Response Latencies

• The amount of time it takes a respondent to answer a question, make a judgment or perform a task
• One indicator of response process

What influences response latencies?

• Cognitive model of the response process (Tourangeau, Rips, and Rasinski, 2000)
  — Comprehend question
  — Retrieve relevant information from memory
  — Integrate information into a judgment
  — Map judgment onto the response format
• Satisficing Theory
  — Optimizing versus Satisficing
  — Satisficers answer faster
  — Conditions under which satisficing is most likely
    • Task difficulty
    • Respondent ability
    • Respondent motivation
Hypotheses

- H1a: Greater question difficulty $\rightarrow$ Longer RLs
- H1b: Greater question difficulty $\rightarrow$ Shorter RLs (more satisficing)
- H1a and H1b may both be true $\rightarrow$ no association
- H2a: Less R ability $\rightarrow$ Longer RLs
- H2b: Less R ability $\rightarrow$ Shorter RLs (more satisficing)
- H2a and H2b may both be true $\rightarrow$ no association
- H3: Less R motivation to optimize $\rightarrow$ Shorter RLs (more satisficing)
- Greater response editing $\rightarrow$ longer RLs
- H4: Greater question sensitivity $\rightarrow$ longer RLs
- H5: Greater impression management tendencies $\rightarrow$ longer RLs

Current Research

- Examines respondent- and question-level characteristics as predictors of response latencies
  - Question/task difficulty
  - Respondent ability
  - Respondent motivation
  - Likelihood of response editing

Data

- 405 adults age 18-70 from the Chicago Metropolitan Area
- Stratified by race/ethnicity and language of interview
  - Non-Hispanic White (English) N = 103
  - Non-Hispanic African-American (English) N=100
  - Mexican-American (English) N=52
  - Mexican-American (Spanish) N=50
  - Korean-American (English) N=41
  - Korean-American (Korean) N=59
- Recruited via RDD
- Selected respondent scheduled for interview at the lab
  - Two PAPI instruments
  - CAPI interview
    - Response latencies (RLs) for 150 questions
    - Question characteristics were manipulated
    - Order manipulation
Measures

• Rls
  – Time between the end of the interviewer reading of the question and the respondent's answer
  – Interviewer hit enter to start timer when s/he finished reading question
  – Timer stopped by respondent’s answer
  – Interviewer then indicated whether the response latency was valid
  – Only Rls judged valid were used (48,859 = 79.6%)
  – Reciprocalized
    • Recommended by Fazio, Bassili and others
    • Helps address non-normal, right-skewed distribution and minimizes effect of particularly long outliers
    • higher values mean faster Rls

Question Characteristics

• Task Difficulty
  – Language difficulty (sentences; words/sentence; syllables/word)
  – Time Qualified or not
  – Judgment Type
    • Self-Relevant Knowledge (Characteristics and Behaviors)
    • Subjective Judgment
    • Factual External Knowledge
  – Question Abstraction
    • Not at all, Somewhat, Very
    • Two raters – above 80% concordance
  – Purposely Bad Questions
    • Not bad questions
    • Nonexistent policies or objects (2)
    • Question/response options mismatch (2)
    • Non-mutually exclusive or exhaustive response options (2)
    • Judgment too specific (2)
    • Double-barreled (2)

Question Characteristics (cont.)

• Respondent Motivation
  – Number of Previous Questions – Order Manipulation

• Response editing
  – Question sensitivity
    • Not at all, somewhat, very
    • Coded by two raters
      – greater than 80% concordance
Question Characteristics (cont.)

• Other
  — No opinion option
    • No opinion offered
    • Offered in list of response options in the question
    • No opinion filter question preceding target question
  — Response format
    • Open-ended numeric response
    • Agree-disagree
    • Yes-no
    • Feeling thermometer (showcard)
    • Categorical
    • Unipolar response scale (full verbal labels)
    • Bipolar response scale (full verbal labels with midpoint)
    • Bipolar response scale (full verbal labels without midpoint)
    • Semantic differential (show card with endpoints labeled)

Respondent Characteristics

• Task/Question Difficulty
  — Respondent perceived difficulty
    • 3-item index; Scale $\alpha = .69$

• Respondent Ability
  — Respondent education (years of education)
  — Respondent age
  — Interviewer ratings of respondents’ intelligence

• Respondent Motivation
  — Motivation index (7-item index)
    • Perceived value of survey
    • Respondent self-reports of effort
    • Interviewer rating of interest
    • Scale $\alpha = .65$

Respondent Characteristics (cont.)

• Response Editing
  — Impression management (Paulhus)

• Other
  — Respondent race/ethnicity and language group
    • Non-Hispanic White
    • Non-Hispanic African-American
    • Mexican-American (English)
    • Mexican-American (Spanish)
    • Korean-American (English)
    • Korean-American (Korean)
  — Respondent gender
Analysis

- Multi-level or hierarchical linear model
  - DV = RLs (reciprocal)
  - Stata
    - multilevel random effects model
    - Two levels
      - Level 1 – question
      - Level 2 – respondent
  - Graphs of predicted values for significant results
### Judgment Type

- **Factual Knowledge**
- **Subjective Judgment**
- **Self-Relevant Knowledge**

### Question Abstraction Level

- **Very abstract**
- **Somewhat abstract**
- **Not at all abstract**

### Deliberately Difficult Questions

- **Question Stem/Response Option Mismatch**
- **Requests Unreasonably Specific Estimate**
- **Nonexistent Policy or Object**
- **Response Options Not Mutually Exclusive or Exhaustive**
- **Double Barreled**
- **Not Deliberately Difficult**
**Previous Questions**

![Graph showing predicted reciprocalized response latencies.]

**Question Sensitivity**

- Very sensitive
- Somewhat sensitive
- Not at all sensitive

- Mean predicted reciprocalized response latency

**No Opinion Response Option or Filter Used?**

- Preceded by No Opinion Filter
- Explicitly Offered
- None

- Mean predicted reciprocalized response latency
Other Predictors

- Respondent perceived difficulty - ns
- Respondent education - ns
- Respondent motivation index - ns
- Impression management - ns
- Respondent age – marginally significant
  - Older people responded more slowly
- Respondent gender – marginally significant
  - Men responded faster than women
Summary

• Question level versus Respondent level
• Greater difficulty → longer RLs
• Greater ability → shorter RLs
• Greater motivation → longer RLs
• No evidence of longer RLs with greater response editing

Limitations/Future Directions

• Non-representative but diverse sample
• RLs only when there was not a problem that interfered with measure of RL
  – Linking RL data to other data about processes
  – Coding of verbal and nonverbal behaviors
  – Measures of response effects
• Interactions between respondent- and question-level factors
  – Effect of motivation, ability, and task difficulty for questions that have a clear opportunity for satisficing (e.g., agree-disagree) versus those that do not
  – Effects of respondent ability and task difficulty when respondent motivation is low (satisficing theory → interaction effects)
  – Comparability of predictors across race/ethnic and language groups
  – Isolating conditions under which response editing is most likely (evidence of longer RLs)
• Cross-classified model – control for clustering at the respondent- and question-level