Getting to the Bottom of Response Behavior When Using Forced Answering in Online Surveys

7th Conference of the ESRA, Lisbon

Session: Response Format and Response Behavior
The FA (or forced response) option forces the respondent to answer or enter a response to each single item.

- Items cannot be skipped without answering
- Rationale: No missing data
Less **item-nonresponse** (Albaum et al., 2010, 2011; Roster et al., 2014)
Effects of FA on different quality parameters

- Less *item-nonresponse* (Albaum et al., 2010, 2011; Roster et al., 2014)

- Higher and earlier **dropouts**
  - Higher dropouts (Décieux et al., 2015a, O’Neil, Penrod & Bornstein 2003; Stieger et al. 2007)
  - Earlier dropouts (Décieux et al., 2015b; Mergener et al., 2015)

- Decrease of **validity of answers** (Décieux et al., 2015a)
Reactance effect

- *Reactance appears when an individual's freedom is threatened and cannot be directly restored* (Brehm, 1966).

- Reactance: motivation to restore this loss of freedom.

- FA conditions → respondents are denied the choice to leave a question unanswered → internal pressure to disclose information that respondents might not want to reveal
Reactance effect

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Hypothesis: Forcing respondents to answer will cause reactance, which turns into increasing dropout rates, decreasing answer quality and a satisficing behavior.

The effect may be exacerbated when sensitive topics are concerned.
Sample: Students at two German universities (contacted via e-mail)

Cover story / survey topic: romantic relationship and sexuality

Randomization across NFA and FA conditions (= Manipulation)

Survey design (I)

<table>
<thead>
<tr>
<th>Introduction</th>
<th>Manipulation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Demography</td>
<td>68 questions about partnership and sexuality</td>
</tr>
</tbody>
</table>
Survey design (II)

FA condition
- "You have to answer each question to reach the next page."

Nun folgen detaillierte Fragen zu Partnerschaft und Sexualität.

Sie müssen jede Frage beantworten, um zur nächsten Seite zu gelangen.

Bitte beantworten Sie möglichst alle Fragen wahrheitsgemäß.
Wenn Sie die Befragung abbrechen möchten, nutzen Sie bitte den Button "Umfrage abbrechen".

NFA condition
- "If you do not want to answer a question, you can skip it, without giving an answer."

Nun folgen detaillierte Fragen zu Partnerschaft und Sexualität.

Wenn Sie eine Frage nicht beantworten wollen, können Sie diese auch überspringen ohne sie zu beantworten und zur nächsten Frage wechseln.

Bitte beantworten Sie möglichst alle Fragen wahrheitsgemäß.
Wenn Sie die Befragung abbrechen möchten, nutzen Sie bitte den Button "Umfrage abbrechen"
Survey Design (III)

Introduction
Demography

Manipulation
68 questions about partnership and sexuality

Dropout-Button

Debriefing
State Reactance
Self-reported faking
Personal sensitivity
Survey design (IV)

- State reactance:
  - 4 item scale ($\alpha = .70$)
  - Sample item: „The questionnaire made me angry“. Likert-Scale: 1 to 5

- Self-reported faking:
  - „How many questions did you not answer honestly?“

- Personal sensitivity
  - „How personally sensitive did you find the questions in this survey?“
Sample overview

- Effective sample: N = 914
- Age: $M = 26.1$ years, $SD = 6.6$
- Sex: 54.7% females (n = 498)
- Median response time = 9.4 minutes
Results (I): Open-ended question

- More non-meaningful answers in FA condition
  - NFA: 0.8%,
  - FA: 3.6%,
  - \( r = .09^{**} \), OR = 4.62, 95% CI [1.29; 29.49]

- Respondents in the FA condition gave shorter answers
  - number of characters that had been filled in;
  - NFA: \( M = 74.3, SD = 67.5 \);
  - FA: \( M = 54.2, SD = 56.6 \);
  - \( t(456.82) = 3.91; d = 0.31, 95\% CI [0.16; 0.47] \)
Results (II): Descriptives & intercorrelations

<table>
<thead>
<tr>
<th></th>
<th>M</th>
<th>SD</th>
<th>%</th>
<th>(1)</th>
<th>(2)</th>
<th>(3)</th>
<th>Alpha</th>
</tr>
</thead>
<tbody>
<tr>
<td>(1) Condition&lt;sup&gt;a&lt;/sup&gt;</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>n/a</td>
</tr>
<tr>
<td>(2) Reactance</td>
<td>1.77</td>
<td>.65</td>
<td></td>
<td>.08&lt;sup&gt;*&lt;/sup&gt;</td>
<td></td>
<td></td>
<td>.70</td>
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<tr>
<td>(3) Dropout&lt;sup&gt;a&lt;/sup&gt;</td>
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<td></td>
<td></td>
<td>.07&lt;sup&gt;*&lt;/sup&gt;</td>
<td>.22&lt;sup&gt;**&lt;/sup&gt;</td>
<td></td>
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<tr>
<td>(4) Faking&lt;sup&gt;a&lt;/sup&gt;</td>
<td>25.7</td>
<td></td>
<td></td>
<td>.00</td>
<td>.00</td>
<td>.01</td>
<td>n/a</td>
</tr>
</tbody>
</table>

FA significantly increases reactance of respondents and survey dropouts.

*Note. *p < 0.05, **p < 0.01; <sup>a</sup> higher values depict male sex, FA, dropout, faking respectively*
Results (III): Survival analysis

Log-Rank-Test:
$\chi^2=4.3, \ df=1, \ p < .05$

Cox regression:
HR = 1.47;
95% CI [1.02; 2.11]
Results (IV): Mediation analysis

FA increases reactance of the respondents mediating the risk of a dropout 13% (OR = 1.13 *) and the risk of a fake answer 4% (OR = 1.04*)

Note. * p < .05, ** p < .01, *** p < .001; Mediation models. Coefficients of the dropout model are presented above the lines, below the line coefficients for the faking model (square parentheses: 95% confidence interval, round parentheses: OR).
Summary & conclusion

- **Take Home Message:**
  Be careful when including forced answering in your online survey.

- FA has negative effects on response behavior
  - More and earlier dropouts
  - Increased faking behavior
  - Decreased quality of answers in open ended question

- First support for postulated mediation model: reactance is underlying psychological mechanism effecting response behavior
Discussion

Limitations

- Convenience sample (student population)
- Sensible survey topic
- Relatively long Survey
- Reactance was measured after dropout
Thank you for your attention!


