



The Impact of Rapport on Data Quality in CAPI and Video-mediated Interviews: Disclosure of Sensitive Information and Item Nonresponse

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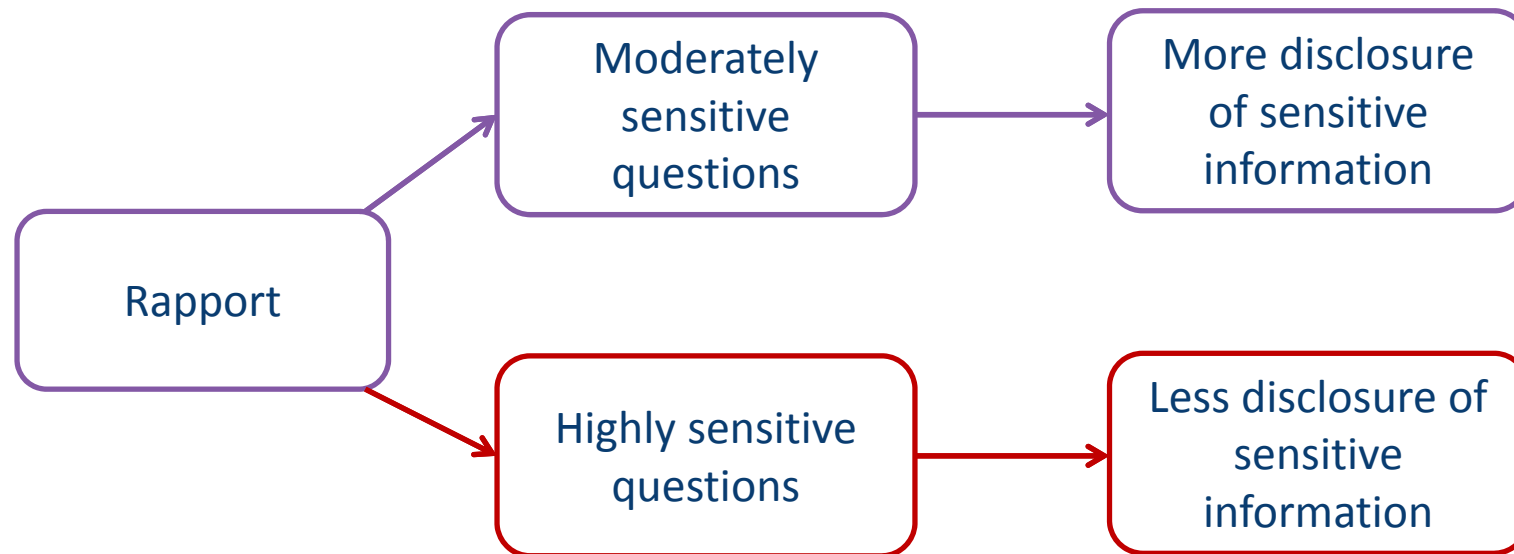
Acknowledgement

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Background

- No universally accepted way to measure rapport, the general consensus is that it is good for survey interviews and may affect the quality of the responses obtained (e.g., Foucault, 2010; Lavin & Maynard, 2001; Cassell & Miller, 2007).
- Although rapport-related verbal behaviors have been found to increase the disclosure of moderately sensitive information in face-to-face interactions (e.g., van der Zouwen, Dijkstra, & Smit 1991), it is unknown if rapport can be established to the same extent in video-mediated interviews, leading to similar levels of disclosure.

The Hypothesized Effect of Rapport on the Disclosure of Sensitive Information



Research Questions and Hypotheses

- Can rapport be similarly established in video-mediated and computer-assisted personal interviews (CAPI)?
- Does the impact of rapport on disclosure depends on question sensitivity?
- Does rapport decrease item nonresponse in interviewer-administered modes?
- Hypotheses
 - Rapport will be *lower* in video-mediated interviews than in computer-assisted personal interviews (CAPI).
 - When questions are *moderately or less sensitive*, rapport motivates respondents to provide *more* honest responses, whereas when questions are *highly sensitive*, rapport leads to *less* honest responses.
 - Compared with those in low rapport interviews, respondents in *high rapport interviews* will have *lower* item nonresponse rates.

Study Design

- $2 \times 2 \times 2$ experimental design
 - Level of rapport (High vs. Low)*
 - Mode of data collection (CAPI vs. Video-mediated Interviews)
 - Questionnaire version (Version 1 vs. Version 2)
- A 35-minute CAPI/video-mediated interview
- 12 female professional interviewers were recruited from the Survey Research Center at the University of Michigan and then 8 were selected to participate in the experiment
- 128 respondents were recruited from the population of the full-time employees at the University of Michigan

*Note: Rapport was used as observational data rather than experimental variable in the analysis. See Study 1 results

Interviewer Screening

- 12 female interviewers were recruited from the Survey Research Center at the University of Michigan
- Each interviewer administered two CAPI interviews
- Following the interview, each respondent rated the interviewer's rapport on two scales
- 4 interviewers of the higher rapport ratings and 4 of the lower rapport ratings were selected

Questionnaire

- Tested perceived question sensitivity with Amazon Mechanical Turk workers
 - Recruited 104 MTurkers (52 males and 52 females)
 - Rated a random sample of 20-25 questions on a five-point Likert scale measuring question sensitivity (1=extremely unlikely and 5=extremely likely).
- Divide questions into three categories: nonsensitive, moderately sensitive, and highly sensitive
 - Questionnaire Version 1: Set B in CAPI/video-mediated interview; Set A and C in ACASI
 - Questionnaire Version 2: Set A in CAPI/video-mediated Interview; Set B and C in ACASI

Results: Respondents' and Interviewers' Rapport Evaluation

- The respondents' and interviewers' mean rapport ratings were 5.21 ($n=125$, $SD=0.76$) and 4.81 ($n=124$, $SD=0.74$), respectively
- The correlation between the respondents' and the interviewers' rapport ratings was small and insignificant ($\rho=0.11$, $p=0.21$)
- Interviewers who were rated high in rapport in the screening received low rapport ratings for some interviews in the experiment, and interviewers who were rated low in rapport in the screening received high rapport ratings for some interviews in the experiment
- Used the respondents' rapport ratings for their individual interviews in the following analysis

Results: CAPI vs. Video-Mediated Interviews on Respondents' Rapport Ratings

- The mean respondents' rapport ratings for video-mediated interviews and CAPI were 5.11 (n=63, SD=0.82) and 5.30 (n=62, SD=0.68), respectively.
- The test result was not significant ($t=1.40$, $p=0.16$), suggesting that rapport is just as well established in CAPI as in video-mediated interviews.

Results: Random-effects multilevel multinomial logistic regression analysis on disclosure

- Model 1: Disclosure of sensitive information

$$\log \left[\frac{p_{ij}}{1 - p_{ij}} \right] = \beta_0 + \beta_1 Mode_j + \beta_2 Rapport_j + \beta_3 Sensitivity_{ij} + \beta_4 Rapport_j \times Sensitivity_{ij} + u_j + \varepsilon_{ij}$$

- When rapport is high, the probability of disclosure for questions high in sensitivity was 11.52% higher than that for questions low in sensitivity ($F_{123}^1 = 10.47, p < 0.01$).
- When rapport is low, the difference on probability of disclosure between questions high and low in sensitivity was only 2.24% (n.s.).

Results: Random-effects multilevel multinomial logistic regression analysis on item nonresponse

- Model 2: Item nonresponse

$$\log \left[\frac{p_{ij}}{1 - p_{ij}} \right] = \beta_0 + \beta_1 \text{Mode}_j + \beta_2 \text{Rapport}_j + \beta_3 \text{Sensitivity}_{ij} + \beta_4 \text{Rapport}_j \times \text{Sensitivity}_{ij} + u_j + \varepsilon_{ij}$$

- Question sensitivity had significant effects on item nonresponse when controlling for mode and rapport ($F_{12364}^1 = 187.09, p < 0.0001$).
- Interactions between question sensitivity and rapport had marginally significant effects on item nonresponse ($F_{12364}^1 = 3.02, p = 0.08$).

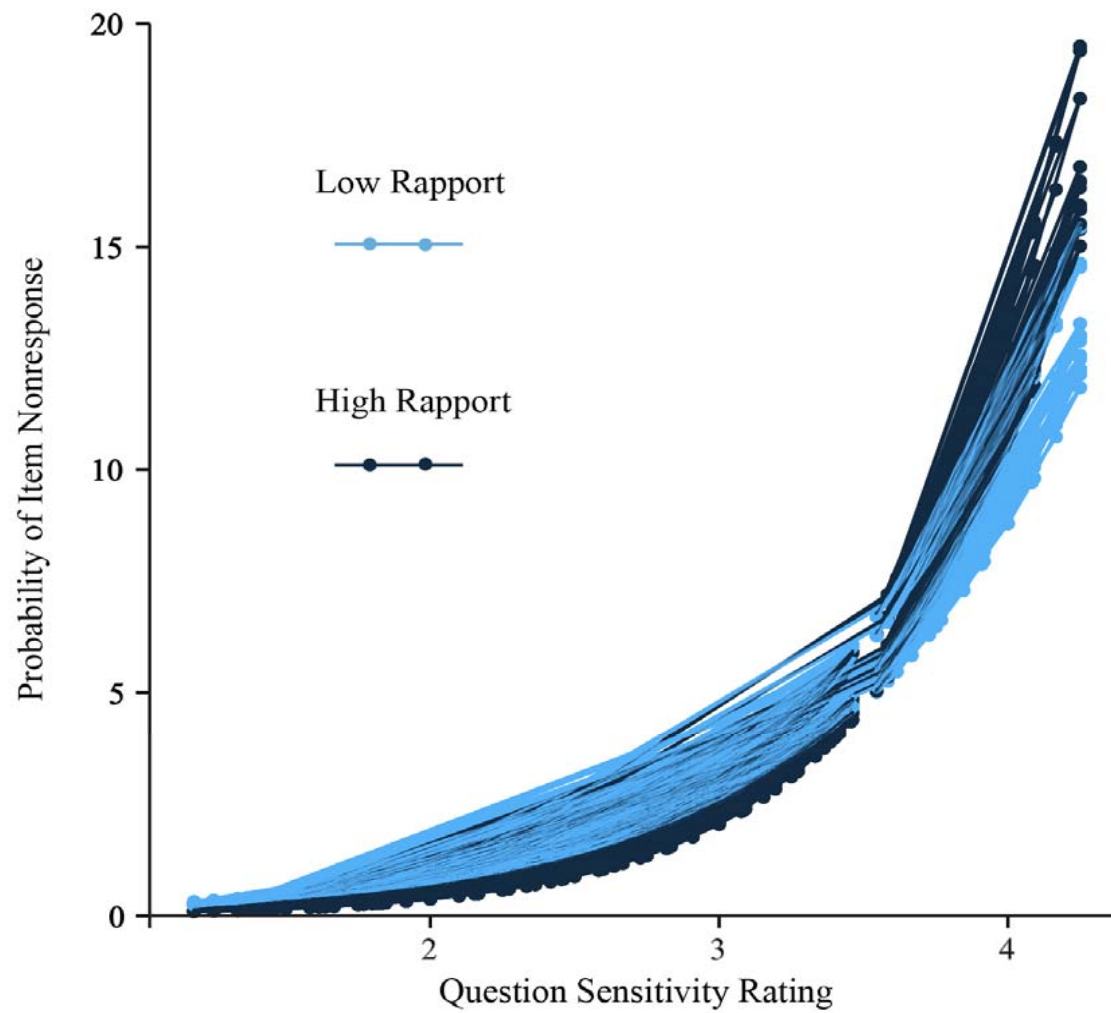


Figure 2 Probability of Item Nonresponse: Question Sensitivity by Rapport

Summary

- Rapport

- Rapport increases disclosure of highly sensitive information. But high rapport also discourages answering at all for highly sensitive questions

- Mode

- Rapport is not better established in CAPI than video-mediated interviews

- Respondents disclose similar levels of sensitive information in CAPI and video-mediated interviews

- Item nonresponse rates are similar in CAPI and video-mediated interviews



Thank you

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