

How the News Media Activate Public Expression and Influence National Agendas¹

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¹Based on joint work with Benjamin Schneer and Ariel White (*Science* 2017)

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 - Outcome variable: individual knowledge and opinion
 - Effects: Persuasion, attitude formation, diffusion, gatekeeping, priming, issue framing, etc.
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Matched Pair Randomization

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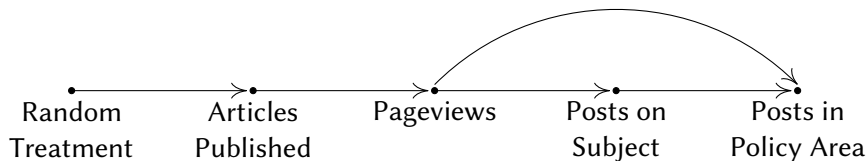
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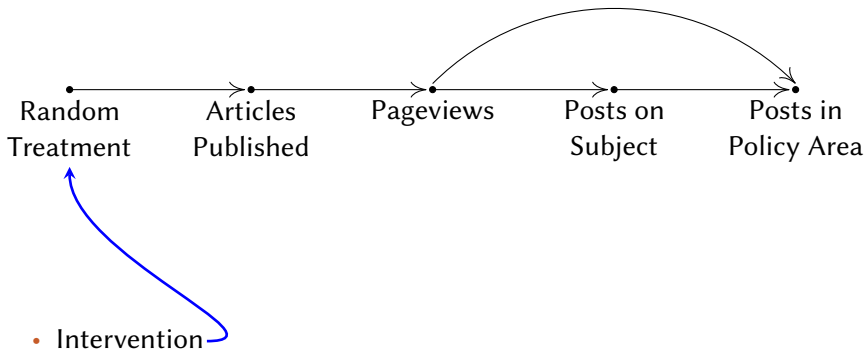
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- **(Ex post:** Automated text analysis & qualitative evidence: indistinguishable from normal publications & practices; no outlet received a single complaint)

Quantities of Interest (& observable implications)

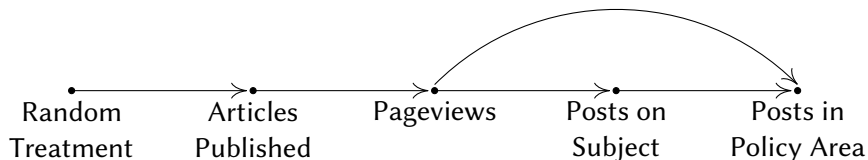
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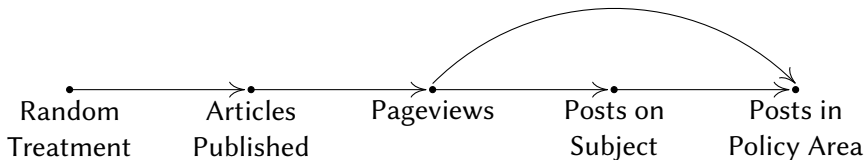
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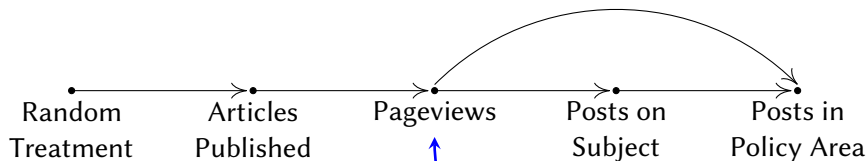
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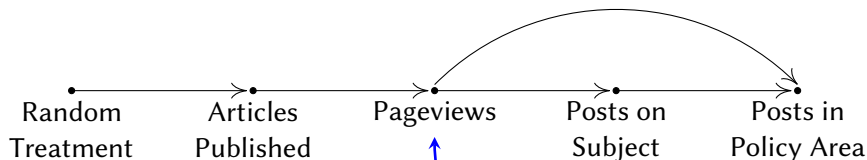
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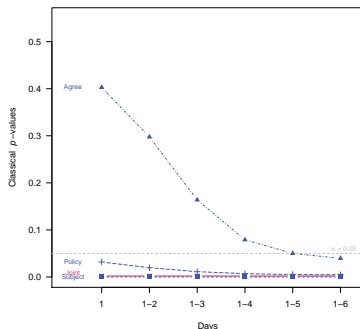
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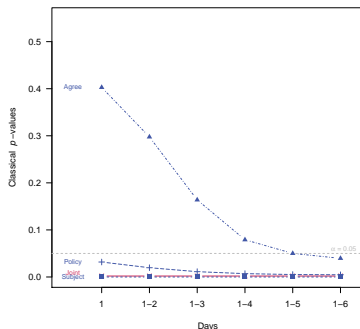
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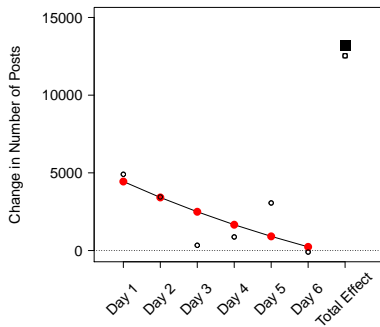
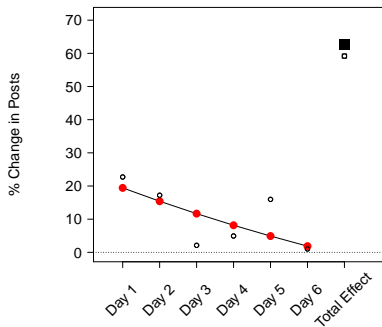
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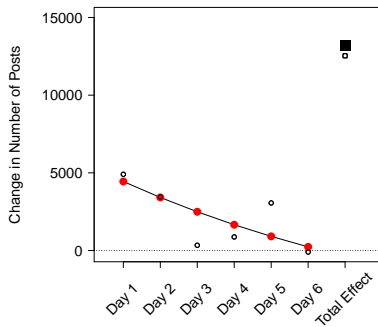
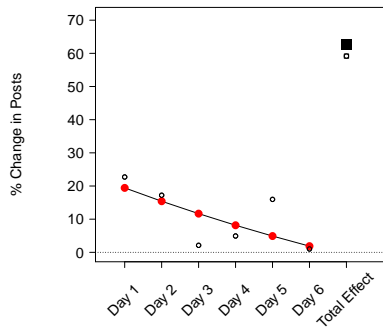
- Frequentist validation: extensive [non]parametric tests

Main Causal Effect: Public Expression in Policy Areas

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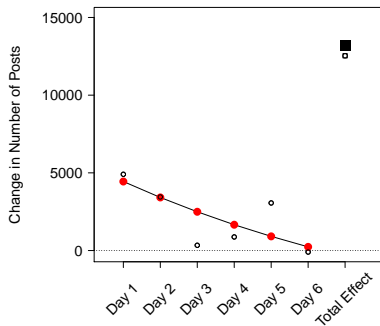
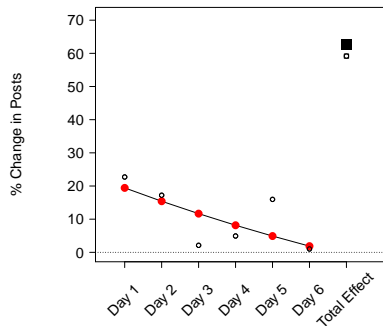


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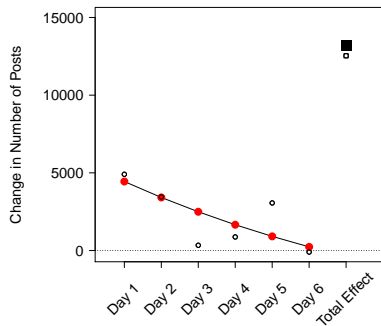
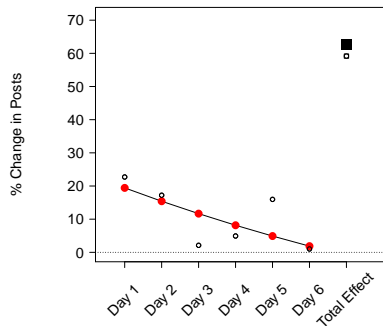
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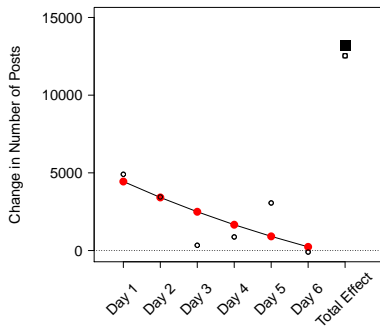
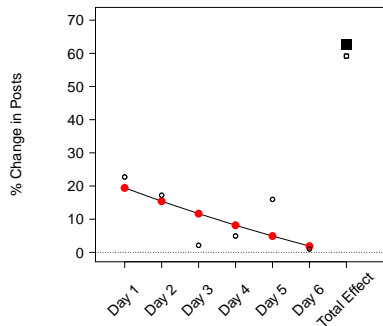
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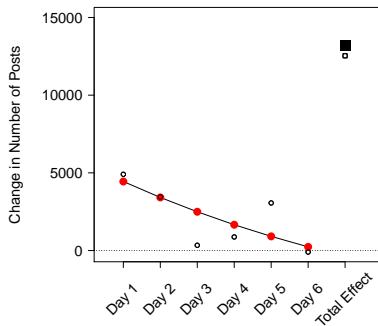
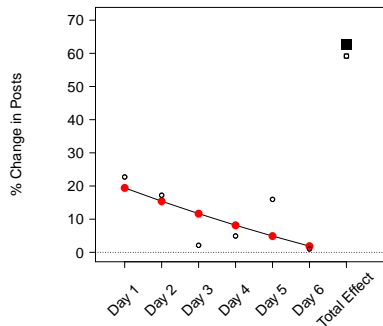
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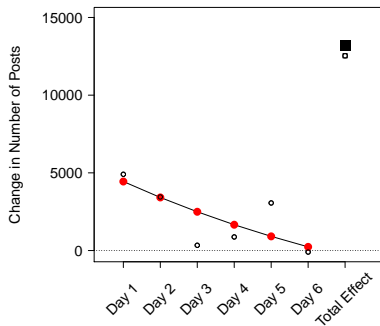
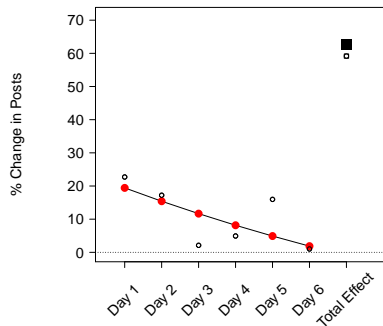
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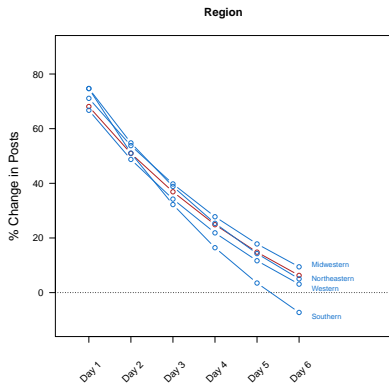
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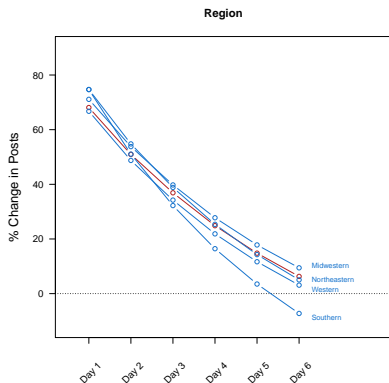
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Causal Effect: Indistinguishable Across Subgroups

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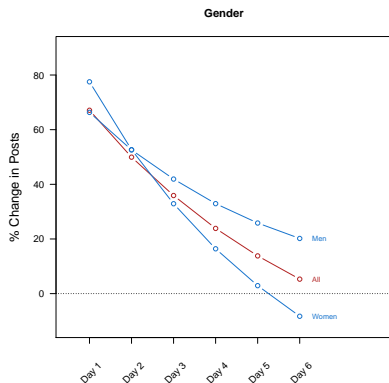


Causal Effect: Indistinguishable Across Subgroups



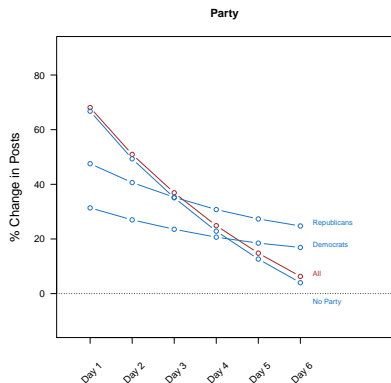
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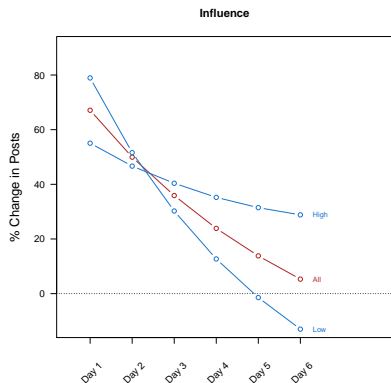
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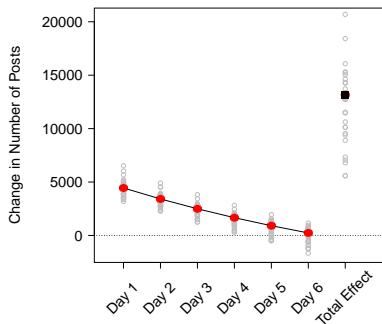


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Causal Heterogeneity: Leave-One-Outlet-Out

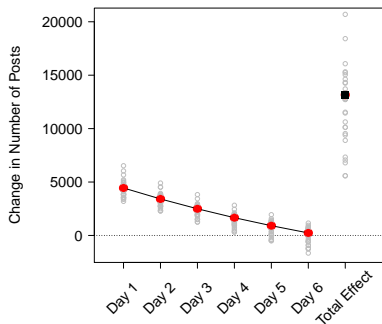
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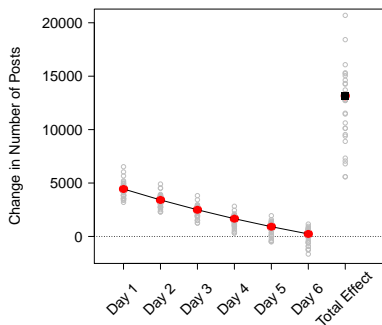
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- **Red Dots:** Original (model-based) estimates

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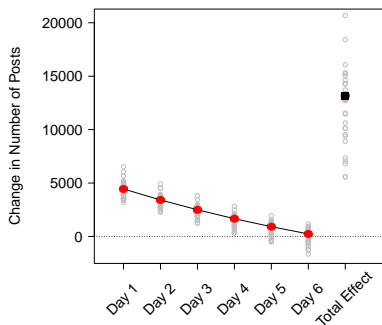
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Jackknife Estimation on Policy Area Effects



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- Open circles: same, with one outlet dropped from any packs
- **Results:** no dominant outlet; high heterogeneity

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Research Design

Results

Supporting Analyses

Implications

High Experimental Compliance

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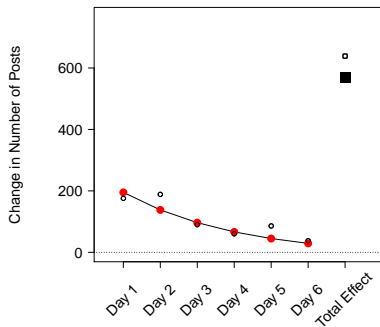
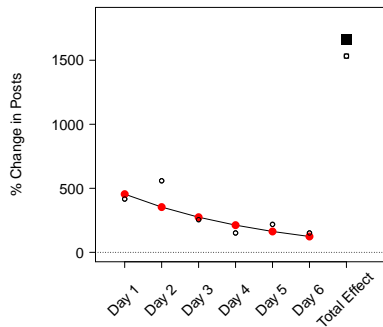
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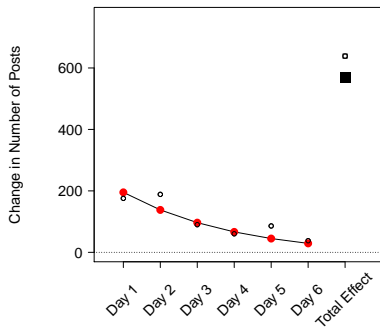
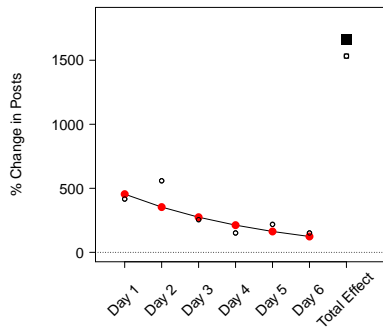
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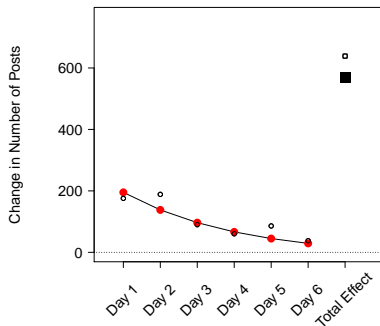
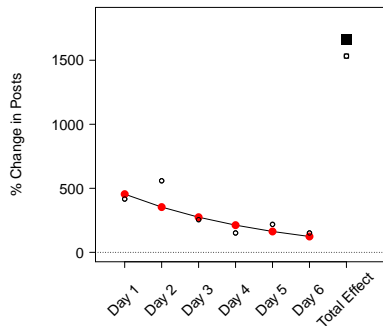


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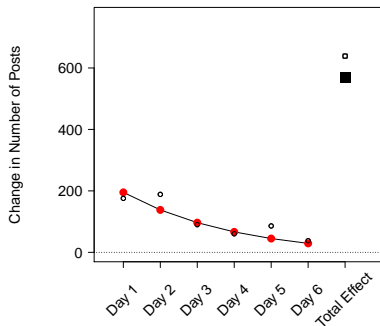
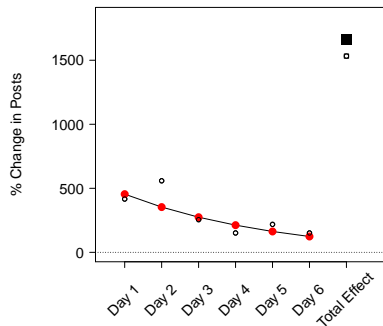
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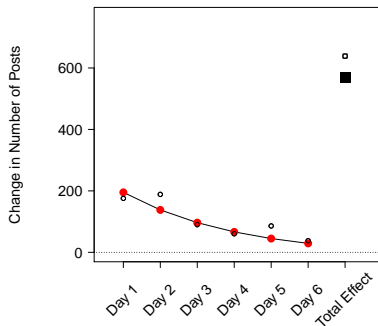
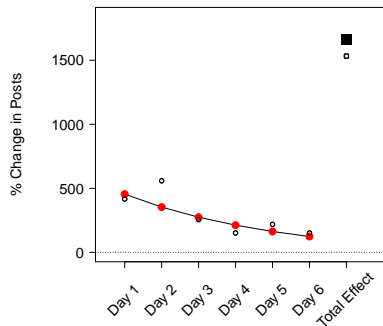
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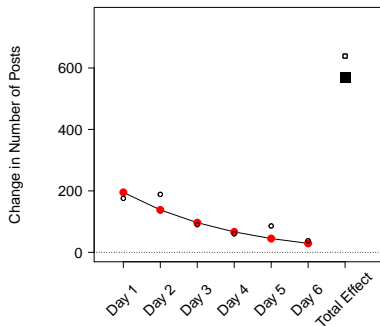
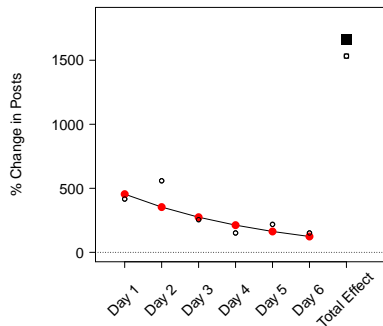
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For more information:

GaryKing.org/media

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- **Model-Free Approach:**

- Drop linearity & conditional independence assumptions
- Regress z_{ped} on T_{ped} separately for each d
- Equivalent to difference in means for each day

Estimation Approaches

- **Model-Based Approach**

- Transform outcome variable for normality & homoskedasticity:
 $z_{ped} = \ln(y_{ped} + 0.5)$
- The Model: $E(z_{ped}|T_{ped}) = \beta^0 + \beta_p + \eta_d + \gamma_d T_{ped}$
 - β^0 : constant term
 - β_p : fixed effects for the 11 policy areas
 - Assume linearity over days: $\eta_d = \eta^0 + \eta^1 d$ and $\gamma_d = \gamma^0 + \gamma^1 d$
 - Assume *conditional* independence over p, e, d

- **Model-Free Approach:**

- Drop linearity & conditional independence assumptions
- Regress z_{ped} on T_{ped} separately for each d
- Equivalent to difference in means for each day
- (perhaps with policy fixed effects)