Make Two Democracies and Call Me in the Morning:

Endogenous Regime Type and the Democratic Peace
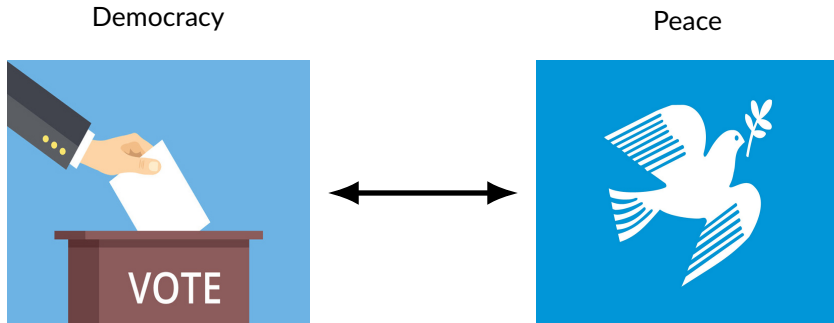
Daina Chiba [*]   Erik Gartzke [†]

[*]Essex   [†]UCSD
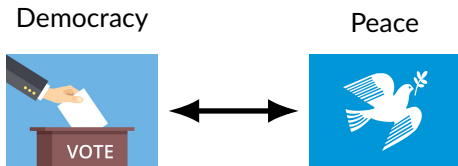
20 May, 2020

Asian Online Political Science Seminar Series

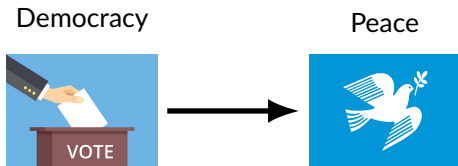# **The democratic peace**: consensus about the **correlation**

Democracy

Peace

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

The democratic peace: disagreement about the causation

Democracy

Peace

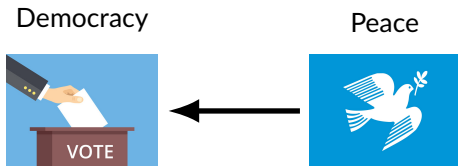# **The democratic peace**: disagreement about the **causation**

Democracy → Peace

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

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

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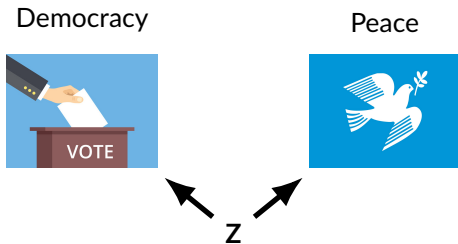

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3. Spurious correlation
   - Alliance (Farber & Gowa 1997)
   - National interests (Gartzke 1998,2000)
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   - Stable border (Gibler 2007)

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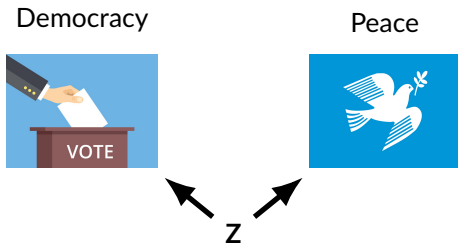   - information (Fearon 1994, Schultz 1998)

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So many theories; not as many <u>credible</u> empirical tests.

Looking for causality

Previous attempts

- ▶ Observational studies
    - - Too few controls (omitted variable bias)
    - - Too many controls (post-treatment bias)
    - - Unobservable confounder (endogeneity)

- ▶ Experimental studies
    - - RCT on war and peace not possible
    - - Effect of regime type on something else (e.g., public support for war)

Our contributions

- ▶ Quasi-experimental design (IV)

- ▶ Result: Democracy increases conflict

Identification strategy: fertility rate as an 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

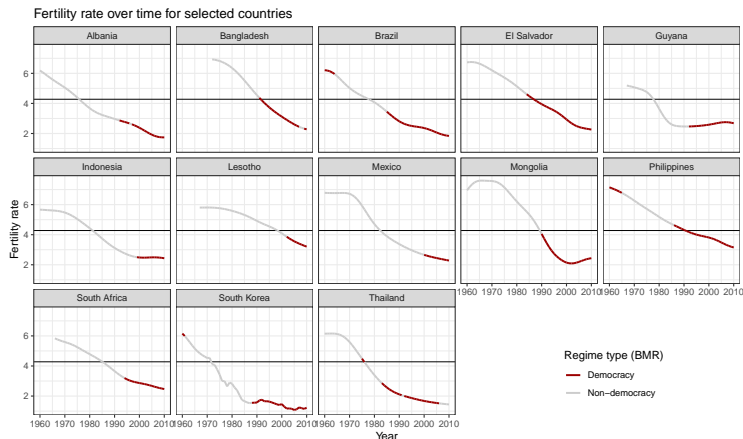# Instrument relevance: fertility rate decline $\Rightarrow$ democracy

Countries that transitioned

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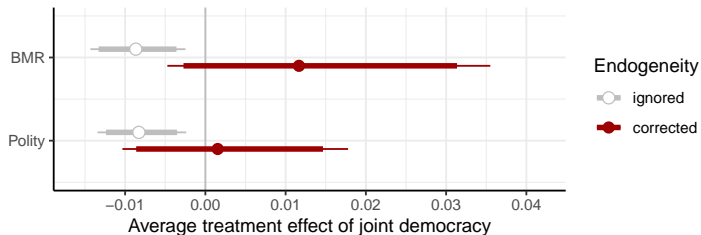- ▶ Then, a sizable decline in fertility
- ▶ Then, democratization

Overall

Strong relationship when analyzing all countries and controlling for other determinants

Fertility rate over time for selected countries

Main findings

- When ignoring endogeneity, democracy has a negative effect on conflict.

- When correcting for endogeneity, the effect is zero.

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- Dem. challenger vs non-dem target particularly dangerous
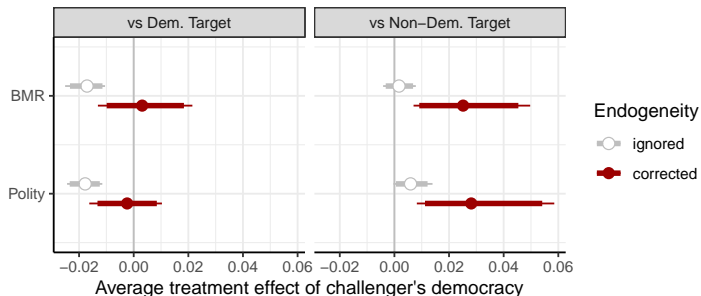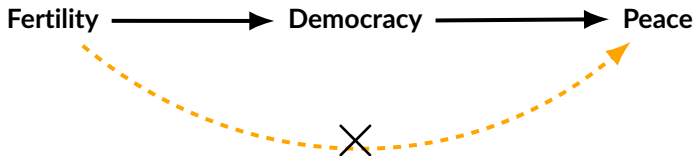
Critical assumption

Exclusion restriction

Fertility influences peace **exclusively through** democracy

Fertility ⟶ Democracy ⟶ Peace

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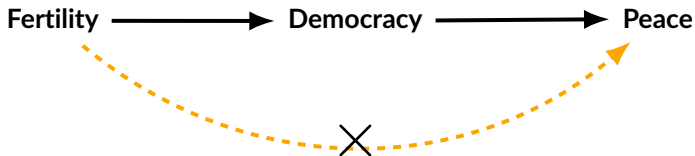
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Fertility **must not** influence peace directly.
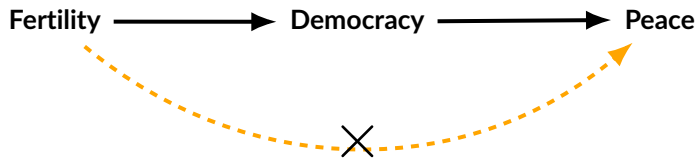
Critical assumption

Exclusion restriction

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

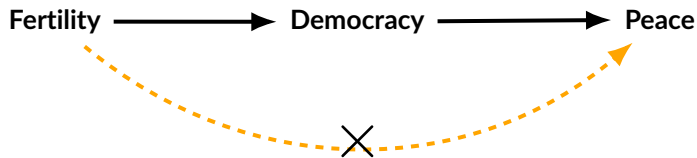Three falsification tests to assess the plausibility:

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

Falsification test 1: Fertility ⇒ conflict?

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The theoretical argument:

- ▶ (a) Women have more peaceful preference than men

- ▶ Mechanism
  Lower fertility rate
  ⇓ (b)
  female empowerment
  ⇓ (c)
  peace

Falsification test 1: Fertility $\Rightarrow$ conflict?

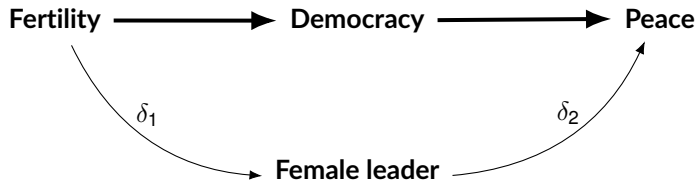Some studies find: fertility rate $\Rightarrow$ conflict

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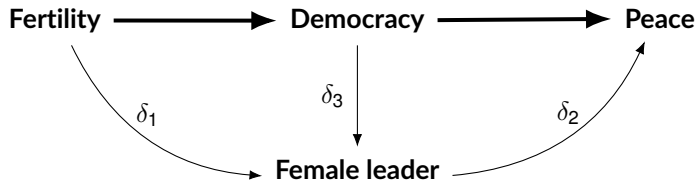 $\Downarrow$ (c)
  peace

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

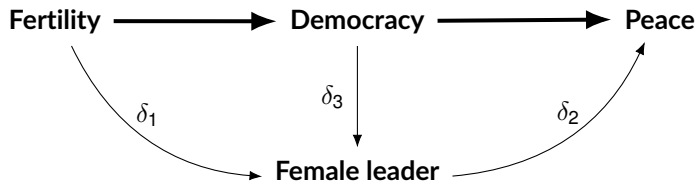# Falsification test 1: Fertility $\Rightarrow$ conflict?

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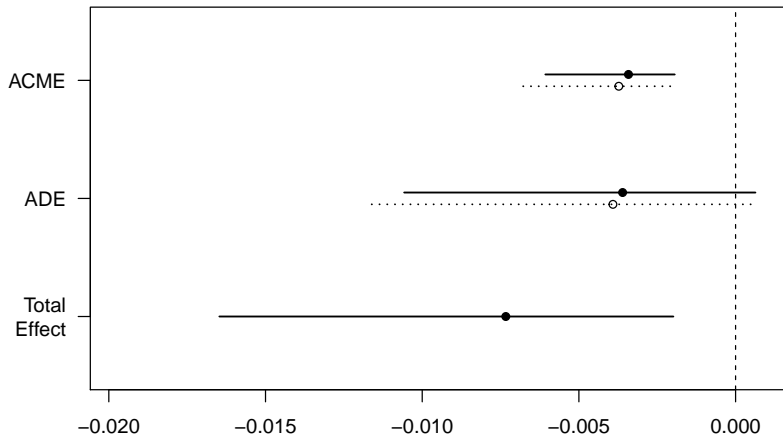- However, if $\delta_1 = 0$ (maybe $\delta_3 \neq 0$) OR $\delta_2 = 0$, exclusion restriction **still holds**.

Falsification test 1: Fertility $\Rightarrow$ conflict?

Causal mediation analyses to estimate

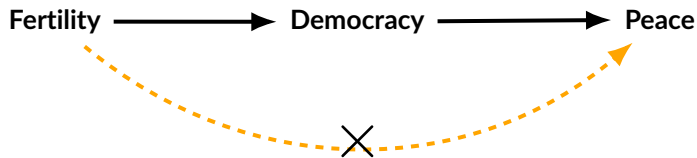- ▶ δ_1 = direct effect (ADE)
- ▶ δ_3 = causal mediation effect (ACME)

Falsification test 1: leader gender

ACME

ADE

Total
Effect

−0.020   −0.015   −0.010   −0.005   0.000

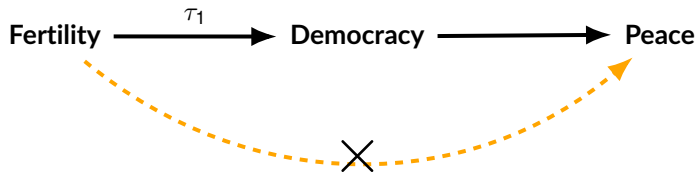ADE (δ_1) = 0 $\Rightarrow$ support exclusion restriction

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

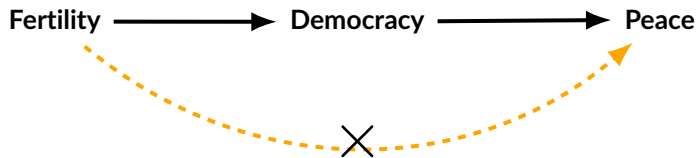|	Fertility	
	Low	High
Dem	C or Always-T	D or Always-T
Non-Dem	D or Never-T	C or Never-T

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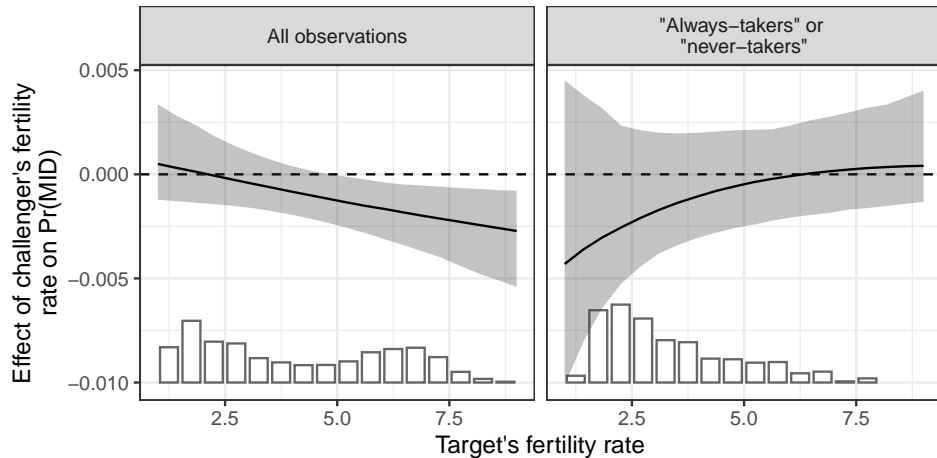
Null findings for "never-takers" and "always-takers"

Falsification tests

Three tests to assess the plausibility:

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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.