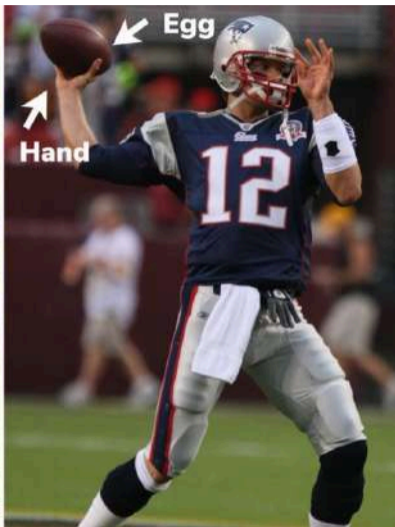# Rooting for the same team:
Shared social identities in a polarized context

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EEA-ESEM 2024

Football

Motivation

- **Political party preference has become a core element of individuals' social identity [Huddy et al., 2015; Van Bavel and Packer, 2021]**. Thus, in contexts of intense political polarization, **political party identity becomes a crucial divisive cleavage.**

  - Affective polarization: we like supporters of the party we support (in-group favoritism), while we dislike supporters of the opposing party (out-group derogation).
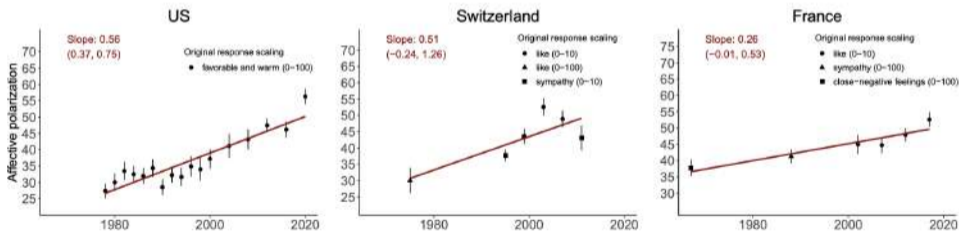
* Boxell et al. [2022]: Using "feeling thermometer" questions (*"from 0 to 100, how much do you like supporters of party P?"*), measures the average difference between respondents' affect towards their most preferred party(ies) and the average respondents' affect towards the remaining parties.

Motivation

- Why should we care about **this divisive cleavage**? Can negatively affect **social cohesion and the formation of social ties** $\Rightarrow$ Contribute to the formation of **Echo chambers**, affect the **news content consumed by citizens** (Levy, 2021) and reduce **exposure to dissenting views** (Bursztyn et al., 2022) (potentially) dampen democratic institutions (Iyengar et al., 2019)

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- However, other social non-political dimensions of identity matter! [Tajfel and Turner, 1986; Akerlof and Kranton, 2000]
  - Rooting for the same teams, national identity.

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- However, other social non-political dimensions of identity matter! [Tajfel and Turner, 1986; Akerlof and Kranton, 2000]
  - Rooting for the same teams, national identity.

- Sharing other social (non-political) identities can potentially soften the detrimental consequences of political polarization on social cohesion and on the formation of social ties

Questions:

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- Does **congruence** in non-political dimensions of identity soften the detrimental consequences of political polarization in social cohesion?

- Or political identities are so strong as to **overshadow** the positive effects of sharing non-political identities, potentially preventing the strengthening of social cohesion that might otherwise flourish?

This paper

- Experimental evidence from Twitter in a polarized country: <u>Brazil</u>

- Fictional bot accounts that signal two identity dimensions:
  - Political identity: Lula or Bolsonaro supporter.
  - Non-political identity: support a Brazilian football club.

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- Randomly follow Brazilian Twitter accounts with congruent/incongruent identities across these two dimensions.

- Measure formation of ties with two outcomes: Follow-backs (in-group favoritism) and Blocks (out-group animosity).

Background

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1. Political polarization in Brazil.

2. Importance of football as a social identity in Brazil.

3. Twitter.

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Toalhas de Bolsonaro e de Lula em loja no centro do Rio

Imagem: Felipe Lucena/UOL

Political Polarization in Brazil

- Brazil's democracy is going through the most polarizing moment in its history [Ortellado et al., 2022; Kingstone and Power, 2017].

- Affective polarization in Brazil similar to that of the US.
  - Data from the Comparative Electoral Studies and methodology from Boxell et al. [2022].
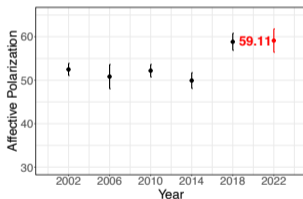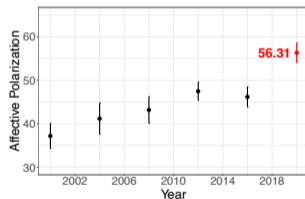
(a) Brazil   (b) US [Boxell et al., 2022]

Boxell et al. [2022]: Using "feeling thermometer" questions ("from 0 to 100, how much do you like supporters of party P?"*), measures the average difference between respondents' affect towards their most preferred party(ies) and the average respondents' affect towards the remaining parties.

Background

1. Political polarization in Brazil.

2. Importance of football as a social identity in Brazil.

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Football

- By far, the most popular sport in Brazil.
  - 65% of the country's population claim to be interested in this sport [Nielsen Sports, 2022];
  - 73.1% claim to support a football club [IPEC and O Globo, 2022].

- Football has a **distinctive role in Brazilian society**, being considered a constitutive element of Brazil's national identity [Murad, 1995; DaMatta, 1994].

- **Important features:** Brazilian clubs have traditional **rivals**. Overall, supporters' characteristics across different clubs are "reasonably uncorrelated" with other societal divides.

Background

1. Political polarization in Brazil.

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3. Twitter.

Twitter

- Twitter seems to play an **increasingly important role in shaping political discourse worldwide** [Jungherr, 2016].
  - Evidence that Twitter had causal effects on voters' decisions in US elections [Fujiwara et al., 2021]

- Used by over 24 million people in Brazil (top 8 in per capita) [Statista, 2022].

Twitter

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  - Evidence that Twitter had causal effects on voters' decisions in US elections [Fujiwara et al., 2021]

- Used by over 24 million people in Brazil (top 8 in per capita) [Statista, 2022].
  - Among Brazilians who use Twitter, 75% claim to use the platform to see political information at least sometimes a year [LAPOP, 2019].
  - 45% of Brazilians claim that social media has influenced their vote in the 2018 elections [DataSenado, 2019].

- **Probably not representative of all Brazilians (we selected people who publicly expressed they football-team and political identities), but massive and relevant.**

Experiment Design

Experiment Design: Bot Accounts I (Both dimensions of identity)

- **Profile Pictures:** Club's flag.

- **Bio:** Signals both dimensions of identity:
  - Non-Political Identity: club's official account handle, using the text "Fan of @Club";
  - Political Identity: hashtag "#Lula2022" or "#Bolsonaro2022".

- **Retweets:** the bot retweets a post from the club's official account and a post from its preferred candidate.

Experiment Design: Bot Accounts II (Single dimension of identity)

- Similar to the accounts on the main experiment, but:
  - For the football-club neutral accounts, the account still signals interest about football using a profile picture of a foreign football stadium and the text "Football Fan." in its bio;

  - The politically-neutral accounts only signal their preferred football club.

Experiment Design: Subject Pool

Initial Subject Pool: Sample of twitter accounts that either tweeted or rt-ed a status containing either a pro-Lula or pro-Bolsonaro hashtag between May 31th and July 11th, 2022.

Account informs its preferred Brazilian football club on its bio. We restrict the analysis to the 6 largest clubs in terms of fans plus their regional rivals.

Remove:

- Bots;
- Less than 10 followers;
- Created in 2022;
- Followers/Friends ratio greater than 20.

4,652 subjects

Details Descriptive Statistics

Experiment Design: Treatment Assignment and Timing

Day 0 — Creation of Accounts. Bots re-tweet, follow "elite accounts" and are followed by colleagues.

Day 1 — Each bot follows 100 subjects randomly assigned to it.

Day 5 — Collect **follow-back** and **block** data. De-activate bot.

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- **Follow-Backs**: measure of whether subjects reciprocate the bot's follow.
  - Collected using Twitter's API.
  - Measure of positive affection (in-group favoritism), i.e., of willingness to establish ties with the bot.

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- **Follow-Backs**: measure of whether subjects reciprocate the bot's follow.
  - Collected using Twitter's API.
  - Measure of positive affection (in-group favoritism), i.e., of willingness to establish ties with the bot.

- **Blocks**: through blocking, users restricts the blocked account from contacting them and seeing their posts.
  - Collected manually.
  - Measure of "negative affection" (out-group animosity). Through blocking, user signals the will to be as far apart from the blocked account as possible.

Results

# Football as a non-political identity (politically-neutral accounts)
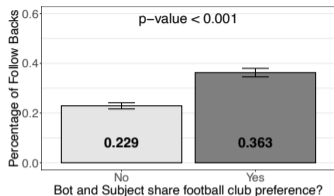

(a) Follow Backs
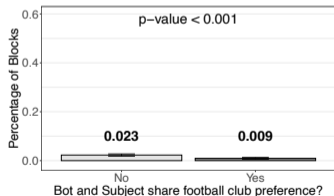
(b) Blocks

- Congruence in **football-club preference is relevant to the formation of social ties**.

- Individuals who share football club with the bot are 13.4 pp more likely to follow it back, and 1.4 pp less likely to block it.

- At least in our sample: **football-club is a dimension of identity. It matters.**.

Political Identity and the Formation of Social Ties (football-neutral accounts)
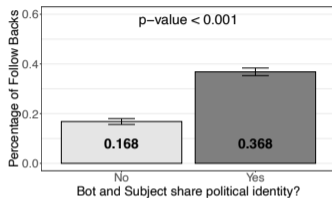
(a) Follow Backs
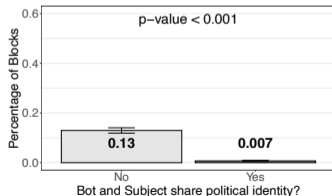
(b) Blocks

- **At least in our sample, sharing political identity is also important for the formation of social ties**:
  - Subjects that politically agree with the bot are more than twice as likely to follow it back.
  - Significantly less likely to block it

- **Blocking is much higher when there is political incongruence.**

The Interplay between political and non-political identity

- So far, we only considered results for accounts that were neutral in one of the two identity dimensions we study.

- What about accounts that signal both identities?

The Interplay between political and non-political identity: Follow-Backs
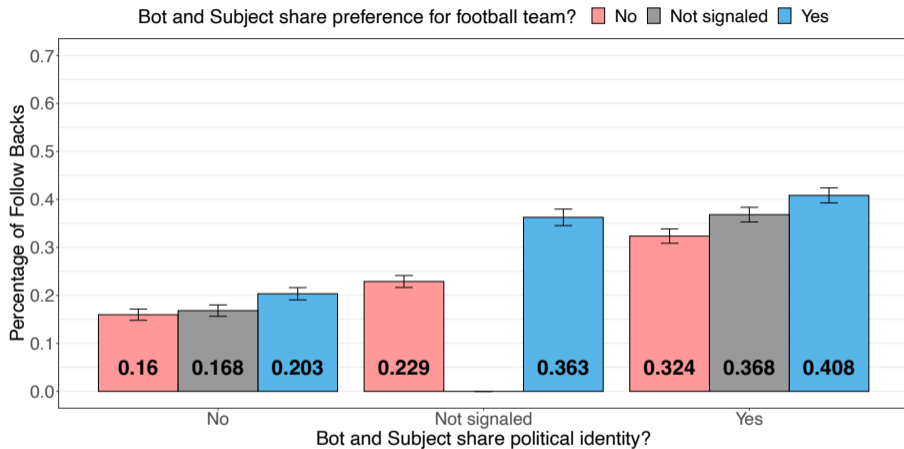
The Interplay between political and non-political identity: Follow-Backs

Bot and Subject share preference for football team? ■ No ■ Not signaled ■ Yes

Percentage of Follow Backs

	No	Not signaled	Yes
No	0.16	0.168	0.203
Not signaled	0.229		0.363
Yes	0.324	0.368	0.408

Bot and Subject share political identity?

The Interplay between political and non-political identity: Follow-Backs
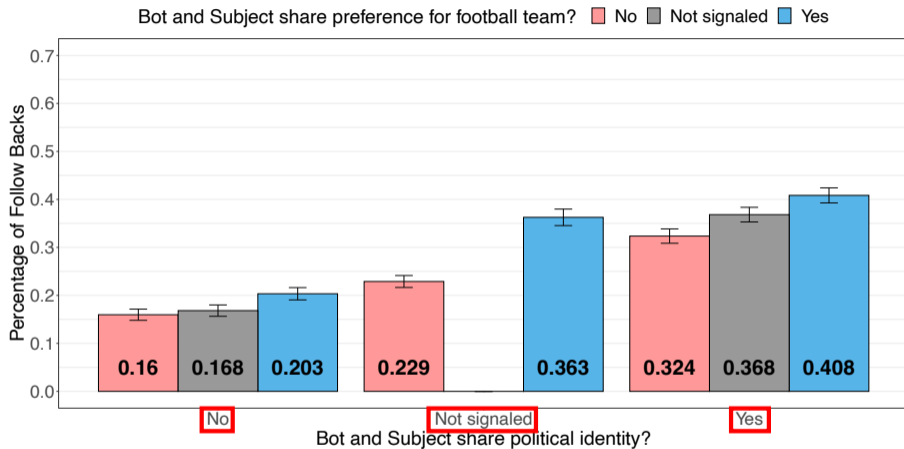
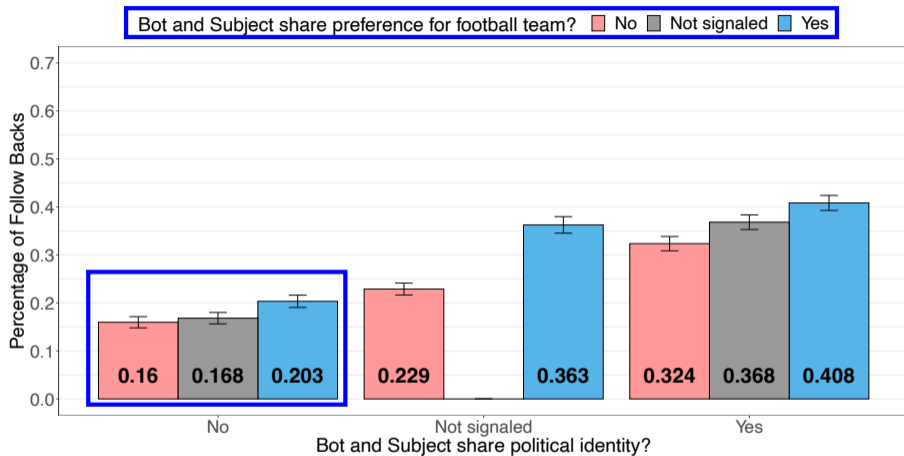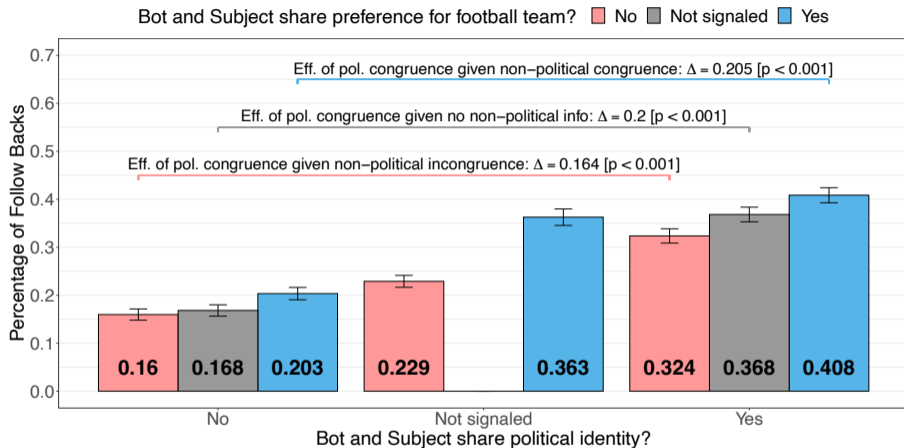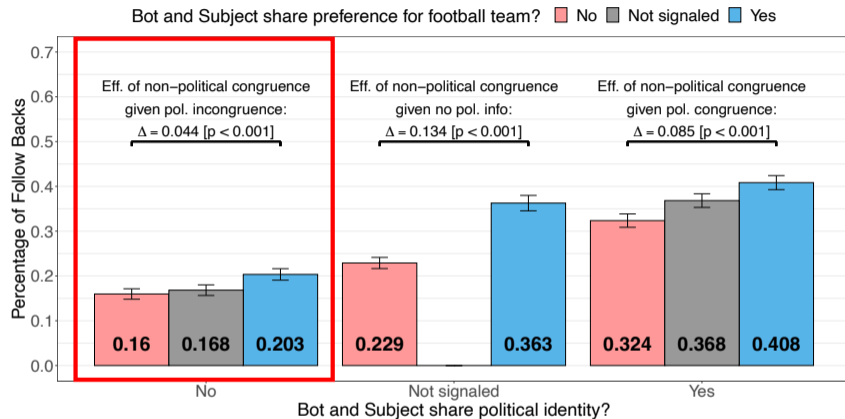# The Interplay between political and non-political identity: Follow-Backs

Bot and Subject share preference for football team? ■ No ■ Not signaled ■ Yes

- Agreeing politically boosts the formation of social ties very similarly, regardless of non-political congruence/incongruence.

The Interplay between political and non-political identity: Follow-Backs

Bot and Subject share preference for football team? ■ No ■ Not signaled ■ Yes

Eff. of non–political congruence given pol. incongruence: $\Delta = 0.044$ [p < 0.001]

Eff. of non–political congruence given no pol. info: $\Delta = 0.134$ [p < 0.001]

Eff. of non–political congruence given pol. congruence: $\Delta = 0.085$ [p < 0.001]

y-axis: Percentage of Follow Backs

Values: No group: 0.16, 0.168, 0.203; Not signaled group: 0.229, 0.363; Yes group: 0.324, 0.368, 0.408

x-axis: Bot and Subject share political identity? (No, Not signaled, Yes)

- But, conditional on political identity, the effect of sharing football club is smaller, particularly for politically-opposite individuals.
  - Non-political congruence becomes less relevant when there is political info.

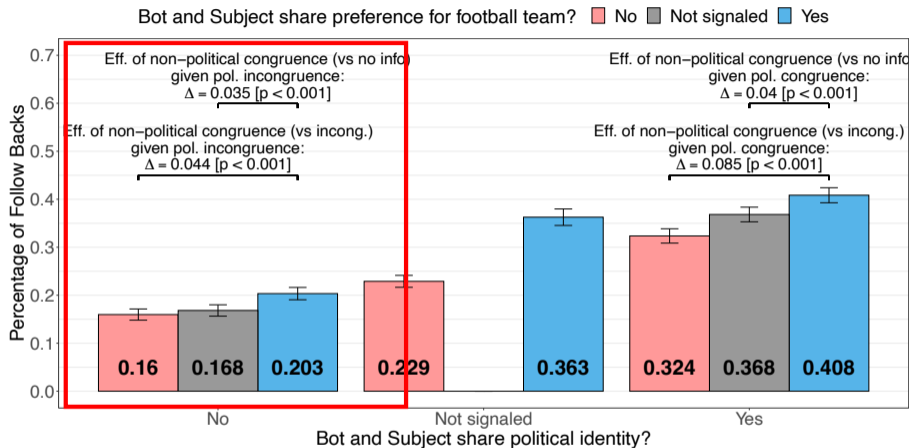# The Interplay between political and non-political identity: Follow-Backs

Bot and Subject share preference for football team? ■ No ■ Not signaled ■ Yes

Eff. of pol. congruence given non−political incongruence: Δ = 0.164 [p < 0.001]

Eff. of non−political congruence given pol. incongruence: Δ = 0.044 [p < 0.001]

Bar values — No: 0.16, 0.168, 0.203; Not signaled: 0.229, 0.363; Yes: 0.324, 0.368, 0.408

Percentage of Follow Backs (y-axis); Bot and Subject share political identity? (x-axis: No, Not signaled, Yes)
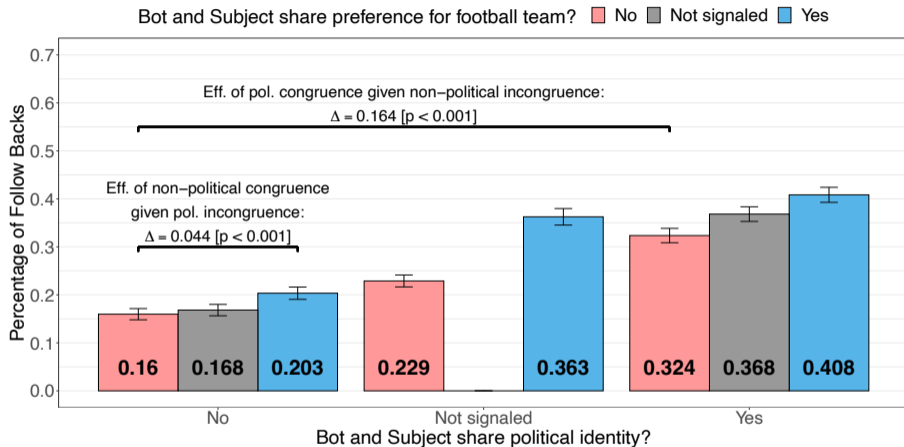
- The positive effect of sharing political identity (but not non-political) is almost four times larger than the effect of sharing non-political identity (but not political).

The Interplay between political and non-political identity: Follow-Backs

Bot and Subject share preference for football team? ■ No ■ Not signaled ■ Yes

- Congruence in non-political identity still matters, even among politically-opposite individuals. **Interpretation: football may reduce in-group favoritism, although mildly.**

The Interplay between political and non-political identity: Blocks

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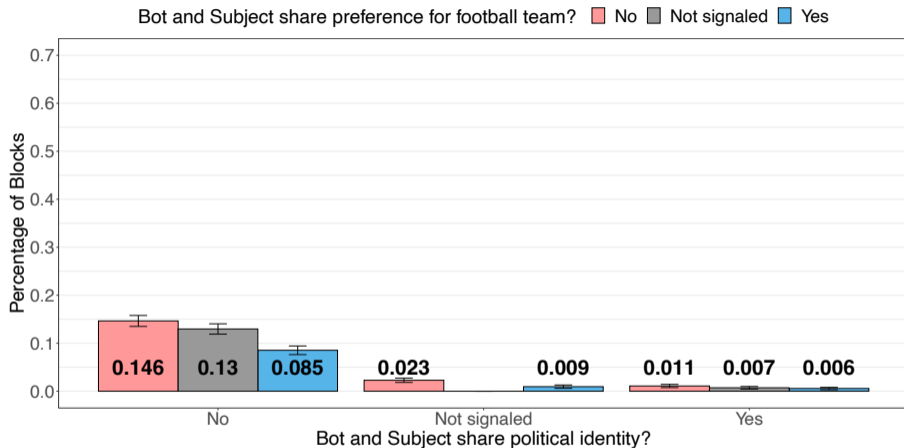
- Results for blocks are qualitatively similar. However, blocks happen almost exclusively against politically-opposite accounts.

The Interplay between political and non-political identity: Blocks

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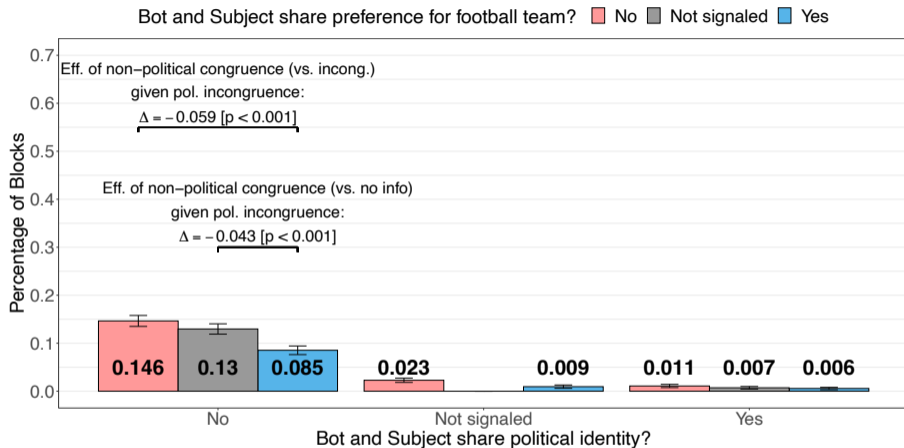
- For politically-opposite individuals, sharing football club reduces the likelihood of blocking by 41.8%, and by 34.6% relative to when this identity is not signaled. **Interpretation: football may reduce out-group animosity.**

Summary so Far

- Both non-political and political identities are relevant to the formation of ties in our setting.

- However, the effect of political identity is larger.

- Effect of non-political identity becomes smaller once we condition on political identity (**evidence that political identity <u>overshadows</u> other dimensions of identity**).

- Yet, non-political identity has an effect on counterbalancing political polarization (especially reducing **out-group animosity**).
  - Consistent (**but to a much lesser extent**) with evidence that football can potentially reduce political divides (Depetris-Chauvin et al. [2020]; Ronconi [2022]).

Effects of polarization over time
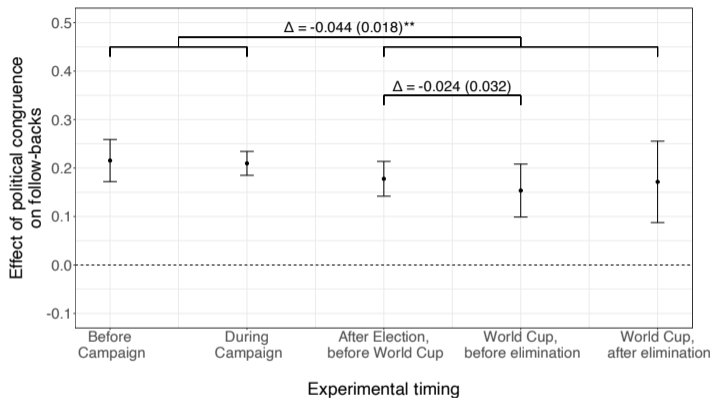
- After elections: effects of political congruence become smaller (though effects remain large).

- However, small (and non-significant) differences during the World Cup.

Polarization in the National Team

- Why the World Cup did not have a large effect on reducing polarization (a la Depetris-Chauvin et al. (2020))? (even before the elimination!)

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  - Neymar: strong supporter of Bolsonaro.
  - Richarlison/Tite: more associated with Lula.

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- Analysis of tweets during the World Cup:
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  - Lula supporters tweeted celebrating Neymar's injury (highlighting his political affiliation)

  - Bolsonaro supporters more likely to blame Tite for the elimination (highlighting his political affiliation).

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- **Overall: another evidence that political polarization may overshadow the cohesion power of shared identities (in this case, the national team)**

Conclusion

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  - Sharing a non-political identity can foster ties even among politically divergent individuals.
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Conclusion

- Experimental and observational evidence on the role of non-political identity in shaping formation of ties and social cohesion in polarized settings.

- The glass is half full...
  - Sharing a non-political identity can foster ties even among politically divergent individuals.
  - Large effect in terms of preventing blocks.

- The glass is half empty...
  - Political polarization reduces the cohesive effects of shared non-political identities.
  - Effects of rooting for the same football club becomes smaller.
  - Disputes between political groups when supporting national team.

Conclusion
A not exhaustive list of reasons we should care

- **Determinants of Social Cohesion:**
  - Sports can foster cohesion between conflicting groups Lowe [2021]; Mousa [2020]. And reduce divides: Depetris-Chauvin et al. [2020]; Ronconi [2022]
  - **Our paper:** With intense political polarization, the positive effects of sharing a non-political identity are **severely weakened**.
  - **Our paper:** Even the identification with the national football team (a la Depetris-Chauvin) has limited power if polarization also permeates the players.

- **Social Media and Polarization:**
  - Social media causes (Gentzkow [2016]) and amplifies polarization through echo chambers (Sunstein [2018]). Should we blame algorithms (Epstein and Robertson [2015]; Nyhan et al. [2023])?
  - **Our paper:** Social media users choose to sort with those politically similar **even when losing valuable connections.**

Thanks!

References

Akerlof, George A and Rachel E Kranton, "Economics and identity," *The quarterly journal of economics*, 2000, *115* (3), 715–753.

Boxell, Levi, Matthew Gentzkow, and Jesse M Shapiro, "Cross-country trends in affective polarization," *The Review of Economics and Statistics*, 2022, pp. 1–60.

DaMatta, Roberto, "Antropologia do óbvio: Notas em torno do significado social do futebol brasileiro," *Revista USP*, 1994, (22), 10–17.

DataSenado, "Redes Sociais, Notícias Falsas e Privacidade na Internet," 2019.

Depetris-Chauvin, Emilio, Ruben Durante, and Filipe Campante, "Building nations through shared experiences: Evidence from African football," *American Economic Review*, 2020, *110* (5), 1572–1602.

Epstein, Robert and Ronald E Robertson, "The search engine manipulation effect (SEME) and its possible impact on the outcomes of elections," *Proceedings of the National Academy of Sciences*, 2015, *112* (33), E4512–E4521.

Fujiwara, Thomas, Karsten Müller, and Carlo Schwarz, "The effect of social media on elections: Evidence from the United States," Technical Report, National Bureau of Economic Research 2021.

Gentzkow, Matthew, "Polarization in 2016," *Toulouse Network for Information Technology Whitepaper*, 2016, pp. 1–23.

References

Huddy, Leonie, Lilliana Mason, and Lene Aarøe, "Expressive partisanship: Campaign involvement, political emotion, and partisan identity," *American Political Science Review*, 2015, *109* (1), 1–17.

IPEC and O Globo, "Pesquisa de Opinião Pública sobre Torcidas de Futebol," 2022.

Jungherr, Andreas, "Twitter use in election campaigns: A systematic literature review," *Journal of information technology & politics*, 2016, *13* (1), 72–91.

Kingstone, Peter and Timothy J Power, *Democratic Brazil divided*, University of Pittsburgh Press, 2017.

LAPOP, "AmericasBarometer," 2019.

Lowe, Matt, "Types of contact: A field experiment on collaborative and adversarial caste integration," *American Economic Review*, 2021, *111* (6), 1807–44.

Mousa, Salma, "Building social cohesion between Christians and Muslims through soccer in post-ISIS Iraq," *Science*, 2020, *369* (6505), 866–870.

Murad, Maurício, "O lugar teórico da sociologia do futebol," *Revista Pesquisa de Campo-Núcleo de Sociologia do Futebol-UERJ*, 1995, (2).

Nielsen Sports, "World Football Report," 2022.

References

Nyhan, Brendan, Jaime Settle, Emily Thorson, Magdalena Wojcieszak, Pablo Barberá, Annie Y Chen, Hunt Allcott, Taylor Brown, Adriana Crespo-Tenorio, Drew Dimmery et al., "Like-minded sources on Facebook are prevalent but not polarizing," *Nature*, 2023, *620* (7972), 137–144.

Ortellado, Pablo, Marcio Moretto Ribeiro, and Leonardo Zeine, "Existe polarização política no Brasil? Análise das evidências em duas séries de pesquisas de opinião," *Opinião Pública*, 2022, *28*, 62–91.

Ronconi, Juan Pedro, "Divided for Good: Football Rivalries and Social Cohesion in Latin America," 2022.

Sport Track and XP, "Convocados/XP Football Report," 2022.

Statista, "Twitter users in Brazil from 2017 to 2025," `https://www.statista.com/forecasts/1146589/twitter-users-in-brazil#statisticContainer` 2022. Accessed: 10-24-2022.

Sunstein, Cass R, *#Republic: Divided democracy in the age of social media*, Princeton University Press, 2018.

Tajfel, Henri and John C Turner, *The social identity theory of intergroup behavior*, Chicago: Nelson-Hall, 1986.

References

Van Bavel, Jay J and Dominic J Packer, *The power of Us: Harnessing our shared identities to improve performance, increase cooperation, and promote social harmony*, Little, Brown Spark, 2021.