A New Look at Types of Probes for Testing Translated Instruments

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What Do We Want To Learn in Cognitive Testing?

- Potential breakdowns in the response process (let’s remember Tourangeau et al’s 4 steps)
- Patterns of interpretation (by subgroups in the population)
The Role of Probing in Cognitive Testing

▪ In an ideal world, think aloud = full mind dump

▪ Why probe?
▪ What do we probe for?

To understand why the R answered as s/he did AND if R’s reality supports that response.
Role of interviewer

- Depending on skill level, interviewer can be more of a ‘mechanical’ prober or can be an analyst on the fly

- ‘Mechanical’ prober may not be too different from preprogrammed web probing
Scripted or Spontaneous?

- Proactive
- Reactive

Interviewer as:
- Data collector
- Investigator
Beatty et al (1997)

Types of probes based on type of information sought

- Cognitive
- Confirmatory
- Expansive
Traditional Classification of Probes (Willis et al. 1999)

- **Comprehension/Interpretation**: What does the term "X" mean to you?
- **Paraphrasing**: Can you explain that sentence in your own words?
- **Confidence judgment**: How sure are you that you counted the right people?
- **Recall probe**: How do you remember that... ?
- **Specific probe**: Why do you think that ...?
- **General probes**: How did you arrive at that answer?
  - Was that easy or hard to answer?
  - I noticed you hesitated – what were you thinking?
Beatty and Willis (2007)

<table>
<thead>
<tr>
<th></th>
<th>Proactive Administration (initiated by the interviewer/researcher)</th>
<th>Reactive Administration (triggered by subject behavior)</th>
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</thead>
<tbody>
<tr>
<td><strong>Standardized</strong></td>
<td></td>
<td></td>
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<tr>
<td><strong>Construction</strong></td>
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<tr>
<td>(constructed <em>prior</em> to the interview)</td>
<td>(1) Anticipated Probes</td>
<td>(3) Conditional Probes</td>
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<tr>
<td><strong>Non-standardized</strong></td>
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<tr>
<td><strong>Construction</strong></td>
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<tr>
<td>(constructed <em>during</em> the interview)</td>
<td>(2) Spontaneous Probes</td>
<td>(4) Emergent Probes</td>
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**Figure 1.** Model of verbal probing in the cognitive interview (from Willis 2005).
### Effectiveness of Probes Across Language Groups (Pan et al, 2010)

<table>
<thead>
<tr>
<th>Type of probe</th>
<th>Example Probe from Interview Protocols</th>
<th>Effectiveness in Language Groups</th>
</tr>
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<tbody>
<tr>
<td>Paraphrase probe</td>
<td>What do you think they are saying in this paragraph?</td>
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<tr>
<td>Interpretation of terms</td>
<td>What does the term “confidential” mean to you in this sentence?</td>
<td>• ♦</td>
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<tr>
<td>Evaluative probe</td>
<td>Do the words, terms, and ideas used in this letter sound right or appropriate in your language or to your culture?</td>
<td>. ♦ . ♦</td>
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<tr>
<td>Preference probe</td>
<td>Was there anything you liked about the letter?</td>
<td>• ♦ . . ♦</td>
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- Effective
- Somewhat effective
- Not effective
Pan et al. (cont.)

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<th>Type of probe</th>
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<tr>
<td>Sensitivity probe</td>
<td>Was there anything that caused you concern?</td>
<td>• Effective</td>
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<tr>
<td></td>
<td></td>
<td>• Somewhat effective</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Not effective</td>
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<tr>
<td></td>
<td></td>
<td>Chinese</td>
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<td>Korean</td>
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<td>Russian</td>
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<td>Spanish</td>
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<tr>
<td>Comparison probe</td>
<td>Do you think there is any real difference in the message among all three versions? If so, what do you think the difference is?</td>
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<td>Hypothetical probe</td>
<td>Let’s pretend you were selected to participate in this survey and an interviewer handed you these materials. After you read them, do you think you would agree to participate in the survey? What things did you think about while making your decision just now?</td>
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Another Way of Classifying Probes

- Do they ask about the question?

- Do they ask about the R’s answer?
Probes that Ask about the Question

- Comprehension
- Paraphrasing
- Sensitivity
- Comparison
- Evaluative
Probes that Ask about the R’s Answer

- General
- Confidence judgment
- Recall
- Expansive
What is Wrong with Asking about the Question?

- Can lead to false sense of security
- Puts the R in the position of expert
- Many R have trouble defining or paraphrasing
- It is easy to think a question is easy to answer
3mc Context

- Challenges in some cultures (Goerman 2006)
- Types of probes for different languages (Pan et al 2010)
- Cultural adaptation of probing styles and techniques
- Probing the questions vs. probing the answers
Probes in Testing Translated Questions

- Avoid probe types found to be problematic in cross cultural work → mostly those asking about questions!

- Need to ascertain comparability
- This does require including some definition probes in both languages
Coming to You for Thoughts and Ideas

- I (humbly! 😊) think there is something here
- I would like to go further with these thoughts and possibly come up with experiments
- I welcome collaboration
THANKS FOR LISTENING!!!!

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