



# Algorithmic Microtargeting?

How ad delivery algorithms influence distribution of political ads

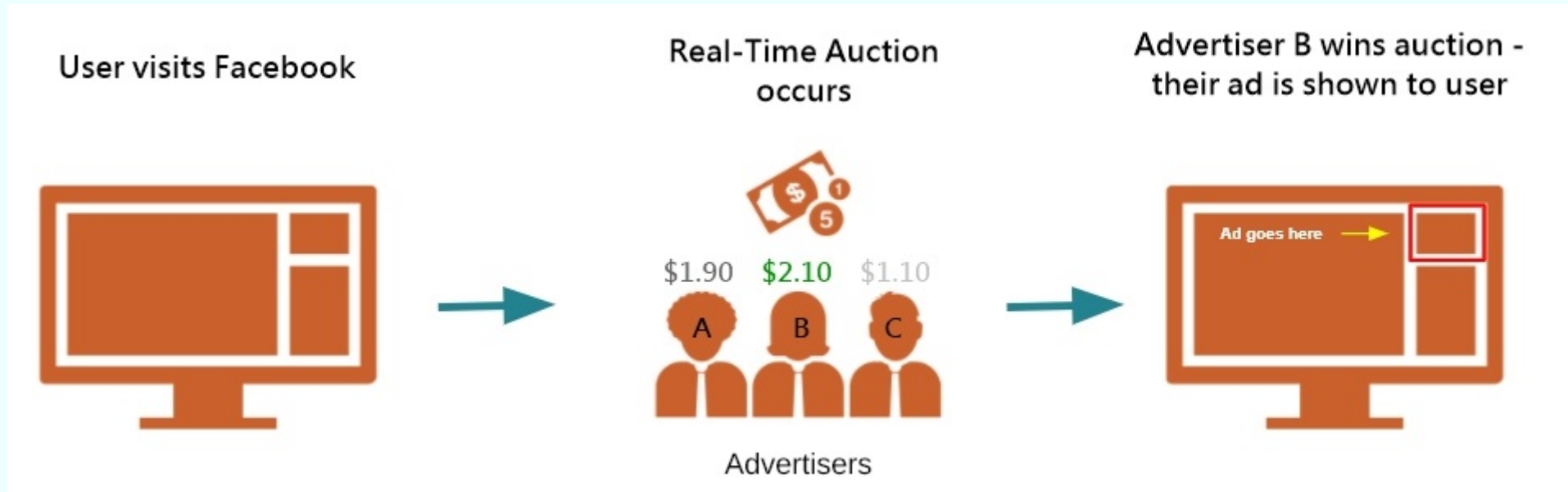
2023-03-31

# Political Microtargeting

- Discourse on (online) political microtargeting is often focused on the "bad actor" story
  - Russian election interference campaign (IRA)
  - Cambridge Analytica
- The explicit assumption here is that the advertisers have strong control over who sees which ad
  - But there is more than just targeting criteria that decides who sees political ads:
- advertisers can set targeting *boundaries*
- *ad auctions* and *ad delivery algorithms* decide which individual users get ads from which advertiser

# Who decides who sees which ad on Meta?

- **Ad auctions** = an auction takes place that determines which ad by whom is shown: based on *budget*



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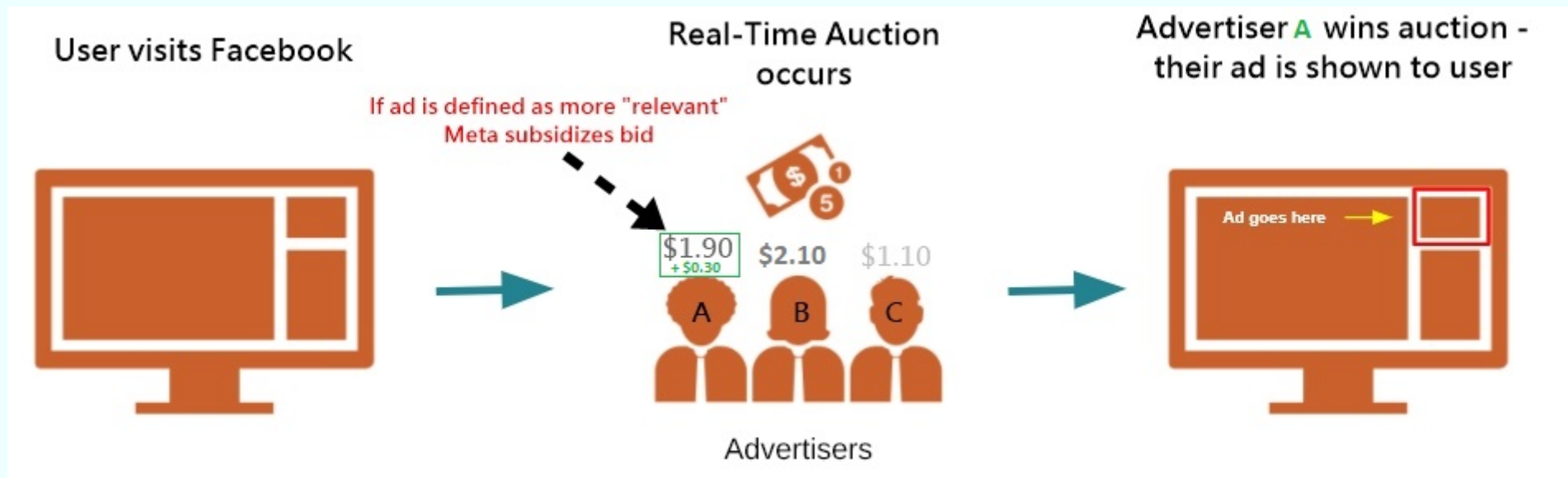
- **Ad auctions** = an auction takes place that determines which ad by whom is shown: based on *budget*
- **Relevance** = how relevant is the ad to the user

In fact, we subsidize relevant ads in auctions, so more relevant ads often cost less and see more results. In other words, an ad that's relevant to a person could win an auction against ads with higher bids.

(Meta Business Help Center, 2022)

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- **Ad auctions** = an auction takes place that determines which ad by whom is shown: based on *budget*
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The process of finding *relevant* audiences is done by *ad delivery algorithms*:  
**algorithmic microtargeting**

# Who decides who sees which ad on Meta?

When targeting the same audience, at the same time, with the same budget:

- Ad delivery is heavily skewed along gendered and racial stereotypes
  - even without the intent of the advertiser (Ali et al., 2020)

Regarding political ads (Ali et al., 2021):

- **Skewed delivery**
  - Political ads more often delivered to ideologically congruent audience
    - Bernie ads → higher % D;
    - Trump ads → higher % R
- **Increased cost**
  - Liberal ad to a liberal audience: *21 Dollar per 1000 users*;
  - Conservative ad delivered to liberal audience: *40 Dollar per 1000 users*.

# Research Question

How does the Meta ad delivery algorithm influence the pricing & distribution of political ads in the Netherlands?

# Research Design



# Research Design

- Algorithm audit study
- Place the same ads targeting the same audiences (9 different ones)
- Collaborate with Dutch parties to place political ads
- Final collaboration with 3:
  1. GroenLinks (Green party)
  2. VVD (centre-right party of PM Rutte)
  3. PvdA (social democrats)
- Place ads before nationwide local elections on March 16th 2022
  - 1st to 7th February 2022
- Spend 2 Euros a day on 45 ad copies
  - in total: 630 Euro per party
- Pre-registered research design and hypotheses ([osf.io/xmc7g](https://osf.io/xmc7g))

# Hypotheses

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(Meta Business Help Center, 2022)

**H1: The more relevant** an audience is for an ad, **the cheaper is the cost** for reaching 1000 users in that audience.

**H2: The more relevant** an audience is for an ad, **the more are ads delivered** to that audience.

We expect that ads by party with a greater share of supporters are less expensive (H3a) and reach more people (H3b)

**H3a:** Parties with a greater share of supporters pay less for reaching 1000 users.

**H3b:** Parties with a greater share of supporters reach more people than smaller parties.

# Targeting criteria

We used 9 different (paired) targeting criteria for our advertisements

1. Political interests
2. Excluding political interest
3. Higher educated audience
4. Lower educated audience
5. Environmental interests
6. Excluding environmental interests
7. Economic interests
8. Excluding Economic interests
9. No Targeting

# How the ad looked like on Desktop


**Partij van de Arbeid (PvdA)**  
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**Gemeenteraadsverkiezingen  
16 maart 2022**

Op woensdag 16 maart 2022 mag je stemmen voor de gemeenteraad. Zo bepaal je mee welke raadsleden in de gemeenteraad komen. De raadsleden beslissen de komende 4 jaar over de plannen van de gemeente.

→

1/5

**Wanneer en waar kun je stemmen?**

Op woensdag 16 maart mag je na 7.30 uur stemmen. Wil je liever op een ander moment stemmen? Ook op maandag 14 en dinsdag 15 maart 2022 zijn sommige stemlokalen al open.

Je kunt stemmen tussen 7.30-21.00 uur.

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**GroenLinks**  
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# How the ad looked like on Desktop


**VVD**  
 Sponsored

Markeer het in uw agenda's. Op 16 maart 2022 vinden de gemeenteraadsverkiezingen plaats. Klik hieronder voor alle info.

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### Gemeenteraadsverkiezingen 2022

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# Results

→ all results are controlled for engagement (clicks and likes parties received)

## Between-party differences

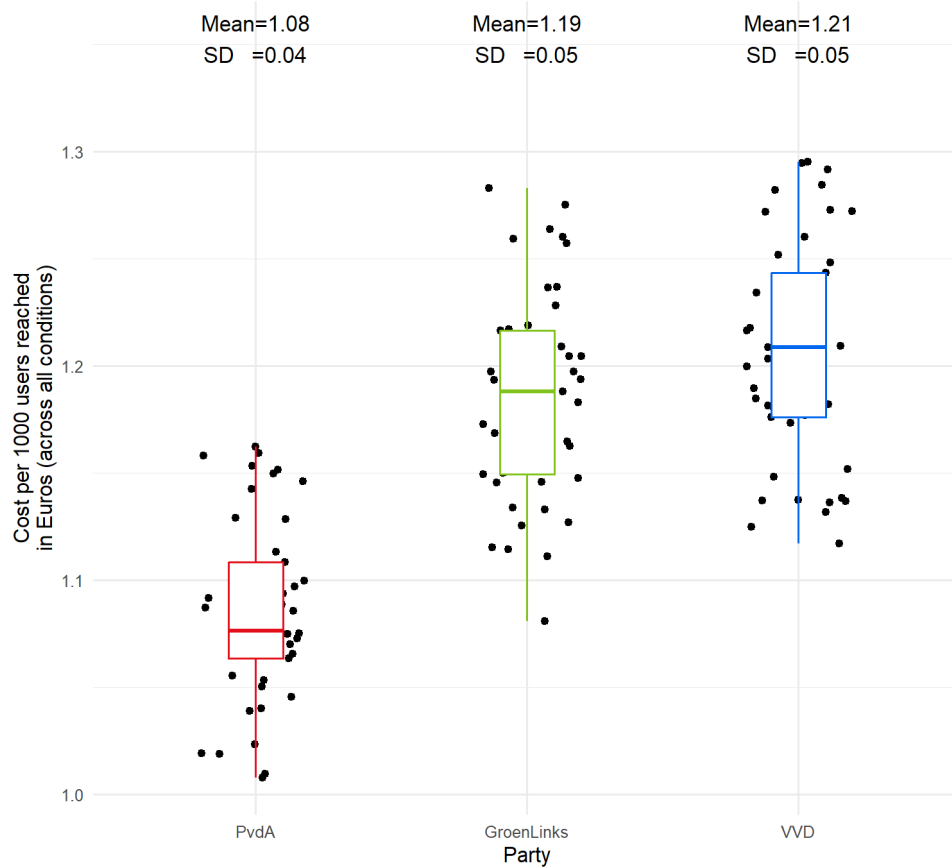
→ we consistently find one party that pays less and reaches more people

## Between-party differences (per individual ad)

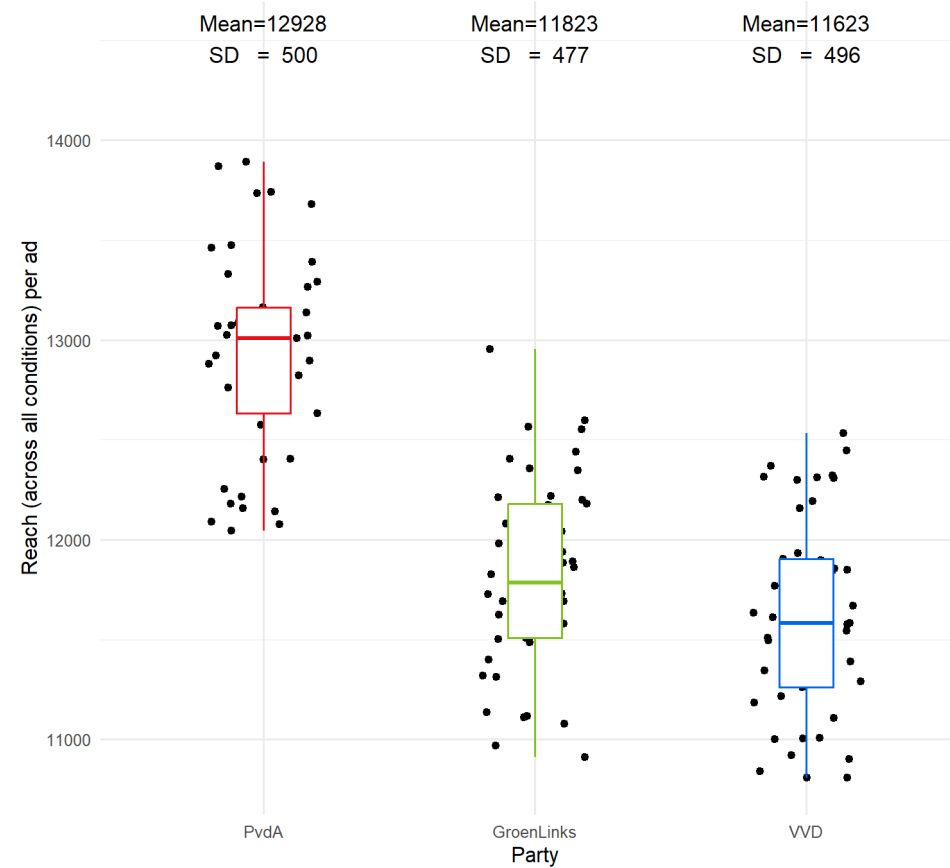
PvdA pays the least (**10-12 cents less per ad** or: 8-10%) & reaches more people (~**1.1 - 1.3k more per ad**).

In total: PvdA reaches **14-17k more unique people for same price**

### Cost per 1000 users per ad

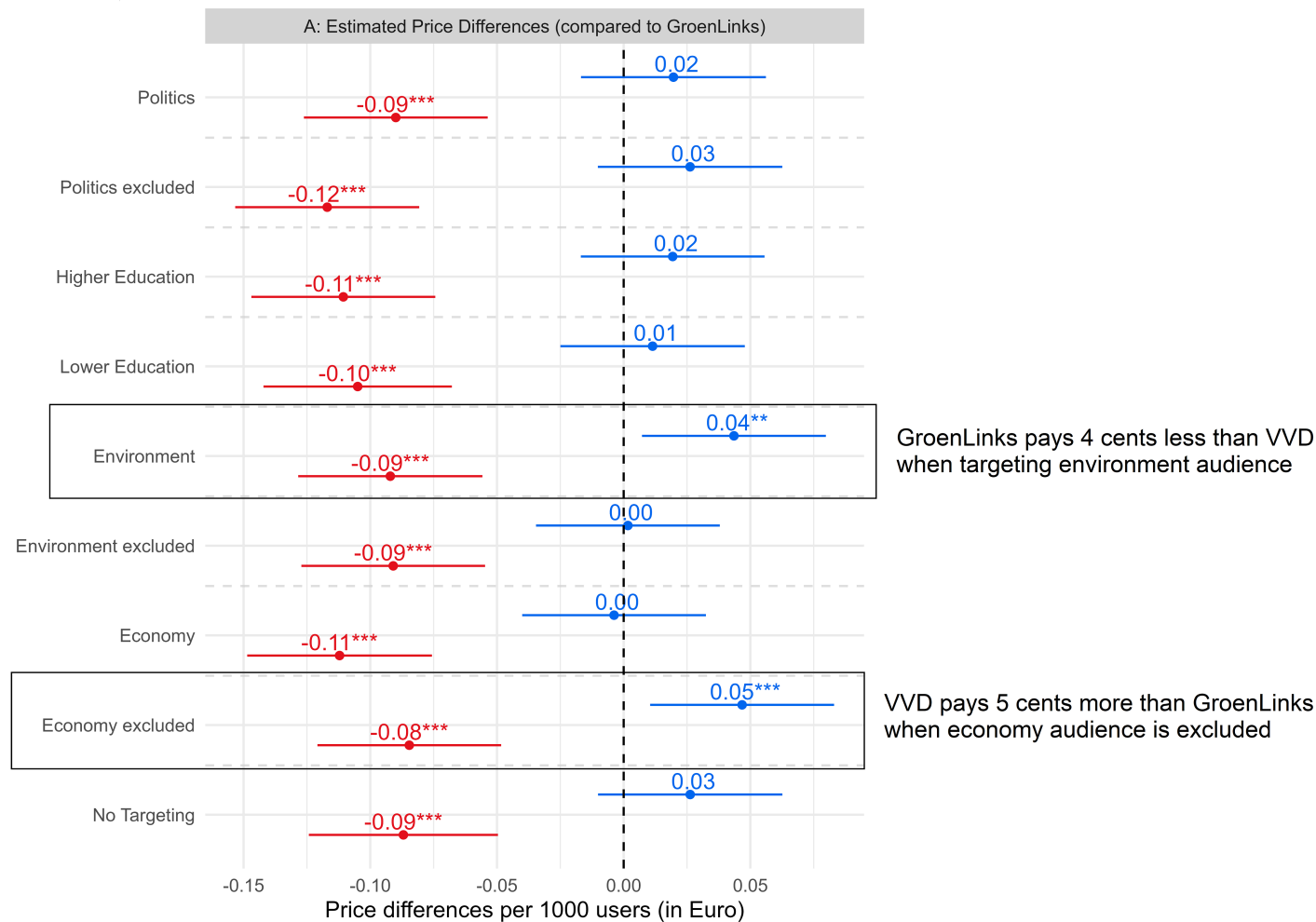


### Reach (unique people)





## Between-party differences (per target audience)



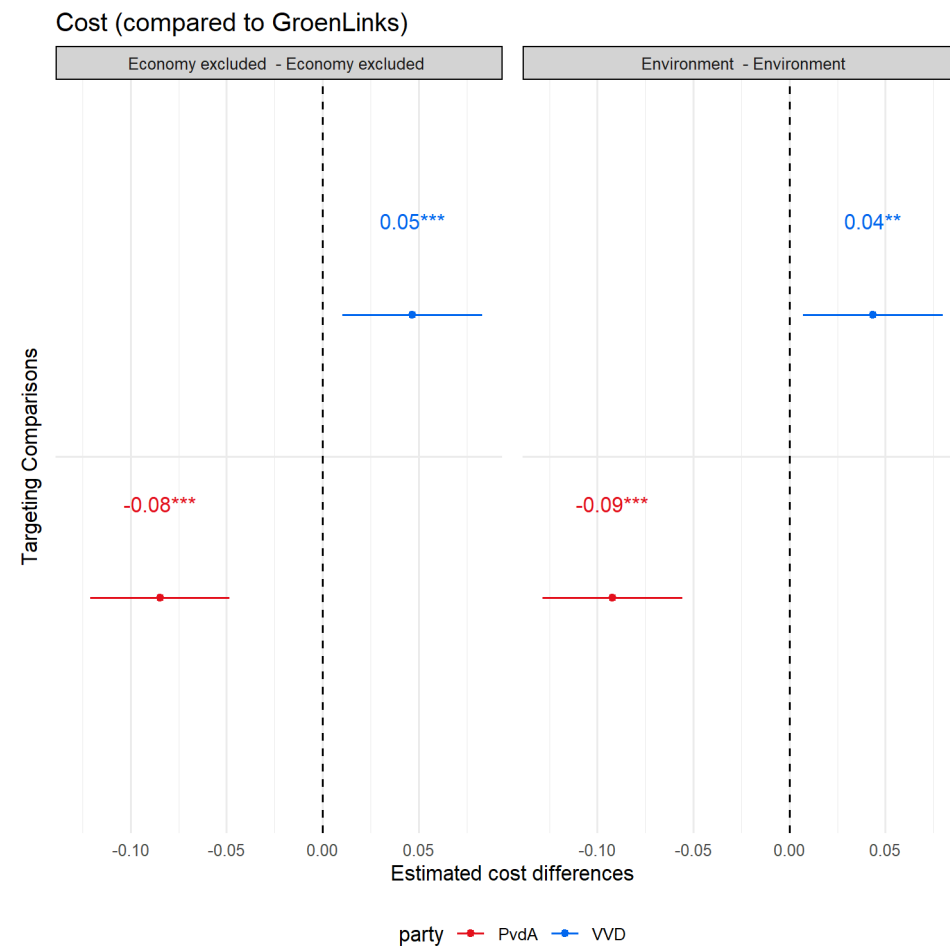
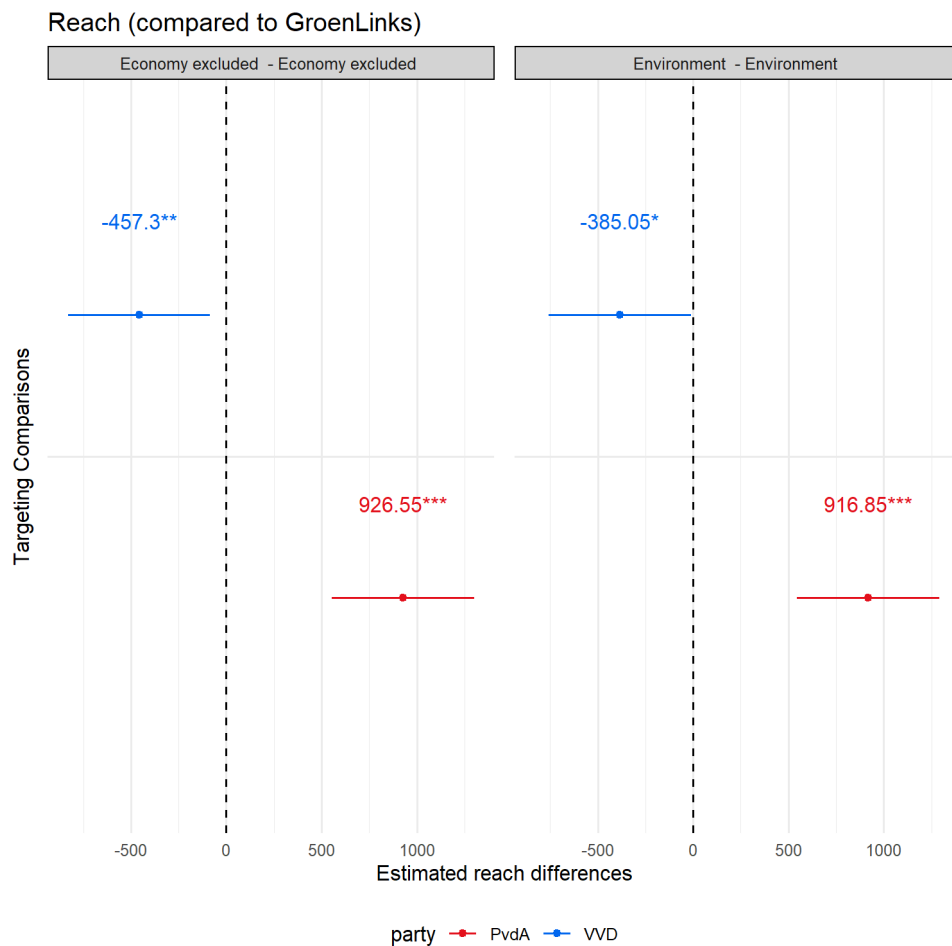
GroenLinks pays 4 cents less than VVD when targeting environment audience

VVD pays 5 cents more than GroenLinks when economy audience is excluded

## Between-party differences (zoomed in)

Exclude economic interests or target environmental interests:

VVD reaches fewer people per ad than GL (**~380-450 fewer people**) and pay more (**4-5 cents more**)





## Within-party differences

# Within-party differences - Price per 1k

For everyone:

Ads **cost less** for:

- *higher-educated vs. lower-educated audience*

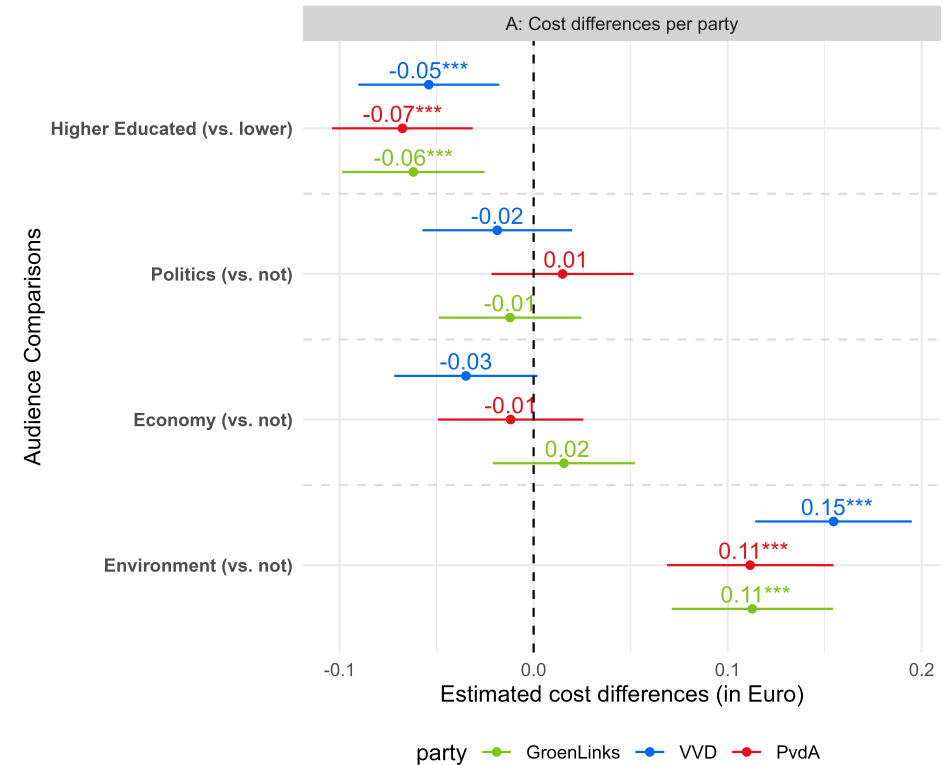
Ad price **does not statistically differ** for:

- *Audience interested in the economy vs. not interested*
- *Audience interested in politics vs. not interested*

Ads **cost more** for:

- *Audience interested in the environment vs. not interested*

(also true for GroenLinks)





# Summary

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Our findings do not always align with expectations.

## However:

We find that Meta ad delivery algorithm prioritizes certain parties and audiences for political advertising

There are also *age, gender and regional biases*

Even after controlling for Meta user breakdown:

- Men systematically receive more ads than women
- 18-24 year olds systematically receive less ads
- Certain Dutch provinces systematically receive less ads than others

# Implications

- Meta (dis-)advantages certain parties
  - political parties were not charged the same price for the same service
  - Unequal playing field
- Some groups of people and regions are **systematically** less likely to receive political advertisements and more expensive to reach
  - isolating these groups from receiving election-related information
  - may deepen political, social and geographical inequalities
- No transparency by Meta about these systematic biases
  - difficult to research and make visible instances of unequal treatment and price discrimination
  - highlighting importance of access to data
- Simply "banning" microtargeting would be inadequate
  - more power to the black box algorithm

Thank you for your attention!