions are necessary to fill in gaps or address apparent contradictions”*
  - She suggests interviewers' influence can be removed in the analysis
- This is risky
  - *I*s can easily focus *R*s on certain topics and distract from others
  - How would this be evident in the narrative?
  - Risk of Reactivity may come with the territory of cognitive interviewing

# Final Comments

- We're on the same team
  - Everyone involved with cognitive interview (practitioners, users of the results...) wants to improve survey measurement by refining questionnaires
  - This is true of Kristin Miller and of those she has criticized
- Much more in common across these perspectives than at odds
- Identifying where there are real differences (e.g., reliability, reactivity), helps us establish what research on the method needs to be done

Thank You