Notes on "Addressing Non-sincere Responses in Rank-Order Survey Questions" (Atsusaka & Kim, 2023) AU WiP

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Big Picture

Connections

Anchor Questions

 ${\bf Suggestions}$

Big Picture

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(Some of this for §1, some for §9, some for body)

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- ▶ Clarify "what patterns?"
- ► Other question types (battery of Likerts, Approve/Disapproves, ...)

What could *non-sincerity* be masking?

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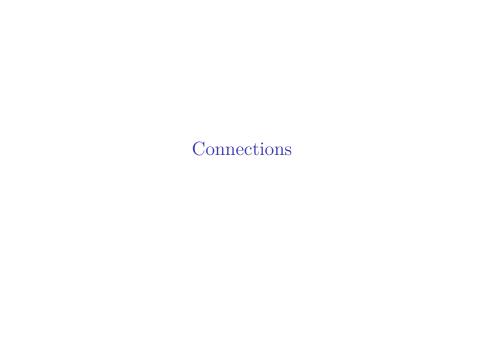
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- ▶ assume the typical, realistic MAR or NI, and need more (multiple imputation)

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- ▶ (What is and is not *pre-processing*?)

Forced-choice conjoint designs are simple rankings.

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 - ▶ Cognitive load

Connection 4: Doubly-Robust Models

$$\pi_{i} \equiv \pi_{i,s} z_{i} + \pi_{i,n} (1 - z_{i})$$

$$\mathbb{P}(\pi_{i,s} | z_{i} = 1) = \frac{\mathbb{P}(\pi_{i}) - (1 - Pr(z_{i} = 1)) \mathbb{P}(\pi_{i,n} | z_{i} = 0)}{Pr(z_{i} = 1)}$$
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Beyond non-parametrics:

Model for response/ranking + Model for sincerity

- ▶ Glynn and Quinn (2010)
- ► Tyler, Grimmer, and Westwood (2022)

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- ► King et al. (2004)
- ▶ Hopkins and King (2010)

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"any respondent with minimal substantial knowledge can provide a correct ranking for the anchor question, irrespective of the heterogeneous underlying preferences"

- ▶ Develop this, to ensure it's plausible, not circular
- ► How does this differ from an objective "attention check" like "president is state-level office-holder"?

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 - ▶ (Must I double survey length?)

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(Under assumptions, nice correction for "some get it right by chance" using item-order-randomization. But assumptions preclude anyone getting it wrong for any other reason.)

Item-order randomization to estimate prop sincere

$$\widehat{\Pr}(z_i^{\text{anc}} = 1) = \left[\frac{\sum_{i=1}^N c_i}{N} - \frac{1}{J!} \right] \left(1 - \frac{1}{J!} \right)^{-1}$$
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$$\left(\frac{20}{120} - \frac{1}{6}\right) \left(1 - \frac{1}{6}\right)^{-1} = 0$$

▶ yes, if worse than that. E.g., everyone is wrong:

$$\left(\frac{0}{120} - \frac{1}{6}\right) \left(1 - \frac{1}{6}\right)^{-1} = -0.2$$



Suggestions

- ▶ §5
 - ▶ Validate that nominal bootstrap coverage is correct
 - ▶ Bootstrap vs. inverting the RI-permutation test?
- ► §8
 - ▶ What do I want to see? Not just with/without correction, but also examination of quality of correction (test multiple anchors, other assumptions)

Small Suggestions

- ▶ §1
 - "Indeed, our survey data show that non-sincere responses are prevalent in rank-order questions regardless of their contexts" (p. 1)
 - ▶ If this refers to contextless response practice, it does not follow. "regardless" ≠ "in absence of".
- ► §4.3 ©
 - ▶ Add "No difference between sincere/insincere distributions"
- ▶ §5
 - ► Can you test anchor questions to estimate how easy they are? (E.g., in a big class, with incentives for correctness to set an upper bound)
 - "and re-designing": what do you have in mind?

Small Suggestions

- ► §6
 - Show us table of three χ^2 tests
- ► §7
 - ▶ If replicate this, add "Option 1" to reflect real task
 - "we may expect respondents to uniformly choose a ranking pattern available in the J! permutation space". Well, clearly not. Phrase as null hypothesis.
 - Add respondent count (E.g., if n = 100, J = 3, then p = 0.32!)

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