Differences in interviewer-respondent interactions in CAPI and CATI interviews

Yfke Ongena & Marieke Haan
Do voice calls have a future?

› Telephone apprehension 10-15 % of adult population

› 2.5% telephonophobic

› US: 90% cell phone owners
› Average call length is dropping
  • 2008: 2.27 minutes
  • 2018: 1.81 minutes
Mode and response effects

- Satisficing: Web > CATI > CAPI
- Social desirability: CATI > CAPI > Web

(Holbrook et al. 2003; Heerwegh 2008)
  - Social presence
  - Rapport
Difference in satisficing and rapport visible in interviewer-respondent interactions?

> Paradigmatic sequence, 3-part structure:

- Question
- Answer
- Acknowledgement
Interaction in a CATI survey

I: Do you, during the week or weekend, consume alcoholic beverages?
R: Yes

I: What is the number of alcoholic drinks that you consume on average during a week?
R: Ohh uh that’s a moral question haha, uh now I am allowed to lie about that or not?
I: eh well yes you can be honest about that, that is uh, not a single answer is right or wrong so
R: uhm well I think I eh drink about ten glasses of beer each day or something
I: 10 glasses of beer per day and that times seven days a week?
R: mhm
I: Ok, then I'll note that
Deviations from paradigmatic sequences

Detection from transcripts by means of:

- Sequence Length: \#turns (events), \#words uttered
- Utterances related to rapport (Garbarski et al. 2016)
  - Apologetic utterances
  - Consideration
  - Emotion display
  - Respondent’s uncertainty markers
Analysis of CAPI and CATI interviews

› European Social Survey, mixed mode experiment, 130 questions, 30-minute interviews
› 60 CATI + 54 CAPI-interviews = 57 hours of interaction, 8,780 QA sequences (50%), transcribed in Sequence Viewer
Results number of events

<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
<th>sd</th>
<th>Median</th>
<th>Mode</th>
<th>Min</th>
<th>Max</th>
</tr>
</thead>
<tbody>
<tr>
<td>CATI</td>
<td>4.8</td>
<td>3.9</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>49</td>
</tr>
<tr>
<td>CAPI</td>
<td>5.5</td>
<td>5.6</td>
<td>4</td>
<td>2</td>
<td>2</td>
<td>88</td>
</tr>
</tbody>
</table>
## Results number of events

<table>
<thead>
<tr>
<th>Question</th>
<th>General topic</th>
<th>Sequence size effect</th>
</tr>
</thead>
<tbody>
<tr>
<td>Immigration</td>
<td>Politics</td>
<td>CATI &lt; CAPI</td>
</tr>
<tr>
<td>Ban parties</td>
<td>Politics</td>
<td>CATI &gt; CAPI</td>
</tr>
<tr>
<td>Trust in politics</td>
<td>Politics</td>
<td>CATI &gt; CAPI</td>
</tr>
<tr>
<td>Left/Right</td>
<td>Politics</td>
<td>CATI &lt; CAPI</td>
</tr>
<tr>
<td>Satisfied with life</td>
<td>Social</td>
<td>CATI &lt; CAPI</td>
</tr>
<tr>
<td>Meet family/friends</td>
<td>Social</td>
<td>CATI &gt; CAPI</td>
</tr>
<tr>
<td>Angry when wishes not fulfilled</td>
<td>Marlow-Crowne</td>
<td>CATI &gt; CAPI</td>
</tr>
</tbody>
</table>
Example of question with difference in number of events: CAPI > CATI
To what extent do you think the Netherlands should allow people of the same race or ethnic group as most Dutch people to come and live here? (B35)

- Allow many to come and live here
- Allow some
- Allow a few
- Allow none

Average number of events CATI: 4.6 / CAPI: 6.8
W=2180, p <0.01
R: Yes I am considering some or a few, I mean I think someone that in other countries are very uh dangerous

I: Yes

R: Those should always be allowed, so uh…

I: What would you pick as answer?

R: Uh just a pick a uh a few
Example of question with difference in number of events: CAPI<CATI
Political parties that wish to overthrow democracy should be banned (B32)

- Helemaal mee eens (Strongly agree)
- Eens (Agree)
- Niet eens, niet oneens (Neither agree nor disagree)
- Oneens (Disagree)
- Helemaal oneens (Strongly disagree)

Average number of events CAPI: 3.0 / CATI: 6.0
W=2355, p <0.01
R: Uh I don’t agree
I: Disagree then?
R: Yes
I: Or neither agree nor disagree?
R: uh
I: In the middle?
R: I don’t agree
I: You don’t agree, so really disagree or strongly disagree?
R: Disagree
I: Disagree
Number of events vs. words

<table>
<thead>
<tr>
<th>Question</th>
<th>General topic</th>
<th>Sequence size effect</th>
<th>Nr of words effect</th>
</tr>
</thead>
<tbody>
<tr>
<td>Immigration</td>
<td>Politics</td>
<td>CATI &lt; CAPI</td>
<td>CATI = CAPI</td>
</tr>
<tr>
<td>Ban parties</td>
<td>Politics</td>
<td><strong>CATI &gt; CAPI</strong></td>
<td><strong>CATI &gt; CAPI</strong></td>
</tr>
<tr>
<td>Trust in politics</td>
<td>Politics</td>
<td><strong>CATI &gt; CAPI</strong></td>
<td><strong>CATI &gt; CAPI</strong></td>
</tr>
<tr>
<td>Left/Right</td>
<td>Politics</td>
<td>CATI &lt; CAPI</td>
<td>CATI = CAPI</td>
</tr>
<tr>
<td>Satisfied with life</td>
<td>Social</td>
<td>CATI &lt; CAPI</td>
<td>CATI = CAPI</td>
</tr>
<tr>
<td>Meet family/friends</td>
<td>Social</td>
<td><strong>CATI &gt; CAPI</strong></td>
<td><strong>CATI &gt; CAPI</strong></td>
</tr>
<tr>
<td>Angry when wishes not fulfilled</td>
<td>Marlow-Crowne</td>
<td><strong>CATI &gt; CAPI</strong></td>
<td><strong>CATI &gt; CAPI</strong></td>
</tr>
</tbody>
</table>
## Results

### Rapport-related Interviewer utterances

<table>
<thead>
<tr>
<th></th>
<th>CATI (N = 4620)</th>
<th>CAPI (N = 4160)</th>
<th>Chi-square (df = 1, N = 8780)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Apologetic utterances</td>
<td>16 (0.3%)</td>
<td>17 (0.4%)</td>
<td>0.223</td>
</tr>
<tr>
<td>Thanking</td>
<td>121 (2.6%)</td>
<td>103 (2.5%)</td>
<td>0.180</td>
</tr>
<tr>
<td>Laughter</td>
<td>107 (2.3%)</td>
<td>44 (1.1%)</td>
<td>20.51***</td>
</tr>
</tbody>
</table>
Results
Rapport-related Respondent utterances

<table>
<thead>
<tr>
<th></th>
<th>CATI (N = 4620)</th>
<th>CAPI (N = 4160)</th>
<th>Chi-square (df = 1, N = 8780)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Apologetic utterances</td>
<td>25 (0.5%)</td>
<td>18 (0.4%)</td>
<td>0.528</td>
</tr>
<tr>
<td>Uncertainty</td>
<td>373 (8.1%)</td>
<td>327 (7.8%)</td>
<td>0.135</td>
</tr>
<tr>
<td>Laughter</td>
<td>146 (3.2%)</td>
<td>133 (3.2%)</td>
<td>0.009</td>
</tr>
</tbody>
</table>
Example of respondent laughter

I: uh I am always honest about my own mistakes
R: Disagree
I: Excuse me?
R: Disagree uhaha
I: Disagree okay
R: haha
Example of respondent laughter 2

I: We appreciate it you made time available for us in this survey.
I: As a thank you, we offer you a gift certificate, but perhaps you prefer to give the money to a good cause
I: What is your preference?
R: I give– my preference is the gift certificate haha
I: To the gift certificate
R: haha
I: Okay, let’s do that
Example of interviewer laughter

I: Political parties that throw over democracy should be banned
R: No, they should shoot them
I: haha... hahaha
I: Even more extreme
I: What suits best for you, totally agree, agree,
R: Well yes they shoot them all down
I: mhm, I, I,
R: Then you got rid of them
I: haha
I: And in terms of totally agree, agree, neutral
R: Yes I mean I totally agree eh that political parties should be banned
I: Then we note this.
Conclusion

› Interaction analysis useful for questionnaire design
› Three-part structure (Q-A-A) more common in CATI than in CAPI
› In CATI more words uttered than in CAPI
› Questions in CATI often not adjusted to cognitive abilities of respondents (see Jablonski 2017)
› Variance at respondent level not very large, type of question does matter
Conclusion (cd.)

› Interviewer laughs more often in CATI than in CAPI, may add to impression that interviewer is judging answers

› Laughter is audiovisual behavior (ignored in this study)

› E-mail and text messaging decrease level of confidence of using voice-only
Thank you!

More information:
y.p.ongena@rug.nl