A COMPARATIVE STUDY OF ENGLISH AND CHINESE COGNITIVE INTERVIEWS

Yuling Pan¹, Virginia Wake Yelei², Grace Chan³, Gordon Willis⁴

¹ Census Bureau, ² Diplomatic Language Services,
³ Chinese American Service League, ⁴ National Cancer Institute

CSDI International Workshop 2014



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?
 - Coronado and Earle 2002, Pan 2004, Pan et al. 2010, Goerman 2006



Prior Research on CI in Crosscultural Contexts

Theoretical

- Cognitive approach (Daniel et al. 2011, Agans et al. 2006)
- Anthropological approach (Gerber 1999, Gerber and Wellens 1997, Miller 2003, 2011)
- 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 crosscultural 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."



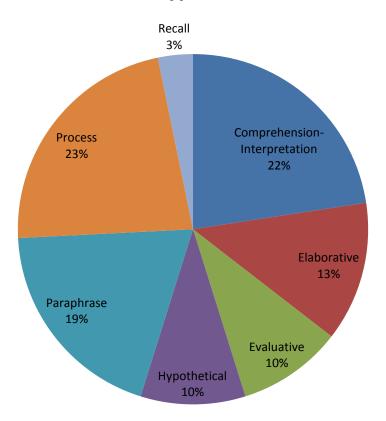
Coders

- 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)

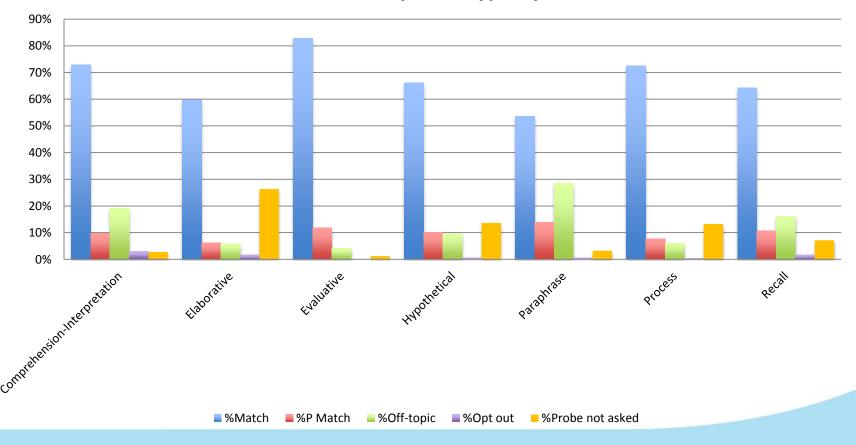
Table 1: Type of Probe





Findings (2)

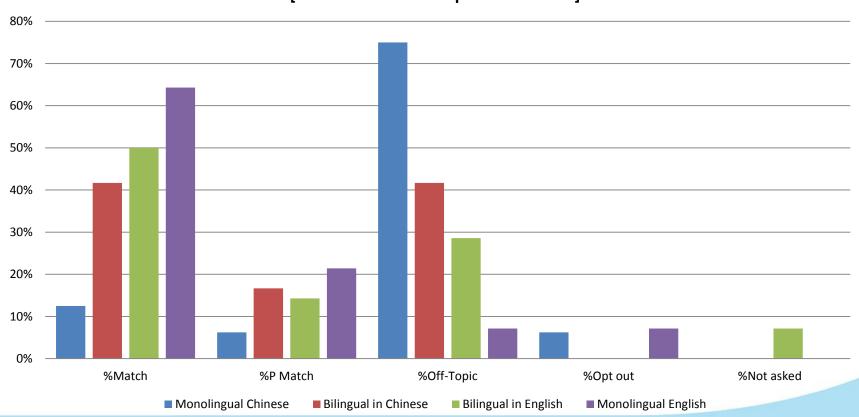
Table 2: Response Type by %





Findings (3)

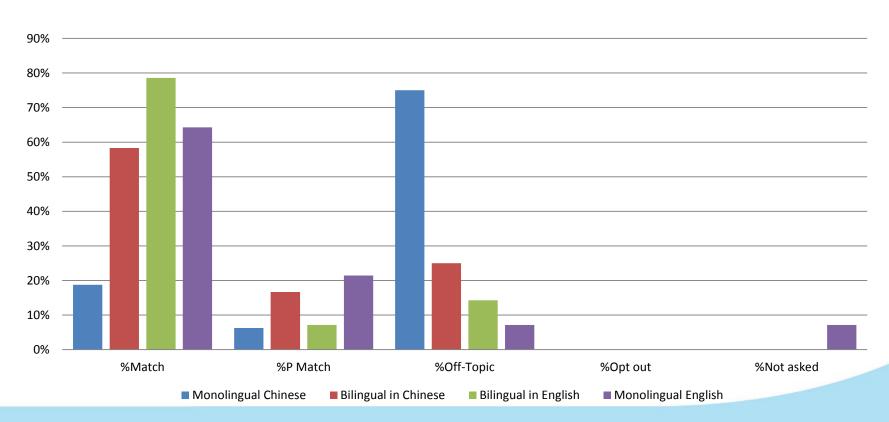
Table 3: Response by Group for Paraphrase Probe in % [4.1. What does this question mean?]





Finding (4)

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





Discussion

- Not all probes present challenges in non-English languages
- Most problematic probes are meaningoriented 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

