

Make Two Democracies and Call Me in the Morning:

Endogenous Regime Type and the Democratic Peace

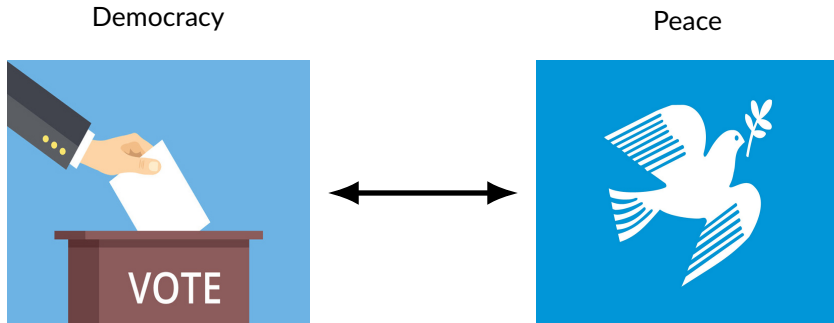
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20 May, 2020

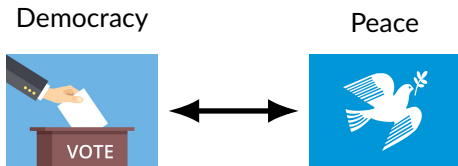
Asian Online Political Science Seminar Series

The democratic peace: consensus about the **correlation**

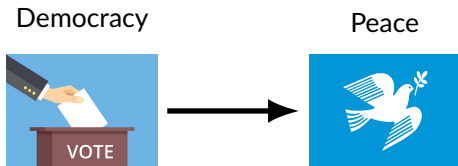


Pairs of democracy rarely, if ever, fight wars with each other.

The democratic peace: disagreement about the **causation**



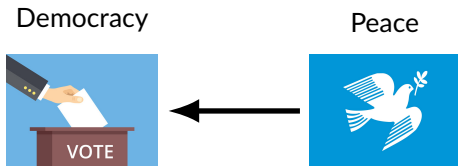
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- norms (Maoz & Russett 1993)
- institutions (BdM et al. 1999)
- information (Fearon 1994, Schultz 1998)

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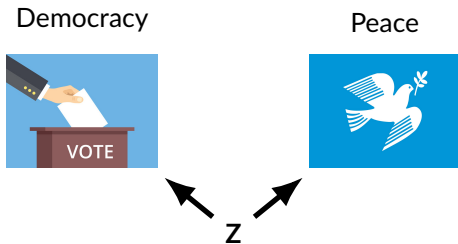
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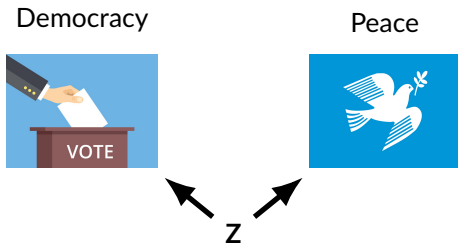
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- Alliance (Farber & Gowa 1997)
- National interests (Gartzke 1998, 2000)
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So many theories; not as many credible empirical tests.

Looking for causality

Previous attempts

- ▶ Observational studies
 - Too few controls (omitted variable bias)
 - Too many controls (post-treatment bias)
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 - Effect of regime type on something else (e.g., public support for war)

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Our contributions

- ▶ Quasi-experimental design (IV)
- ▶ Result: Democracy **increases** conflict

Identification strategy: fertility rate as an instrument

Our instrument:

A country's average **fertility rate** (# of childbirths per woman)

- ▶ **Relevance:** low fertility rate \Rightarrow democracy
 - Female empowerment \rightsquigarrow democracy
 - Studies show quantitative and qualitative empirical evidence
- ▶ **Exclusion restriction:** fertility rate is unrelated to international conflict
 - Falsification tests

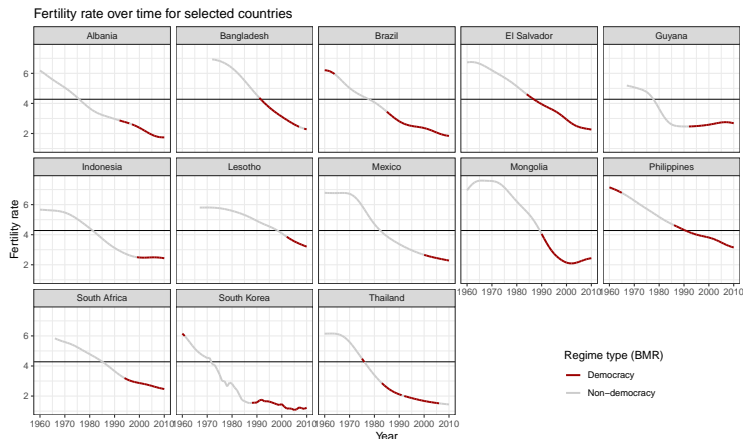
Instrument relevance: fertility rate decline \Rightarrow democracy

Countries that transitioned

- ▶ Initially, high fertility & non-democratic
- ▶ Then, a sizable decline in fertility
- ▶ Then, democratization

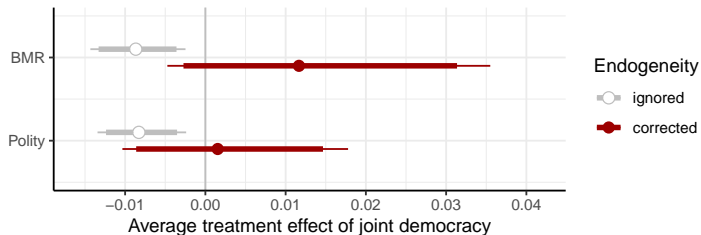
Overall

Strong relationship when analyzing all countries and controlling for other determinants



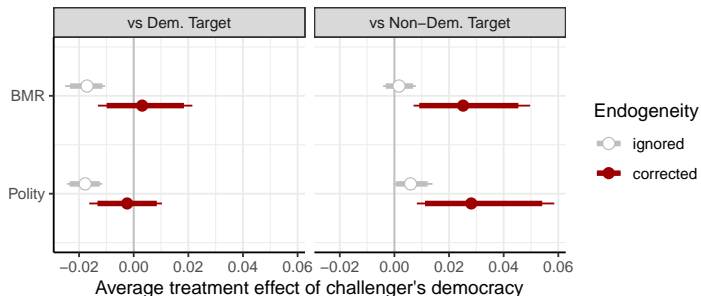
Main findings

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- ▶ When correcting for endogeneity, the effect is **zero**.



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- ▶ When correcting for endogeneity, the effect is **zero**.
- ▶ Dem. challenger vs non-dem target particularly dangerous



Critical assumption

Exclusion restriction

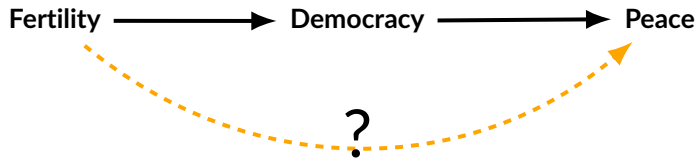
Fertility influences peace **exclusively through** democracy

Fertility → Democracy → Peace

Critical assumption

Exclusion restriction

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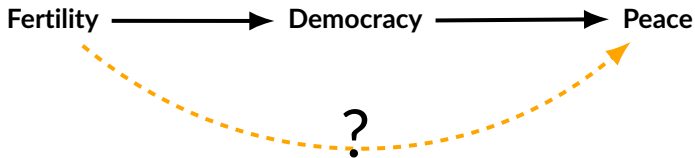


Fertility **must not** influence peace directly.

Critical assumption

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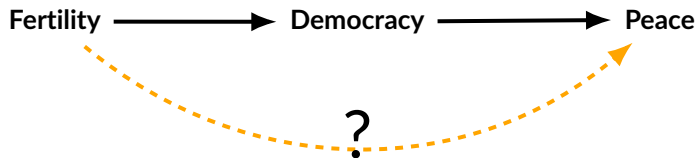
Fertility influences peace **exclusively through** democracy



Fertility **must not** influence peace directly.

- ▶ Cannot be **verified** empirically, even if it's true
- ▶ Can be **falsified**, if it's false

Falsification tests



Three falsification tests to assess the plausibility:

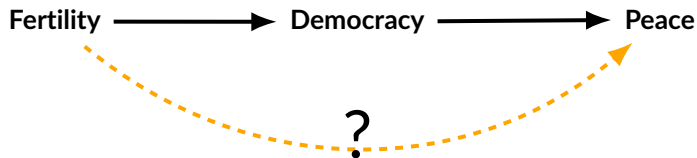
1. Fertility and female leader
2. Reduced-form analyses
3. Model of fertility

Conclusions

- ▶ Joint democracy **does not** have a pacifying effect.
 - ▶ If anything, democracy **increases** the risk of conflict initiation.
 - ▶ Need to revisit the debate about causal mechanisms (norm / institution / audience costs)
- ▶ Caveat: this is LATE (*local* average treatment effect) \neq ATE
 - ▶ Fertility-induced causal effect of joint democracy
 - ▶ That said, **better LATE than nothing!**

Appendix

Falsification tests



Three tests to assess the plausibility:

1. Fertility and female leader
2. Reduced-form analyses
3. Model of fertility

Falsification test 1: Fertility \Rightarrow conflict?

Some studies find: fertility rate \Rightarrow conflict

- ▶ Caprioli (2000): positive
- ▶ Regan & Paskeviciute (2003): negative

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The theoretical argument:

- ▶ (a) Women have more peaceful preference than men
- ▶ Mechanism
 - Lower fertility rate
 - \Downarrow (b)
 - female empowerment
 - \Downarrow (c)
 - peace

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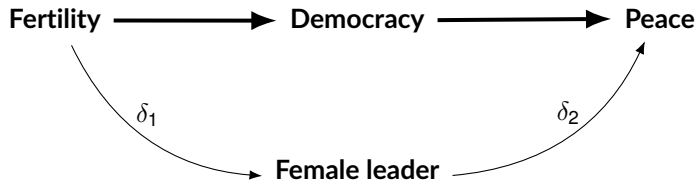
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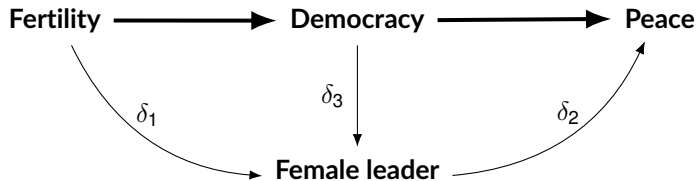
We agree with (a) and (b). Can (c) happen in the absence of democracy?

Falsification test 1: Fertility \Rightarrow conflict?



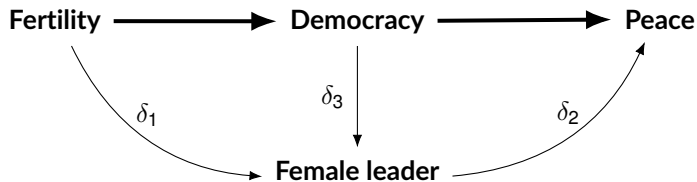
- If $\delta_1 \neq 0$ AND $\delta_2 \neq 0 \Rightarrow$ exclusion restriction is **violated**

Falsification test 1: Fertility \Rightarrow conflict?



- ▶ If $\delta_1 \neq 0$ AND $\delta_2 \neq 0 \Rightarrow$ exclusion restriction is **violated**
- ▶ However, if $\delta_1 = 0$ (maybe $\delta_3 \neq 0$) OR $\delta_2 = 0$, exclusion restriction **still holds**.

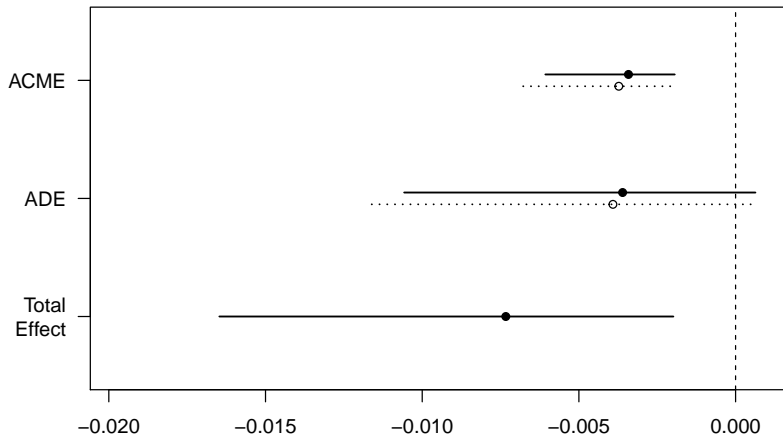
Falsification test 1: Fertility \Rightarrow conflict?



Causal mediation analyses to estimate

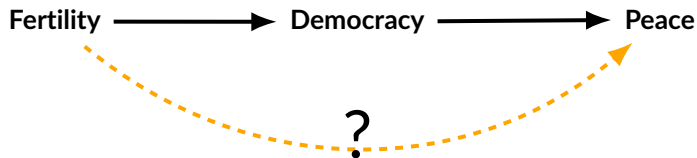
- ▶ δ_1 = direct effect (ADE)
- ▶ δ_3 = causal mediation effect (ACME)

Falsification test 1: leader gender



$\text{ADE}(\delta_1) = 0 \Rightarrow \text{support exclusion restriction}$

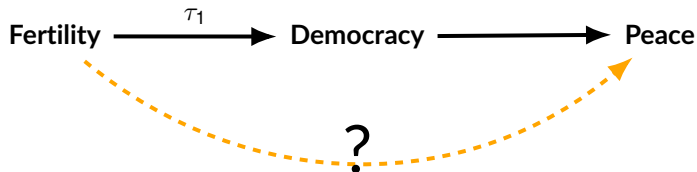
Falsification test 2: reduced-form



Three tests to assess the plausibility:

1. Fertility and female leader
2. **Reduced-form analyses = Look at fertility-peace**
3. Model of fertility

Falsification test 2: reduced-form



If we **drop democracy** from the model:

- ▶ fertility should affect peace as long as the τ_1 path is open
- ▶ fertility should NOT affect peace if the τ_1 path were **blocked**

Find situations where the τ_1 path were blocked.

Imagine a hypothetical experiment

Ideal RCT

Outcome: peace or not
Treatment: democracy or not
Treatment assignment: fertility rate

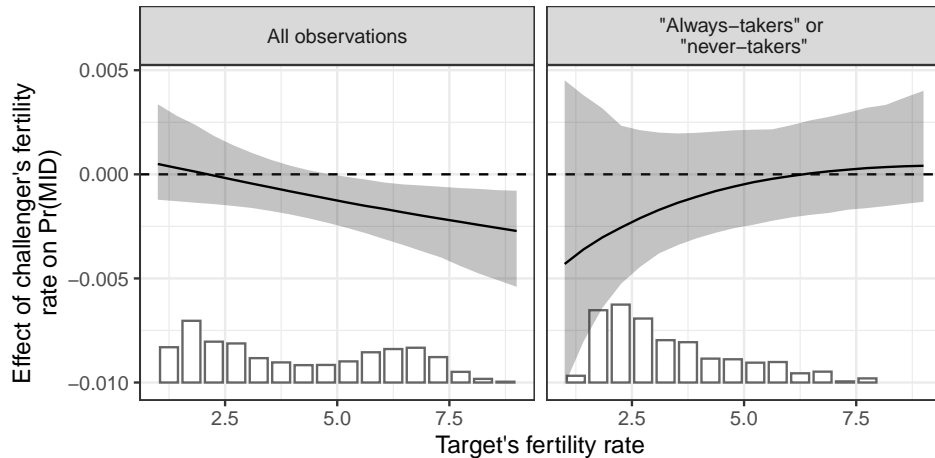
“Patients” could be either:

- ▶ Compliers
- ▶ Always-takers
- ▶ Never-takers
- ▶ Defiers

| | Fertility | |
|---------|---------------|---------------|
| | Low | High |
| Dem | C or Always-T | D or Always-T |
| Non-Dem | D or Never-T | C or Never-T |

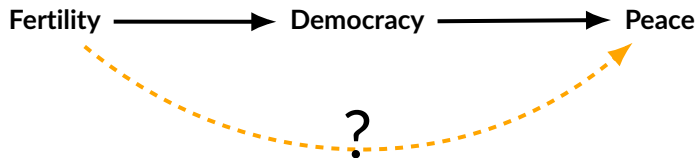
Assuming there is no defier (monotonicity assumption), off-diagonal cells are either “never-takers” (i.e., low fertility but non-democratic, e.g., China) or “always-takers”

Falsification test 2: reduced-form



Null findings for "never-takers" and "always-takers"

Falsification tests



Three tests to assess the plausibility:

1. Fertility and female leader
2. Reduced-form analyses
3. **Model of fertility: Peace \Rightarrow fertility?**

Falsification test 3: Peace \Rightarrow fertility?

Table: OLS models of fertility

| | DV=fertility | | | DV=change in fertility | | |
|------------------------------------|-------------------|-------------------|-------------------|------------------------|-------------------|-------------------|
| | (1) | (2) | (3) | (4) | (5) | (6) |
| # of conflicts in previous year | -0.088 (0.097) | | | -0.003 (0.003) | | |
| # of conflicts in past 3 years | | -0.044 (0.045) | | | -0.002 (0.002) | |
| # of conflicts in past 5 years | | | -0.032 (0.031) | | | -0.002 (0.001) |
| N | 7,402 | 7,211 | 7,010 | 7,297 | 7,109 | 6,915 |

of conflicts during past n years ($n = 1, 3, 5$) all insignificant.