

Comparing and Combining List and Endorsement Experiments: Evidence from Afghanistan

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Methodological Motivation

- Survey is used widely in social sciences
- Validity of survey depends on the accuracy of self-reports
- **Sensitive questions** \implies social desirability, privacy concerns
- Racial prejudice, corruption, support for political actors
- Lies and nonresponses \implies potential bias
- Survey “experiments” as a solution
 - 1 Randomization: Randomized response method
 - 2 Aggregation: **List experiment** (item count technique)
 - 3 Cueing: **Endorsement experiment**
- Two problems of indirect measures and proposed solutions:
 - 1 **Measurement error** \implies *comparing* two measures
 - 2 **Statistical inefficiency** \implies *combining* two measures

Theoretical and Substantive Motivation

- How do we measure “hearts and minds” in a conflict setting?
- Current efforts in Afghanistan rely on direct questions:
 - ① USAID (TCAPF): “Who do you believe can solve your problems?”
 - ② ISAF (ANQAR): “Over the past 6 months, do you think the Taliban have grown stronger, grown weaker, or remained the same?”
- Why are direct questions a bad idea?
 - ① Threats to enumerators and respondents
 - ② Nonresponse, social desirability bias
 - ③ Interviews are public
 - ④ Danger of selection bias in sampling locations (role of gatekeepers)
- ANQAR (November-December 2011): 50% refusal rate

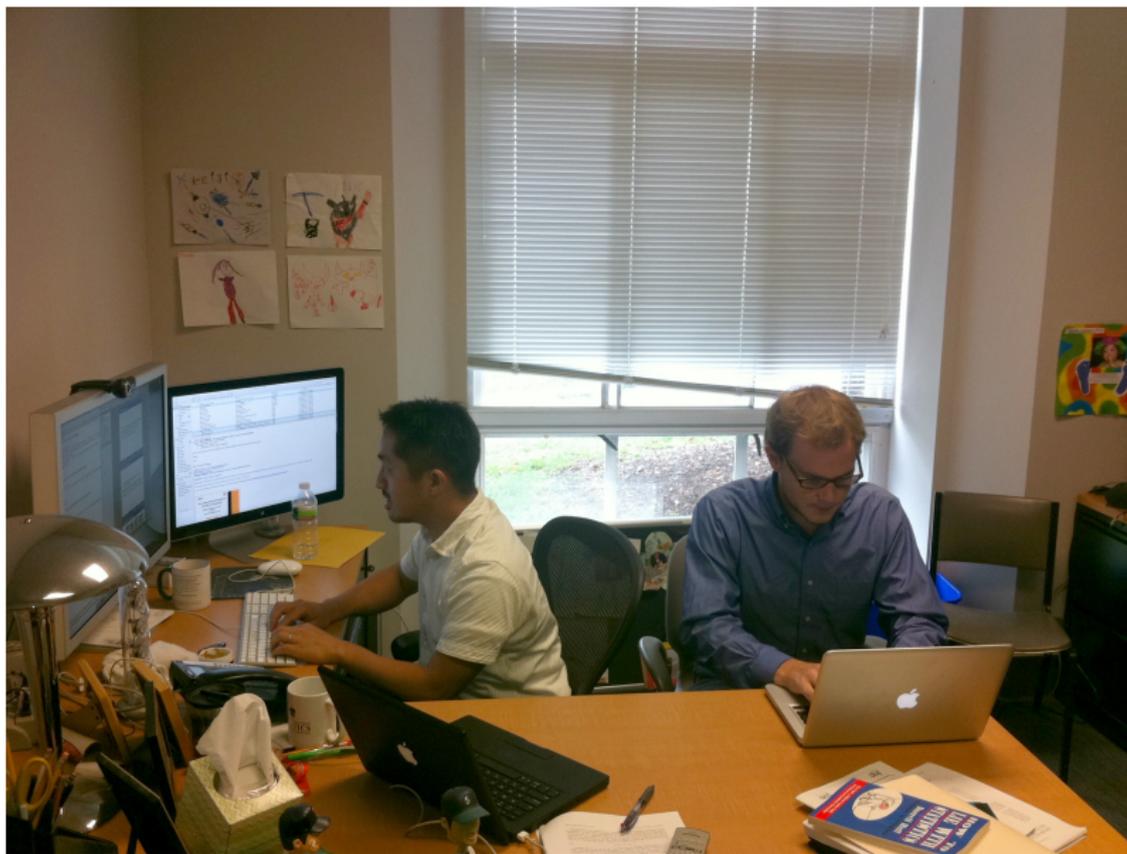
Public Nature of Interviews



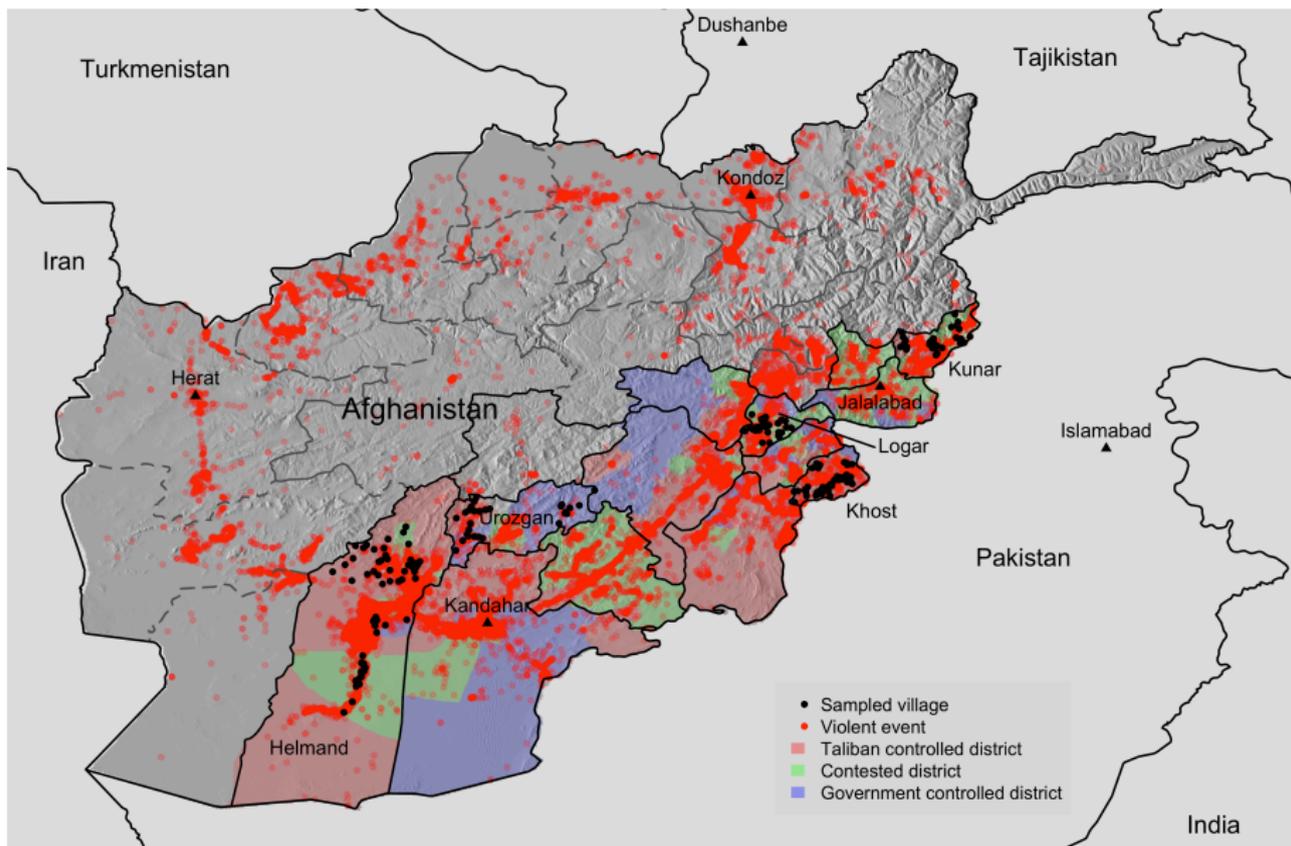
Negotiated Access



A Battlefield in Princeton, New Jersey



Sampling in the Heartland of Insurgency



List Experiments

- Script for the **control group**:

I'm going to read you a list with the names of different groups and individuals on it. After I read the entire list, I'd like you to tell me how many of these groups and individuals you broadly support, meaning that you generally agree with the goals and policies of the group or individual. Please don't tell me which ones you generally agree with; only tell me how many groups or individuals you broadly support.

Karzai Government; National Solidarity Program;
Local Farmers

List Experiments

- Script for the **treatment group**:

I'm going to read you a list with the names of different groups and individuals on it. After I read the entire list, I'd like you to tell me how many of these groups and individuals you broadly support, meaning that you generally agree with the goals and policies of the group or individual. Please don't tell me which ones you generally agree with; only tell me how many groups or individuals you broadly support.

Karzai Government; National Solidarity Program;
Local Farmers; **ISAF**

The Data from the List Experiment

response value	Control Group		ISAF Treatment Group	
	frequency	proportion	frequency	proportion
0	188	20.5%	174	19.0%
1	265	28.9	278	30.3
2	265	28.9	260	28.3
3	200	21.8	182	19.8
4			24	2.6
Total	918		918	

Endorsement Experiment

- Script for the **control group**:

A recent proposal calls for the sweeping reform of the Afghan prison system, including the construction of new prisons in every district to help alleviate overcrowding in existing facilities. Though expensive, new programs for inmates would also be offered, and new judges and prosecutors would be trained. How do you feel about this proposal?

Strongly agree; Agree; Indifferent;
Disagree; Strongly disagree; Don't Know;
Refuse to answer

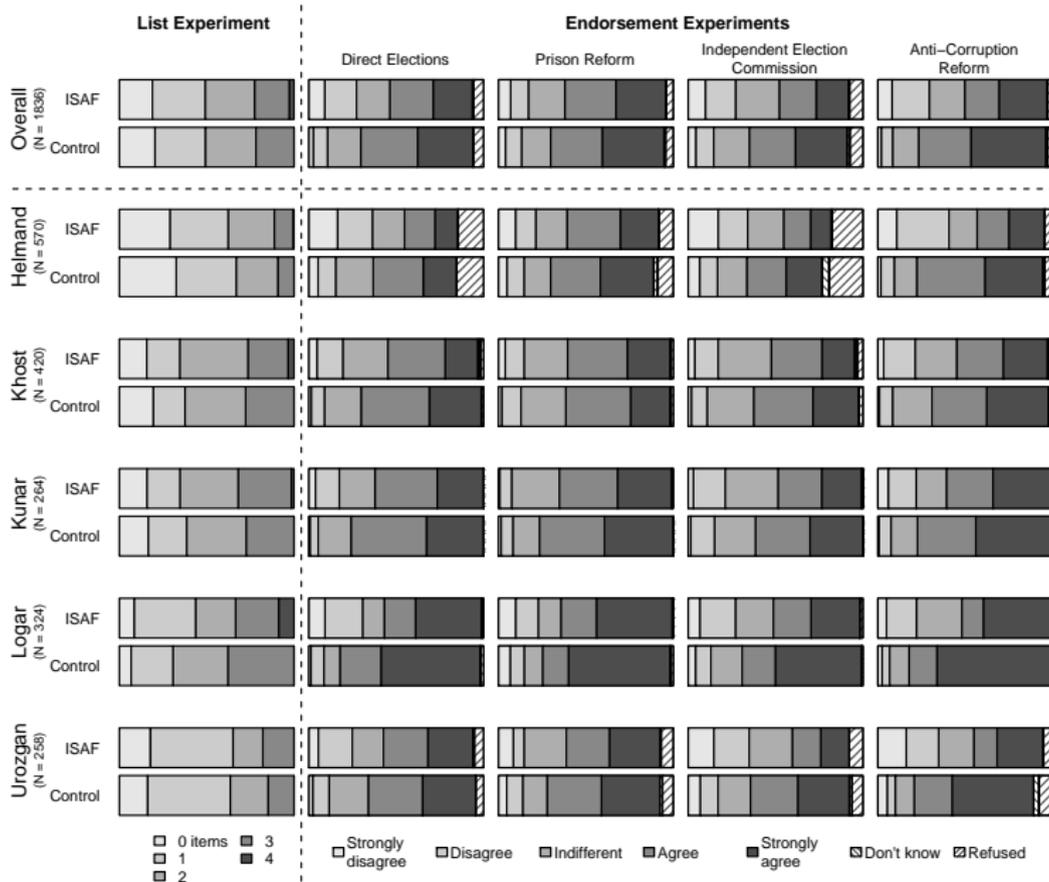
Endorsement Experiment

- Script for the **treatment group**:

A recent proposal **by ISAF** calls for the sweeping reform of the Afghan prison system, including the construction of new prisons in every district to help alleviate overcrowding in existing facilities. Though expensive, new programs for inmates would also be offered, and new judges and prosecutors would be trained. How do you feel about this proposal?

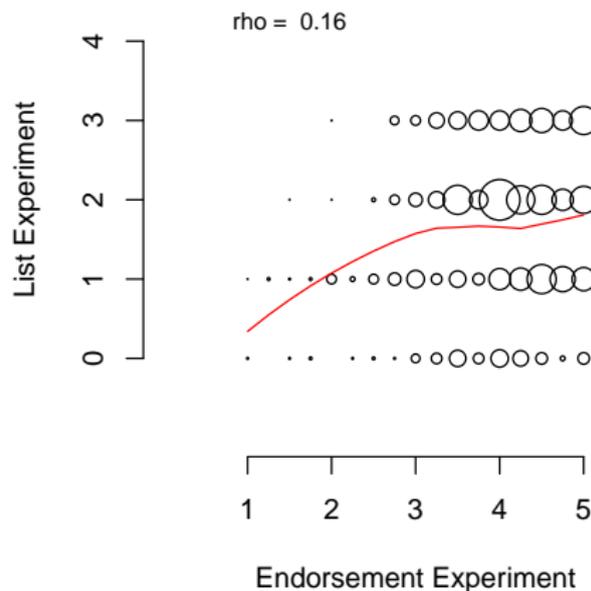
Strongly agree; Agree; Indifferent;
Disagree; Strongly disagree; Don't Know;
Refuse to answer

Data from the Endorsement Experiment

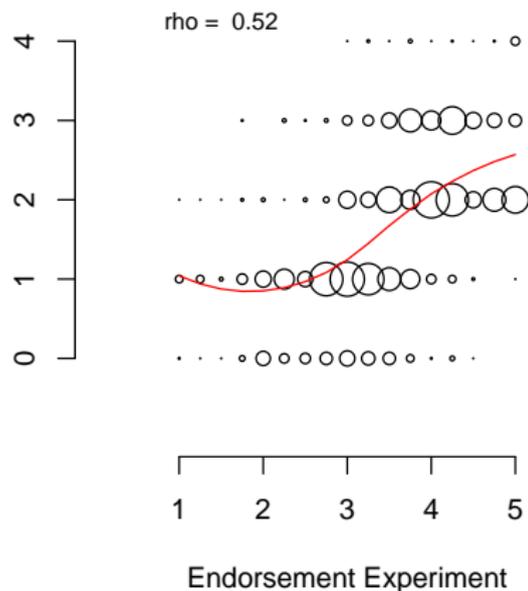


Descriptive Comparison: Overall

Control Group

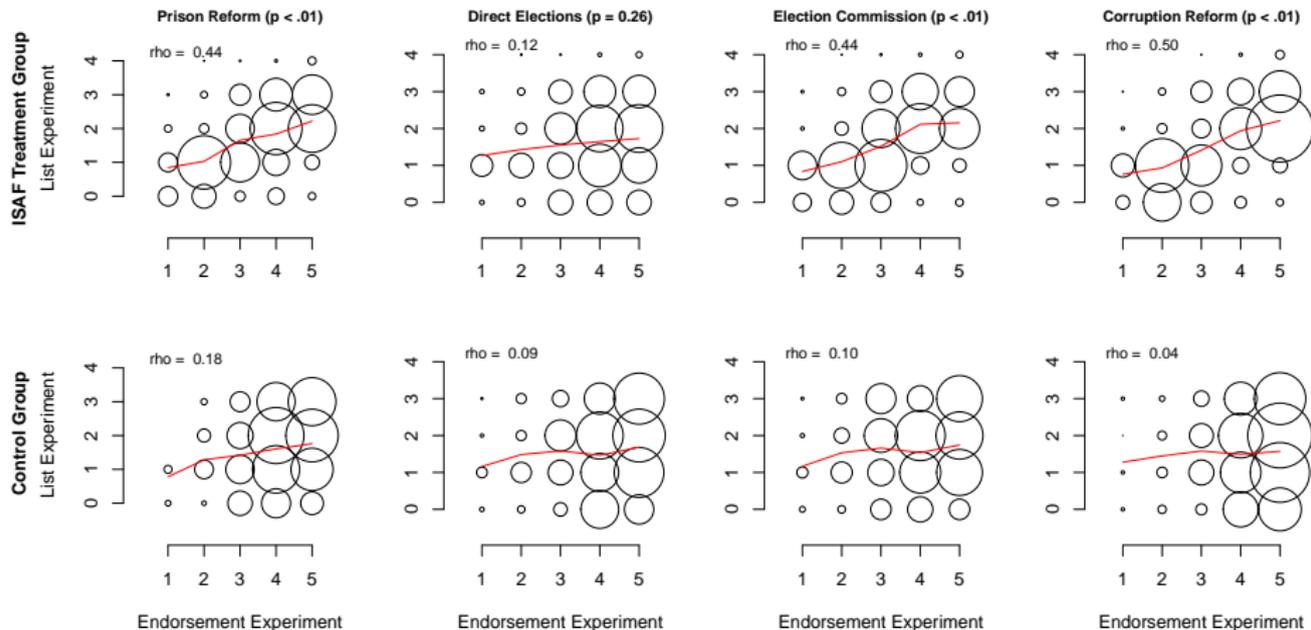


ISAF Treatment Group

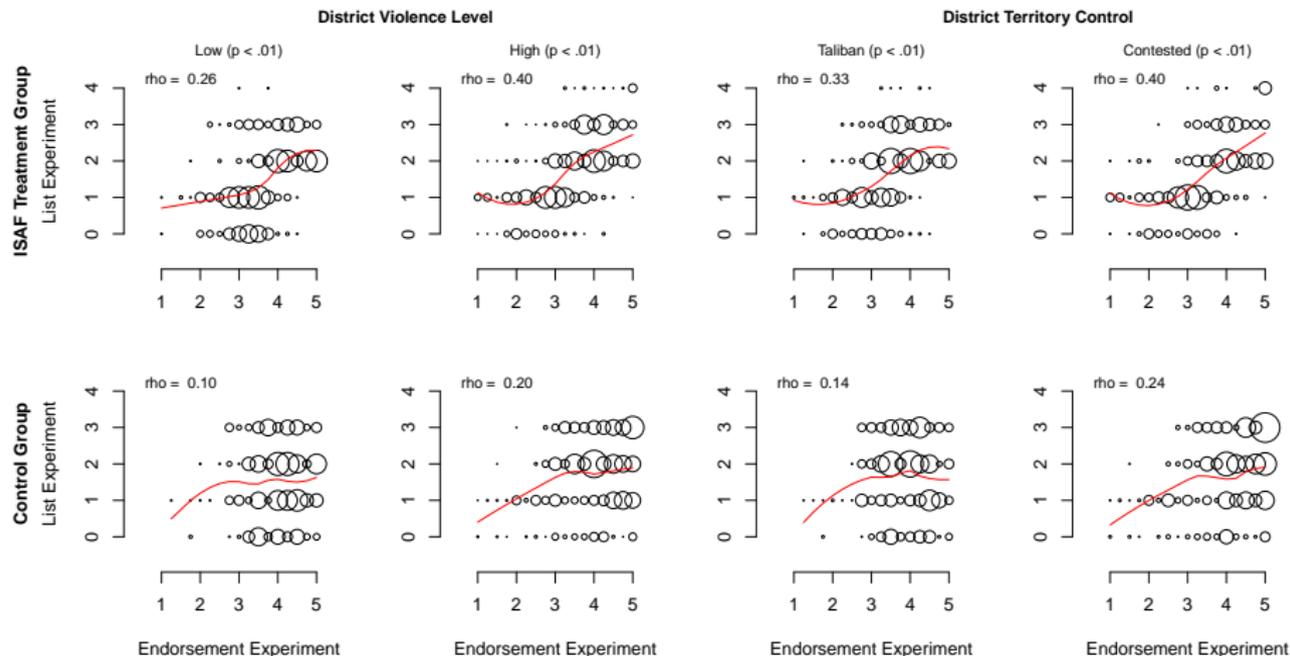


- A statistical test: $H_0 : \rho_0 = \rho_1$ and $H_1 : \rho_0 < \rho_1$ with bootstrap

Descriptive Comparison: Question by Question



Descriptive Comparison: Violence & Territorial Control



Models for List and Endorsement Experiments

- LIST EXPERIMENTS (Imai 2011; Blair & Imai 2012):
 - ① Likelihood framework with missing data
 - ② Assumptions: no design effect, no liar
 - ③ Latent variable modeling for support

- ENDORSEMENT EXPERIMENTS (Bullock, Imai & Shapiro 2011):
 - ① Item response theory to combine multiple questions
 - ② Assumptions: single policy dimension, no learning
 - ③ Latent variable modeling for support

- What is the probability of supporting ISAF?
 - ① List: prob. of saying yes to the sensitive item
 - ② Endorsement: prob. of endorsement having a positive effect on support for policy

- These probabilities should be similar!

Comparing and Combining the Two Models

- Modeling the latent support variable
- List experiments: the probit model

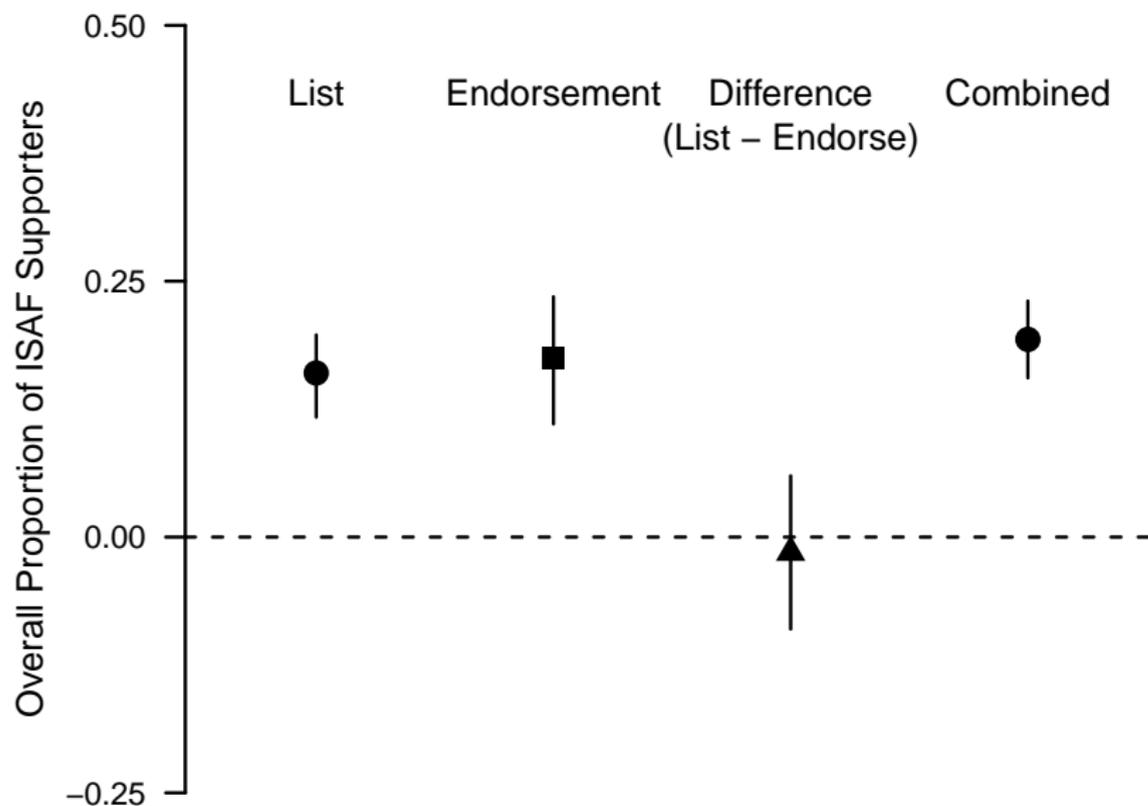
$$Z_i = \mathbf{1}\{Z_i^* > 0\} \quad \text{where} \quad Z_i^* \stackrel{\text{indep.}}{\sim} \mathcal{N}(V_i^\top \gamma, 1)$$

- Endorsement experiments: the linear latent model

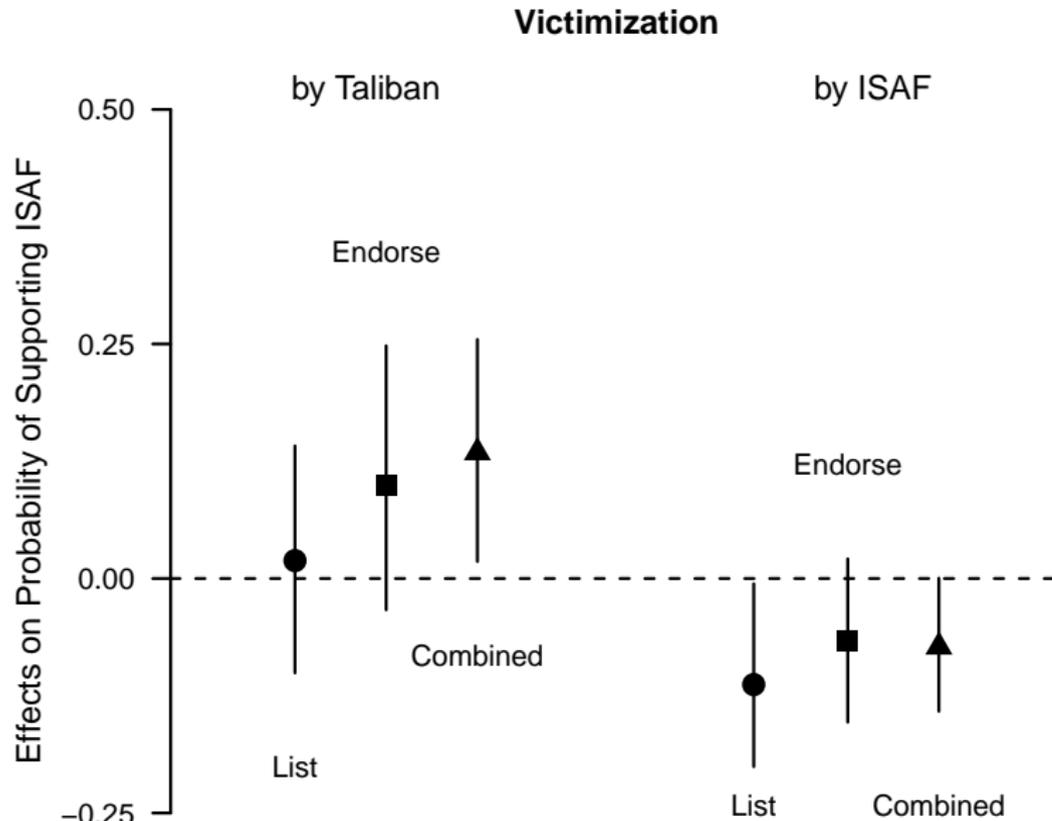
$$s_i^* \stackrel{\text{indep.}}{\sim} \mathcal{N}(V_i^\top \lambda, \omega^2)$$

- **Compare** the coefficients: γ and λ/ω
- **Combine** the two models: $Z_i^* = s_i^*/\omega$ and $\gamma = \lambda/\omega$

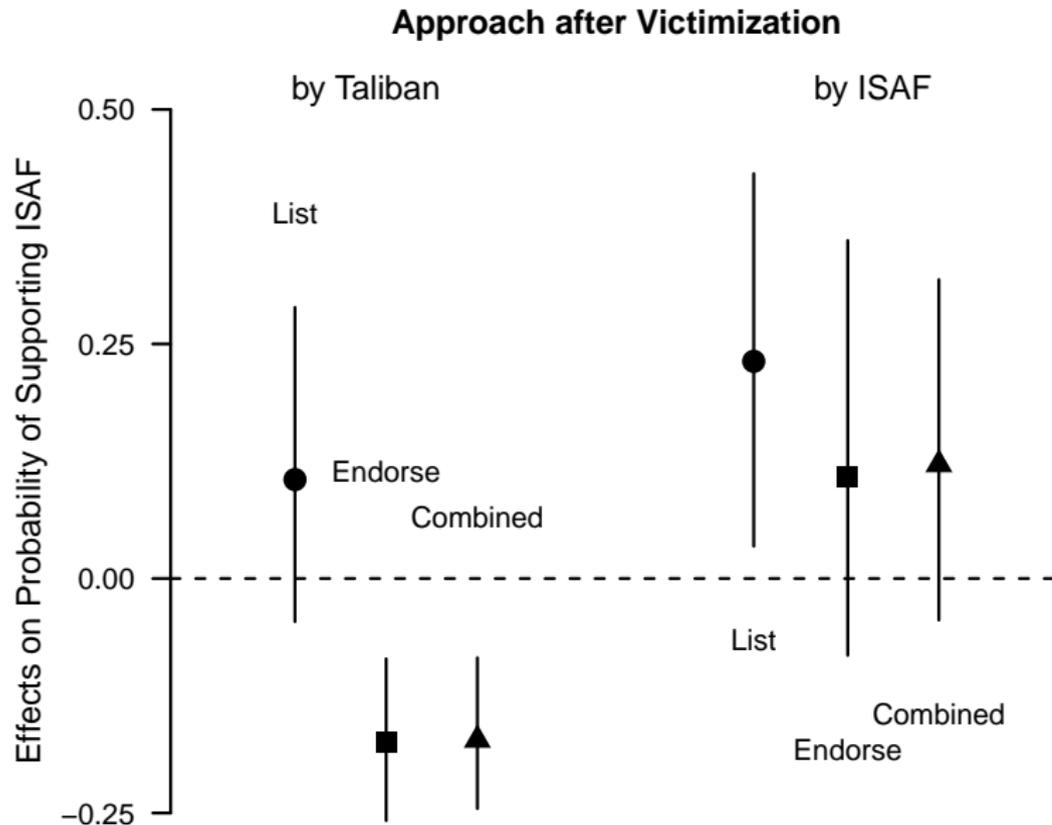
Overall Proportion of ISAF Supporters



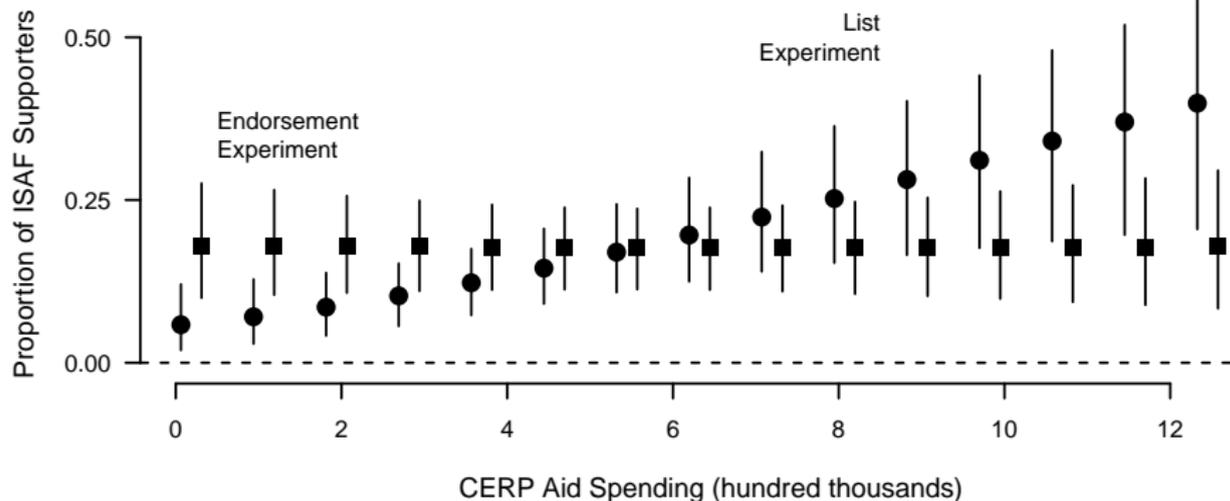
Effects of Taliban and ISAF Victimization



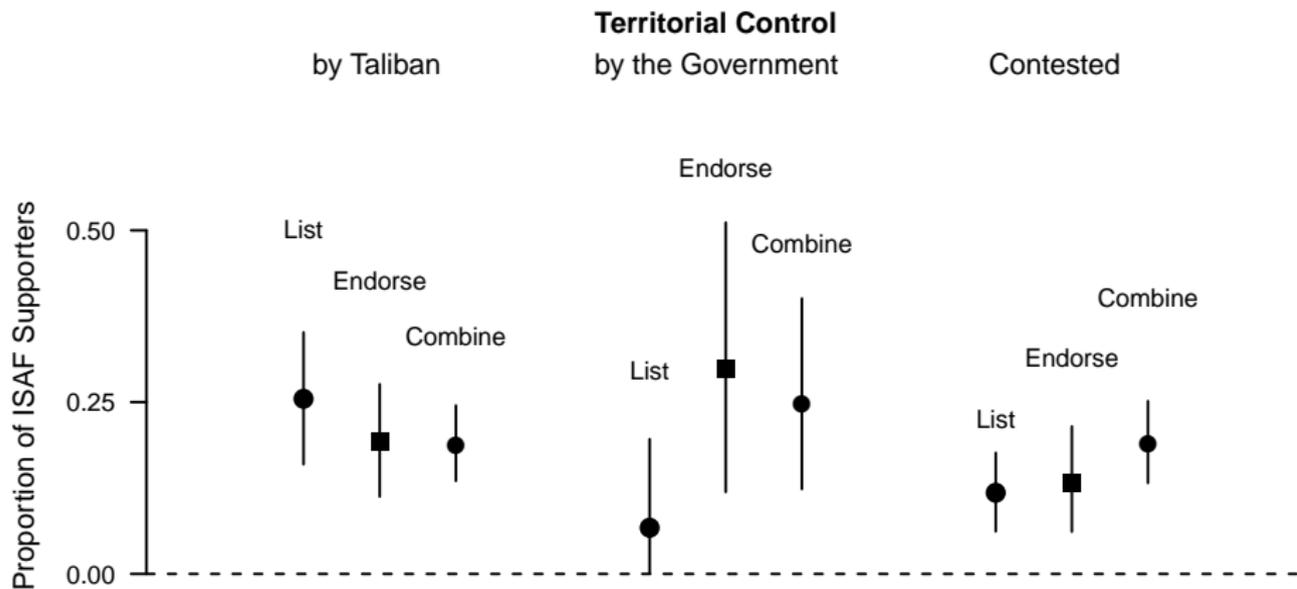
Effects of Taliban/ISAF Post-Harm Mitigation Efforts



Effects of CERP Aid Spending



Proportion of ISAF Supporters by Territorial Control



Concluding Remarks

- Challenges of eliciting truthful responses to sensitive questions
- List and endorsement experiments: indirect questioning methods
- Need for validation \implies **multiple measurement strategy**
- Statistical methods for comparing and combining list and endorsement experiments
- Open-source software `list` and `endorse` for implementation
- Practical suggestions:
 - 1 Randomize the treatment across, not within, respondents
 - 2 List experiments are more prone to social desirability bias than endorsement experiments
 - 3 Multiple pre-tests and focus groups

The project website for papers and software:

<http://imai.princeton.edu/projects/sensitive.html>

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