A COMPARATIVE STUDY OF ENGLISH AND CHINESE COGNITIVE INTERVIEWS

Yuling Pan\textsuperscript{1}, Virginia Wake Yelei\textsuperscript{2},
Grace Chan\textsuperscript{3}, Gordon Willis\textsuperscript{4}
\textsuperscript{1} Census Bureau, \textsuperscript{2} Diplomatic Language Services,
\textsuperscript{3} Chinese American Service League, \textsuperscript{4} National Cancer Institute

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Overview

• Previous research on cognitive interviewing in cross-cultural contexts
• Study design and methodology
• Findings
• Discussion and next steps
Cognitive Interviewing

• Cognitive interviewing:
  – A pretesting method to assess survey questions (Willis 2005, 2009)
  – Based on American English communication style
• Has been used in cross-cultural studies to pretest survey questions in languages other than English
Challenges with Non-English Cognitive Interviews

- Development of interview protocol in English
- Translation of the English protocol
- Effectiveness of probing techniques?
Prior Research on CI in Cross-cultural Contexts

• Theoretical
  – Cognitive approach (Daniel et al. 2011, Agans et al. 2006)
  – Sociocultural approach (Smagorinsky 2011, Willis and Miller 2011)

• Experiential
  – Add-on project (e.g., Pan et al. 2010, Willis et al., 2008)
  – After the fact (e.g., Chan and Pan 2011, Goerman and Clifton 2011)
Goal of Current Study

- Fill in the research gap by conducting an empirical study
- Focus on how CI probes work in the two language groups
- Systematically examine:
  - how cognitive interview techniques perform across language groups
  - how effective they are in generating data for cross-cultural study
Study Design

- 60 Interviews: 30 Chinese, 30 English
  - conducted in the Greater Washington DC area and the Greater Chicago area
- Subjects from three groups:
  - monolingual English speakers (n=15)
  - bilingual English/Chinese speakers (n=30)
  - monolingual Chinese speakers (n=15)
- Four language groups
  - Monolingual Chinese (15)
  - Bilingual Chinese interviewed in Chinese (15)
  - Bilingual Chinese interviewed in English (15)
  - Monolingual English (15)
Respondent Characteristics

• Each group stratified according to
  – Gender
    • 50% male; 50% female
  – Age
    • 20% <age 35; 40% age 35-54; 40% age >55
  – Educational attainment
    • 50% high school graduate or lower; 50% college educated or higher
  – Acculturation levels
    • entered US after age 18 for monolingual and bilingual Chinese respondents
  – For monolingual English group
    • 50% Caucasian and 50% African American
Research Team and Interviewers

- Six social scientists
- Five English-Chinese bilingual researchers conducted the interviewing
- Each interviewed in four language groups
Questions Tested

• Basic demographic questions
  – Number of residents in a household
  – Ancestry and ethnic origin

• Health questions
  – General health
  – Diet
  – Doctor visit
  – Cancer prevention
Types of CI Probes (1)

- Meaning-oriented probes
  - interpretation of specific terms
    - “What, to you, is ‘ethnic origin’?”
  - paraphrase of a question
    - “What is this question asking?”

- Process-oriented probes
  - “How did you arrive at your answer?”

- Evaluative probes
  - “Do you feel this question is easy or not easy to answer?”
Types of CI Probes (2)

• Elaborative probes
  – “Why or why not?”

• Hypothetical probes
  – “What would it take for you to say that your health is excellent?”

• Recall probes
  – “What time period were you thinking about?”
Coding Responses to Probes

• Linguistic coding scheme (Pan 2013)
  – Pragmatic notion of question-answer sequences
  – Proposition of a question

• Response Types (First turn)
  – Direct Response: match the proposition
  – Indirect Responses:
    • Partially matching the proposition
    • Off topic / irrelevant
    • Opt out

• As a general rule, direct responses provide valid data for analysis -- no guessing game
Example of Codes

• “Do you feel this question is easy or not easy to answer?”
  – Matching proposition response
    • “It’s very easy to me.”
  – Partial matching response
    • “It’s so so.”
  – Off-topic
    • “It’s very general.”
  – Opt out
    • “It doesn’t matter.”
Coders

• Three coders from the researcher team
• Steps in coding:
  – All coded 2 interviews to identify issues
  – All coded the same 6 interviews to obtain agreement
  – Subsequently each coded 17 interviews
Findings (1)

Table 1: Type of Probe

- Process: 23%
- Paraphrase: 19%
- Comprehension-Interpretation: 22%
- Elaborative: 13%
- Evaluative: 10%
- Hypothetical: 10%
- Recall: 3%
Findings (2)

Table 2: Response Type by %

<table>
<thead>
<tr>
<th>Type</th>
<th>%Match</th>
<th>%P Match</th>
<th>%Off-topic</th>
<th>%Opt out</th>
<th>%Probe not asked</th>
</tr>
</thead>
<tbody>
<tr>
<td>Comprehension-Interpretation</td>
<td></td>
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<tr>
<td>Elaborative</td>
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<tr>
<td>Evaluative</td>
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<td>Hypothetical</td>
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<tr>
<td>Paraphrase</td>
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<td>Process</td>
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<tr>
<td>Recall</td>
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</tbody>
</table>
Findings (3)

Table 3: Response by Group for Paraphrase Probe in %
[4.1. What does this question mean?]

<table>
<thead>
<tr>
<th>%Match</th>
<th>%P Match</th>
<th>%Off-Topic</th>
<th>%Opt out</th>
<th>%Not asked</th>
</tr>
</thead>
<tbody>
<tr>
<td>Monolingual Chinese</td>
<td>Bilingual in Chinese</td>
<td>Bilingual in English</td>
<td>Monolingual English</td>
<td>Monolingual English</td>
</tr>
</tbody>
</table>
Finding (4)

Table 4: Response by Group for Paraphrase Probe in %
[7.3 What is this question asking you?]

[Graph showing response by group in terms of %Match, %P Match, %Off-Topic, %Opt out, and %Not asked for Monolingual Chinese, Bilingual in Chinese, Bilingual in English, and Monolingual English.]
Discussion

• Not all probes present challenges in non-English languages
• Most problematic probes are meaning-oriented probes, in particular, the paraphrase probe
• The effect of interview language on response types
• Linguistic form and function of the probes
Next Steps

- Collapse the categories of all indirect responses (PM, Off-topic, Opt-out) for further analysis
- Analyze responses to all probes by language groups to identify the effect of language
- Examine Rs characteristics to disentangle potential confounds (e.g., age, gender, acculturation level)
Thank You!

Yuling Pan
yuling.pan@census.gov

Virginia Wake
wakev@georgetown.edu

Grace Chan
gpchan@proliphus.com

Gordon Willis
willisg@mail.nih.gov