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Gender and Political Orientation as Moderators of the Effect of  
Social Networks on Empathy Desirability in Political Contexts

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## **Gender and Political Orientation as Moderators of the Effect of Social Networks on Empathy Desirability in Political Contexts**

### **Introduction**

In recent years, political polarization has intensified across many democratic societies. This means political values and attitudes are moving away from the middle towards more ideological extremes (Churcher, 2025). Beyond mere disagreements over policy, polarization manifests itself in affective polarization –i.e. disliking and distrusting those from another party (Druckman et al., 2022) – and increases partisan animosity, which is understood as hostile thoughts, feelings, or behaviors directed towards a political outgroup (Alam & Gill, 2024).

In this context, empathy has been proposed as an antidote for cross-partisan hostility by fostering understanding across group lines (Santos et al., 2022). Many people see empathy – feeling for someone and putting oneself into another person's shoes – as morally good and beneficial in many ways (e.g. Bourgault et al., 2015; Ciarrochi et al., 2017; Davis & Oathout, 1987; Eisenberg & Miller, 1987; Kang et al., 2025). However, empathy is neither automatic nor fairly distributed; on the contrary, it appears to be motivated and biased (Zaki, 2014). This means, people may not *want* to empathize across political lines. In light of political polarization and its negative consequences for society, the importance of increasing empathy between political groups becomes clear. A lot of literature is dedicated to empathy experience (e.g. Bruneau et al., 2017; Vanman, 2016), however, whether this experience is enough to understand how one can increase empathy across groups is questionable. Some literature has gone a step further and looked at empathy motivation (e.g. Hasson et al., 2018; Zaki, 2014) – meaning how motivated a person is in a given situation to show empathy for another person. This paper goes another step further and looks at the underlying beliefs people have about empathy.

Not everyone has a positive view of empathy but instead they find empathy to be a rather negative phenomenon (e.g. Bloom, 2014). People differ in whether they find empathy to be beneficial, costly, morally required or undesirable, among others. These beliefs are here referred to as empathy beliefs. The idea behind this study is that empathy beliefs themselves can be biased, that is a person may find empathy to be a good thing when targeted towards some people, but a bad thing when directed towards

other people. There is barely any literature focusing on empathy beliefs, let alone biased empathy beliefs. In order to figure out how empathy between political groups can be increased, this paper therefore looks at this basic mechanism: how biased empathy beliefs develop, specifically through the influence of social networks. The present study is a continuation of an underlying broader project, and it additionally looks at gender and political orientation as moderators of this effect.

Taken together, the present study investigates whether gender and political orientation moderate the effect of social networks on empathy desirability in political contexts. This is done in two experiments, with multiple conditions: Each condition is presented with a different norm concerning the desirability of empathy behavior, to see how such norms influence biased empathy beliefs, and, whether this influence differs between men and women, and liberals and conservatives, respectively. This question extends empathy research in political contexts by looking at underlying mechanisms (empathy beliefs) that may regulate empathy experience, and by introducing moderators. Understanding when and why people find empathy to be desirable may be crucial for addressing political division.

## **Theoretical background**

### **Empathy**

The term “empathy” is interpreted and applied in many ways, making a clear definition difficult (Segal et al., 2017). For example, Batson (2009) identifies eight different phenomena termed empathy. This complexity makes getting an overview over literature hard. To be able to integrate the current study into the sum of empathy research and attempt to dissolve this confusion, a single definition is important: Put simply, empathy, here, is understood as feeling and understanding the emotions and experiences of others (Segal et al., 2017; Zhao et al., 2022). Despite there being many definitions of empathy, they generally encompass Zaki’s (2019) categories of sharing, thinking and caring about the emotions of another person.

To get a better understanding of empathy, there have been many suggestions of different aspects of the phenomenon. A very common topic in empathy research is the differentiation between cognitive and affective empathy. Cognitive empathy evolved from Dymond’s (1949) cognitive role-taking approach, whereby empathy is described as the ability to transpose oneself into the thinking, feeling and acting of another person

and seeing the world from their psychological point of view. Affective or emotional empathy on the other hand means the capacity to experience affective reactions to the observed experience of others (Shamay-Tsoory, 2011), which is more primitive, almost contagious (Mehrabian et al., 1988).

A different aspect of empathy is empathy motivation: Empathy is not felt the same in every situation, but instead many factors influence how much empathy is experienced and, specifically, how much empathy people *want* to experience and, therefore, when people approach or avoid it. Zaki (2014) proposes a motivated empathy model on when one experiences more empathy, or when people avoid empathy. He states that, although empathy might appear and can very well be automatic, it is more often driven by motivation. More specifically, he found that three phenomena – positive affect, affiliation and desirability – lead to higher empathy, while three other phenomena – pain, cost and interference with competition – produce goals to starve off empathy. This model can be taken as a theoretical basis for biased empathy.

### **Biased empathy**

Another factor affecting how much empathy is felt is the target of empathy. Research has shown an ingroup bias in empathy (Bloom, 2017; Vanman, 2016). Ingroup and outgroup bias refers to the phenomenon that people favor others seen as similar to themselves (ingroup) over people seen as different (outgroup) (Campbell & de Waal, 2011). People empathize more with people belonging to their ingroup than people belonging to their outgroup, which is also termed “parochial empathy” (Bruneau et al., 2017). For example, in a study by Tarrant et al. (2009), participants reported stronger empathy and helping intentions when directed at a student from their own university than an outgroup university. Similarly, Montalan et al. (2012) found a division into groups based on dot estimation ability to result in higher perceived pain of ingroup members. Also, biased empathy has been measured using biological markers: For example, stronger brain responses were found in the left anterior insula, which is related to empathy, when witnessing ingroup members, established using football teams, suffering pain (Hein et al., 2010). Likewise, a study using EEG showed that participants displayed similar activation patterns when feeling sad themselves as when observing an ingroup member feeling sad, but not when an outgroup member was feeling sad, which constitutes more neural evidence for the empathy gap (Gutsell & Inzlicht, 2012).

## Empathy beliefs

There are many approaches to understanding how such a bias arises. One of them is looking at empathy beliefs, which is the aspect of empathy that the present study focuses on. Bluntly put, empathy beliefs are beliefs about empathy. Such beliefs may refer to specific properties of empathy. For example, people hold different views of the malleability of empathy – i.e., whether it can be developed and increased or is fixed and unchangeable (Schumann et al., 2014). Similarly, concerning compassion, people may believe this is an endless resource or has a limit that can be exhausted (Gainsburg & Lee, 2023).

Other empathy beliefs concern empathy as a whole: The widespread view of empathy being a good thing is based on studies showing its positive influence: Empathy has been shown to positively affect prosocial behavior (Eisenberg & Miller, 1987; Pang et al., 2022) and helping behavior (Kang et al., 2025), well-being (Bourgault et al., 2015; Inam et al., 2021; Scott et al., 2010), romantic relationships (Davis & Oathout, 1987; Perrone-McGovern et al., 2014), and friendships (Ciarrochi et al., 2017), among others. However, there are also arguments against empathy. Some literature has delineated negative aspects of empathy (Bloom, 2017; Spaulding, 2024): Firstly, empathy tends to favor particular individuals – namely those that are salient, similar to us and physically present – rather than large-scale or statistical lives. The authors also find that people come to fairer and more moral decisions using rational and reasoned analysis rather than empathy. Another argument against empathy that has likewise been supported in research, is that it can cause empathic distress, like burnout (Delgado et al., 2023), emotional exhaustion or other mental health problems, such as the role of empathy on depression (Yan et al., 2021). In public discourse, statements arise about empathy being a weakness, with prominent figures such as Elon Musk saying that “the fundamental weakness of Western civilization is empathy”, and Ben Shapiro often using the phrase “facts don’t care about your feelings” (Bruenig, 2025). In contrast, Barack Obama talked about the empathy deficit, one quote of his being: “Learning to stand in somebody else’s shoes, to see through their eyes, that’s how peace begins” (The White House, Office of the Press Secretary, 2009). Therefore, there are two sides: empathy as necessary and desirable versus empathy as useless and undesirable.

## Biased empathy beliefs

When wanting to explain how biased empathy occurs, the theory arises that biased empathy may stem from biased empathy beliefs. This would mean that we find empathy to be a good thing when directed towards our ingroup but find it undesirable when directed towards an outgroup. As mentioned, this is also where we find a gap in research: there is little literature on empathy beliefs in general and subsequently on biased empathy beliefs as well. One aim of the present study is to find out how empathy beliefs are shaped, more specifically by social networks. In the current study, empathy beliefs are measured by the desirability of empathy. This is chosen because it can be expected that desirability is an aspect of empathy beliefs that is highly influenced by context and social factors (Heyers et al., 2025).

## Social networks

Specifically, the present study looks at social networks in the development of empathy desirability. Social influence is defined as changes in attitudes, beliefs, opinions, values and behavior due to one being confronted with the attitudes, beliefs, opinions, values and behaviors of another person. Norms are belief systems about appropriate and inappropriate behavior that affect and decide our behavior, however without the power of laws. They express shared expectations of group members concerning typical and desired behavior. Norms can be divided into descriptive norms, that contain information of how other people *do* behave in a situation, and injunctive norms, which tell us how people *should* behave (Jonas et al., 2014). The influence of perceived social norms on behavior has been widely acknowledged in research (Manning, 2009). As an example, a classic experiment on littering behavior supports the effectiveness of (especially injunctive) social norms (Cialdini et al., 1990). Aside from behavior, social networks have been shown to influence cognitive processes, such as attitudes and beliefs (Cooper et al., 2001; Goldstein, 2024; Van Bavel et al., 2014).

Social identity means a person's knowledge that they belong to specific social groups, which comes with emotional and value significance of the group membership (Abrams & Hogg, 1990). Knippenberg and Wilke (1992) found that after exposure to an ingroup message and information about ingroup attitudes, participants conform to the group norm, though this was not the case after exposure to arguments coming from an outgroup. This shows that the relevance of the group membership for one's identity

determines whether the group's norm is used as a standard for evaluating behavior (Christensen et al., 2004), which suggests the importance of the ingroup in social norms (Lede et al., 2019). Similarly, Rimal and Real (2005) proposed a theory of normative social behavior, in which they expect group identity, among others, to be a mechanism behind the effect of descriptive norms on individual behavior.

Considering this effect of ingroup norms on attitudes and beliefs, we can expect this to also apply to empathy beliefs.

### **Political context**

This study takes place in a political context, where empathy and positive empathy beliefs are especially important. For example, Santos et al. (2022) found that believing that cross-partisan empathy is useful is associated with less partisan division and more politically diverse friendship networks. When prompted to believe that empathy is a political resource rather than a weakness, people become less affectively polarized and communicate in ways that decrease out-partisans' animosity and attitudinal polarization. As a reminder, affective polarization means the tendency to dislike and distrust those from another party (Druckman et al., 2022). Similarly, partisan animosity is hostile thoughts, feelings, or behaviors directed towards a political outgroup (Alam & Gill, 2024). In other words, bettering empathy beliefs towards the political outgroup increased trust and liking, as well as decreased hostility. Here we can see the significance of positive empathy beliefs in political contexts. It is therefore important to understand how these empathy beliefs come to be and how they can be shaped and influenced.

### **Gender and empathy**

There are mixed results concerning the question, whether women feel more empathy than men. On the one hand, there exists a wealth of research supporting this claim. Christov-Moore et al. (2014) found empathy to have evolutionary and developmental precursors and that sex differences have their roots in biology and are stable across the lifespan. In a longitudinal study with adolescents, empathy responses were higher in women than in men, with differences increasing with age (Mestre et al., 2009). Women score higher in empathy, compassion and prosocial donations (McDonald & Kanske, 2023). Also, Jie et al. (2019) found that men's empathic responses

are more likely to be mediated by self-interest, which subsequently reduces empathic responses.

On the other hand, this view has been challenged by studies showing sex differences in empathy responses to be more complex. Three studies by Pang et al. (2023) found that, although subjective empathy ability estimations were higher in women, EEG responses were not. In the third study, differences in subjective estimations of empathy ability were eliminated by priming social expectations that both women and men are good at sharing and caring for the feelings of others. The authors speculate that women's superiority in empathetic abilities may therefore reflect gender-role stereotypes. Baez et al. (2017) found that sex differences in empathy responses are dependent on assessment measure, suggesting that self-reports may induce biases. On the other hand, an experiment by Benenson et al., (2021) found that girls show more empathy than boys after witnessing a minor accident by a same-sex classmate, even when they think no one is looking, which contradicts the theory that self-reports induce sex differences in empathy.

Though a lot of research is dedicated to the existence of sex differences in empathy, not much literature exists concerning biased empathy, let alone biased empathy beliefs. Studying the relationship between gender and empathy beliefs is another aim of this paper. More specifically, as literature finding women feel more empathy than men outweighs counter-literature, men are expected to show more biased empathy beliefs than women. The underlying thought is that if someone feels more empathy in general, this may also mean that empathy is less selective and therefore less biased.

### **Political orientation and empathy**

There exists a wide variety of research showing that liberals show higher empathy than conservatives. For example, Hasson et al. (2018) found that on average and across samples, liberals want to feel and experience more empathy than conservatives. Other research discovered a positive relationship between interpersonal empathy and attitudes toward government intervention regarding social welfare (Wagaman & Segal, 2014), which is more often supported by liberals than conservatives (Morris, 2020). Bloom (2016) takes a different stance. He argues that liberals do not necessarily feel more empathy – empathy does not tell you what to think about a policy

issue. Instead, he finds that conservatives also feel empathy, but that conservatives and liberals have different targets of empathy. Waytz et al. (2016) support this view and suggest that conservatives might tend to show more biased empathy, while liberals tend to show more equity in their empathy. Nevertheless, they propose that the absolute empathy felt does not differ. Another argument against the empathy superiority of liberals, discussed by Hasson et al. (2018), is that the difference between liberals and conservatives can be attributed to the target groups being ideologically biased towards having liberal values (here, the authors talk about tolerance rather than empathy). Transferred to empathy, this means that when assessing how much empathy a participant feels, they are presented with a target that is, for example, part of a minority group that typically supports liberal values (Badaan & Jost, 2020). Therefore, it may seem as if conservatives experience less empathy in general than liberals, when in fact the target of empathy is part of conservatives' outgroup, while part of liberals' ingroup. When the target was changed to represent a more conservative person in a study by Brandt et al. (2014), liberals became more intolerant compared to conservatives, which suggests both liberals and conservatives are intolerant towards their outgroup. This would point towards liberals and conservatives showing no difference in their (biased) empathy beliefs. Because the current study asks the participants to imagine an outgroup member themselves, it bypasses the possibility of the target unknowingly being ideologically biased and confounding the results, and assesses whether a difference in empathy beliefs actually exists.

Nevertheless, the finding that liberalism is positively linked to empathy is a lot more widespread in literature (Morris, 2020). Though political orientation and its relation to empathy motivation have been the subject of some literature (for example Hasson et al., 2018), there is a lack of research on political orientation and empathy beliefs. Therefore, like with gender, the last aim of this paper is to study the relationship between political orientation and (biased) empathy beliefs, theorizing that conservatives show more biased empathy beliefs, while liberals show more empathy in general.

### **Present study**

This study is a part of a bigger research project, whose preregistration can be found under this link: <https://osf.io/qu485/overview>. First, the general procedure and

hypotheses will be explained and then the focus of this research paper, gender and political orientation as moderators of biased empathy beliefs, will be presented. Since the current research paper is not as extensive as the project it is a part of, parts of the study design are not relevant to the current hypotheses. For the sake of completeness, these parts are nevertheless mentioned in the study design.

The study in the present paper used data from two experiments of the underlying project. Both followed almost the same study design and were pre-registered. The first experiment focused on how biased empathy beliefs are influenced by knowing the empathy beliefs of the ingroup, while the second experiment investigated how biased empathy beliefs are influenced by knowing the empathy beliefs of the outgroup.

### **Procedure**

First, participants reported their political orientation by answering questions on selected political topics. After an imagination task, in which participants were asked to imagine a member of their political ingroup and a member of a political outgroup, participants completed half of the Beliefs About the Desirability of Empathy Scale (BADES) questionnaire, which consists of six items. The BADES questionnaire is used to measure empathy beliefs, specifically the desirability of empathy. In the second experiment, participants were also asked questions concerning social media interaction tendency and empathy motivation, though this is not relevant for the current study.

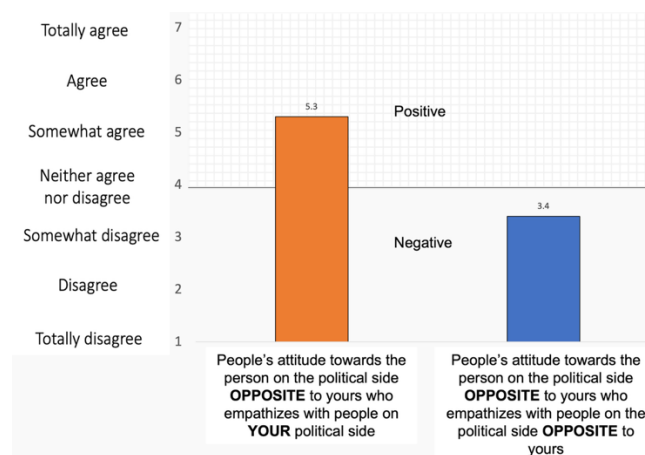
After finishing this, participants were told that the questionnaire was given to a large population and that they are being shown the results of their political ingroup, in the first experiment, or the political outgroup, in the second experiment. Here, the participants were randomly assigned to one of three conditions and each condition was shown different results in the form of a bar graph: the ingroup-biased condition (in which results showed that empathizing with the ingroup is seen as more desired), the outgroup-biased condition (in which results showed that empathizing with the outgroup is seen as more desired) and the unbiased-condition. In the second experiment, participants were also questioned on their perception of the empathy beliefs of the outgroup, though this is not relevant to the current study. As a visualization, Figure 1, Figure 2 and Figure 3 depict the graphs that were shown to the ingroup-biased, outgroup-biased and unbiased condition, respectively. The figures are taken from the

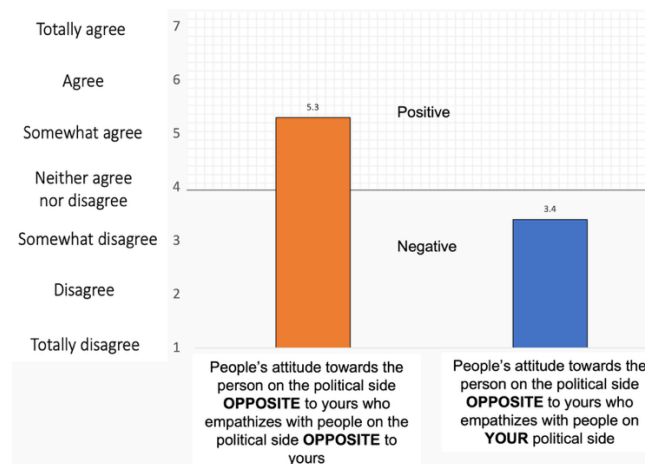
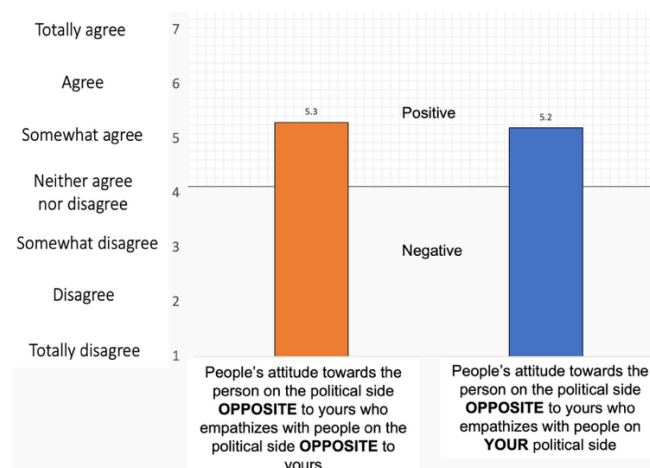
second experiment, which is why the people empathizing in the graphs are “on the political side opposite to yours”. The participants were then given a conclusion to help them understand the graphs, and presented with a memory task to ensure they understood the graphs. Participants were excluded if they failed the memory task. In the second experiment, participants who failed the memory task were given the chance to go back and check the plots and complete the memory task again. To establish comparability with the first experiment, data from these participants were nevertheless excluded for data analysis of the hypotheses.

Next, participants were told that the first section was done and they helped test and validate a novel measurement scale by answering new questions from the same scenario as before. Then they were given the second part of the BADES scale. Lastly, the participants were given questions about social media tendency and empathy motivation, though none of these are relevant to the current study.

**Figure 1**

*Graph shown to ingroup-biased condition*



**Figure 2***Graph shown to outgroup-biased condition***Figure 3***Graph shown to unbiased condition***Hypotheses**

Of the hypotheses tested in the underlying project, the following three were relevant for the current study. To prevent confusion, the hypotheses of the underlying project are named *P1*, *P2a* and *P2b*, instead of *H1*, *H2a* and *H2b*. On their basis, the moderator hypotheses tested in the current study were formulated:

**P1:** Empathy is significantly more desired when the targets are ingroup members than when the targets are outgroup members.

**P2a:** Participants will show more biased empathy beliefs after exposure to ingroup-biased empathy beliefs from an ingroup / outgroup than when exposed to unbiased-empathy beliefs from the same outgroup.

P2b: Participants will show less biased empathy beliefs after exposure to outgroup-biased empathy beliefs from an ingroup / outgroup than when exposed to unbiased-empathy beliefs from the same outgroup.

The current research paper focuses on gender and political orientation as moderators of these effects. As delineated above, it is expected that smaller effects result in women and liberal participants compared to male and conservative participants, due to overall more positive empathy beliefs. Hypotheses P2a and P2b were summarized for the current hypotheses to form H3a and H3b. Subsequently, the following hypotheses were analyzed in the current research paper:

H1a: Empathy is more desired by women than by men.

H1b: Empathy is more desired by liberals than by conservatives.

H2a: The difference in desired empathy between ingroup and outgroup targets will be smaller among women than among men.

H2b: The difference in desired empathy between ingroup and outgroup targets will be smaller among liberal participants than among conservative participants.

H3a: The difference between the effect of exposure to ingroup-biased and outgroup-biased empathy beliefs on biased empathy beliefs will be smaller among women than among men.

H3b: The difference between the effect of exposure to ingroup-biased and outgroup-biased empathy beliefs on biased empathy beliefs will be smaller among liberal participants than among conservative participants.

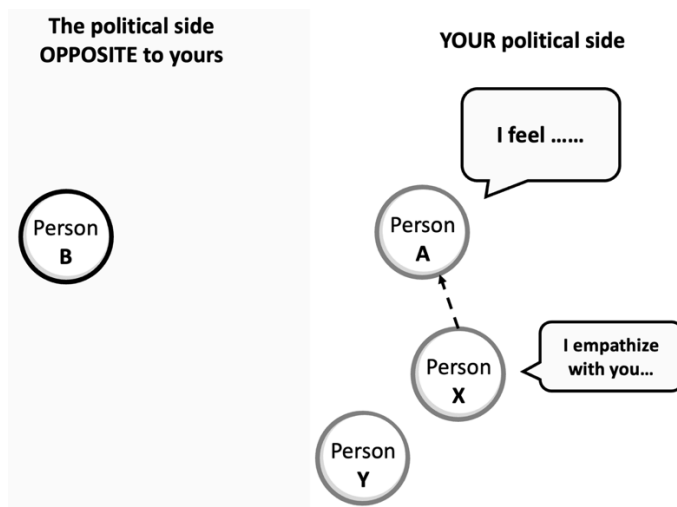
## Measures

*Biased empathy beliefs:* To measure biased empathy beliefs, the desirability of empathy is used, as delineated above, and operationalized using the Beliefs About the Desirability of Empathy Scale (BADES). This scale consists of 12 items that assess different aspects of desirability, including normative, reputation, morality, among others. The questionnaire has been validated in the course of the broader current research project. The scale has a high internal reliability with Cronbach's alpha ranging from .93-.97. Since the BADES scale was given to the participants on two occasions, before and after the manipulation, the scale can be split into two parts based on factor analysis, to reduce repetition effects. Half the participants were presented with section A first and section B second, while the other half of the participants were presented with

the two sections in opposite order. In the BADES scale, a scenario is presented to the participants. In it, Person X and Person Y are both ingroup members, who are empathizing with either Person A (an ingroup target) or Person B (an outgroup target), respectively. The desirability of this behavior (empathizing with an ingroup or outgroup member) is assessed. Biased empathy beliefs can be calculated by subtracting the score for Person Y from the score for Person X. Figure 4 and Figure 5 show the scenarios.

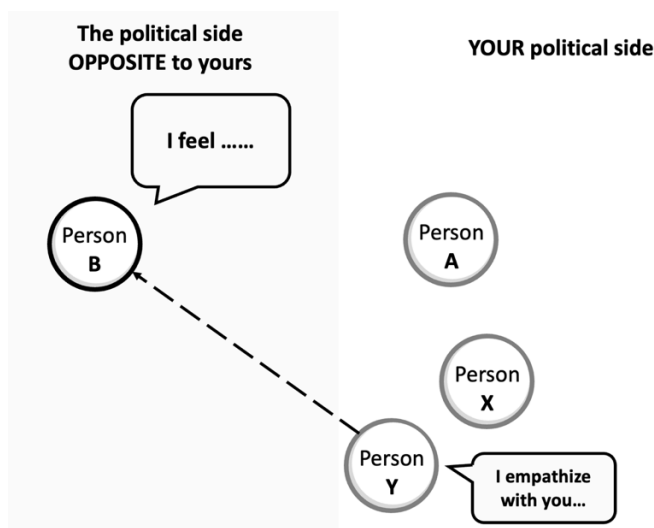
**Figure 4**

*An ingroup member empathizing with an ingroup member*



**Figure 5**

*An ingroup member empathizing with an outgroup member*



*Political attitudes:* To measure political attitudes, participants were given nine items, which they answered on a 7-point Likert scale ranging from “*strongly disagree*” to

“*strongly agree*”. As an example, one item states “The UK should allow more asylum seekers to come and live in the country”.

## **Participants**

The sample consisted of UK residents, that were between the ages 18 and 35. Participants were recruited via the Prolific platform. Individuals were excluded if they were not UK residents or not in the given age span, as well as if they failed the memory task, did not comply with attention checks or showed other patterns of non-compliance (such as stereotypical responses). Power analyses were conducted for the hypotheses of the underlying project, aiming for a power of .8 at  $\alpha=.05$ . They concluded the goal sample size to be 220 participants in the first experiment. Going off of the first experiment, another power analysis was done for the second experiment with slight changes, which concluded the goal sample size for the hypotheses P1, P2a and P2b to be around 80 participants (though the other hypotheses in the underlying project concluded higher goal sample sizes). In total, 314 participants were recruited for the first experiment and 167 for the second experiment, after data cleaning. For the current study, participants were excluded, if their gender was not “male” or “female”. Additionally, since liberals and conservatives were compared, participants whose political orientation was “neutral” were excluded from analyses. Moreover, as mentioned, participants who were given a second try in the second experiment were excluded, to establish comparability with the first experiment. After these additional exclusion criteria, adding data from the first and second experiment together, 397 participants were included into the sample of the current study. For H3a and H3b, since the ingroup-biased condition is compared to the outgroup-biased condition, participants in the unbiased manipulation (Figure 3) were not included in the analyses, leaving 218 participants.

## **Data analysis**

All analyses were conducted in R (R Core Team, 2025). For this the following packages were used: tidyverse (Wickham et al., 2019), readspss (Garbuszus & Pfaff, 2026), psych (Revelle, 2025), lavaan (Rosseel, 2012), effectsize (Ben-Shachar et al., 2020), car (Fox & Weisberg, 2019), and rstatix (Kassambara, 2019).

Concerning H1a and H1b, ANCOVAs were carried out, with gender and political orientation being the independent variables for H1a and H1b, respectively, and empathy

beliefs being the dependent variable. Empathy beliefs were measured by averaging the empathy beliefs of the first measurement, before the manipulation, for both ingroup and outgroup targets. Also, for H1a, political orientation was included as a covariate, to account for a possible correlation between gender and political orientation and, subsequently, to be able to separate the effects of gender and political orientation. Likewise, gender was included as a covariate in H1b.

For H2a and H2b, data analyses were the same as in H1, except for the dependent variable not simply being empathy beliefs, but biased empathy beliefs. For this, outgroup-targeted empathy beliefs were subtracted from ingroup-targeted empathy beliefs, for men and women (H2a), and liberals and conservatives (H2b) separately. Again, covariates for the respective other moderator were added. An overview of the 4 ANCOVA analyses is given in Table 1.

**Table 1**

*ANCOVAs for H1a, H1b, H2a and H2b*

|                             | <b>H1a</b>            | <b>H1b</b>            | <b>H2a</b>             | <b>H2b</b>             |
|-----------------------------|-----------------------|-----------------------|------------------------|------------------------|
| <b>Independent variable</b> | Gender                | Political orientation | Gender                 | Political orientation  |
| <b>Dependent variable</b>   | Empathy beliefs       | Empathy beliefs       | Biased empathy beliefs | Biased empathy beliefs |
| <b>Covariate</b>            | Political orientation | Gender                | Political orientation  | Gender                 |

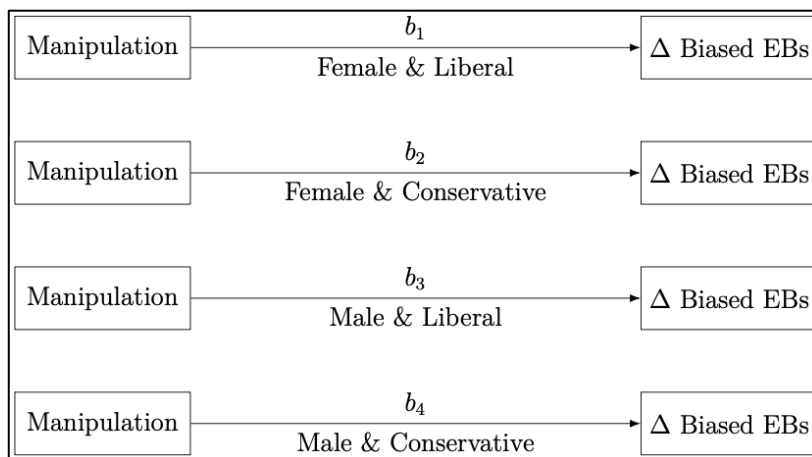
Covariates were added to each analysis to account for a correlation between the two moderators. There is evidence that women are more likely to be liberal, while men are more likely to be conservative (Pratto et al., 1997), which is referred to as the political gender gap. Interestingly, this correlation between gender and political orientation has even been explained with women being more empathetic than men, which results in liberal policy preferences (McCue & Gopoian, 2000). To test whether such a correlation existed in the current sample, a correlation between gender and political orientation was carried out prior to analyzing the rest of the hypotheses.

For the hypotheses H3a and H3b, multigroup-analyses were done using structural equation models. Taking H3a as an example, two models were compared: in the first model, the effect of the ingroup-biased condition compared to the outgroup-

biased condition on biased empathy beliefs was expected to be different in each combination of the two moderators (meaning four groups in total), as visible in Figure 6. This data fit was compared to the second model, in which, while political orientation was still expected to have an effect, gender was not, as visible in Figure 7. If the first model fit to the data significantly better, gender is confirmed to be a moderator. The same was done for H3b, adjusting for the moderator in focus, visible in Figure 8.

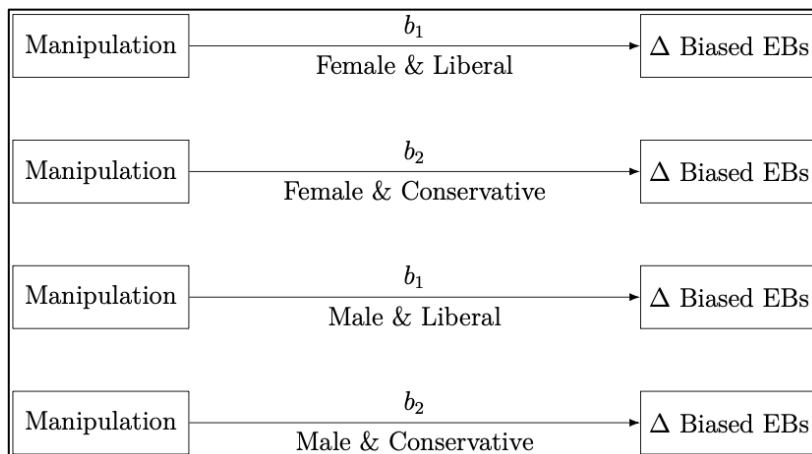
**Figure 6**

*Model 1: Both moderators are expected to have an effect*



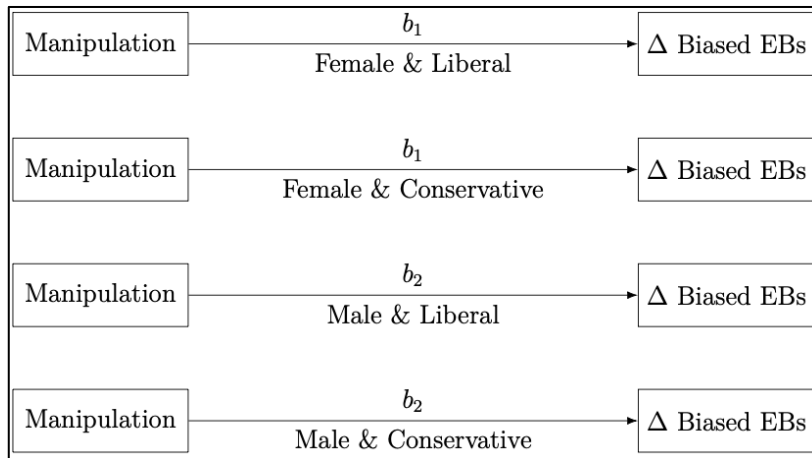
**Figure 7**

*Model 2 for H3a: Only political orientation is expected to have an effect*



**Figure 8**

*Model 2 for H3b: Only gender is expected to have an effect*



Before carrying out the analyses, the variables in question were standardized, meaning they were transformed to  $X \sim N(0,1)$ .

## Results

### Sample

Of the 397 participants, 217 were female and 180 were male. More participants identified as being on the left political spectrum (271 participants) than on the right political spectrum (126 participants). A correlation existed between gender and ideology, as noticeable in Table 2 – 176 women were liberal, and only 41 were conservative, while men were represented more or less equally on both political sides (95 liberals vs. 85 conservatives). A Pearson's correlation was calculated for the two moderators and concluded a significant correlation:  $r = -.303$   $[-0.389; -0.211]$ ;  $t(395) = -6.319$ ,  $p < .001$  in the expected direction. This reaffirmed the use of ANCOVAs and inclusion of covariates in H1a, H1b, H2a and H2b.

**Table 2**  
*Sample descriptives*

|                 |                 | Gender      |             |             |
|-----------------|-----------------|-------------|-------------|-------------|
|                 |                 | Male        | Female      | Total       |
| Ideology        | Left            | 95 (23.9%)  | 176 (44.3%) | 271 (68.3%) |
|                 | Ingroup-biased  | 34 (8.6%)   | 74 (18.6%)  | 108 (27.2%) |
|                 | Outgroup-biased | 16 (4%)     | 27 (6.8%)   | 43 (10.8%)  |
|                 | Unbiased        | 45 (11.3%)  | 75 (18.9%)  | 120 (30.2%) |
|                 | Right           | 85 (21.4%)  | 41 (10.3%)  | 126 (31.7%) |
|                 | Ingroup-biased  | 22 (5.5%)   | 9 (2.3%)    | 31 (7.8%)   |
|                 | Outgroup-biased | 25 (6.3%)   | 12 (3%)     | 37 (9.3%)   |
|                 | Unbiased        | 38 (9.6%)   | 20 (5%)     | 58 (14.6%)  |
|                 | Total           | 180 (45.3%) | 217 (54.7%) | 397 (100%)  |
| Ingroup-biased  | 56 (14.1%)      | 83 (20.9%)  | 139 (35%)   |             |
| Outgroup-biased | 41 (10.3%)      | 39 (9.8%)   | 80 (20.2%)  |             |
| Unbiased        | 83 (20.9%)      | 95 (23.9%)  | 178 (44.8%) |             |

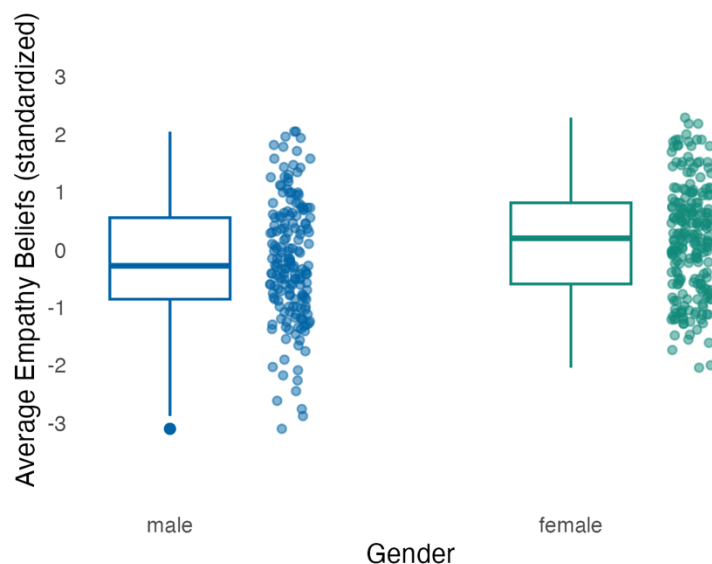
### Testing the hypotheses

As a prerequisite for the ANCOVAs, Levene's tests for homogeneity of variance were carried out. The results are presented with each hypothesis. Concerning the prerequisite of normality of distributions, according to the central limit theorem, normality can be assumed in large samples (Field, 2012), when the sample size exceeds  $n=60$  (Arachige & Researcher, 2025), which is the case in the current study. In addition, the covariate and the independent variable are independent of each other, which is another prerequisite for conducting an ANCOVA.

H1a predicted women to have higher empathy beliefs than men. This was tested with an ANCOVA. Homogeneity of variance was assessed using the Levene's test, which showed equal variances can be assumed ( $p=.342$ ). Results are presented in Table 3. The analysis revealed that men and women differ significantly in their empathy beliefs ( $p<.001$ ), with women having higher empathy beliefs than men, as depicted in Figure 9. The effect has a small to medium effect size (partial  $\eta^2 = .04$ ).

**Table 3***ANCOVAs for hypotheses H1a, H1b, H2a and H2b*

|            | Df  | Sum Sq | Mean Sq | F value | Pr(>F) | Eta2 (partial)   |
|------------|-----|--------|---------|---------|--------|------------------|
| <b>H1a</b> |     |        |         |         |        |                  |
| Gender     | 1   | 14.26  | 14.26   | 15.16   | <.001  | .04 [.01, 1.00]  |
| Ideology   | 1   | 11.13  | 11.13   | 11.83   | <.001  | .03 [.01, 1.00]  |
| Residuals  | 394 | 370.61 | 0.94    |         |        |                  |
| <b>H1b</b> |     |        |         |         |        |                  |
| Ideology   | 1   | 18.70  | 18.70   | 19.88   | <.001  | .05 [.02, 1.00]  |
| Gender     | 1   | 6.70   | 6.70    | 7.12    | .008   | .02 [.00, 1.00]  |
| Residuals  | 394 | 370.61 | 0.94    |         |        |                  |
| <b>H2a</b> |     |        |         |         |        |                  |
| Gender     | 1   | 5.64   | 5.64    | 5.72    | .017   | .01 [.00, 1.00]  |
| Ideology   | 1   | 1.62   | 1.62    | 1.64    | .201   | <.01 [.00, 1.00] |
| Residuals  | 394 | 388.73 | 0.99    |         |        |                  |
| <b>H2b</b> |     |        |         |         |        |                  |
| Ideology   | 1   | 0.24   | 0.24    | 0.25    | .620   | <.01 [.00, 1.00] |
| Gender     | 1   | 7.02   | 7.02    | 7.12    | .008   | .02 [.00, 1.00]  |
| Residuals  | 394 | 388.73 | 0.99    |         |        |                  |

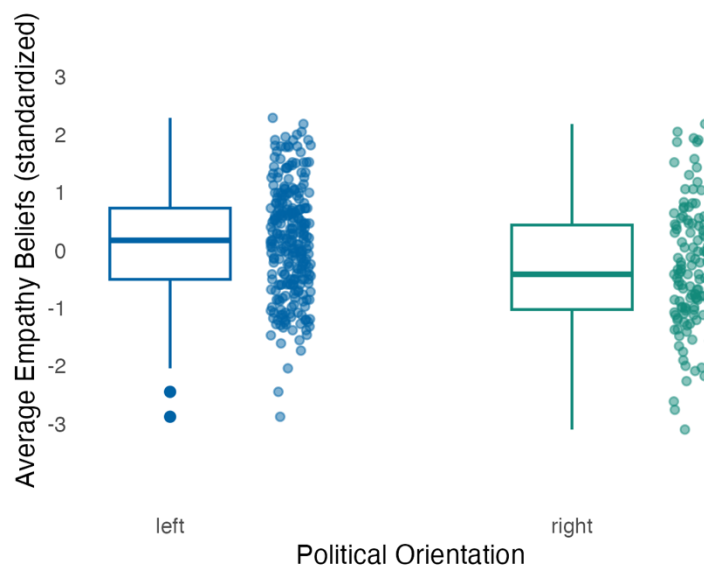
**Figure 9***H1a: Empathy beliefs in women and men*

H1b stated that empathy beliefs are higher in liberal participants than in conservative participants. As a prerequisite, a Levene's test for homogeneity of variance

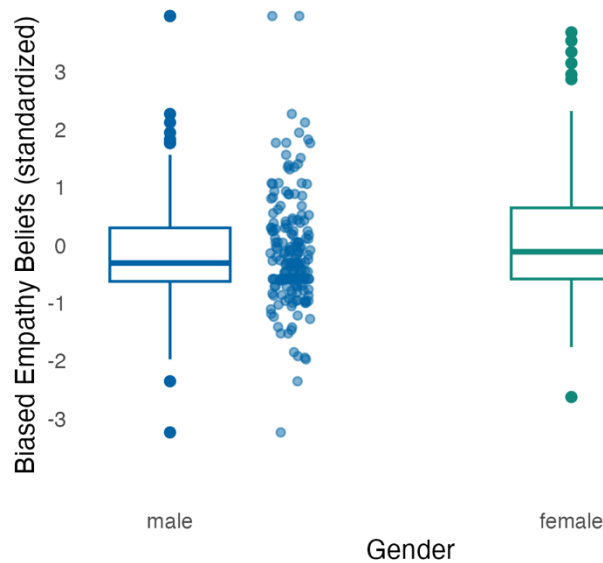
was done, which turned out not significant ( $p=.155$ ), meaning equal variances can be assumed. The ANCOVA analysis concluded liberals and conservatives differed significantly in their empathy beliefs ( $p<.001$ ), with liberal participants having higher empathy beliefs. Results are described in Table 3 and depicted in Figure 10. The effect size is small to medium (partial  $\eta^2 = .05$ ).

**Figure 10**

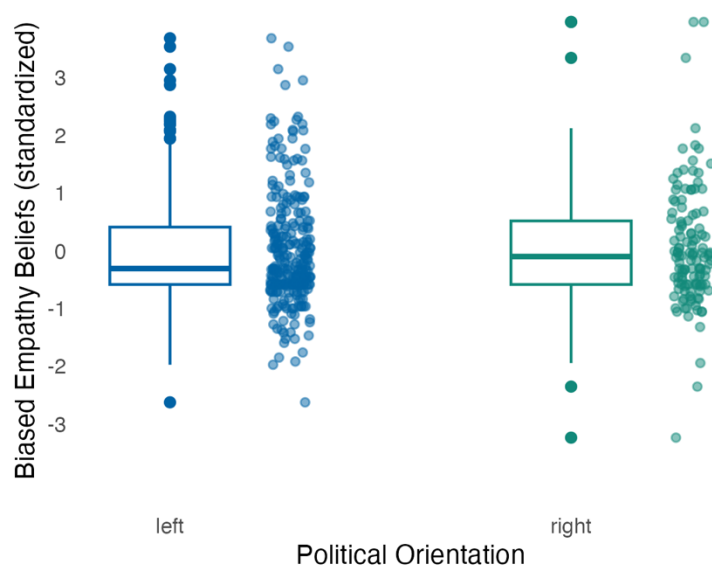
*H1b: Empathy beliefs in liberals and conservatives*



H2a predicted that women have higher biased empathy beliefs than men, meaning the difference between empathy beliefs towards ingroup and outgroup targets is bigger in male than in female participants. The Levene's test turned out not significant ( $p=.436$ ), so variances can be expected to be homogenous. An ANCOVA was used and it yielded a significant result ( $p=.017$ ), as shown in Table 3. However, contrary to expectations, women showed more biased empathy beliefs than men, with a small effect size (partial  $\eta^2 = .01$ ). Figure 11 depicts biased empathy beliefs in women and men.

**Figure 11***H2a: Biased empathy beliefs in women and men*

H2b stated that conservatives show higher biased empathy beliefs than liberals. The prerequisite for homogeneity of variances, tested with Levene's test, was fulfilled ( $p=.912$ ). For analysis, an ANCOVA was done, which did not result in a significant effect ( $p=.620$ ), meaning empathy beliefs were not significantly more biased in either population. Results are depicted in Table 3 and Figure 12.

**Figure 12***Biased empathy beliefs in liberals and conservatives*

H3a predicted the difference between the effect of exposure to ingroup-biased vs. outgroup-biased empathy beliefs on biased empathy beliefs to be smaller among women than among men. For this, a multigroup-analysis using structural equation models was done. The results, as shown in Table 4, showed no significant effects ( $p=.388$ ), meaning the first model did not fit to the data significantly better than the second model. The effect of the manipulation on biased empathy beliefs did not differ significantly in women and men.

**Table 4**

*Multigroup-analysis (SEM) for H3a*

|                             | <b>D</b> |            |            | <b>Chi</b> | <b>Chi</b>    | <b>RMS</b> | <b>Df</b>   | <b>Pr(&gt;C</b> |
|-----------------------------|----------|------------|------------|------------|---------------|------------|-------------|-----------------|
|                             | <b>f</b> | <b>AIC</b> | <b>BIC</b> | <b>q</b>   | <b>q diff</b> | <b>EA</b>  | <b>diff</b> | <b>hisq)</b>    |
| model_free_estimates        | 0        | 631.97     | 672.64     | 0.00       |               |            |             |                 |
| model_restricted1_estimates | 2        | 629.86     | 663.75     | 1.89       | 1.89          | 0          | 2           | .388            |

H3b predicted the difference between the effect of exposure to ingroup-biased vs. outgroup-biased empathy beliefs on biased empathy beliefs to be smaller among liberals than among conservatives. For this, a multigroup-analysis using structural equation models was done. The results, visible in Table 5, were not significant ( $p=.250$ ), meaning the first model did not fit to the data significantly better than the second model. The effect of the manipulation on biased empathy beliefs did not differ significantly in liberals and conservatives.

**Table 5**

*Multigroup-analysis (SEM) for H3b*

|                             | <b>D</b> |            |            | <b>Chi</b> | <b>Chi</b>    | <b>RMSE</b> | <b>Df</b>   | <b>Pr(&gt;C</b> |
|-----------------------------|----------|------------|------------|------------|---------------|-------------|-------------|-----------------|
|                             | <b>f</b> | <b>AIC</b> | <b>BIC</b> | <b>sq</b>  | <b>q diff</b> | <b>A</b>    | <b>diff</b> | <b>hisq)</b>    |
| model_free_estimates        | 0        | 631.97     | 672.64     | 0.00       |               |             |             |                 |
| model_restricted2_estimates | 2        | 630.74     | 664.63     | 2.77       | 2.77          | .08         | 2           | .250            |

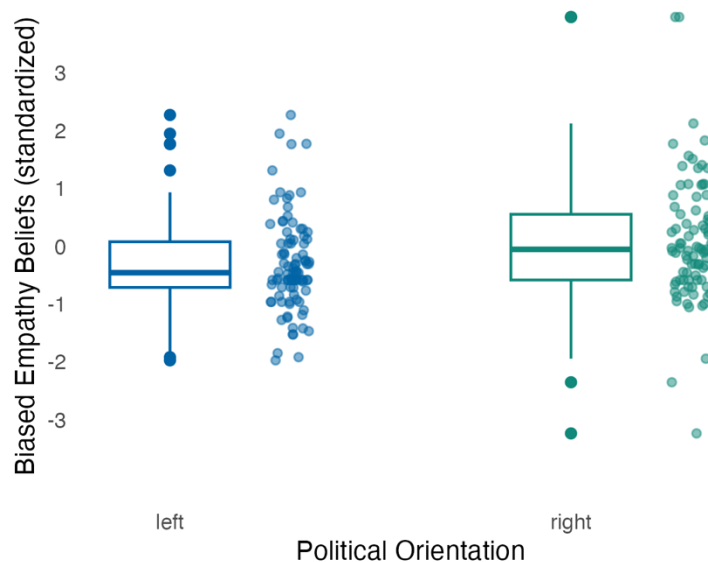
### Exploratory Analyses

Contrary to expectations, though H2a had significant results, women turned out to have more biased empathy beliefs than men. To further investigate this effect, two samples *t*-tests were performed to compare the biased empathy beliefs of liberal

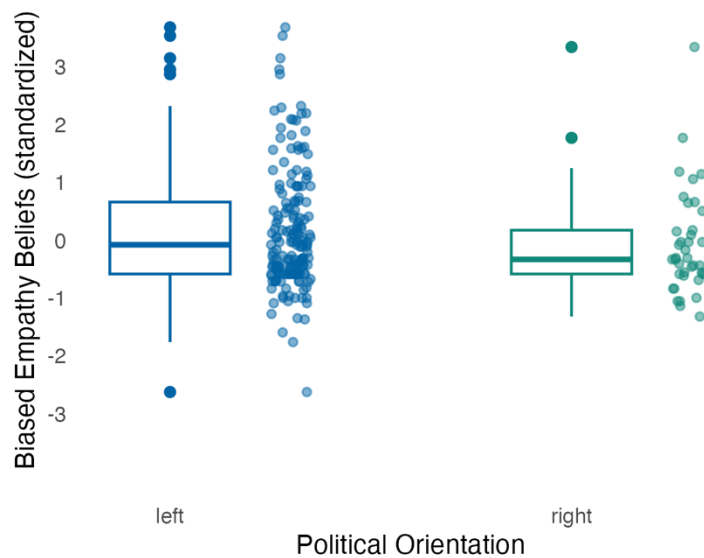
women to those of conservative women, as well as those of liberal men to those of conservative men. This was done to get a better understanding of how this difference in biased empathy beliefs came to be. Before conducting the  $t$ -tests, Levene's tests for homogeneity were done. These turned out not significant for both men ( $p=.083$ ) and women ( $p=.264$ ), which validated the use of two sample  $t$ -tests. The  $t$ -test comparing biased empathy beliefs in liberal men and conservative men turned out significant ( $t(178)=-2.88, p=.004$ ), with an effect size of Cohen's  $d= 0.43$  [0.14; 0.73]. As seen in Figure 13, empathy beliefs in conservative men were more biased than in liberal men.

**Figure 13**

*Biased empathy beliefs in liberal vs. conservative men*



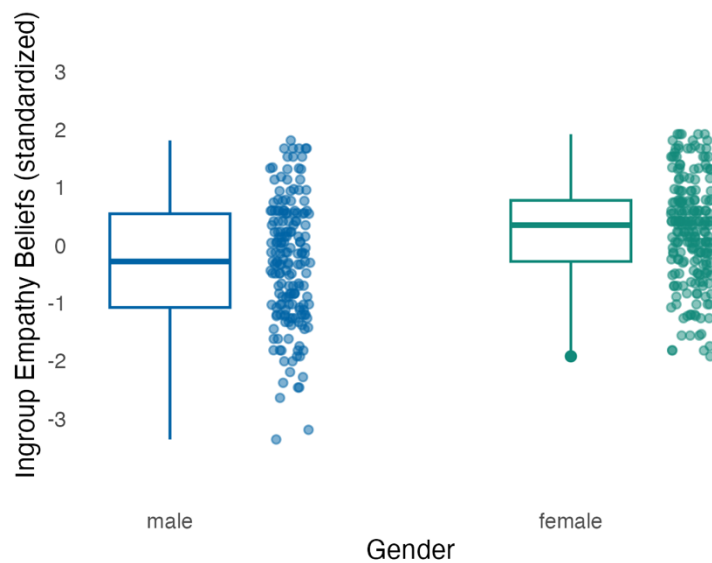
The  $t$ -test looking at the difference in biased empathy beliefs of liberal and conservative women had no significant effect ( $t(215)=1.21, p=.230$ ). Results can be seen in Figure 14.

**Figure 14***Biased empathy beliefs in liberal vs. conservative women*

To see how the more biased empathy beliefs in women than men came to be, more additional exploratory analyses were done to look at the gender difference in empathy beliefs towards ingroup-targets and outgroup-targets, respectively. Levene's tests for homogeneity of variance turned out not significant for outgroup-targets ( $p=.832$ ), but significant for ingroup-targets ( $p=.005$ ), which is why Welch two sample  $t$ -tests were carried out. The  $t$ -test comparing ingroup-target empathy beliefs in men and women turned out significant ( $t(349.81)=-5.68$ ,  $p<.001$ ), with an effect size of Cohen's  $d=0.58$  [0.38; 0.78]. As seen in Figure 15, ingroup-target empathy beliefs in women were higher than in men.

**Figure 15**

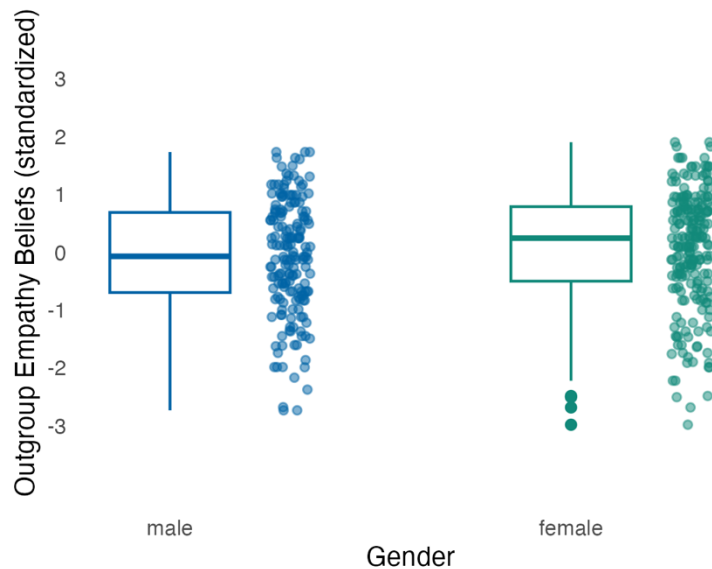
*Ingroup-target empathy beliefs in women vs. men*



The  $t$ -test looking at the difference in outgroup-target empathy beliefs of women and men had no significant effect ( $t(383.4)=-1.50, p=.134$ ). Results can be seen in Figure 16.

**Figure 16**

*Outgroup-target empathy beliefs in women vs. men*

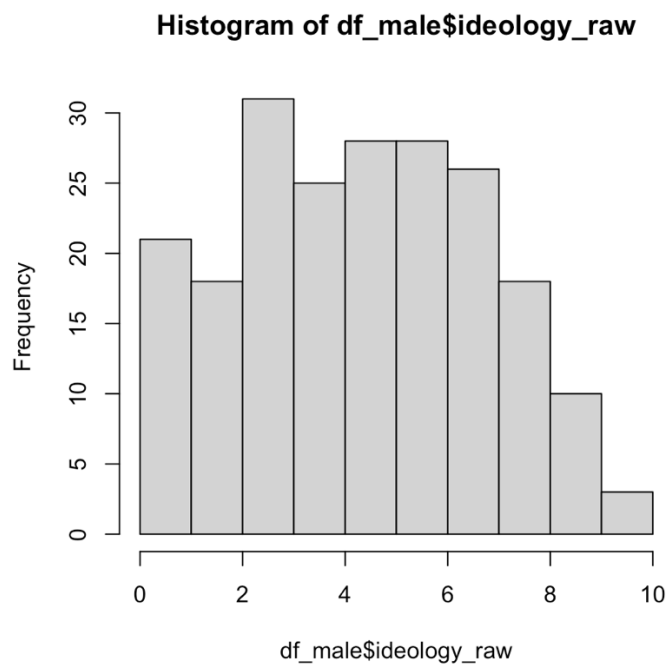


In order to better interpret the findings above, histograms showing ideological distributions in women and men were generated. For this, their political orientation scores, ranging from 0 to 10, with 0 being the most liberal, and 10 being the most

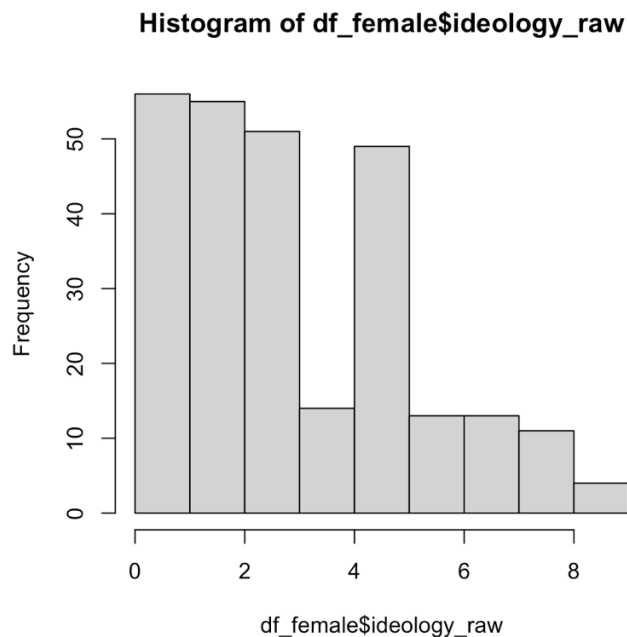
conservative score, were used. They were then transformed to the dichotomous ideology labels “left” and “right”. These histograms are shown in Figures 17 and 18, for men and women, respectively.

**Figure 17**

*Ideological distribution in men*



*Note.* The distribution was made with the data of only male participants. The x-axis represents the score on the political orientation questionnaire. A score of 0 means the person is on the very left political spectrum, a score of 5 means the person is in the middle of the political spectrum, and a score of 10 means the person is on the very right political spectrum.

**Figure 18***Ideological distribution in women*

*Note.* The distribution was made with the data of only female participants. The x-axis represents the score on the political orientation questionnaire. A score of 0 means the person is on the very left political spectrum, a score of 5 means the person is in the middle of the political spectrum, and a score of 10 means the person is on the very right political spectrum.

## Discussion

### H1: Gender and Ideology as moderators of empathy beliefs

The analysis showed that women have higher empathy beliefs than men, which confirms hypothesis H1a. This is in line with extensive past research showing that women express higher empathy than men (e.g. Benenson et al., 2021; Jie et al., 2019; McDonald & Kanske, 2023; Mestre et al., 2009). Reason for this could be the centrality of empathy for women's self-identity, and societal gender-roles. Stereotypically, women are presented as more nurturing and empathetic (Christov-Moore et al., 2014), and characteristics such as warmth and being caring are distinguished female traits (Chaulagain, 2025). This means that empathy is part of women's gender-role identity, and therefore being empathetic should be important to women's self-concept, which should show in the answers to the questionnaire. Men on the other hand are

stereotypically assertive; being caring and empathetic is not part of their gender role, meaning they are not as motivated to exhibit empathy as women are (Chaulagain, 2025; Thomas & Maio, 2008). Through the process of gender socialization, gender stereotypes being perpetuated in mass media, education, family and peer groups, gender roles are internalized on the basis of societal expectations (Chaulagain, 2025). Likewise, a study by Rajasekhar et al. (2025) suggests cultural and social factors contribute to gender differences in empathy. It can be inferred that, when empathy is seen as vital to one's self concept, then the trait itself is seen as more desirable and important, whereas, when empathy is not part of one's self concept, then one does not believe the trait to be as important.

An alternative explanation to women actually being more empathetic, and finding empathy to be a more desirable trait than men, is social desirability and self-report bias. According to Ickes et al. (2000), women feel a greater obligation to appear empathetic than men, due to socialization. Though there is a lot of literature speaking for women's empathetic ability and experience being higher, there is also literature arguing for women's superiority in empathy stemming from the assessment measure used, as mentioned above. Baez et al. (2017) suggest that self-reports induce biases leading individuals to assume gender-role stereotypes: While women portrayed themselves as being more empathetic, an experiment on actual empathy experiences showed only a small effect size for superior empathy in women. Similarly, Eisenberg & Lennon (1983) found no gender differences when the measurement used was physiological variables or observing nonverbal reactions to the emotions of others, despite self-reported empathy being higher in women than men. In accordance, Karniol et al. (1998) found that, when gender-role orientation was added as a covariate, the effect of gender on empathy did not turn out significant. Thomas and Maio (2008) found that framing empathy as useful to men's masculine identity increased men's motivation to show empathy. This underlines that gender differences in empathy may stem from social desirability, rather than an actual difference in experience. If showing empathy is seen as more positive for women than for men, then women should subsequently also evaluate empathy behavior as more desirable than men, in line with social desirability.

The current study took place in the form of a questionnaire. Therefore, finding out whether the higher desirability rating in women is due to women actually finding

empathy to be more desirable than men, or due to social desirability, is not possible. Future research could focus on finding a measure of empathy beliefs that does not rely on self-reports.

Regarding H1b, as expected, liberals showed higher empathy beliefs than conservatives. There is an abundance of literature supporting the claim that liberals are more empathetic than conservatives (e.g. Morris, 2020; Wagaman & Segal, 2014). This has been supported using neuroimaging, with liberals showing higher activity in the temporal-parietal junction, which is related to emotional and cognitive empathy, than conservatives, when observing someone suffer (Zebarjadi et al., 2023). This seems intuitive due to the liberal, egalitarian belief system building on the concern for the welfare of others (Hasson et al., 2018).

Though not concerning empathy specifically, a study found that the more liberal a person is, the more they find emotion to be functional and the more they value emotion, while conservatives may see emotion more as a bug (Choi et al., 2022). Likewise, conservatism has been shown to be associated with the motivation to avoid emotions (Leone & Chirumbolo, 2008). From this it can be inferred that the same goes for empathy: that liberals find empathy to be more functional and desirable than conservatives. Liberals have been shown to be more motivated than conservatives to feel empathy (Hasson et al., 2018). Thus, the current study expands these findings on experience and motivation with beliefs by showing that liberals also find empathy behavior more desirable than conservatives. These findings oppose literature supporting no ideological difference to be existing in empathy (e.g. Waytz et al., 2016).

## **H2: Gender and Ideology as moderators of biased empathy beliefs**

In order to interpret the results produced in hypotheses H2a and H2b, it is important to look at the findings of the underlying project. As a reminder, the first hypothesis (P1) of the project was that empathy beliefs towards ingroup members are higher than towards outgroup members – which are biased empathy beliefs. The current study looked at whether gender and political ideology are moderators of this effect. The analysis of P1, which consisted of repeated measures *t*-tests, turned out significant, confirming the existence of biased empathy beliefs. This validates looking at moderators of the found effect.

Contrary to expectations, although hypothesis H2a was significant, women seemed to have more biased empathy beliefs than men. A gender difference in biased empathy has not been the topic of a lot of research. The scarce, existing literature shows mixed results, with no clear indication for either group being more biased in their empathy. Concerning the evaluation of unfair vs fair players, men empathized less with unfair players, while women were less selective in feeling empathy (Singer et al., 2006). On the other hand, Rudman and Goodwin (2004) found women to have a more automatic ingroup bias towards their own gender. The transferability of these two findings to the current study is, however, limited, as the former study did not look at ingroups or outgroups, and the latter study did not look at empathy and the ingroup was established using only gender. A gender difference in (biased) empathy *beliefs* has subsequently been studied even less – no publications on gender moderating (biased) empathy beliefs were found while researching for the current study. This study takes a first step in this unexplored territory.

It needs to be taken into account that biased empathy beliefs were calculated by subtracting empathy beliefs towards an outgroup member from empathy beliefs towards an ingroup member. How high the empathy beliefs originally were cannot be concluded from looking at this difference. This means, even though women's bias was bigger, it does not necessarily mean their outgroup-target empathy beliefs were smaller than those of men. It is possible that only their ingroup-target empathy beliefs were higher than men's ingroup-target empathy beliefs. This is in line with the finding in hypothesis H1a, showing that women have higher empathy beliefs than men. Exploratory analyses were done to look at the difference in empathy beliefs towards an ingroup and outgroup target, respectively, between men and women. In fact, the results show that outgroup-target empathy beliefs did not differ between men and women, while ingroup-target empathy beliefs were significantly higher in women. This means that women having more biased empathy beliefs than men did not come from overly negative empathy beliefs towards outgroup-members, but rather from overly positive empathy beliefs towards ingroup-members, with empathy beliefs towards outgroup-targets not differing between women and men.

### ***Women vs. men constructing a political outgroup***

One explanation for the results of H2a could be that women and men have different ways of constructing a political outgroup. Literature has shown there to be gender differences in policy priorities and issue salience. Gidengil (1995) speaks of the “economic man” and the “social woman” and finds that men evaluate an issue in terms of economic considerations, whereas women do so on the basis of concern for social welfare (also: Bohdalová, 2025). The same is found on the politicians’ side: Female politicians prioritize social policy issues (Ennser-Jedenastik, 2017). Female legislatures concentrate on “women’s interests”, which are those related to health policy, social welfare and civil rights, among others (Yildirim, 2022). This is in line with women generally being more progressive than men (Pratto et al., 1997) – a correlation also found in the current study. This makes sense considering gender-roles, with women generally valuing compassion for others more than men, and women stereotypically being the nurturing, caring gender (Chaulagain, 2025; Christov-Moore et al., 2014). Subsequently, when being asked to imagine a political outgroup member, women may generally think of a person disagreeing with their stance on these welfare-related topics. Men, who stereotypically grow up expected to being providers and putting emotions to the side (Leone & Chirumbolo, 2008), may focus on economic disagreements. It can be expected that the person construed in the female mind poses a bigger threat to her person than the person imagined by a man. Empathizing with the person imagined by a woman may therefore seem less desirable than empathizing with the person imagined by a man, since the personal stakes are higher and the outgroup member is perceived as harmful. Also, women in the current sample were mostly quite liberal as opposed to men, who largely placed themselves around the middle. This means that women’s attitudes were more extreme than men’s, again making outgroups for the female sample more harmful than in the male sample.

On first glance, the two prior points may seem like a contradiction: on the one hand, women see their outgroup as more of a threat, which is why their biased empathy beliefs were higher than those in men; on the other hand, outgroup-target empathy beliefs did not differ significantly between men and women. These two findings can, however, exist together, since the baseline empathy beliefs of men and women were different. For women, who have higher empathy beliefs in general (as confirmed in

hypothesis H1a), outgroup targets have lower empathy beliefs than ingroup targets due to them being seen as more harmful. Men have lower baseline empathy beliefs, and less of a bias, which, in total, makes outgroup-target empathy beliefs between men and women comparable.

Exploratory analyses were done to compare liberals and conservatives in men and women separately. The interpretation of these findings is discussed together with the results of hypothesis H2b.

### ***No difference between liberals and conservatives in biased empathy beliefs***

The analysis of hypothesis H2b concluded not significant, meaning liberals and conservatives did not differ in their biased empathy beliefs. Political ideology having an influence on empathy has been the topic of a lot of research, and there has been a variety of suggestions on the nature of this influence. For example, Waytz et al. (2016) suggests that liberals and conservatives do not differ in their absolute expression of empathy, but in their targets of empathy, with liberals' compassion extending universally and to dissimilar others, while conservatives are specific in who they empathize with. Liberals, in comparison to conservatives, wanted to feel more empathy regardless of the political orientation of the target (Hasson et al., 2018). This speaks for conservatives holding more biased empathy beliefs than liberals. On the other hand, the study by Brandt et al. (2014), supports the notion that both political parties have biases, and are intolerant towards conflicting worldviews. (As a reminder, the study by Brandt et al. (2014) is discussed above concerning that targets in studies are often biased towards being liberal and that changing the target to seem conservative increases intolerance by liberal participants.) Both liberals and conservatives are motivated to belong to and feel empathy towards their ingroup and are less motivated to feel empathy for an outgroup member (Hasson et al., 2018). The findings of the current study add to literature claiming no difference between liberals and conservatives exists in biased empathy, and expands this by adding a new, underlying aspect of empathy: empathy beliefs. The current study therefore offers an explanation to studies finding no difference between political identities in biased empathy, being that underlying biased empathy beliefs that give rise to biased empathy do not differ between political identities.

In the current study, exploratory analyses were conducted to look at the difference between the political identities separately in men and women. These

analyses show that the influence of ideology on biased empathy beliefs may be more complex than previously expected. The analyses show that for men, liberal men show less biased empathy beliefs than conservative men. However, for women, no significant difference was observed, but a tendency towards liberal women having more biased empathy beliefs than conservative women can be seen in Figure 14. This means, women and men may exhibit opposite effects. This provides an alternative explanation to hypothesis H2b having no significant result, since the scores in men vs. women average themselves out. Here, it needs to be understood that these exploratory analyses do not contradict the results of hypothesis H2a. It may be confusing that liberal and conservative men differ in their biased empathy beliefs, and liberal and conservative women do not, even though women in general have more biased empathy beliefs. However, liberal and conservative women not differing in their bias does not mean that women do not show a bias – it just means that the existing bias in women does not differ between the ideologies. Women still show a higher bias in general, as seen in hypothesis H2a.

### ***Ideological distributions in men and women***

Looking at ideological distributions in both men and women (Figures 17 and 18), it can be observed that, in the sample, most women identified as being very left leaning, and only a few women put themselves on the righter left and right hemisphere. Men, on the other hand, mostly placed themselves around the middle. For H2b, this unequal distribution limits the findings. While all manifestations of “liberal” were included in either women (on the lefter-left) and men (on the middle-left), the “conservative” category was only represented on the more middle-right. Righter-right manifestations were barely expressed in the sample. It is unclear whether there would have been different results if all manifestations of political orientation had been expressed. Future research could try to get representations for all ideology-scores.

These exploratory analyses and ideological distributions also have implications for H2a. An alternative explanation to counteracting effects between the sexes, as seen in the exploratory analyses, could be that the difference between men and women actually originate from the extremity of the political identity. It can be expected that the more extreme the political attitudes, the less tolerance and empathy is given to political outgroups. Since in this sample, women are overrepresented on the very left political

spectrum and underrepresented around the middle and on the right political spectrum, it seems as if women in general show more biased empathy, though this effect may actually be traced back to the extremity of ideology. For men, whose political attitudes are around the middle, it is easier to desire empathy towards the political outgroup, since the attitudes of the political outgroup are not as far away as they are for the women on the very left. In this context, one could further look at social discounting. This concept measures the effect social distance has on prosocial behavior. More specifically, social discounting refers to the phenomenon that, when social distance increases, generosity and prosociality decreases (Jin et al., 2017). As prosociality and empathy are highly correlated (Tyagi et al., 2024), the relationship is expected to apply to empathy as well. Therefore, as women were overwhelmingly far left, while men were more in the middle of the political spectrum, social discounting was higher in women, as social distance to the outgroup was higher. This offers an explanation to the results in hypothesis H2a: women showing a higher bias may be traced back to them being politically more extreme and therefore having a greater distance to their outgroup. A phenomenon similar to social discounting and in a political context is affective polarization: dislike and distrust between political parties (Wagner, 2024). Subsequently, the more polarized the groups are, the higher the dislike and distrust. Wagner (2024) found that the further away the policies of an outgroup political party are from personal preference, the more it will be seen as a threat and the higher the affective polarization.

Multiple studies by Casey et al. (2023) found an asymmetry in empathy of liberals and conservatives towards the respective other group. Specifically, conservatives are consistently more empathetic towards liberals than liberals are towards conservatives. Similarly, Democrats disliked Republicans more than vice versa in a study by Nair et al. (2025). The authors of both studies explained this with liberals judging conservatives more harshly and seeing them as more of a threat to disadvantaged groups. Since women were overwhelmingly on the very left political spectrum, while men were around the middle, liberals judging conservatives more harshly in the studies by Casey et al. (2023) and Nair et al. (2025) can be paralleled with women judging their outgroups more harshly, as seen in hypothesis H2a in the current study. However, this would not explain why hypothesis H2b was not significant. Thus,

due to the uneven distribution, there are difficulties separating the effects of the two moderators, despite covariates being added. This difficulty is discussed further in the limitations section.

### **H3: Gender and Ideology as moderators of the effect of social networks on biased empathy beliefs**

For H3a and H3b, moderators were hypothesized for the results of the underlying project, which are briefly explained in the following, to put the current findings into context: using two linear mixed model analyses, it was found that the ingroup-biased condition resulted in more biased empathy beliefs than the unbiased condition in both experiments, as hypothesized (P2a). However, the outgroup-biased condition only resulted in less biased empathy beliefs in the first experiment, where the manipulated graphs reportedly originated from an ingroup-population, but not in the second experiment, where the graphs were said to stem from an outgroup-population (P2b). This speaks for social norms having an effect mainly when the norms come from an ingroup, as supported in literature (e.g. Christensen et al., 2004; Knippenberg & Wilke, 1992; Rimal & Real, 2005). The current study aimed to test whether this social influence is moderated by gender or ideology in the hypotheses H3a and H3b. Both multigroup-analyses turned out not significant. This means that women and men, as well as liberals and conservatives, were affected equally by exposure to the manipulation. This indicates that social networks and norms influence these groups to the same extent – one group does not adjust their beliefs to fit those of social networks more than the other group.

Originally, it was believed in the hypotheses that women and liberals will be less influenced due to them having higher empathy beliefs in general. Their stereotypically caring and empathetic nature was expected to override social influence. For H3a, after further research, the opposite effect – women adjusting their beliefs to the social norms more than men – has also been discussed in literature. On the one hand, women have been shown to be more susceptible to social influence and conformity (e.g. Cacioppo & Petty, 1980; Nord, 1969) due to communal qualities being a prominent female gender role (Eagly, 2013). On the other hand, Weinschenk et al. (2018) found no gender difference in social conformity and suggest that previous research supporting female influenceability neglects contextual information that rather yield the gender differences.

This latter view supports the current finding that attitude changes after exposure to the beliefs of social networks do not differ between genders. Regarding H3b, studies have found that conservatives, more so than liberals, prioritize conformity, exaggerate consensus within a group, and are influenced by (social cues of) similar others (Jost et al., 2018). This finding is in line with the original expectation of hypothesis H3b that conservatives would be more susceptible to social influence than liberals. However, no such effect was found, suggesting both liberals and conservatives are influenced by social networks to a similar extent.

### **Implications**

Before getting into practical implications, the current study has theoretical implications for research. There is an infinite amount of literature on empathy and also on an ingroup bias existing in empathy. The current study shifts its focus from empathy experience and empathy motivation to empathy beliefs. It is not about how people feel and how they want to feel but what behavior they find desirable. It examines biased empathy beliefs as a mechanism in political contexts. More specifically, it advances the argument that biased empathy beliefs give rise to biased empathy. People may not simply empathize more with an ingroup member and less with an outgroup member but may first view empathizing with an outgroup member as an undesirable behavior, which then may lead them to avoid empathy towards outgroups and vice versa for ingroups. This direction from beliefs to experiences has been discussed and supported in literature (e.g. Ford & Gross, 2019: concerning emotion beliefs). By testing how these beliefs are shaped through social norms and networks, the study contributes a more foundational explanation for why empathy becomes selective and politically polarized in the first place.

The findings suggest that the original idea that higher empathy beliefs translate to less bias cannot be assumed. On the contrary, the relationship between empathy beliefs and bias is more complex than initially thought, with women having more biased empathy beliefs and the bias presumably rising the more ideologically extreme a person gets. This means that interventions designed to foster cross-partisan understanding should not only focus on increasing empathy beliefs in general, but specifically on increasing the desirability of empathy towards outgroup members.

A second implication concerns the role of social networks in establishing empathy towards groups. The broader project found the influence of social networks to only be effective when the norms were ingroup-norms. In the present analyses, the influence of social network was not moderated by gender or ideology, suggesting interventions may work similarly across these groups. Importantly, political communication, campaigns and interventions should prioritize ingroup messengers who encourage empathy towards outgroups, as the source of the norm appears to matter more than what gender or ideology the audience has.

Understanding empathy beliefs and its ingroup and outgroup bias is especially important in political contexts. Santos et al. (2022) stated that believing in the utility of cross-partisan empathy could influence a person's openness to productive contact and communication. The authors found that empathy beliefs drive attitudes, for example by enhancing the desire for cooperation, and reducing moral disengagement, social distance and out-partisans' animosity. In the context of increasing political polarization and the subsequent hostility between groups (Churcher, 2025), finding ways to counteract this negative effect is very valuable. Increasing empathy has been shown to decrease prejudice (Vanman, 2016), and the same can be expected when increasing empathy beliefs. Interventions aimed at increasing cooperation and liking between political groups should therefore turn to empathy beliefs. Interventions should make such behavior seem desirable by explaining advantages of positive cross-partisan empathy beliefs on hostility and trust across group lines, and show that the political ingroup also finds such behavior useful. Explaining to people the benefits of cross-partisan empathy, and making such behavior seem desirable could go a long way in fostering harmony between groups.

More generally, this study adds to literature showing beliefs are socially shapeable – in this case, empathy beliefs. This is important for interventions aiming at counteracting affective polarization and decreasing out-partisans' animosity. At the same time, the findings warn against simplistic assumptions, such as that women are less biased, more easily influenced, or that liberals are more open towards political opponents. In reality, the effects and relationships are more complex and may depend on ideological distance and perceived threat.

## Limitations

Some limitations have already been touched upon in the course of this paper. Because of the reliance on self-reports due to the questionnaire used, it is unclear how socially desirable the answers were. Since the items directly address the desirability of empathy towards the ingroup vs. outgroup in the two scenarios, it is probable that the participants saw through the purpose of the study. Also, since the only thing separating the two halves of the BADES scale was one graph on social norms, repetition effects cannot be excluded.

Another limitation concerns the sample composition. The participants were comprised of only UK residents aged 18-35 years old. Participants that did not fit into the binary categories “woman” and “man”, or were coded as politically neutral, were excluded from analyses. This reduces the generalizability of the results.

Another problem has been mentioned multiple times already: political orientation was not evenly distributed among women and men. Instead, women were mostly farther left, while men were placed around the middle. Because of this, the category “liberal” may mean something different in women than in men. Although covariates were used, this pattern makes it difficult to fully separate gender effects from ideology effects, which becomes especially evident in the result interpretation of hypothesis H2a. By simply putting the participants into the two categories “liberal” and “conservative”, valuable information is lost and the categorization of political orientation may fall too short. This distribution also has a statistical limitation: conservative women constitute a rather small group for statistical analyses. The ideological distribution also means that, while all manifestations of liberals were present in the study, representations for the farther right were scarce. Another statistical limitation especially concerns the hypotheses H3a and H3b: since the data came from the underlying project, the current study had to make do with its sample size. Considering the complexity of the analyses of those two hypotheses, it is possible that the sample size was not big enough and the power was too small to find an effect.

Another limitation comes from the study design. Participants were asked to imagine a political ingroup and outgroup member. First of all, they were not asked on which characteristics they based the imagined person. As delineated while discussing the results, there may be systematic differences in what features a person bases this

imagination on. Second, due to the rather simple study design, ecological validity is compromised. How the findings in this study can be transferred to everyday situations, which are far more complex and in which a lot more variables need to be accounted for, is questionable.

### **Future research**

Given these limitations, future research should aim to address and overcome them. Firstly, future research should focus on examining empathy beliefs with different methods, other than self-reports. As discussed above, whether higher empathy beliefs in women stem from gender-roles or social desirability cannot be differentiated in this study. Finding behavioral or implicit measures of empathy beliefs would be valuable.

Measuring political orientation as a continuous variable rather than a dichotomous variable could give valuable insight into the relationship of ideology and empathy beliefs. The analyses show that ideological extremity may explain part of the gender effect, since women are positioned on the left, whereas men are positioned around the middle. Future studies could therefore test whether ideological extremity and perceived social distance predict biased empathy beliefs better than the simple classification into liberal and conservative. Using a continuous measure of political orientation would also include neutral participants that do not identify as liberal or conservative.

In the current study, the sample consisted of only UK residents between the ages of 18 and 35 years old. Replicating the findings in a cross-cultural context with more diverse samples should be another focus in future research. Future samples should also include a broader range of political orientations. In addition, future research could use more real-life situations, rather than simply being shown a graph and the BADES scenarios. Longitudinal studies and interventions, in a not-laboratory setting, could look at how (interventions of) empathy beliefs translate into day-to-day behaviors and interactions, as well as related variables. The underlying project takes a step into this direction, by looking at social media tendency behavior.

Finally, it would also be interesting to look at other empathy beliefs. Beliefs on the malleability of empathy and their influence on empathetic effort has been the topic of little research (Schumann et al., 2014). Beliefs concerning the limit of empathy may also lead to biased empathy, if the limited resources are preferably exhausted on people

close to oneself, which are probably ingroup members, than on people not close to oneself, which are probably outgroup members (Ackerman et al., 2007). If people are influenced in a way that their belief in an empathy-limit is decreased, it is possible their empathy is extended towards outgroup members as well, which reduces the bias. How such beliefs about the malleability or limit of empathy can be shaped by social networks and what influence they have on (a bias in) empathy behavior would investigate the empathy phenomenon from a different perspective.

## **Conclusion**

This study contributes to emerging research on empathy beliefs by showing that the desirability of empathy in political contexts is not only shaped by social networks, but also by individual differences in gender and ideology. Specifically, women showed higher empathy beliefs than men, which may be led back to gender-role socialization. Liberals found empathy to be more desirable than conservatives, overall, as well. Women were more biased in their empathy beliefs. Reasons for this could be them seeing outgroup members as more of a threat than vice versa, and social distancing being higher due to the distribution of ideology of women vs. men. Liberals and conservatives did not differ significantly, although the exploratory analyses suggest that conservative men were more biased than liberal men, while liberal and conservative women did not differ. Lastly, gender and political orientation did not moderate the effect of social networks on biased empathy beliefs. This shows that it is more important *who* delivers the social norms, than what gender or political orientation the target has.

Empathy beliefs are a phenomenon that has so far been understudied. This study is one of the first to look at the different factors that influence empathy beliefs, and it theorizes that biased empathy beliefs give rise to biased empathy. Understanding how social networks shape the desirability of empathy may be an important step towards reducing political polarization and bettering cross-partisan relations.

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## Appendix A

### Abstract (English)

In politically polarized contexts, empathy has been proposed as a way to reduce cross-partisan hostility and affective polarization, yet little research exists examining the beliefs people hold about empathy itself – empathy beliefs. This thesis investigates empathy desirability, and whether gender and political orientation moderate empathy desirability, as well as the influence social networks have on it. The thesis explores the idea that biased empathy beliefs may give rise to biased empathy, meaning that an ingroup-and outgroup-bias exists in empathy beliefs. In this study, data was used from two preregistered experiments, in which participants completed the Beliefs About the Desirability of Empathy Scale (BADES) before and after exposure to manipulated norm information indicating that empathizing with political ingroup or outgroup members is desirable, undesirable, or neutral. The sample consisted of 397 UK residents, aged 18 to 35. Results show that women and liberal participants reported higher empathy beliefs than men and conservative participants, respectively. Contrary to expectations, women were more biased in their empathy beliefs than men, while there were no ideological differences in biased empathy beliefs overall. In addition, gender and political orientation did not significantly moderate the effect of social networks on biased empathy beliefs. The findings suggest that individuals differ in their empathy desirability depending on gender and political orientation, but that these relationships are more complex than expected. The results and implications are thoroughly discussed.

*Keywords:* Empathy Beliefs, Empathy Desirability, Biased Empathy Beliefs, Biased Empathy, Empathy, Social Networks

## Appendix B

### Abstract (German)

In politisch polarisierten Kontexten wurde Empathie vorgeschlagen, um Partei-übergreifende Feindseligkeit und affektive Polarisierung zu reduzieren. Es existiert jedoch nur wenig Forschung zu Überzeugungen, die Menschen über Empathie selbst haben – sogenannte Empathieüberzeugungen. Diese Arbeit untersucht die Erwünschtheit von Empathie sowie die Frage, ob Geschlecht und politische Orientierung die Empathieerwünschtheit und den Einfluss sozialer Netzwerke darauf moderieren. Die Arbeit wirft dabei die Idee auf, dass verzerrte Empathieüberzeugungen zu verzerrter Empathie führen können, also, dass ein Ingroup-und Outgroup-Bias in Empathieüberzeugungen existieren. In dieser Studie wurden Daten aus zwei präregistrierten Experimenten verwendet, in denen die Teilnehmenden den Fragebogen *Beliefs About the Desirability of Empathy Scale* (BADES) vor und nach der Konfrontation mit manipulierten Norminformationen ausfüllten, die vermittelten, dass Empathie gegenüber Mitgliedern einer politischen Ingroup oder Outgroup wünschenswert, unerwünscht oder neutral sei. Die Stichprobe bestand aus 397 im Vereinigten Königreich lebenden Personen im Alter von 18 bis 35 Jahren. Die Ergebnisse zeigten, dass weibliche bzw. liberale Teilnehmende höhere Empathieüberzeugungen berichteten als männliche bzw. konservative Teilnehmende. Entgegen den Erwartungen waren Frauen in ihren Empathieüberzeugungen stärker verzerrt als Männer, während sich insgesamt keine ideologischen Unterschiede in verzerrten Empathieüberzeugungen zeigten. Darüber hinaus moderierten Geschlecht und politische Orientierung den Einfluss sozialer Netzwerke auf verzerrte Empathieüberzeugungen nicht signifikant. Die Ergebnisse legen nahe, dass sich Personen in der Erwünschtheit von Empathie in Abhängigkeit von Geschlecht und politischer Orientierung unterscheiden, dass diese Zusammenhänge jedoch komplexer sind als erwartet. Die Ergebnisse und ihre Implikationen werden ausführlich diskutiert.

**Schlagwörter:** Empathieüberzeugungen, Empathieerwünschtheit, Verzerrte Empathieüberzeugungen, Verzerrte Empathie, Empathie, Soziale Netzwerke

## Appendix C

### Declaration of AI-use

At the start of writing my thesis, I tried looking for literature with the help of ChatGPT. I realized quickly that the literature it gave me did not fit my prompts at all, so I gave up on searching for literature using AI. Therefore, for my thesis, no AI was used für literature search. While analyzing my data, I used Chat-GPT for debugging R.

### Erklärung zur Verwendung von Künstlicher Intelligenz (KI)

Hiermit erkläre ich, dass ich die folgenden KI-Hilfsmittel zur Erstellung meiner Masterarbeit mit dem Titel „Gender and Political Orientation as Moderators of the Effect of Social Networks on Empathy Desirability in Political Contexts“ verwendet habe. Ich versichere, dass die Kennzeichnung der verwendeten KI-Hilfsmittel vollständig ist, inkl. Verwendungszweck, Produktname, als auch ggfs. Prompts und Outputs des KI-Hilfsmittels. Ich verantworte die Auswahl und die Übernahme sämtlicher Ergebnisse der von mir verwendeten KI-Hilfsmittel vollumfänglich selbst.

| Verwendungszweck*    | Produktname des KI-Hilfsmittels | Ggfs. Prompt (Input) und Output des KI-Hilfsmittels  |
|----------------------|---------------------------------|------------------------------------------------------|
| Fehlermeldungen in R | ChatGPT                         | Erklärung der Fehlermeldung und Behebung des Fehlers |

\* Hilfsmittel zur Überprüfung von Grammatik und Rechtschreibung oder der automatisierten Erstellung des Literaturverzeichnisses sind von dieser Erklärung ausgenommen.

Anfangs habe ich probiert, Literatur mithilfe von ChatGPT zu suchen. Ich habe schnell eingesehen, dass es mir keine Literatur ausgespuckt hat, die zu meinen Prompts gepasst hat. Daher habe ich aufgegeben, mit KI Literatur zu finden. Für meine Literatursuche wurde daher keine KI verwendet. Bei meiner Datenanalyse habe ich ChatGPT bei Fehlermeldungen in R verwendet.