

**Born this way? National collective narcissism, implicit homophobia and
homosexual essentialism in populist Poland**

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Abstract

Prejudice towards the LGBT community has become prevalent in Poland and several other countries under ultraconservative populist governments. Cross-sectional analyses in three studies ($N_1 = 879$, $N_2 = 324$, and $N_3 = 374$) indicate that Polish collective narcissism - the belief that the exaggerated greatness of the nation is not recognized by others - predicts the intuitive disapproval of gay men and implicit homophobia. Those associations are to a large extent explained by the relationships between collective narcissism and essentialist beliefs about homosexuality: (1) the belief that groups defined by sexual orientations are essentially distinct; (2) the belief that homosexuality is a personal choice; and (3) the belief that homosexuality is not culturally universal. The experimental results in Study 3 indicate that inducing the belief that non-normative sexuality is culturally universal and pre-determined reduces implicit homophobia. Collective narcissism does not moderate this effect.

Keywords: Implicit homophobia, intuitive disapproval of gay men, national collective narcissism, essentialist beliefs about homosexuality, populism

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In the 2023 ILGA-Europe Rainbow Index Poland received the lowest ranking of any EU member-state (ILGA-Europe, 2023). The Rainbow Index ranks European countries on the extent to which their LGBT citizens enjoy legal equality, specifically on the basis of laws and policies that have a direct impact on LGBT people's human rights in seven categories: equality and non-discrimination; family; hate crime and hate speech; legal gender recognition; bodily integrity; civil society space; and asylum.

In their attempts to limit the definition of the 'people' in whose name they claim to speak and thereby delegitimise any voices that oppose their rhetoric and behaviour, populist politicians in Poland have weaponized homophobia, with homosexuality presented as an 'ideology' and 'civilizational invasion' antagonistic to traditional family values rooted in the teachings of the Catholic Church (Santora, 2019). The LGBT community has been labelled a 'rainbow plague' (Reuters, 2019) and in 2019 several cities declared themselves 'LGBT free zones' (Noack, 2019), with a Polish magazine announcing its intention to distribute 'LGBT free zone' stickers nationwide (Giordano, 2019).¹ Participants of the first pride parade in the conservative Polish town of Bialystok were violently attacked by alt right activists (Santora, 2019). The COVID-19 pandemic intensified animosity towards the LGBT community, and the 'anti-LGBT ideology' narrative was at the core of Andrzej Duda's 2020 presidential campaign (Golec de Zavala, Bierwiazzonek, et al., 2021; Walker, 2020). As homophobia increases with the growing support for populist governments (Russell, 2019), understanding the psychological predictors of homophobia has acquired topicality and urgency.²

¹ While the specific focus of our research is gay men, we refer to the broader LGBT community when discussing social attitudes towards both sexual and gender minorities in Poland. This is not to suggest that our findings can necessarily be applied to lesbians, bisexual and trans* individuals. We use the term 'homosexual' when referring to legal or political debates or if this is the term used in scientific publications we cite.

² We acknowledge that the concept of 'homophobia' – commonly understood as the 'irrational fear or intolerance of homosexuality or homosexual persons' (Herek, 1986, p. 563) – is controversial as it psychologises prejudice against homosexual people in the sense that 'an irrational fear' is not the fault of the person exhibiting the phobic reaction. In addition, phobias are generally understood to be individual phenomena, whereas homophobia can be promoted by groups

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National collective narcissism has been identified as a robust predictor of overt and explicit homophobia in Poland (Golec de Zavala, Bierwiazzonek, et al., 2021; Górska & Mikołajczak, 2015; Mole et al., 2022). National collective narcissism is a belief that the exaggerated greatness of the nation is not sufficiently recognized by others (Golec de Zavala et al., 2009, 2019; Golec de Zavala & Lantos, 2020). It is a robust predictor of explicit prejudice towards stigmatized groups within the nation (e.g., women, Golec de Zavala, Bierwiazzonek, et al., 2021; immigrants, ethnic minorities, Golec de Zavala et al., 2020). However, research is yet to establish whether collective narcissism predicts *implicit* prejudice. We address this gap by examining the association between Polish collective narcissism and implicit homophobia. Seeking to extend findings that homophobia is inspired by traditional beliefs about gender roles and homosexuality as a threat (Ayoub, 2014; Golebiowska, 2017; Mole et al., 2022), we also examine whether the relationship between collective narcissism and homophobia is mediated by essentialist beliefs about homosexuality, people's lay theories populists typically promote regarding the distinctiveness, immutability, and universality of homosexuality (Haslam & Levy, 2006; Rothbart & Taylor, 1992; Yzerbyt et al., 2001). Finally, we test whether inducing the essentializing 'born this way' belief about sexual orientations reduces implicit homophobia on low levels of collective narcissism.

Polish collective narcissism and homophobia

Like other forms of prejudice, homophobia is a function of normative beliefs maintained by societies, within which groups defined by non-normative sexual orientations are nested. Expressing prejudice that is supported and normative in a nation is one of the ways of declaring national identity (Crandall et al., 2002; Jost & Banaji, 1994; North & Fiske, 2014; Sidanius & Pratto, 1999). Beliefs justifying prejudice are accepted by members of advantaged (Lowery et al., 2006) and disadvantaged sub-groups within a nation (Dovidio et al., 2007, 2009), especially those high on national collective narcissism

and governments, as is the case in Poland. In this article, we use 'homophobia' in a broad sense to refer to negative attitudes towards sexual minorities.

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(Golec de Zavala & Bierwiazzonek, 2021; Mole et al., 2022). National collective narcissism predicts prejudice over and above other robust predictors such as political conservatism, right wing authoritarianism, or social dominance orientation (Golec de Zavala et al., 2019; Golec de Zavala, Bierwiazzonek, et al., 2021; Golec de Zavala & Bierwiazzonek, 2021).

Previous studies suggest that Polish collective narcissists explicitly express homophobia to demonstrate their national and religious identity (Mole et al., 2022). However prejudice is often ingrained in societal institution and acquired during socialization as pervasive, self-perpetuating implicit bias. To the best of our knowledge no previous research examined the link between collective narcissism and implicit prejudice. In the present project we attempted to answer the question whether Polish collective narcissism is linked to implicit homophobia, an intuitive negative evaluation of homosexuality that goes beyond overt homophobia that serves to demonstrate social allegiance? We examined whether Polish collective narcissism is associated with two forms of implicit homophobia: (1) the intuitive moral disapproval of gay men and (2) automatic preference for heterosexuality over homosexuality (Banse et al., 2001; Greenwald et al., 2002; Hatzenbuehler et al., 2009; Inbar et al., 2009; Rowatt et al., 2006). In societies in which homophobia is openly expressed in public spaces, implicit homophobia may be harbored regardless of whether people explicitly endorse it. It is important to investigate implicit bias because awareness that it exists is the first step to down-regulate it. Intuitive negative moral judgements of non-heteronormative sexuality, though fast and impulsive, may be nonetheless regulated on a conscious level (Inbar et al., 2009).

Intuitive preferences and implicit biases are formed as a result of explicit propaganda, regardless of people's conscious will to express prejudice. For example, anti-foreigner populist political propaganda leads to implicit prejudice towards foreigners, even if no increase in this prejudice is detected by explicit measures (Arendt et al., 2015). We expected that people who endorse Polish collective narcissism would be attuned and susceptible to the homophobic propaganda of the Polish government because national identity is important to them and they tend to follow group conventions and norms

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(Golec de Zavala et al., 2019; Golec de Zavala, Bierwaczzonek, et al., 2021). We expect that for this reason the link between Polish collective narcissism and implicit homophobia will be driven by the specific beliefs about homosexuality emphasized by this propaganda, i.e., the beliefs that: (1) homosexuality is a matter of choice, a lifestyle, and an ideology and (2) that non-normative sexuality is a social identity that is profoundly different to heterosexuality (Ayoub, 2014; Korolczuk & Graff, 2018; Mole et al., 2022). As such, homophobic propaganda in Poland relies on essentialist beliefs about homosexuality.

Beliefs essentializing homosexuality

Lay theories essentializing homosexuality posit that sexual orientation is a social identity. It is a belief that people defined by different sexual orientations have nothing in common. They possess distinct 'essences' that profoundly differentiate them from each other and serve as intuitive bases for dispositional inferences about them (Haslam, 2017; Haslam et al., 2000; Yzerbyt et al., 2001). Social essentialism involves inappropriately treating social categories as distinct, universal, and unchangeable 'natural kinds'. Essentialist beliefs predict prejudice in the case of some social groups (e.g., race, Mandalaywala et al., 2018), but the role of essentialist beliefs in predicting prejudice towards groups defined by sexual orientation is complex (Peretz-Lange, 2021).

Essentialist beliefs about homosexuality pertain to the discreteness of social categories defined by sexual orientations (i.e., a clear boundary differentiating homosexual or other non-normative sexualities from heterosexuals), their immutability (i.e., non-normative sexuality defined by predetermined, biological factors), and universality (i.e., their existence across all cultures and historical times; Haslam & Levy, 2006). Beliefs essentializing the difference between social categories defined by sexual orientations and attributing prejudice to personal deficiencies of members of the disadvantaged group provide a structural explanation for homophobia. Biological determinism and cultural universality provide the 'born this way' explanation of intergroup differences, discounting individual agency

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in choosing the stigmatized social identity (Peretz-Lange, 2021). While the belief in the discreteness of homosexuality predicts homophobia, the beliefs in the immutability and universality of homosexuality predict tolerance and acceptance (Haslam et al., 2002; Haslam & Levy, 2006; Hegarty & Pratto, 2001; Herek & Capitano, 1995; Huic et al., 2018; Jayaratne et al., 2006; Whitley, 1990).³

To our knowledge no previous work has tested how collective narcissism and the essentialist beliefs about homosexuality are associated. Given the content of homophobic propaganda in Poland, we expect that Polish collective narcissism will be positively associated with the discreteness belief about homosexuality and negatively associated with the immutability and universality beliefs. We expect that those beliefs will independently mediate the association between Polish collective narcissism and implicit homophobia. Research indirectly supporting those expectations suggests that political conservatives are more likely to endorse the belief in the discreteness of homosexuality, and less likely to endorse the belief in the immutability of homosexuality than liberals (Hoyt et al., 2019). Moreover, while experimental manipulations building on the essentialist beliefs showed promise in shifting participants' attitudes towards those with non-normative sexualities (Fry et al., 2020), other findings indicate that such experimental manipulation were only successful in increasing self-identified liberals' belief in the immutability of homosexuality, but not that of conservatives (Hoyt et al., 2019). Collective narcissism is an aspect of political conservatism in Poland that may drive its association with beliefs essentializing homosexuality (Golec de Zavala, Lantos, et al., 2021; Golec de Zavala & Keenan, 2020).

³ To be sure, essentialist beliefs about sexual identity are lay theories, not supported by scientific evidence. Research suggests that sexual orientations are fluid rather than fixed (Diamond & Rosky, 2016). In addition, attributing genetic bases to non-normative sexualities may lead to viewing LGBT people as genetically defective and to advocating medical treatment to non-heteronormative behaviours (Hegarty, 2002) or to disadvantaging people who experience their sexual orientations as fluid (Diamond & Rosky, 2016).

Overview

In cross-sectional Studies 1 and 2, we tested two hypotheses. We predicted that (H1) Polish national collective narcissism is associated with implicit homophobia and that (H2) this relationship is independently mediated by the discreteness belief about homosexuality and the immutability and universality beliefs about homosexuality. Study 1 re-analyzed previously published data (Mole et al., 2022). Study 2 relied on a novel dataset to replicate the findings of Study 1. We operationalized implicit homophobia as the intuitive disapproval of gay men (Inbar et al., 2009) and as the automatic negative evaluation of homosexuality and positive evaluation of heterosexuality (assessed by the Implicit Associations Test, IAT, Greenwald et al., 1998, 2009; Hatzenbuehler et al., 2009; Jost, 2019). Such evaluations acquired via social learning are difficult to control consciously and often not available through introspection. In Study 3, we tested two additional hypotheses, predicting that (H3) an experimentally induced belief in the immutability and universality of homosexuality reduces implicit homophobia, (H4) especially on low levels of collective narcissism.

In all analyses, we controlled for participants' age and gender, established demographic predictors of homophobia (Herek, 1984). We also controlled for national in-group satisfaction (i.e., feeling proud of belonging to a valuable nation; Leach et al., 2008) to ensure that collective narcissism is a unique predictor of implicit homophobia in comparison to another form of the nation's positive evaluation (Golec de Zavala et al., 2019). Following the recommendations of Simmons and colleagues (2011), we first tested our hypotheses without and then with the covariates. The results of analyses without covariates consistently follow the pattern of results reported in the manuscript unless otherwise noted. These results are presented in the Supplementary Materials. The syntax for all analyses can be found on OSF along the datasets (<https://osf.io/uzr94/>). All analyses were performed on the data of participants who reported heterosexual orientation. Power analyses were conducted using G*Power

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(Faul et al., 2007, 2009) and MedPower (Kenny, 2017). All studies received ethical approval from the universities' ethics committees.

Study 1

In Study 1, we tested H1 and H2 using a previously analyzed dataset (Mole et al., 2022, Study 2). Only the measure of national collective narcissism overlaps with those included in the previously published analyses.

Method

Power Analyses

We used G*Power to estimate the sample sizes sufficient to test H1 (Faul et al., 2007, 2009). We conservatively assumed the average effect size reported across social psychological studies ($r = .21$ transformed to $f^2 = .04$; Richard et al., 2003), given the lack of research on the link between collective narcissism and implicit prejudice, and given the moderate average effect size for the association between collective narcissism and explicit prejudice (Golec de Zavala et al., 2019). The sample size estimation for a linear multiple regression with alpha level = .05, power = .80, and 4 predictors yielded a minimum required sample of 304 participants.

We used the MedPower software to estimate the sample size necessary to test H2 (Kenny, 2017). For the association between national collective narcissism and implicit homophobia, we used the same effect size as above ($r_c = .21$). We assumed the same effect size for the association between national collective narcissism and essentialist beliefs about homosexuality (which was more conservative than the association between political conservatism and those beliefs reported previously, $r = .35$, Hoyt et al., 2019), and for the association between essentialist beliefs and implicit homophobia (which was more conservative than the effect size indicated by previous studies examining associa-

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tions between those beliefs and explicit homophobia, $r = .37$, Hoyt et al., 2019). The analysis indicated a minimum sample of 228 to test H2 with alpha level = .05 and power = .80.

Participants

A nationally representative sample of 988 Polish adults completed the online survey via the Ariadna Research Panel (<https://www.panelariadna.pl/>). We analyzed data from 879 participants who indicated heterosexual orientation (418 women, ages 19-84, $M = 43.17$, $SD = 13.59$). The survey contained four attention checks (e.g., “Please select Agree”). Participants who failed any of the checks were not allowed to continue and their responses were automatically deleted.

Procedure

Participants completed an online survey ostensibly exploring the association between personality and social attitudes. All scales and all items within the scales were presented in a separate random order for each participant. Unless otherwise indicated, all measures were assessed on a 7-point scale (1 = *completely disagree*, 7 = *completely agree*).

Measures

Collective narcissism was measured with the Polish version of the 5-item Collective Narcissism Scale (Golec de Zavala et al., 2009; e.g., “I will not be satisfied until the Polish nation obtains respect it deserves”), where higher scores indicate higher collective narcissism.

Essentialist beliefs about homosexuality were measured using a 15-item scale (Haslam & Levy, 2006). The items were translated to Polish and back-translated by two independent translators. The scale is comprised of three subscales assessing beliefs in the (1) immutability (e.g., “Homosexuality is caused by biological factors such as genes and hormones”), (2) universality (e.g., “Homosexuality has probably existed throughout human history”), and (3) discreteness of homosexuality (e.g., “Ho-

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mosexuality is a category with clear and sharp boundaries: people are either homosexual or they are not”). The immutability and universality subscales were highly correlated ($r(877) = .52; p < .001$) and their correlations with the intuitive disapproval of gay men (immutability: $r(877) = -.38; p < .001$; and universality: $r(877) = -.46; p < .001$, respectively) were very similar. Thus, for the sake of simplicity we collapsed the two scales, creating an index pertaining to the belief in the immutability and universality of homosexuality. Higher scores indicate stronger endorsement of the essentialist beliefs.

The intuitive disapproval of gay men was assessed by presenting participants with a short vignette describing a movie director who attracted criticism by creating a music videoclip showing two men French kissing in public (Inbar et al., 2009). Participants indicated how much they agreed with following statements: “In my opinion the director intentionally encourages homosexual men to French kiss in public”; “There is something wrong with homosexual men French kissing in public”, and “It is wrong of the director to make a video that encourages homosexual men to French kiss in public”. Attributing intentionality to the director’s choice indicates moral condemnation of the behavior (Inbar et al., 2009). Responses to all three items were highly consistent. We averaged them to a single measure, where higher scores indicate greater moral condemnation of homosexuality.

Implicit homophobia was assessed using the online sexual orientation IAT (Hatzenbuehler et al., 2009; Rowatt et al., 2006). The IAT was programmed and administered by the Ariadna Research Panel using stimuli available at <https://www.projectimplicit.net/resources/study-materials/> (adapted to Polish by Maison, 2004). The materials detailing the construction of the online IAT by the Ariadna Research Panel and the syntaxes to compute the d statistics are available at <https://osf.io/uzr94/>. Participants followed on-screen instructions. As per the standard IAT procedure, they were asked to categorize stimuli as heterosexual/homosexual and good/bad. Participants were instructed to press the “d” key (on the left side of the keyboard) if the image or word fit the category/ies presented on the left side of the screen and the “k” key (on the right side of the keyboard) if the image or word fit to the cat-

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egory/ies presented on the right side of the screen. If an incorrect key was pressed, participants were asked to correct their response before moving on. The following words were used with positive valence: *fantastic, beautiful, love, adore, glorious, cherish, cheer, triumph*, and with negative valence: *tragic, scorn, yucky, annoy, evil, horrible, hurtful, horrific* (in Polish after Maison, 2004; Maison & Mikołajczyk, 2003). Four graphic representations of heterosexual and homosexual couples were used as stimuli, along words representing each category (in Polish): *heterosexual, heterosexuality, husband and wife, man and woman* for heterosexuality; *homosexual, homosexuality, gay(s), lesbian(s)* for homosexuality.

Implicit associations are inferred based on a comparison of reaction times when participants make complex categorizations congruent and incongruent with the bias. For example, stimuli are to be categorized as heterosexual or good in categorizations congruent with the bias, or as heterosexual or bad in categorizations incongruent with the bias. Participants classify stimuli faster when making complex categorizations congruent with their bias than when they are incongruent with the bias. The implicit preference for hetero- over homosexuality is expressed by the *d*-score (Greenwald et al., 2003).

In-group satisfaction was assessed using the Polish version of the 4-item in-group satisfaction subscale of the in-group identification scale (as used in previous studies, e.g., “I am glad to be Polish”; Jaworska, 2016; Leach et al., 2008). Higher scores indicate higher in-group satisfaction.

Results and Discussion

Descriptive statistics and reliabilities for all studies are presented in Table 1. Collective narcissism, the belief in the discreteness of homosexuality, the intuitive disapproval of gay men, IAT scores, and in-group satisfaction were positively correlated. The index representing the belief in the immutability

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and universality of homosexuality was negatively associated with these variables. Age was positively associated with the belief in the immutability and universality of homosexuality, the belief in the discreteness of homosexuality, and with scores on the IAT (Table 2). Additionally, men scored significantly higher than women on the intuitive disapproval of gay men ($M_{Men} = 4.69$, $SD_{Men} = 1.52$; $M_{Women} = 4.27$, $SD_{Women} = 1.51$; $t(877) = -4.05$, $p < .001$, Cohen's $d = -.27$, 95% CI [-0.41, -0.14]). There were no significant differences among men's and women's performance on the IAT ($M_{Men} = .60$, $SD_{Men} = .35$; $M_{Women} = .56$, $SD_{Women} = .36$; $t(877) = -1.69$, $p = .09$, Cohen's $d = -.11$, 95% CI [-0.09, 0.01]).

****Table 1****

****Table 2****

To test H1, predicting that collective narcissism is associated with implicit homophobia, we conducted two linear regressions. We first entered collective narcissism as the predictor, the intuitive disapproval of gay men as the outcome, and controlled for in-group satisfaction, age, and gender (coded 0 = women, 1 = men). The overall model was significant, $F(4, 874) = 93.03$, $p < .001$, $R^2 = .30$. In line with H1, collective narcissism significantly predicted the intuitive disapproval of gay men, $\beta = .54$, $p < .001$, 95% CI [0.52, 0.69], over and above gender, $\beta = .14$, $p < .001$, 95% CI [0.24, 0.59], and age, $\beta = .01$, $p = .74$, 95% CI [-0.01, 0.01]. In-group satisfaction did not predict the intuitive disapproval of gay men, $\beta = -.02$, $p = .61$, 95% CI [-0.11, 0.07].

We next ran the same model, entering the IAT's d -scores as the outcome. The overall model was significant, $F(4, 874) = 14.97$, $p < .001$, $R^2 = .06$. In line with H1, collective narcissism significantly predicted implicit homophobia, $\beta = .16$, $p < .001$, 95% CI [0.02, 0.06], independently of age, $\beta = .22$, $p < .001$, 95% CI [0.004, 0.01]. Gender, $\beta = .01$, $p = .79$, 95% CI [-0.04, 0.05], and in-group satisfaction, $\beta = -.04$, $p = .31$, 95% CI [-0.04, 0.01], did not predict implicit homophobia. These results corroborate and extend previous findings that Polish collective narcissism is associated with explicit homophobia

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(Górska & Mikołajczak, 2015; Mole et al., 2022). They suggest that Polish collective narcissism (but not national in-group satisfaction) is also associated with the intuitive moral disapproval of gay men.

To test H2, predicting that Polish collective narcissism is associated with implicit homophobia indirectly via the discreteness belief and independently via the immutability and universality beliefs, we conducted two multiple mediation analyses. First, we entered Polish collective narcissism as the predictor, the intuitive disapproval of gay men as the outcome, and the beliefs in the immutability and universality of homosexuality and the belief in the discreteness of homosexuality as independent mediators. We included in-group satisfaction, age, and gender as covariates. We used PROCESS macro for SPSS (Model 4, Hayes, 2018) and asked for 10,000 bootstrapped samples.

The overall model was significant, $F(6, 872) = 132.04, p < .001, R^2 = .48$. Collective narcissism negatively predicted the belief in the immutability and universality of homosexuality, which in turn negatively predicted the intuitive disapproval of gay men. Independently, collective narcissism positively predicted the belief in the discreteness of homosexuality, which positively predicted the intuitive disapproval of gay men. In line with H2, the indirect association between Polish collective narcissism and the intuitive disapproval of gay men via the immutability and universality beliefs, $IE = 0.11, SE = .02, 95\% CI [0.07, 0.15]$, and the indirect association between collective narcissism and the intuitive disapproval of gay men via the discreteness belief, $IE = 0.25, SE = .03, 95\% CI [0.20, 0.30]$ were significant. The direct effect was also significant (Figure 1).

Next, we tested H2 using the IAT's d -scores as the outcome. The overall model was significant, $F(6, 872) = 11.59, p < .001, R^2 = .07$. Neither the beliefs in the immutability and universality of homosexuality, nor that in the discreteness of homosexuality predicted IAT scores significantly. The indirect association between Polish collective narcissism and implicit homophobia via the immutability and universality beliefs, $IE = 0.01, SE = .01, 95\% CI [-0.001, 0.02]$, and that via the discreteness belief, $IE = 0.01, SE = .01, 95\% CI [-0.001, 0.02]$ were nonsignificant. The direct effect was also nonsignificant

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(Figure 1). These results are at odds with H2. However, the results of the same analysis performed without the covariates (reported in detail in Supplementary Materials) partially support H2: After removing the covariates, the belief in the discreteness of homosexuality predicted IAT positively significantly, and the indirect effect between collective narcissism and IAT via the discreteness belief also turned positive and significant.

****Figure 1****

The results of Study 1 are in line with and extend the findings that explicit homophobia is positively associated with the belief in the discreteness of homosexuality, but negatively associated with the beliefs in the immutability and universality of homosexuality (Haslam & Levy, 2006; Hegarty & Pratto, 2001; Herek & Capitano, 1995; Huic et al., 2018; Jayaratne et al., 2006; Whitley, 1990). The present results indicate that the same is true for the intuitive disapproval of gay men and that both beliefs mediate the association between Polish collective narcissism and intuitive disapproval of gay men. Polish collective narcissists endorse the discreteness belief, which predicts homophobia, and do not endorse the immutability and universality beliefs, which predict homophobia negatively. However, the results may not generalize across different methods of assessment of implicit homophobia, as the results obtained with the IAT, although in hypothesized directions, were nonsignificant when the analyses were performed with covariates. To provide another test to our hypotheses and to replicate our findings, we recruited a novel sample.

Study 2

In Study 2, we aimed at directly replicating the results of Study 1 in a novel sample. We relied on the power analysis conducted for Study 1.

Method

Participants

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A representative sample of 388 Polish adults completed the online survey via the Ariadna Research Panel. Participants who took part in Study 1 could not take part in Study 2. Only data from participants who indicated heterosexual orientation were included in the analyses ($N = 353$). We additionally excluded the data of 13 participants who reported technical problems during administration of the IAT and 16 participants who failed to correctly respond to questions checking whether the audio-visual systems in their computers function correctly (necessary for administration of the IAT). The technical check asked participants about the content of short video clips which they were instructed to watch. This was done to make sure participants' devices are suitable for the IAT to be performed correctly. The survey contained four attention checks as in Study 1. The final sample was made up of 324 participants (175 women, ages 19-76, $M = 44.19$, $SD = 13.81$). We relied on the same power analyses as in Study 1 for testing H1 and H2.

Procedure

Participants completed an online survey ostensibly assessing emotions and social attitudes. The procedure contained an experimental manipulation that did not affect the essentialist beliefs about homosexuality or the measures of implicit homophobia. The experimental manipulation also did not interact with collective narcissism on key variables of interest: the essentialist beliefs about homosexuality, the intuitive disapproval of gay men, and IAT scores. Thus, the data were analysed cross-sectionally. The detailed information about the experimental manipulation and the relevant analyses can be found in the Supplementary Materials. Collective narcissism and in-group satisfaction were measured before the manipulation was introduced. The order of the scales and that of the items within each scale were presented in a unique randomized order for each participant.

Measures

Collective narcissism, the immutability and universality beliefs, the discreteness belief, the intuitive disapproval of gay men, implicit homophobia, and in-group satisfaction were all measured as in Study 1.

Results and Discussion

Collective narcissism, the intuitive disapproval of gay men, and the sexual orientation IAT scores were positively correlated. The immutability and universality beliefs were negatively associated with each of these variables. The discreteness belief was positively related to collective narcissism, the intuitive disapproval of gay men, in-group satisfaction, age, and negatively to the belief in the immutability and universality of homosexuality. In-group satisfaction was positively related to collective narcissism and the intuitive disapproval of gay men, and negatively related to the beliefs in the immutability and universality of homosexuality. Age was positively associated with the beliefs in the immutability and universality of homosexuality and with IAT scores (Table 3). Men scored significantly higher than women on the measure of intuitive disapproval of gay men ($M_{\text{Men}} = 4.69$, $SD_{\text{Men}} = 1.55$; $M_{\text{Women}} = 4.11$, $SD_{\text{Women}} = 1.55$; $t(322) = -3.35$, $p = .001$, Cohen's $d = -0.37$, 95% CI [-0.59, -0.15]). IAT scores did not differ across gender ($M_{\text{Men}} = 0.58$, $SD_{\text{Men}} = 0.38$; $M_{\text{Women}} = 0.56$, $SD_{\text{Women}} = 0.40$; $t(322) = -0.56$, $p = .58$, Cohen's $d = -0.06$, 95% CI [-0.28, 0.16]).

Table 3

To test H1, we conducted two linear regressions entering collective narcissism as the predictor as in Study 1. The overall model for the analyses with the intuitive disapproval of gay men as the outcome was significant, $F(4, 319) = 32.59$, $p < .001$, $R^2 = .29$. In line with H1 and replicating results of Study 1, this analysis yielded a significant association between collective narcissism and the intuitive disapproval of gay men, $\beta = .52$, $p < .001$, 95% CI [0.45, 0.71], over and above gender, $\beta = .18$, $p < .001$, 95%

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CI [0.25, 0.85]. Age, $\beta = .03$, $p = .56$, 95% CI [-0.01, 0.01], and in-group satisfaction, $\beta = -.02$, $p = .79$, 95% CI [-0.18, 0.14], did not predict the intuitive disapproval of gay men.

The overall model with the IAT's d -score as the outcome was significant, $F(4, 319) = 4.61$, $p = .001$, $R^2 = .06$. In line with H1 and replicating the findings in Study 1, collective narcissism significantly predicted the implicit preference for heterosexual over homosexual people, $\beta = .17$, $p = .01$, 95% CI [0.01, 0.09], over and above age, $\beta = .19$, $p < .001$, 95% CI [0.002, 0.01]. Gender, $\beta = -.01$, $p = .86$, 95% CI [-0.09, 0.08], and in-group satisfaction, $\beta = -.05$, $p = .42$, 95% CI [-0.06, 0.03], were not related to implicit homophobia.

We tested H2 as in Study 1. The overall model with the intuitive disapproval of gay men as the outcome was significant, $F(6, 317) = 44.22$, $p < .001$, $R^2 = .46$. In line with H2, the indirect association between Polish collective narcissism and the intuitive disapproval of gay men via the beliefs in the immutability and universality of homosexuality was significant, $IE = 0.11$, $SE = .04$, 95% CI [0.05, 0.20]. The indirect effect via the discreteness belief, $IE = 0.15$, $SE = .05$, 95% CI [0.07, 0.26], and the direct effect were also significant (Figure 2).

The overall model with the IAT's d -score as the outcome was significant, $F(6, 317) = 3.75$, $p = .001$, $R^2 = .07$. Only the immutability and universality beliefs negatively predicted implicit homophobia. Note that the overall model related to the association between collective narcissism and the IAT's d -scores was no longer significant after removing the covariates from the model (see Supplementary Materials). In line with H2, the indirect association between Polish collective narcissism and implicit homophobia via the immutability and universality beliefs was significant, $IE = 0.01$, $SE = .01$, 95% CI [0.001, 0.01]. Contrary to H2, the indirect association between Polish collective narcissism and implicit homophobia via the discreteness belief was nonsignificant, $IE = -0.01$, $SE = .01$, 95% CI [-0.03, 0.02]. The direct effect was significant (Figure 2).

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Thus, in Study 2, we replicated the results supporting H1 and H2 with respect to the intuitive disapproval of gay men in a novel sample. With respect to homophobia assessed by the IAT, we replicated the findings indicating a positive association between Polish collective narcissism and implicit homophobia. In addition, the associations between the essentialist beliefs and implicit homophobia were in the predicted direction, but only the association with the immutability and universality beliefs was significant. The indirect association between collective narcissism and homophobia via this belief was also significant. In sum, the findings suggest that Polish collective narcissism is associated with implicit homophobia assessed as the intuitive moral condemnation of homosexuality and as an automatic negative evaluation of homosexuality and positive evaluation of heterosexuality. The first association is stronger and independently mediated by essentialist beliefs about homosexuality pertaining to structural and agentic explanations of prejudice. The second association is weaker and mediated only by the beliefs regarding agentic explanation of prejudice, i.e., the immutability and universality beliefs.

Additional analyses

Given that the associations among the IAT assessment of implicit homophobia, collective narcissism, discreteness and immutability and universality beliefs were not consistent across the two studies, we conducted random effects meta-analysis of those associations using ESCI in Excel for meta-analyses (Cumming & Calin-Jageman, 2017). The Excel files are available via OSF (<https://osf.io/uzr94/>). The combined effect size of the correlations between the IAT assessed implicit homophobia and collective narcissism positive and significant, $r = .13$, 95% CI [.07, .19]. A Diamond ratio of 1.0 indicated low heterogeneity. The combined effect size of the correlations between IAT scores and the beliefs in the immutability and universality of homosexuality was negative and significant, $r = -.11$, 95% CI [-.16, -.05]. A Diamond ratio of 1.0 indicated low heterogeneity. The combined effect size of the correlations between the IAT assessed implicit homophobia and the belief in the

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discreteness of homosexuality was positive and significant, $r = .15$, 95% CI [.08, .21]. A Diamond ratio of 1.14 indicated low heterogeneity. Overall, these meta-analytic results support the predicted positive association between national collective narcissism and IAT scores, between the discreteness belief and IAT scores, and the predicted negative association between the immutability and universality beliefs and IAT scores.

****Figure 2****

Study 3

In Study 3, we tested H3 and H4, experimentally manipulating the immutability and universality beliefs about homosexuality.

Method

Power Analyses

We used G*Power to conduct a priori power calculations (Faul et al., 2007, 2009). We relied on the average effect sizes across social psychological studies ($r = .21$; transformed to $d = .43$ and $f^2 = .04$; Richard et al., 2003). An a priori power analysis for a two-tailed independent samples t-test revealed that a minimum sample of 172 participants is required to test H3 with alpha level = .05 and power = .80. An a priori power analysis using a linear multiple regression with six predictors revealed that a minimum sample of 347 participants is required to test H4 with alpha level = .05 and power = .80.

Participants

470 Polish adults, who did not participate in Studies 1 or 2, were recruited by the Ariadna Research Panel. The analyses were performed among participants who reported heterosexual orientation ($N = 426$) and correctly responded to an attention check question asking about the content of the article

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participants read⁴ and to four further attention check questions identical to those presented in Studies 1 and 2. The final sample consisted of 374 participants (161 women, ages 19-80 years, $M = 45.63$, $SD = 13.92$).

Procedure

Participants completed an online survey allegedly testing their knowledge about sexuality. First, we administered demographic measures and the measures of Polish collective narcissism and in-group satisfaction. The measures and items were presented in a separate random order, with the order of items separately randomized for each participant.

Next, participants were randomly allocated to one of two research conditions. In the agentic explanation condition ($N = 186$), participants read an alleged report of scientific studies regarding sexual orientations. This report claimed that there is no convincing scientific evidence that sexual orientations are biologically determined, and that they may be shaped by upbringing and the social context. In addition, the report claimed that tolerance towards homosexuality is only present in certain societies at certain times. In the 'born this way' condition ($N = 188$), participants read that there is convincing scientific evidence that homosexuality is not a matter of individual choice, that it is biologically determined and cannot be changed. In addition, the report claimed that homosexuality has been present in all societies at all times. Next, we assessed the essentialist beliefs about homosexuality as a manipulation check, the intuitive disapproval of gay men, and administered the sexuality IAT to assess implicit homophobia. Finally, participants were asked to guess the purpose of the experiment (none guessed), debriefed, and thanked.

⁴ After reading the report participants answered the attention check question: "The report that you have just read presented scientific evidence that: 1. Sexual orientations are a matter of choice and homosexuality is only present in certain cultures vs. 2. Sexual orientations are genetically determined and present in all cultures and all times". There were 23 participants who chose response 2 in the control condition and 34 participants who chose option 1 in the experimental condition. We were not able to determine whether the incorrect answers were the consequence of a technical error in survey presentation, coding, or participants erroneously recalling the text. We excluded the data of these participants from the analyses.

Measures

Collective narcissism, the beliefs in the immutability and universality of homosexuality, the discreteness belief, the intuitive disapproval of gay men, implicit homophobia, and in-group satisfaction were all measured as in Study 1 and 2.

Results and Discussion

Collective narcissism, the belief in the discreteness of homosexuality, the intuitive disapproval of gay men, and in-group satisfaction were positively associated with each other. The belief in the immutability and universality of homosexuality was negatively associated with each of these variables, as well as with IAT scores. IAT scores were positively associated with the intuitive disapproval of gay men, the belief in the discreteness of homosexuality, and age. Age was positively associated with the belief in the discreteness of homosexuality (Table 4). Men scored higher than women on the intuitive disapproval of gay men ($M_{\text{Men}} = 4.87$, $SD_{\text{Men}} = 1.38$; $M_{\text{Women}} = 4.30$, $SD_{\text{Women}} = 1.64$; $t(372) = -3.62$, $p < .001$, Cohen's $d = -.38$). There were no significant differences between the IAT scores of men ($M_{\text{Men}} = 0.57$, $SD_{\text{Men}} = 0.39$) and women ($M_{\text{Women}} = 0.54$, $SD_{\text{Women}} = 0.38$; $t(372) = -0.66$, $p = .51$, Cohen's $d = -0.07$, 96% CI [-0.27, 0.14]).

Table 4

Manipulation check

To check the effectiveness of the experimental manipulation, we conducted an independent samples t -test entering the immutability and universality beliefs as the outcome variable. Levene's test of equality of error variances was significant, $p = .03$, we thus report the results adjusted for violating this assumption. Participants in the experimental condition (coded as 1) indicated significantly greater beliefs in immutability and universality ($M = 5.46$, $SD = 1.03$) than those allocated to the control condition (coded as 0; $M = 4.07$, $SD = 1.29$; $t(352.75) = -11.48$, $p < .001$, Cohen's $d = -1.19$, 95% CI [-

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1.63, -1.15]). The manipulation did not affect participants' belief in the discreteness of homosexuality ($M_{\text{experimental}} = 3.61$, $SD_{\text{experimental}} = 0.98$, $M_{\text{control}} = 3.73$, $SD_{\text{control}} = 1.02$; $t(372) = 1.08$, $p = .28$, Cohen's $d = 0.11$, 95% CI [-0.09, 0.32]). These results indicate that the experimental manipulation worked as intended.

The effect on implicit homophobia

To test H3, we conducted two independent samples t-tests, first with the intuitive disapproval of gay men as the dependent variable and next with the IAT assessed implicit homophobia as the dependent variable. The results revealed that the manipulation did not affect participants' intuitive disapproval of gay men ($M_{\text{experimental}} = 4.57$, $SD_{\text{experimental}} = 1.47$, $M_{\text{control}} = 4.68$, $SD_{\text{control}} = 1.58$; $t(372) = 0.73$, $p = .46$, Cohen's $d = 0.08$, 95% CI [-0.19, 0.43]). The difference between the mean scores was in the expected direction but it was nonsignificant. Participants in the experimental condition indicated significantly lower implicit homophobia as assessed by the IAT ($M = 0.49$, $SD = 0.41$) than those allocated to the control condition ($M = 0.63$, $SD = 0.35$; $t(363.27) = 3.57$, $p < .001$, Cohen's $d = 0.37$, 95% CI [0.06, 0.22]). Controlling for collective narcissism did not change the pattern of results, see Supplementary Materials.

To test H4, we conducted two moderation analyses. We first entered the intuitive disapproval of gay men as the outcome, research condition, Polish collective narcissism, and their interaction as predictors and the three covariates. The overall model was significant, $F(6, 367) = 19.30$, $p < .001$, $R^2 = .24$. Contrary to H4, only collective narcissism, $b = .63$, $SE = .09$, $p < .001$, 95% CI [0.45, 0.80], and gender predicted the intuitive disapproval of gay men significantly, $b = .48$, $SE = .15$, $p = .002$, 95% CI [0.18, 0.78]. Neither the experimental condition, $b = .29$, $SE = .44$, $p = .51$, 95% CI [-0.58, 1.16], nor its

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interaction with collective narcissism, $b = -.11$, $SE = .11$, 95% CI [-0.31, 0.10], $F(1, 367) = 1.04$, $p = .31$, R^2 change = .002 were significant predictors. The results do not support H4.

We next conducted the same model entering IAT scores as the outcome variable. The overall model was significant, $F(6, 367) = 5.49$, $p < .001$, $R^2 = .08$. Contrary to H4, only age predicted implicit homophobia significantly, $b = .01$, $SE = .002$, $p < .001$, 95% CI [0.003, 0.01]. Neither collective narcissism, $b = .0002$, $SE = .02$, $p = .99$, 95% CI [-0.05, 0.05], the experimental condition, $b = -.04$, $SE = 0.12$, $p = .76$, 95% CI [-0.28, 0.20], nor their interaction, $b = -.03$, $SE = .03$, 95% CI [-0.08, 0.03], $F(1, 367) = 0.79$, $p = .37$, R^2 change = .002, predicted implicit homophobia. Thus, the results do not support H4.

General Discussion

We investigated the association between Polish collective narcissism and implicit homophobia across two methods of its assessment: the intuitive moral disapproval of gay men and automatic preference for hetero- over homosexuality as assessed by the IAT (Greenwald et al., 1998; Hatzenbuehler et al., 2009; Jost, 2019). We predicted that Polish collective narcissism will be associated with implicit homophobia (H1) and that this relationship will be mediated by the structural (discreteness) and agentic (“born this way”) essentialist beliefs about homosexuality (H2; Haslam & Levy, 2006; Peretz-Lange, 2021). We also predicted that an experimental manipulation that discounts the agentic explanation of homophobia will reduce implicit homophobia (H3), especially on low levels of collective narcissism (H4).

Summary of findings

Our results support H1, H2, and H3 across two assessments of implicit homophobia, more robustly for intuitive disapproval of gay men than for implicit associations of non-heteronormative couples with negative affect. The correlation between the two forms of assessment was positive and significant but small. Our results do not support H4. Contrary to our predictions, the effects of the manipu-

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lation of the 'born this way' belief were the same on low and high levels of collective narcissism. Thus, Polish collective narcissism was not a barrier for this manipulation to work.

The pattern of associations consistent with H1 and H2 emerged for the intuitive disapproval of gay men. The pattern of associations was similar for implicit homophobia assessed by the IAT, but the effects were smaller and less consistent across studies. Nevertheless, a reliable pattern emerged in a meta-analytical summary of findings with reference to the IAT across Studies 1 and 2. The results consistently suggest that implicit homophobia assessed by the IAT is predicted by the discounting of beliefs in the immutability and universality of homosexuality. Thus, Polish collective narcissism is associated with implicit homophobia (across measurements) predominantly via endorsing the agentic explanation of homosexuality.

Polish collective narcissism, beliefs about homosexuality, and implicit homophobia

Results linking Polish collective narcissism and implicit homophobia extend the previous findings pointing to the robust association between collective narcissism and out-group derogation, and prejudice towards stigmatized sub-groups within the nation (Golec de Zavala et al., 2013, 2019, 2020; Golec de Zavala & Lantos, 2020; Lantos & Forgas, 2021). The present results go beyond those findings indicating that Polish collective narcissism predicts more subtle and less controllable form of prejudice, implicit homophobia. As such, the present results open a new area for investigation to assess the generalizability of the association between collective narcissism and implicit prejudice across different targets of prejudice and different forms of assessment.

The present results are in line with and extend the literature on essentialist beliefs about homosexuality and homophobia (Haslam & Levy, 2006; Hegarty & Pratto, 2001; Herek & Capitano, 1995; Huic et al., 2018; Jayaratne et al., 2006; Peretz-Lange, 2021; Whitley, 1990). They indicate that the intuitive

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moral disapproval of gay men (but not the implicit negative evaluation of homosexuality in comparison to heterosexuality) is linked to essentialist beliefs providing structural explanation for homophobia, pertaining to essential differences and ingrained hierarchy between hetero- and homosexuals. In contrast, the opposite role of the beliefs discounting individual agency in choosing sexual orientation generalizes across different forms of assessment of implicit homophobia. Endorsing the agentic (“they chose to be this way”) explanation of homosexuality is consistently associated with implicit homophobia.

The present results afford valuable new insights into the specific beliefs that drive the associations between Polish collective narcissism and implicit homophobia. In line with our hypothesis, cross-sectional analyses in all studies indicate that Polish collective narcissism is associated with supporting structural and agentic (“they chose to”) explanations for homophobia. Polish collective narcissism predicts implicit homophobia predominantly because it is associated with discounting the immutability and universality of homosexuality, the ‘born this way’ belief. According to the attribution theory, when stigma is seen as outside of the individual’s control, the individual is no longer blamed for it, which leads to a decrease in prejudice (Weiner et al., 1988; Whitley, 1990). On the contrary, when one has the ability to *choose* a social category and behaviors that are viewed as morally wrong, condemned and undesirable, that individual is automatically evaluated negatively (Peretz-Lange, 2021). The ‘born this way’ argument removes homosexuality from the moral domain, as it is no longer a matter of free will and individual choice. In order to morally condemn homosexuality, collective narcissists need to believe that sexual orientation is a matter of choice and human evil design.

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The 'born this way' belief and a decrease in implicit homophobia

In Study 3, we experimentally induced the beliefs in the immutability and universality of homosexuality vs. the belief in the agentic explanation of homophobia that contradicts it. Experimentally decreasing the agency beliefs regarding homosexuality decreased the automatic negative evaluation of homosexuality assessed by the IAT, but produced a much smaller and not statistically significant change in the intuitive disapproval of gay men (though notably the results were in the anticipated direction). The experimental manipulation of the agency beliefs did not affect the discreteness belief. Thus, the discrepant results suggest that the two forms of implicit homophobia assessed in our studies are likely driven by different psychological mechanisms. The different associations of the intuitive moral disapproval of gay men (predominantly with the discreteness belief) and the automatic negative evaluation of homo- relative to heterosexuality (predominantly with the agency beliefs) with essentialist beliefs about homosexuality align with this conclusion.

The intuitive disapproval of gay men is assessed using a self-report questionnaire (Inbar et al., 2009). Although the items of this questionnaire do not directly address participants' attitudes towards homosexuality, there is nevertheless room for participants to consciously alter their intuitive responses if desired. Moral indignation requires a degree of salience of participants' moral intuitions that condemn non-normative sexuality. In contrast, the sexual orientation IAT relies fully on participants' automatic associations assessed by reaction times. Those associations are conditioned during socialization. The possibility to consciously control automatic associations is limited and requires training. In addition, arguably implicit attitudes are less available in introspection and can be at odds with explicitly expressed ones (Greenwald et al., 2002; Jost, 2019). In sum, our results indicate that attributing agency and choice are important in forming implicit negative evaluation of the stigmatized group. Perceiving the stigmatized group as profoundly different and inferior is more important to produce moral indignation with homosexuality.

Limitations and future directions

Despite advancing our understanding of the association between Polish collective narcissism and homophobia, the present research is not without limitations that should be taken into account when interpreting the findings. Firstly, we do not know whether the associations between national collective narcissism, essentialist beliefs about homosexuality, and implicit homophobia generalize beyond Poland, where the studies were conducted. There is, however, some evidence that they do. National collective narcissism is related to support for populism across countries (Forgas & Lantos, 2020), and support for populism is related to homophobia (Russell, 2019; Yatsyk, 2020). Future studies would do well to investigate the indirect associations between national collective narcissism and implicit homophobia in different national contexts.

In addition, our experimental manipulation did not have a neutral condition in which no judgement about agency in homosexuality was made. Thus, we cannot be sure whether encouraging the belief in agency in homosexuality increased implicit homophobia or discounting this belief decreased implicit homophobia. We can only observe the different effects either increasing or decreasing this belief. Future studies would do well to clarify this, comparing both of the experimental conditions employed here to a neutral condition.

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Declarations

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Conflicts of interest/Competing interests: The authors disclose no conflict of interest.

Availability of data and material (data transparency): All datasets can be found on OSF: <https://osf.io/uzr94/>.

Code availability (software application or custom code): All syntaxes are available via OSF: <https://osf.io/uzr94/>.

Compliance with Ethical Standards

Conflicts of interest/Competing interests: The authors disclose no conflict of interest.

Research involving human participants: All studies received ethical approval from the universities' ethics committees. The procedures used in the studies reported here adhere to the tenets of the Declaration of Helsinki.

Informed consent: All participants were presented with an informed consent form prior to taking part in the studies reported here.

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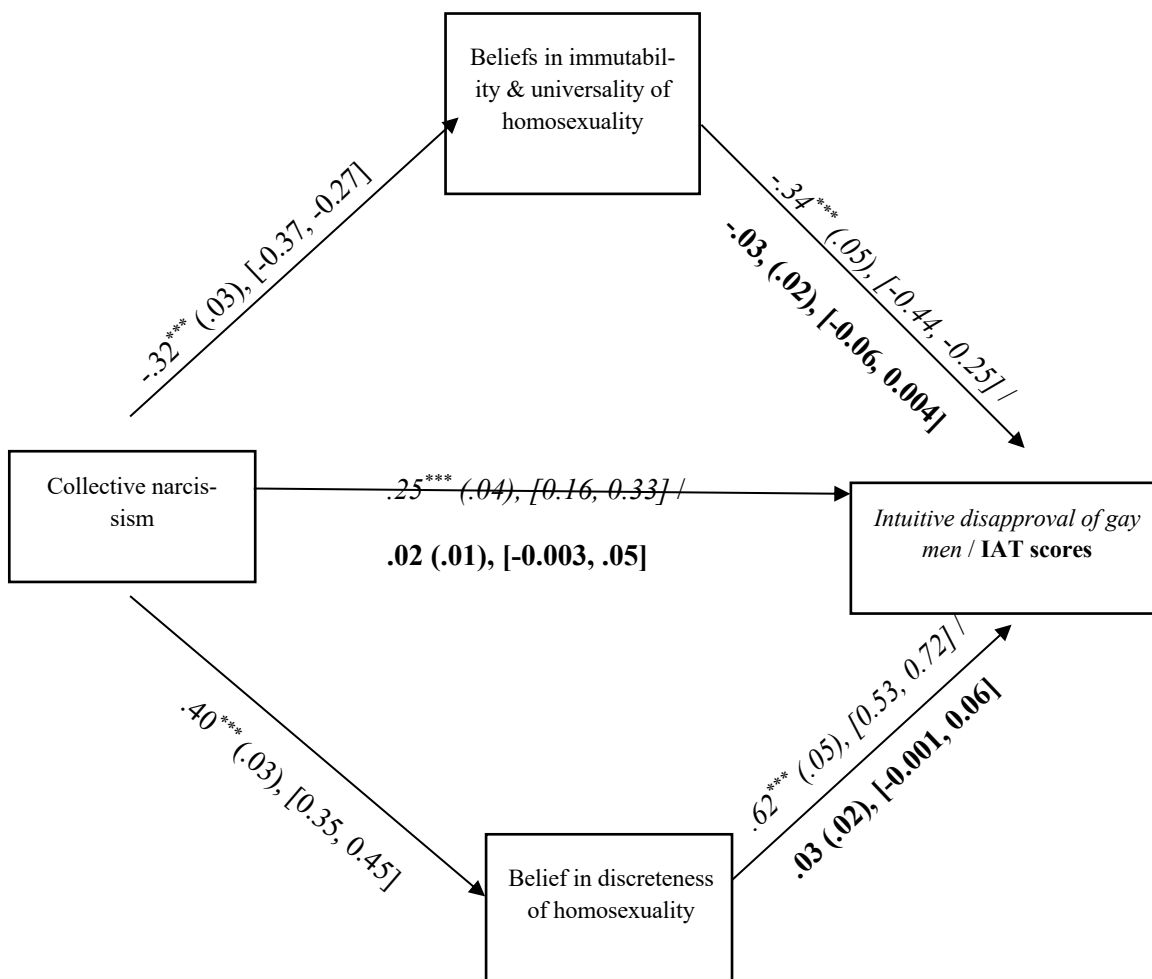
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Figures

Figure 1

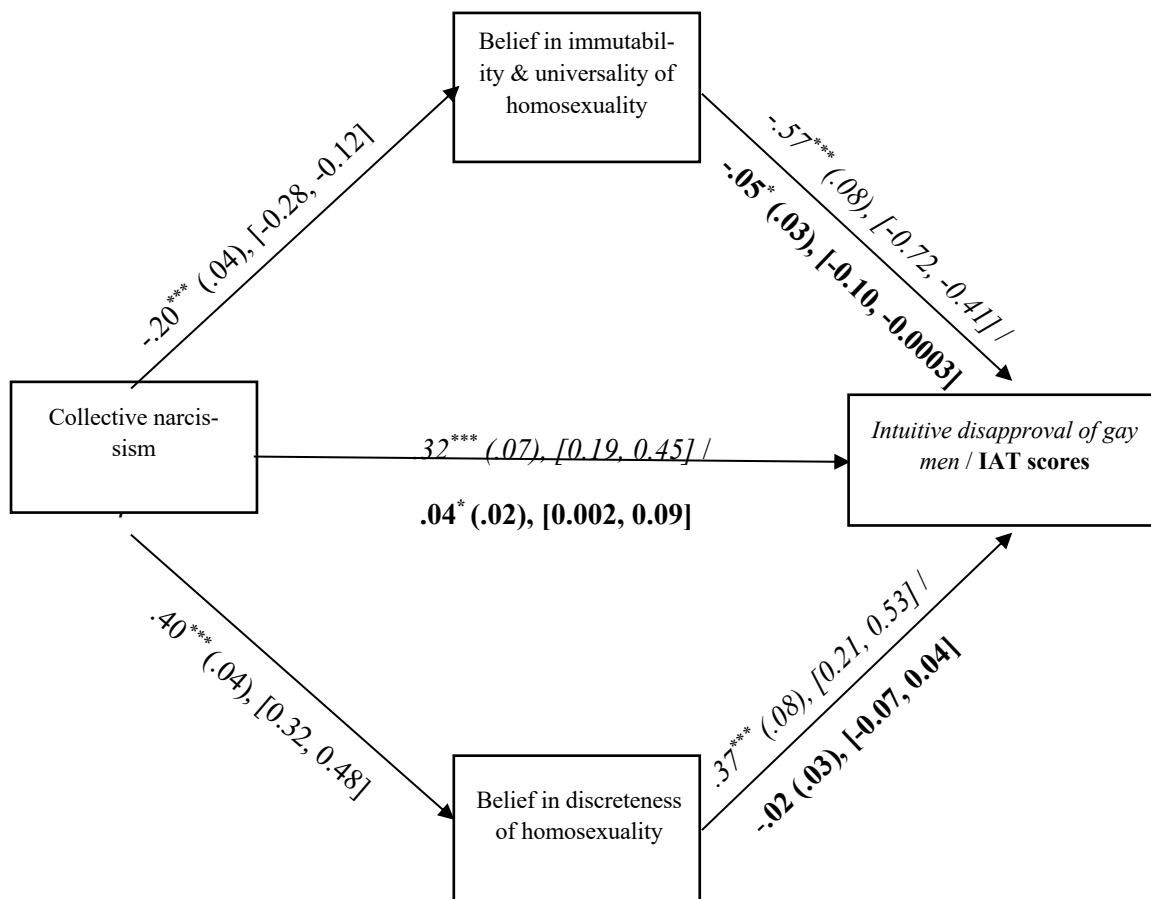
The Direct and Indirect Effects of Collective Narcissism on the Intuitive Disapproval of Gay Men and on IAT Scores in Study 1 (N = 879)



Note. $^{***}p < .001$. 95% CI are in square brackets. The values presented in italics correspond to the analyses conducted on the intuitive disapproval of gay men as the outcome variable. The values presented in bold correspond to the analyses conducted on IAT scores as the outcome variable.

Figure 2

The Direct and Indirect Effects of Collective Narcissism on the Intuitive Disapproval of Gay Men and on Implicit Homophobia Observed in Study 2 (N = 324)



Note. * $p < .05$. *** $p < .001$. 95% CI are in square brackets. The values presented in italics correspond to the analyses conducted on the intuitive disapproval of gay men as the outcome variable. The values presented in bold correspond to the analyses conducted on implicit homophobia operationalized as scores on the IAT as the outcome variable.

Tables**Table 1***Means, Standard Deviations, and Reliability (Cronbach's α) for the Key Variables Across the Studies*

	Study 1			Study 2			Study 3		
	<i>M</i>	<i>SD</i>	α	<i>M</i>	<i>SD</i>	α	<i>M</i>	<i>SD</i>	α
Collective narcissism	3.93	1.37	.91	3.93	1.40	.92	3.98	1.32	.92
Immutability and universality belief	4.80	0.90	.82	4.90	0.92	.81	4.77	1.36	.93
Discreteness belief	3.74	0.96	.68	3.56	0.98	.66	3.67	1.00	.66
Intuitive disapproval of gay men	4.49	1.53	.87	4.38	1.58	0.85	4.62	1.52	.87
Implicit homophobia (<i>d</i> -score)	0.58	0.35	-	0.57	0.39	-	0.56	0.39	-
In-group satisfaction	5.24	1.26	0.94	5.28	1.15	.92	5.23	1.17	.94

Table 2*Correlations Among Variables in Study 1 (N = 879)*

Variables	1.	2.	3.	4.	5.	6.
1. Collective narcissism	---					
2. Immutability & universality	-.42 ^{***}	---				
3. Discreteness	.51 ^{***}	-.45 ^{***}	---			
4. Intuitive disapproval of gay men	.53 ^{***}	-.48 ^{***}	.61 ^{***}	---		
5. IAT	.13 ^{***}	-.10 ^{**}	.17 ^{***}	.18 ^{***}	---	
6. In-group satisfaction	.65 ^{***}	-.19 ^{***}	.28 ^{***}	.33 ^{***}	.07 [*]	---
7. Age	-.02	.15 ^{***}	.12 ^{***}	.03	.21 ^{***}	.05

Note. ^{***} $p \leq .001$. ^{**} $p < .01$. ^{*} $p < .05$.

Table 3*Correlations Among Variables in Study 2 (N = 324)*

Variables	1.	2.	3.	4.	5.	6.
1. Collective narcissism	---					
2. Immutability & universality	-.35***	---				
3. Discreteness	.45***	-.39***	---			
4. Intuitive disapproval of gay men	.51***	-.53***	.51***	---		
5. IAT	.13*	-.12*	.10	.19***	---	
6. In-group satisfaction	.59***	-.24***	.13*	.29***	.04	---
7. Age	-.06	.12*	.15**	.03	.18***	-.04

Note. * $p < .05$. ** $p < .01$. *** $p \leq .001$.

Table 4*Correlations Among Variables in Study 3 (N = 374)*

Variables	1.	2.	3.	4.	5.	6.
1. Collective narcissism	---					
2. Immutability & universality	-.35 ^{***}	---				
3. Discreteness	.40 ^{***}	-.44 ^{***}	---			
4. Intuitive disapproval of gay men	.45 ^{***}	-.46 ^{***}	.58 ^{***}	---		
5. IAT	-.03	-.15 ^{**}	.17 ^{**}	.11 [*]	---	
6. In-group satisfaction	.67 ^{***}	-.23 ^{***}	.18 ^{***}	.24 ^{***}	.02	---
7. Age	-.09	.04	.12 [*]	-.02	.21 ^{***}	-.01

Note. * $p < .05$. ** $p < .01$. *** $p \leq .001$.