

The Impact of Interviewers' Personality on Measurement Error

Findings from the SOEP "Interviewer Survey"

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Causes of Measurement Error

Item sensitivity

- Social Desirability
- Privacy
- Respondent is unwilling to give accurate response

Lack of Respondent's Cooperation

- Missing motivation
- No feeling of obligation
- Respondent makes no effort to give accurate response

Respondent's Mood

- Certain concepts may be sensitive to mood changes (e.g., life satisfaction, psychological items in general)

Interviewer Conscientiousness

- Adherence to interview protocol, appropriate probing, accurate keying

Five-Factor Model of Personality ("Big Five")

Neuroticism

- Emotional instability, lack of ability to cope with stress, nervousness

Extraversion

- Sociability, enthusiasm, outgoing, unreserved, gregarious character

Agreeableness

- Gentle and kind character, seeking consultation instead of confrontation

Openness to Experience

- Open for new ideas and intellectual stimulation, sensation-seeking

Conscientiousness

- neat, orderly and meticulous approach to tasks, systematic

Theoretical Assumptions

- Agreeableness and Openness reduce *social desirability effects* because interviewers are understanding and non-judgmental
- Extraversion increases *social desirability effects* because interviewers have strong opinions
- Conscientiousness reduces *privacy effects* because interviewer can be trusted with confidential data
- Extraversion increases *motivation* because enthusiastic and sociable interviewers are able to convince respondents of benefits of participation
- Conscientiousness increases feeling of *obligation* because interviewer invokes conscientiousness in respondent
- Neuroticism threatens good *temper* of the respondent because interviewer is moody

Data and Model Description

The SOEP Interviewer Survey

- In 2006, all interviewers of that SOEP wave were asked to take part in a mail survey
- Response rate=94%
- Data for N=552 interviewers
- Update (in comparison to bookkeeping data) on demographics and other characteristics
- Systematic feedback on interviewers' work experience: motivation, workload, etc.
- Interviewer data on self-rated measures of attitudes, values, beliefs, etc.
- Same question format as in SOEP questionnaires for respondents
- Data were linked with individual-level SOEP data on respondents from the 2006 wave

Indicators of Measurement Error

Indicator	Variable	Indicates
Rounding error	body weight	social desirability
Item missingness	net income	privacy
Point estimate	life satisfaction	mood effect
Item missingness	Overall (across all variables)	Interviewer conscientiousness

"Big 5" in the SOEP

- Shortened *Big Five Inventory (BFI)* part of interviewer survey and SOEP 2006
- 15-item measure (three per factor)
- Factor scales are standardized based on 2005 GSOEP respondent results with mean=50 and std=10

Hypotheses

- H1:** Agreeableness and openness are negatively related to occurrence of rounding errors in body weight question
- H2:** Extraversion is positively related to rounding errors in body weight question
- H3:** Conscientiousness is negatively related to a) item missingness in net income question and b) in the whole interview
- H4:** Neuroticism is negatively related to life satisfaction

Model Specification

- Two-level hierarchical regression models
- Face-to-face interview cases only
- Dependent variables: ME indicators
- Independent variables: Big 5 variables
- Other covariates: Key demographics (interviewer and respondent level), experience with SOEP and interviewing

Results and Discussion

Results

- H1: Openness is positively related to the occurrence of rounding errors in weight variable (OR=1.011, p-value<0.01; rho=0.017). Agreeableness is not related to rounding errors.
- H2: Extroversion is not related to rounding errors in weight variable.
- H3: a) Conscientiousness is negatively related to item missingness in net income (OR=0.972, p-value<0.10) and b) also negatively related to item missingness overall (OR=0.985, p-value<0.50, rho=0.238)
- H5: Neuroticism is weakly negatively related with respondents' life satisfaction (regression coefficient: -0.007, p-value <0.10; rho 0.114)

Discussion

- *Conscientiousness* in interviewers significantly reduced the occurrence of item missing data, both in the net income question as well as in the whole questionnaire. This is reassuring, as one would expect a successful interviewer to have this trait.
- *Neuroticism* is slightly but significantly correlated with respondents' life satisfaction. This suggests that interviewers' neuroticism can potentially bias mood-sensitive questions.
- *Openness* is highly significantly related to the occurrence of rounding errors in the body weight variable, but in the opposite direction of what was expected. This finding needs further investigation and explanation.
- Contrary to our expectations, neither *extraversion* nor *agreeableness* had any effect on our measure of social desirability (rounding error in weight question).