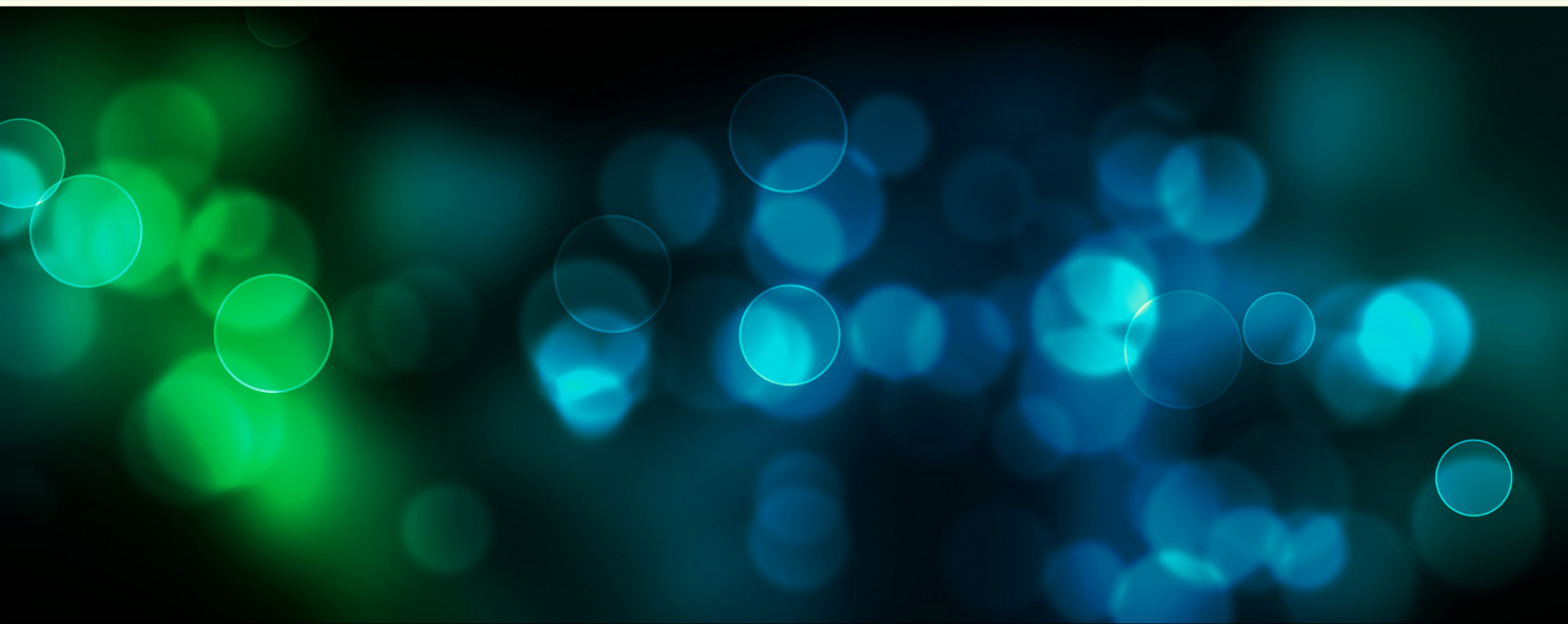




Asking Sensitive Questions in Surveys



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Outline

- Asking about criminal justice involvement in 1958
- Overview of sensitive questions in surveys
 - What are sensitive questions?
 - What are the consequences?
- Asking sensitive questions after 1958

Did you kill your wife?

- Barton (1958): Asking Embarrassing Questions. In Public Opinion Quarterly, 22, 67-68.

1. The Casual Approach:

“Do you happen to have murdered your wife?”

2. The Numbered Card:

Would you please read off the number on this card which corresponds to what became of your wife?” (HAND CARD TO RESPONDENT)

1. Natural death
2. I killed her
3. Other (What?)

(GET CARD BACK FROM RESPONDENT BEFORE PROCEEDING!)

Did you kill your wife?

3. The Everybody Approach:

“As you know, many people have been killing their wives these days. Do you happened to have killed yours?”

4. The “Other people” Approach:

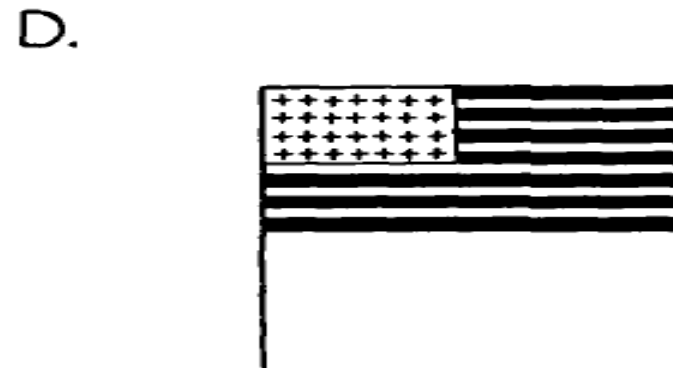
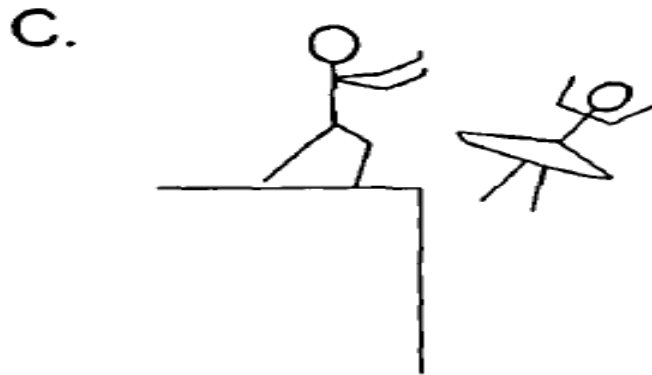
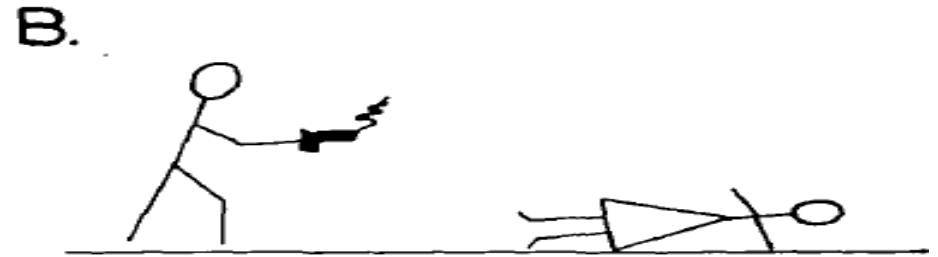
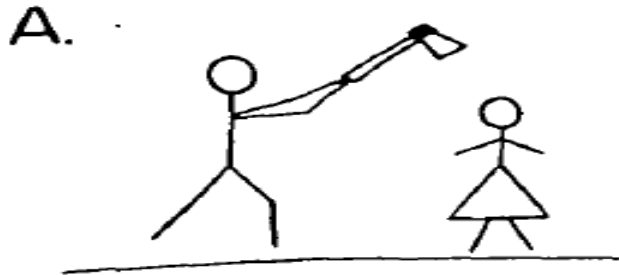
(a) “Do you know any people who have murdered their wives?”

(b) “How about yourself?”

5. The Sealed Ballot Technique:

In this version you explain that the survey respects people’s right to anonymity in respect to their marital relations, and that they themselves are to fill out the answer to the question, seal it in an envelope, and drop it in a box conspicuously labelled “Sealed Ballot Box” carried by the interviewer.

Did you kill your wife?



6. The Projective Technique:

“What thoughts come to mind as you look at the following pictures?”

(Note: The relevant responses will be evinced by picture D.)

Did you kill your wife?

7. The Kinsey Technique:

Stare firmly into respondent's eyes and ask in simple, clearcut language such as that to which the respondent is accustomed, and with an air of assuming that everyone has done everything,

“Did you ever kill your wife?”

8. Putting the question at the end of the interview.

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What are sensitive questions?

(Tourangeau and Yan, 2007)

- Intrusive
 - Income
 - Number of sexual partners
- Threat of disclosure
 - Identifying information (e.g., social security number)
 - Use of marijuana
- Social desirability
 - Voting
 - Discrimination

Different level of sensitivity

- Some questions are sensitive to ask
 - For all people
 - Driven by content
 - ✦ Income, number of sexual partners
 - ✦ Social security numbers
- Some questions are sensitive to answer
 - Only for some people
 - Depending on actual behavior/attitude
 - ✦ Use of marijuana
 - ✦ Voting
 - ✦ Discrimination

Consequences of asking sensitive questions

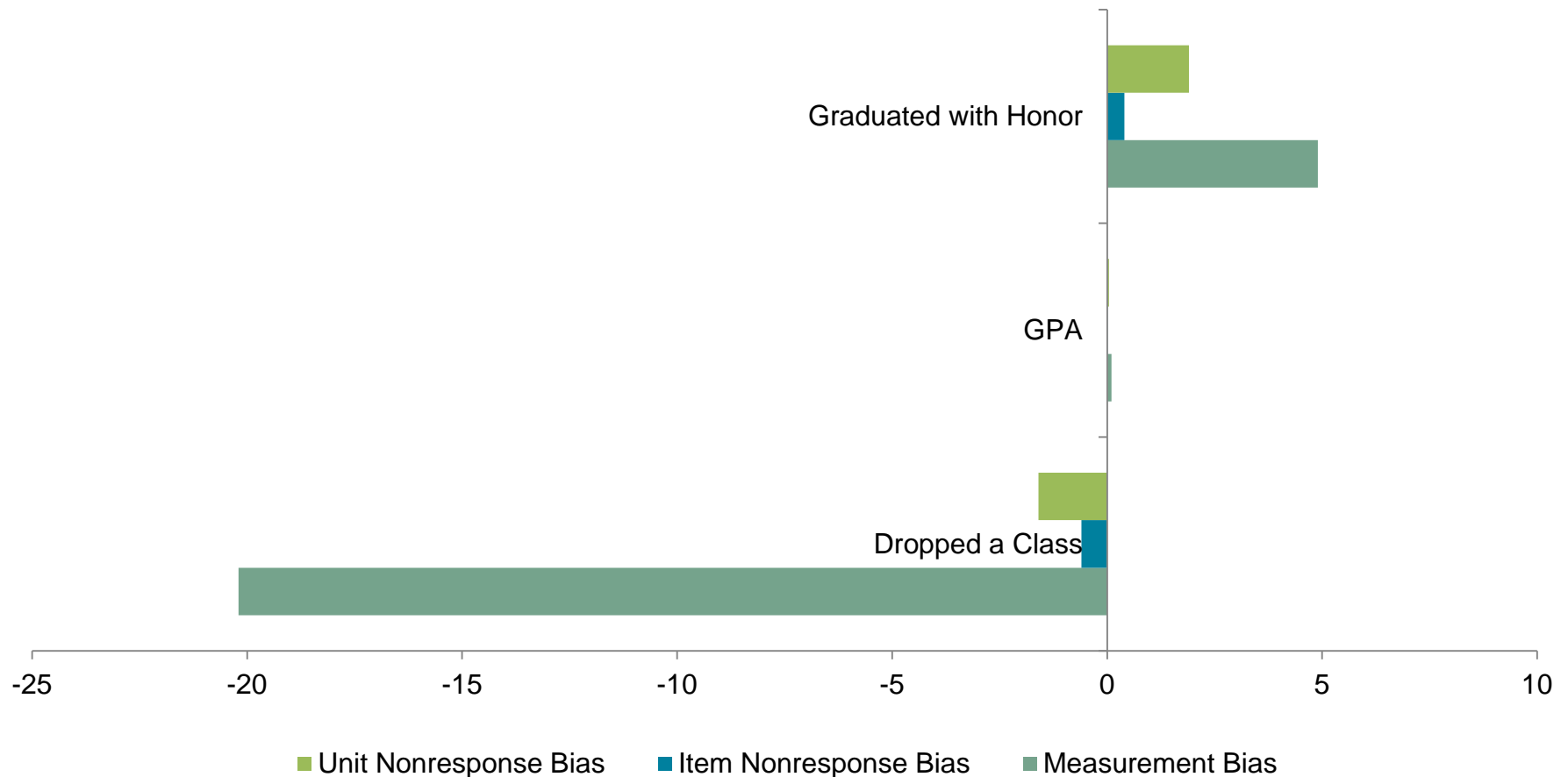
- High unit nonresponse rates
 - People are less likely to participate in surveys with sensitive topic (Tourangeau et al., 2010)
 - ✦ Especially those with undesirable behavior/attitudes
- High item nonresponse rates
 - People are more likely to NOT provide a response when asked sensitive questions even after they agreed to participate in the surveys
 - ✦ ~25% of item nonresponse rates to income questions (Yan et al., 2010)

Consequences of asking sensitive questions

- High unit nonresponse rates
- High item nonresponse rates
- High measurement error
 - Usual sources of measurement error (comprehension, retrieval, judgment)
 - Editing
 - ✦ Underreporting of socially undesirable behavior/attitude
 - ◆ *drug use, smoking, binge drinking*
 - ✦ Overreporting of socially desirable behavior/attitude
 - ◆ *voting, exercising*

A Total Survey Error (TSE) Perspective

(Sakshaug, Yan, and Tourangeau, 2010)



More about editing

- Editing answers to sensitive questions
 - Modifying/editing the answer before giving it (but after retrieving/judgment)
 - Editing on top of other sources of error
 - Editing deliberate and (sometimes) automatic/subconscious
- Who edits more?
 - Those with things to hide
 - Those with higher levels of social desirability concerns, higher level of threats, higher loss
 - ✦ E.g., Higher education (Jonge, 2015; Preisendörfer and Wolter, 2014)
 - When other people are around (Aquilino et al., 2000)
 - When topic(s) more sensitive
 - ✦ E.g., More severe offense (Hindelang et al., 1981)

What about criminal justice involvement?

- Sensitive because of
 - Intrusiveness
 - Threat of disclosure
 - Social desirability
- Sensitive to ask
- Sensitive to answer
- May incur high item nonresponse
- High measurement error
 - Underreporting

What about criminal justice involvement? (2)

- More underreporting among (Preisendörfer and Wolter, 2014)
 - Women
 - Older people
 - Higher level education
 - Higher social desirability concerns
 - Those with more severe offense
 - Those who returned mail survey late
 - Those interviewed by less experienced interviewers

Outline

- Asking about criminal justice involvement in 1958
- Overview of sensitive questions in surveys
 - What are sensitive questions?
 - What are the consequences?
- Asking sensitive questions after 1958
 - Strategies to reduce underreporting of socially undesirable behaviors/attitudes

Strategies to reduce underreporting: Mode

- Use self-administered modes
 - Mail, Web, Interactive Voice Response (IVR), text messaging
 - Self-administered questionnaire (SAQ), Audio Computer-Assisted Self-Interviewing (A-CASI), Text Computer-Assisted Self-Administering (T-CASI), MP3-Player+Paper answer sheet, IVR, text messaging

Effect of Self-administration vs. interviewer-administration

Study	Topic	Modes Compared	Ratio of Estimates
Preisendörfer and Wolter (2014)	Ever convicted	Mail vs. Face-to-Face	1.16
Lind et al (2013)	# of sexual partners	A-CASI vs. Face-to-Face	1.93
Villarroel et al (2006)	Same-gender sexual experience	IVR vs.CATI	1.56
Schober et al (2015)	Ever smoked 100 cigarettes	Texting vs. CATI	1.08
Corkrey and Parkinson (2002)	Ever use of marijuana	IVR vs.CATI	1.26
Tourangeau and Smith (1996)	Ever use of cocaine	ACASI vs Face-to-Face	1.81
Tourangeau and Smith (1996)	Ever use of marijuana	ACASI vs. Face-to-Face	1.48

Strategies to reduce underreporting: Mode

- Use self-administered modes
 - Mail, Web, Interactive Voice Response (IVR), text messaging
 - Self-administered questionnaire (SAQ), Audio Computer-Assisted Self-Interviewing (A-CASI), Text Computer-Assisted Self-Administering (T-CASI), MP3-Player+Paper answer sheet, IVR, text messaging
- Form of self-administration doesn't matter
- Self-administration modes
 - Removes presence of interviewers
 - Reduces presence of by-standers/third-party

Strategies to reduce underreporting:

Question wording

- Use “forgiving” introduction
 - “The number of sexual partners people have had differs from person to person. Some people report having had one sex partner, some two or more partners, and still others report hundreds of partners.” (Catania et al., 1996)
 - “Almost everyone has probably committed vandalism at one time or another.” (Holtgraves et al., 1997)
 - “Some people use erotic or pornographic material often, while others do this rarely or never.” (Peter and Valkenburg, 2011)

Effects of “forgiving” introduction

(Holtgraves et al. 1997)

Topic	Study	Ratio of Estimates
Academic cheating	1	1.31
	2	1.68
	5	1.67
Illegal drug use	1	1.20
	2	0.60
Drink and Driving	1	0.90
	2	1.63
	5	0.72
Vandalism	4	1.71
	5	1.24
Shoplifting	4	0.77
	5	0.96
Littering	4	1.05

Strategies to reduce underreporting:

Question wording

- Use “forgiving” introduction
- But, doesn’t always work and doesn’t work for all topics
- Needs pretesting

Strategies to reduce underreporting:

Question wording (2)

- Use “familiar” wording
 - “love making” vs. “sexual intercourse” (Bradburn et al., 1979)
 - “booze” vs. “liquor” (Bradburn et al., 1979)
- Use question presupposing the behavior
 - “In the past 10 years, how many times did you witness a crime?”
(Knauper, 1998)
- Ask “ever” only or before asking “current”
 - “Did you ever, even once, take something from a store without paying for it?” (Bradburn et al., 2004)

Strategies to reduce underreporting:

Question format

- When asking for numbers/frequency, use open-ended format or high-frequency list
 - Tourangeau and Smith (1996):

Format	Mean Partners (5 Years)
Closed Low (0, 1, 2, 3, 4, 5 and more)	2.62
Open	3.12
Closed High (0, 1-4, 5-9, 10-59, 50-99, 100 and more)	5.33

Strategies to reduce underreporting: Indirect methods (1)

- Randomized response techniques (RRT)

- Introduced by Warner (1965)

- ✦ Two questions

- ◆ Q1a. *I'm for legalized abortion on demand*

- ◆ Q1b. *I'm against legalized abortion on demand*

- ✦ R roll a dice/spinner

- ◆ <3: *answer Q1a*

- ◆ ≥3: *answer Q1b*

- ✦ R report back answer without telling Interviewer which question he/she answered about

- ✦ For researchers/data analysts:

$$\hat{p}_w = \frac{\hat{\lambda} - 1 - \pi}{2\pi - 1}$$

Strategies to reduce underreporting: Indirect methods (1)

- Randomized response techniques (RRT)
 - Other variations
 - ✦ Unrelated question method (Greenberg et al., 1969)
 - ✦ Forced alternative method (Coutts and Jann, 2011)
 - Found to improve reporting of
 - ✦ falsifying income tax reports (Himmelfarb et al., 1982; Musch et al., 2001), stealing (Franklin, 1989; Wimbush et al., 1997), smuggling liquor in Norway (Nordlund et al., 1994)
 - But,
 - ✦ Specific individual's answer not known
 - ✦ Increased variance
 - ✦ Noncompliance or mistaken use (Holbrook et al., 2010)

Strategies to reduce underreporting: Indirect methods (2)

- Crosswise Model (CM)

- Proposed by Yu, Tian, and Tang (2008) as an alternative to overcome some drawbacks of RRT

- ✦ No random devices used

- ✦ Reduces non-compliance (self-protective strategy)

- Respondents presented with two questions

- ✦ *Have you ever cheated on an exam?*

- ✦ *Were you born in October, November, or December?*

- Respondents reports one of the response options

- ✦ *A: answers are the same for both questions*

- ✦ *B: answers are different for both questions*

- For researcher/analyst:

$$\hat{\pi}_{\text{CM}} = \frac{(\hat{\phi} + p - 1)}{(2p - 1)}, \quad p \neq 0.5,$$

Strategies to reduce underreporting: Indirect methods (3)

- Item count techniques (ICT)

- Droitcour et al., (1991): respondents randomized into two groups
 - ✦ One group gets a long list containing sensitive question
*“How many of the following have you done since January 1:
Bought a new car, traveled to England, donated blood, gotten
a speeding ticket, and visited a shopping mall?”*
 - ✦ The other group gets the same list without the sensitive question
*“How many of the following have you done since January 1:
Bought a new car, traveled to England, donated blood, and
visited a shopping mall?”*
- Differences between the two groups=>proportion endorsing the sensitive question

$$\hat{p}_{1L} = \bar{x}_k + 1 - \bar{x}_k$$

Strategies to reduce underreporting: Indirect methods (3)

- Item count techniques (ICT)
 - Other variation: 2-list method (Biemer & Brown, 2005)
 - Item sum for continuous variables (Trappmann et al., 2013)
 - Found to improve reporting of
 - ✦ unethical workplace behavior (Dalton, Wimbush, and Daily 1994), employee theft (Wimbush and Dalton 1997), hate crime victimization (Rayburn, Earleywine, and Davison 2003a, 2003b), shoplifting (Tsuchiya, Hirai, and Ono 2007), vote buying (Jonge, 2015)
 - But
 - ✦ *Specific individual's answer to sensitive question unknown*
 - ✦ *Require large sample size*

Asking about criminal justice involvement

- Consider
 - Using self-administered mode
 - Adding forgiving introduction
 - Asking question presupposing behavior
 - Asking 'ever'
 - Using open-ended or high frequency list
 - Using an indirect method (RRT, ITC, CM)
- Pretesting introduction, question wording, indirect methods before fielding



Thank you!

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