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Belief in conspiracy theories and satisfaction in interpersonal relationships

Daniel Toribio-Flórez  | Ricky Green  | Karen M. Douglas 

School of Psychology, University of Kent,
Canterbury, UK

Correspondence

Daniel Toribio-Flórez, Keynes College,
University of Kent, CT2 7NZ, Canterbury, UK.
Email: d.toribio-florez@kent.ac.uk

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Abstract

Researchers have theorized about how belief in conspiracy theories can negatively affect interpersonal relationships. However, despite growing anecdotal evidence of the effects that conspiracy theories seem to have on people's relationships, a systematic assessment of these effects is lacking. In seven studies (six of them preregistered, $N = 2526$), we examined whether people's perceptions of others' conspiracy beliefs were negatively associated with their actual (or anticipated) relationship satisfaction with those others. We found that participants' perceptions of their social contacts' beliefs in general (Pilot Studies 1–2) and specific conspiracy theories (Study 1) were negatively associated with their relationship satisfaction with those contacts. Using a hypothetical scenario, we further observed that participants anticipated that their relationship satisfaction would worsen when one of these social contacts explicitly endorsed (vs. opposed) a conspiracy theory (Studies 2, 3a, and 3b). Finally, participants expected lower relationship satisfaction with a stranger who endorsed (vs. opposed) a conspiracy theory in their online dating profile (Study 4). Importantly, across all studies we observed that participants' own conspiracy beliefs moderated the association between others' conspiracy beliefs and relationship satisfaction, revealing a similarity–dissimilarity pattern: although the association was negative among participants with weaker conspiracy beliefs, we observed signals of reversal among participants with stronger conspiracy beliefs. Our findings further suggest that a process of attitudinal distancing (among other relational changes) could explain why perceived conspiracy beliefs negatively predicted relationship satisfaction. Taken together, this research provides evidence that conspiracy beliefs have the potential to harm interpersonal relationships.

1 | INTRODUCTION

Many testimonies in online media reveal the seemingly eroding impact of conspiracy theories on people's interpersonal relationships (e.g., Desmond-Harris, 2022; Dulaney & Lollback, 2020; Meyer et al., 2021). A striking example is that of Sebastian—a young British

man who described to the BBC how his mother's descent into conspiracy beliefs during the coronavirus pandemic, and her dedication to spreading these beliefs via social media, had caused their relationship to collapse (Chapple, 2020). In the United States, anecdotal cases of interpersonal relationships negatively affected by QAnon conspiracy beliefs are numerous in online forums like Reddit

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(see *r/QAnonCasualties*). A recent survey with 253 Americans indicated that 79% had a relative or a friend who supported QAnon (Moskalenko et al., 2022). However, despite the concerning accumulation of anecdotal evidence, empirical research on the influence of conspiracy beliefs on people's interpersonal relationships is limited. The present research aims to examine this issue, while considering how different aspects of interpersonal closeness—including relational and attitudinal closeness—and interpersonal trust, might inform how conspiracy theories affect people's interpersonal relationships.

1.1 | The consequences of conspiracy beliefs

Conspiracy theories are beliefs that secret groups carry out malevolent plots without the public's knowledge (Douglas & Sutton, 2023). Conspiracy beliefs can be shaped by factors at the individual, intergroup, and societal level (Hornsey & Pearson, 2022), including a series of unmet psychological needs for knowledge, security, and self-esteem (Douglas et al., 2017).

Conspiracy theories also have important societal consequences across multiple domains. In politics, they are associated with intergroup prejudice (e.g., antisemitism; Kofta et al., 2020), disengagement from normative politics (e.g., voting or donating to a political campaign; Jolley & Douglas, 2014; Uscinski & Parent, 2014), and radical, violent political attitudes, and behaviors (e.g., Imhoff et al., 2022; Rottweiler & Gill, 2020). For example, conspiracy theories proposing that “deep state” powers have rigged democratic elections have been linked to the violent attacks on the US Capitol in 2021 (Dover, 2023) and the Brazilian Congress in 2023 (Nicas, 2023). In the health domain, conspiracy theories are associated with risky health decision-making (e.g., Chen et al., 2021; Natoli & Marques, 2021), such as reduced willingness to engage in preventive behaviors and to get vaccinated (e.g., Bierwaczzonek et al., 2020; Romer & Jamieson, 2020). Conspiracy theories about climate change are related to lower pro-environmental attitudes and behavioral intentions (Biddlestone et al., 2022). Furthermore, recent research suggests that conspiracy beliefs have implications for how individuals themselves are perceived and the impressions they make on others (Green, Toribio-Flórez, Douglas, 2023; Green, Toribio-Flórez, Douglas, Brunkow, et al., 2023).

Despite growing understanding of the consequences of conspiracy beliefs, limited research has examined their impact on interpersonal relationships. To our knowledge, only one unpublished study—specifically focused on QAnon conspiracy beliefs—has directly addressed this issue. Mousaw (2022) surveyed 423 users from the *r/QAnonCasualties* subReddit and found that they reported lower closeness, lower relationship satisfaction, and reduced frequency and quality in their interactions with close others regarding the time after (vs. before) the latter started supporting QAnon. However, whether and how conspiracy beliefs more generally erode people's interpersonal relationships are questions that remain widely unexplored.

1.2 | Interpersonal relationships and conspiracy beliefs

To answer these questions, it is critical to understand that people's interpersonal relationships and their beliefs and ideological systems are closely connected. According to theories of shared reality (Hardin & Higgins, 1996; Higgins et al., 2021), interpersonal relationships are founded on shared understandings and evaluations of the social context, which contribute to the social validation of people's individual beliefs. In other words, people tend to establish and develop relationships with others who share similar beliefs, attitudes, and values, since this reinforces their beliefs and certainty about themselves and their social context (Andersen & Przybylinski, 2018; Jost et al., 2008).

It is therefore unsurprising that perceived similarity in beliefs and attitudes is an important predictor of interpersonal attraction (Byrne et al., 1971; Montoya et al., 2008; Zorn et al., 2022). For instance, romantic partners and friends often hold similar political attitudes (Leikas et al., 2018; Poteat et al., 2011) and this political alignment is associated with relationship satisfaction (Peacock & Pederson, 2022). The social validation from sharing beliefs and attitudes induces positive emotions and increases interpersonal trust (Singh et al., 2017), both critical factors for the success of interpersonal relationships (Simpson, 2007). Furthermore, sharing similar beliefs and attitudes makes people feel understood (Andersen & Przybylinski, 2018), improving relationship quality and preventing interpersonal conflict (Gordon & Chen, 2016; Reis et al., 2017).

Opposing widely accepted views, conspiracy theories offer alternative explanations for specific events or social contexts (Douglas & Sutton, 2023). Conspiracy believers are thus distanced from the beliefs and attitudes system shared by the social majority. This distancing becomes more salient when conspiracy beliefs manifest in behavior against the shared reality. As discussed earlier, conspiracy beliefs have negative consequences, not just due to their oppositional nature, but also as perceived threats to common goods accepted by the social majority (e.g., democracy, public health, and the environment).

Furthermore, conspiracy theories can influence attitudes and beliefs. Research has shown that exposure to conspiracy theories related to Princess Diana's death increased agreement with such theories (Douglas & Sutton, 2008). Similarly, conspiracy theories about election rigging increased distrust in democratic institutions (Albertson & Guiler, 2020). For people who fall down the rabbit hole of conspiracy theories, these effects on their attitudes and beliefs might be more profound and long-lasting, leading to changes in their social identity (Biddlestone et al., 2021; Sutton & Douglas, 2022). Critically, such identity changes are likely to further distance conspiracy believers from their social network and diminish the quality of their relationships. Relationships based on conflicting attitudes or beliefs might frustrate the perception of shared reality and the need for social validation, leading both members of the relationship to compensate through other relationships. Conspiracy believers might seek like-minded others who share their conspiracy views about

reality (Biddlestone et al., 2021), whereas nonbelievers might connect with people who do not believe in (or even oppose) conspiracy theories. Therefore, an expected consequence of this attitudinal distancing is reduced relational closeness.

Importantly, the effect of conspiracy beliefs on interpersonal relationships likely depends on people's own conspiracy beliefs. So far, we have assumed that conspiracy beliefs are not shared in a relationship, given that most conspiracy theories are not endorsed by the social majority (e.g., Uscinski et al., 2022). However, in relationships where both parties believe in conspiracy theories, people also share similar (conspiracy) perceptions of reality and should find validation in the other like-minded conspiracy believer (Biddlestone et al., 2021; Sutton & Douglas, 2022). Research on impression formation supports this notion—politicians expressing conspiracy theories are positively evaluated by individuals with stronger conspiracy beliefs (Green, Toribio-Flórez, Douglas, Brunkow, et al., 2023). Thus, in relationships with shared conspiracy beliefs, the endorsement of conspiracy theories should be positively, rather than negatively, associated with relationship satisfaction.

2 | RESEARCH OVERVIEW

In the present research, we hypothesized overall that there would be a negative association between conspiracy beliefs and relationship satisfaction. However, we argue that this association should not be similar in every relationship. We considered that people's conspiracy beliefs might play a moderating role, and therefore, in every study we examined whether the hypothesized association might differ between people with weak and strong conspiracy beliefs.

We conducted two pilot studies and five main studies. Pilot Studies 1 and 2 aimed to offer preliminary correlational evidence of the hypothesized negative association between belief in conspiracy theories and relationship satisfaction. However, they presented some methodological limitations that we later addressed in the main studies. For brevity, we provide a short summary of their methods and findings here. A full report of both pilot studies, and a discussion of their methodological limitations, are available in the Supporting Information. In Pilot Studies 1 and 2, participants listed a series of people from their own social network (henceforth, *alters*) and answered questions regarding each of these alters, including measures of relationship satisfaction, relational closeness, and the alters' beliefs in specific (Pilot Studies 1) and general (Pilot Study 2) conspiracy theories. Participants also reported their own conspiracy beliefs. Across the two studies, we found evidence that participants, especially those with weaker conspiracy beliefs, perceived lower relationship satisfaction with alters who they thought believed more strongly in conspiracy theories. Furthermore, they perceived these alters as less relationally close to them (Pilot Study 2).

Studies 1–4, reported below, were conducted to examine potential mechanisms underlying the predicted negative association between conspiracy beliefs and relationship satisfaction. Study 1 served as an extended conceptual replication of Pilot Study 2. Studies

2, 3a, and 3b introduced an experimental approach to address our research question with the use of a hypothetical scenario. Finally, while Studies 1 to 3b focused on people's current relationships, Study 4 extended the scope of the investigation to examine experimentally how conspiracy beliefs might affect expected relationship satisfaction in prospective relationships.

3 | ETHICS AND OPEN SCIENCE

Each study was approved by the Ethics Committee at the School of Psychology of the University of Kent and was conducted following APA Ethical Principles of Psychologists and Code of Conduct.

For all studies, we report sample size rationales, data exclusions, and all experimental manipulations and measures, following APA reporting standards (Appelbaum et al., 2018). The only exception is Study 4, which included additional measures relevant to a different investigation that are not reported in this manuscript. Data were collected through online surveys built in Qualtrics and analyzed using R (version 4.2.1, R Core Team, 2018) and the R packages *lme4* (version 1.1-30, Bates et al., 2015) for multilevel models, *lavaan* (version 0.6-12, Rosseel, 2012) for mediation models, *ggplot2* (version 3.4.3, Wickham, 2016) and *sjPlot* (version 2.8.15, Lüdtke, 2022) for data visualization, and *simr* (version 1.0.6, Green & MacLeod, 2016) for power simulations.

We have made the processed data, code, and codebooks necessary to reproduce the results of every study openly available on OSF: <https://osf.io/59fkx/>. With the exception of Study 4, all studies were preregistered, including primary and secondary hypotheses, sample size, analysis plans, and the criteria for participant eligibility and inferential statistics. Links to each preregistration are shared below:

Pilot Study 1: https://osf.io/jex5h/?view_only=4d8f030d416b4a1e97ba7bbfd3ae7b1a

Pilot Study 2: https://osf.io/prnck/?view_only=38e1ef45987148728aec33960568e6a6

Study 1: https://osf.io/pcj4q/?view_only=7bb3b4642e4b4682bcb21edfa89b3c11

Study 2: https://osf.io/hwepu/?view_only=36212691add4e38ae6039df20b444cc

Study 3a: https://osf.io/4c8e5/?view_only=59509f24911c41f2a89b81f8d57a5a33

Study 3b: https://osf.io/e5fmv/?view_only=ca08844fd9224331b1dc6fc1c0943e9f

4 | STUDY 1

Study 1 was designed as a conceptual replication of Pilot Study 2. In both studies, participants were instructed to think of two alters with distinct levels of conspiracy beliefs. In Pilot Study 2, we used a general conspiracy statement as stimulus, asking participants to list one alter who believed this statement to be true and one alter who

did not believe this statement to be true (for further details, see Supporting Information). In Study 1, however, participants were presented with a set of specific conspiracy theories as stimuli and asked to list one alter who was generally prone to believe these conspiracy theories to be true and one alter who was not generally prone to believe them to be true.

We hypothesized that participants' relationship satisfaction with the alter who they thought to believe in conspiracy theories would be lower than their relationship satisfaction with the alter who they thought not to believe in conspiracy theories (H1a). We further predicted that participants' conspiracy beliefs would moderate the effect of the alters' conspiracy beliefs on relationship satisfaction, such that the expected association would be more negative among participants with lower (vs. higher) conspiracy beliefs (H1b).

Moreover, in Pilot Study 2, we included a measure of closeness to examine whether a change in perceived closeness could be a potential mechanism underlying the association between conspiracy beliefs and relationship satisfaction. However, we considered that this measure was rather unspecific, not allowing us to identify which kind of closeness people perceived in alters who endorsed conspiracy beliefs. Therefore, in Study 1, we extended the measure of perceived closeness to distinguish between relational, emotional, and attitudinal closeness, similar to previous theoretical frameworks (e.g., Kelley et al., 1983). Thus, in addition to our main hypotheses, we formulated predictions in line with the secondary results of Pilot Study 2. Specifically, we hypothesized that the alters' conspiracy beliefs would be indirectly associated with relationship satisfaction through relational closeness (H1c).

4.1 | Method

4.1.1 | A priori power analysis

We planned to recruit $N = 200$ participants based on the sample size estimation used in Pilot Studies 1 and 2 (see Supporting Information). Additionally, we used the data from Pilot Study 2 to conduct Monte Carlo power simulations to determine whether the effective sample size of Study 2 (roughly, $N = 150$) and the originally preregistered sample size ($N = 200$) were sufficient to detect a smaller interaction effect between participants' conspiracy beliefs and the continuous measure of alters' conspiracy beliefs than the one observed (i.e., $\beta = .23$), with acceptable statistical power (i.e., $> 80\%$). The simulations indicated that interaction effects as small as $\beta = .15$ were detected in more than 80% of the 1000 iterations, with both $N = 150$ and $N = 200$, assuming $\alpha = .05$ (for more details about the simulation, see Supporting Information).

4.1.2 | Participants and design

We recruited a sample of 201 UK participants from Prolific ($M_{\text{age}} = 38.1$, $SD_{\text{age}} = 13.59$, 48.26% female, 51.24% male, 0.51% nonbinary

or self-described). None failed the preregistered attention checks or provided incomplete responses. Participants received £0.90 as compensation for their participation.

The study design was within-subjects, with the conspiracy beliefs of the two alters as within-subjects factor (0: *conspiracy nonbeliever*, 1: *conspiracy believer*) and the two repeated measures of relationship satisfaction.

4.1.3 | Procedure and measures

Participants provided their informed consent and proceeded to list the two alters from their social network. We presented participants with a list of eight statements describing specific conspiracy theories, seven from Douglas and Sutton's (2011) scale (e.g., "The attack on the Twin Towers was not a terrorist action but a governmental conspiracy") and one additional statement related to the origin of the COVID-19 pandemic ("COVID-19 was created in a Chinese laboratory as part of a biological warfare program against the West," adapted from Bierwiazzonek et al., 2020). The order of the statements was randomized. We asked participants to read each statement carefully and list one alter who they thought was generally inclined to believe these sorts of statements to be true (i.e., conspiracy believer alter) and one alter who they thought was generally not inclined to believe these sorts of statements to be true (i.e., conspiracy nonbeliever alter).

Participants continued answering questions about each alter. The alters were presented in random order. The questions included the alter's demographic information (gender, age, and type of relationship) and the measures of perceived closeness. These consisted of three 100-point scales (0: *Not at all close*, 100: *Extremely close*), which aimed to differentiate between relational closeness (i.e., "How close is your relationship with [alter]?"), emotional closeness (i.e., "How emotionally close are you to [alter]?"), and attitudinal closeness (i.e., "In general, how close are your attitudes to those of [alter]?"). In the analyses, we used these three items as independent scales. As a measure of relationship satisfaction, participants completed the relationship assessment scale (Hendrick et al., 1998), which used a 7-point scale and consisted of seven items (e.g., "In general, how satisfied are you with your relationship with [alter]?", Cronbach's $\alpha = .93$ and $.89$ for the conspiracy believer alter and the conspiracy nonbeliever alter, respectively).

After the assessment of each alter, we obtained a measure of both the alters' and the participants' conspiracy beliefs. In random order, we presented participants with the different conspiracy-related statements they read before. For each statement, participants reported the extent to which they thought the different alters believed it to be true (1: *Not at all true*, 7: *Definitely true*). In addition, participants reported their own beliefs. The internal consistency among items was acceptable at the participants' and the alters' level (Cronbach's $\alpha = .86$ and 0.92 , respectively). Finally, participants provided demographic information (age, gender, education, ethnicity, and political orientation).

4.2 | Results

Participants identified the conspiracy believer alter mainly as a friend (37.31%) or a family member (29.35%), but some named colleagues/classmates (10.95%), acquaintances (10.45%), or spouses or significant others (6.47%). The conspiracy nonbeliever alter was also often a friend (40.8%) or a family member (30.35%); however, the next more frequent categories were spouses or significant others (21.9%), followed by colleagues/classmates (5.97%). These differences in the type of relationship between alters were statistically significant, $\chi^2(7, n = 402) = 50.58, p < .001$.

Participants indicated that the conspiracy believer alter held significantly higher conspiracy beliefs ($M = 4.47, SD = 1.32$) than the conspiracy nonbeliever alter ($M = 2.00, SD = 0.95$), $t(200) = 25.21, p < .001, d = 1.78$, 95% confidence interval (CI) [1.56, 2.00] (see Figure 1a). We further observed that participants perceived a significantly lower relationship satisfaction with the conspiracy believer alter ($M = 4.67, SD = 1.57$) than with the conspiracy nonbeliever alter ($M = 6.02, SD = 0.95$), $t(200) = -11.15, p < .001, d = -0.79$, 95% CI [-0.94, -0.63] (see Figure 1b).

To test whether participants' conspiracy beliefs moderated the effect of the alters' conspiracy beliefs, we fitted a multilevel model including the continuous measure of the alters' conspiracy beliefs, the participants' conspiracy beliefs, and their two-way interaction as fixed effects, relationship satisfaction as criterion, and the participants' ID number as random factor (see Table 1). The model indicated

that the alters' conspiracy beliefs were negatively associated with relationship satisfaction. However, the significant interaction term specified that this association weakened among participants with higher conspiracy beliefs. In Table 1, we further provide the results from a second model in which we accounted for potential differences across the different conspiracy theories by including this as an additional random factor. Despite not being able to offer a model comparison due to the different number of observations in each model, the results and the model fit of the two models did not substantially differ. This suggests that the moderated effect of conspiracy beliefs on relationship satisfaction held across the different conspiracy theories.

We also performed multilevel mediation analyses, clustering observations within participants, to test whether the alters' perceived closeness mediated the effect of the alters' perceived conspiracy beliefs on relationship satisfaction. As preregistered, the first mediation model included the alters' conspiracy beliefs as within-subject factor, perceived relational closeness as mediator, and relationship satisfaction as criterion (see Figure 2a). We observed that the direct effect of the within-subject factor was significant. However, the significant indirect effect indicated that the effect of the alters' conspiracy beliefs on relationship satisfaction was partly related to differences in perceived relational closeness, $ab = -0.89, p < .001$, 95% Monte Carlo CI [-1.10, -0.69] (10,000 iterations). Note that the difference between the sizes of path a and path b is due to the different scales used to measure perceived closeness (i.e., 1–100) and

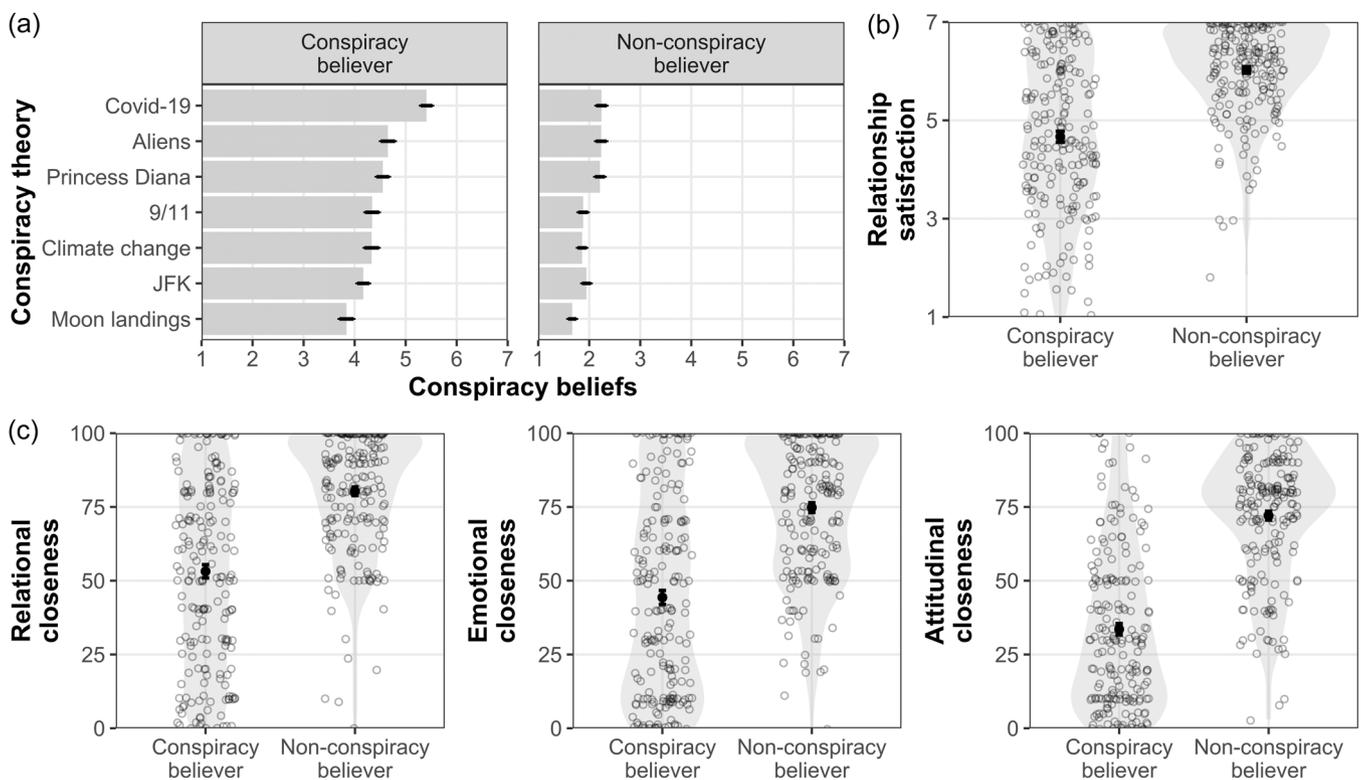


FIGURE 1 Alters' conspiracy beliefs (a), relationship satisfaction (b), and perceived relational, emotional, and attitudinal closeness (c): Study 1. Error bars represent 95% confidence intervals.

TABLE 1 Multilevel models testing for the moderating role of participants' conspiracy beliefs regarding the effect of the alters' conspiracy beliefs on relationship satisfaction: Study 1.

Predictors	Model 1 (preregistered)			Model 2		
	<i>b</i> [95% CI]	β [95% CI]	<i>t</i> <i>p</i>	<i>b</i> [95% CI]	β [95% CI]	<i>t</i> <i>p</i>
Intercept	7.42 [6.88, 7.96]	-.09 [-0.18, 0.01]	27.00 <.001	6.81 [6.49, 7.12]	-.07 [-0.17, 0.03]	42.00 <.001
Alters' conspiracy beliefs	-.83 [-0.98, -0.69]	-.49 [-0.58, -0.41]	-11.44 <.001	-.60 [-0.64, -0.56]	-.41 [-0.44, -0.38]	-28.94 <.001
Participants' conspiracy beliefs	-.35 [-0.58, -0.12]	.18 [0.08, 0.28]	-2.95 .003	-.27 [-0.38, -0.15]	.14 [0.05, 0.23]	-4.36 <.001
Alters' conspiracy beliefs × Participants' conspiracy beliefs	0.17 [0.12, 0.22]	.25 [0.17, 0.32]	6.39 <.001	.13 [0.12, 0.15]	.24 [0.21, 0.26]	17.70 <.001
Random effects						
σ^2	1.26			0.90		
τ_{00}	0.32 _{ParticipantID}			0.85 _{ParticipantID}		
ICC	0.20			0.01 _{CT_label}		
<i>N</i>	201 _{ParticipantID}			0.49		
Observations	402			201 _{ParticipantID}		
Marginal <i>R</i> ² /Conditional <i>R</i> ²	.283/.428			7 _{CT_label}		
				2814		
				.204/.591		

Note: Significant differences at $p < .05$ are highlighted in bold.

Abbreviations: 95% CI, 95% confidence interval; ICC, intraclass correlation coefficient.

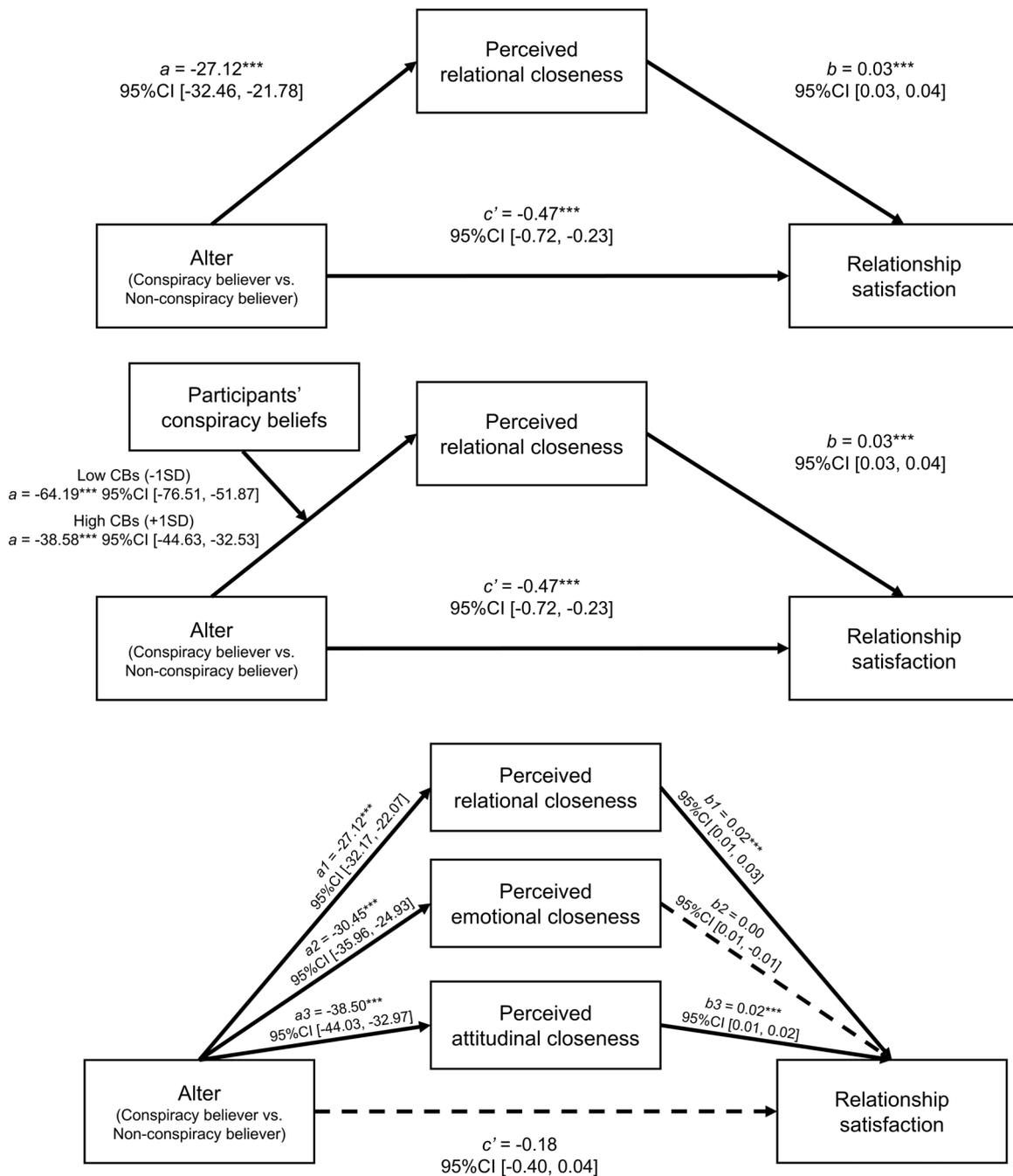


FIGURE 2 Fitted mediation models describing the indirect effect of the alters' conspiracy beliefs on relationship satisfaction via perceived closeness (a), accounting for the moderating role of participants' conspiracy beliefs (b), and the distinctions between relational, emotional and attitudinal closeness (c): Study 1. $***p < .001$. a , b , and c' represent unstandardized regression coefficients. 95% CI, 95% confidence interval.

relationship satisfaction (i.e., 1–7), as the reported regression coefficients are unstandardized.

In a second model, we accounted for the observed moderating role of participants' own conspiracy beliefs. We entered the participants' conspiracy beliefs as moderator of the path between the alters' conspiracy beliefs and perceived relational closeness (see Figure 2b). The model fit was significantly better than the first mediation model, $\Delta AIC = 39.32$, $\chi^2(2) = 10.34$, $p = .006$. We

observed that, indeed, while there was a significant indirect effect of the alters' conspiracy beliefs on relationship satisfaction, $ab = -1.64$, $p < .001$, 95% Monte Carlo CI [-2.07, -1.26] (10,000 iterations), this was significantly moderated by participants' conspiracy beliefs (index of moderated mediation $b = 0.33$, 95% Monte Carlo CI [0.22, 0.45], 10,000 iterations). Simple slopes showed that the conditional indirect effect among participants with weaker conspiracy beliefs (i.e., -1SD), $ab = -2.05$, 95%

Monte Carlo CI [-2.63, -1.55] (10,000 iterations) was more pronounced than among those with stronger conspiracy beliefs (i.e., +1SD), $ab = -1.23$, 95% Monte Carlo CI [-1.55, -0.96] (10,000 iterations).

Finally, we checked whether the conceptual distinction between perceived relational, emotional, and attitudinal closeness provided further information about the effect of conspiracy beliefs on relationship satisfaction. Thus, we fitted a third mediation model, in this case, including the three different types of perceived closeness as parallel mediators. The model accounted for the covariance among the three measures of perceived closeness. As depicted in Figure 2c, the direct effect of the alters' conspiracy beliefs was no longer significant. However, the alters' conspiracy beliefs were associated with the three types of perceived closeness, whereas relational and attitudinal closeness, but not emotional closeness, were associated with relationship satisfaction. Thus, the indirect effects through relational closeness, $a1b1 = -0.49$, $p = .002$, 95% Monte Carlo CI [-0.81, -0.19] (10,000 iterations), and attitudinal closeness, $a3b3 = -0.58$, $p < .001$, 95% Monte Carlo CI [-0.82, -0.35] (10,000 iterations), were statistically significant, but not the indirect effect through emotional closeness, $a2b2 = -0.11$, $p = .506$, 95% Monte Carlo CI [-0.42, 0.20] (10,000 iterations). This could be explained by the high covariance between the three conceptually related mediators. In any case, this exploratory model indicated that participants identified the conspiracy believer alter as someone with whom they shared a more distant relationship and less similar attitudes, and that this lack of relational and attitudinal closeness was associated with the lower relationship satisfaction participants perceived with this alter, compared to the conspiracy nonbeliever alter.

Study 1 replicated the findings obtained in Pilot Study 2 and extended their conclusions in several regards. First, the negative association between the alters' conspiracy beliefs and relationship satisfaction was present when considering specific conspiracy theories, in comparison to the general conspiracy statement used in Pilot Study 2. We did not only find this negative association held when accounting for differences between specific conspiracy theories, but we further observed that participants perceived lower relationship satisfaction with individuals who they considered as generally inclined to believe in specific conspiracy theories.

Critically, the association between the alters' conspiracy beliefs and relationship satisfaction was, as in Pilot Study 2, moderated by participants' own conspiracy beliefs. People with weaker conspiracy beliefs mainly considered that relationships with conspiracy believers were less satisfactory. Furthermore, the mediation analyses shed light on plausible mechanisms of this conditional effect, related to perceptions of relational and attitudinal closeness. According to the results, people, especially those who do not believe in conspiracy theories, consider conspiracy believers further away in their social network and less attitudinally similar to them, which could conceptually contribute to their overall lower relationship satisfaction.

Despite the consistent results, one potential methodological limitation of Pilot Study 2 and Study 1 is that the alters people reported as conspiracy believer and conspiracy nonbeliever could

systematically differ in certain demographics (e.g., type of relationship, as in Study 1) or other unassessed variables (e.g., alters' political orientation) based on participants' implicit theories of what defines a conspiracy believer, relative to a conspiracy nonbeliever. These differences could ultimately impact the main results. Thus, in our next study, we aimed to address this issue by means of a pre-post experimental design, through which participants did not receive any instructions when listing the alters. This type of design had a second advantage, namely the assessment of within-subjects changes in relationship satisfaction associated with the alters' hypothetical expression of conspiracy beliefs.

5 | STUDY 2

In Study 2, we asked participants to imagine a hypothetical scenario in which one of the alters from their social network explicitly endorsed (vs. opposed) a conspiracy theory. Using a pre-post design, we assessed whether participants' perceptions of relationship satisfaction would change if this hypothetical event took place.

We expected that participants' relationship satisfaction with the alter would decrease when the alter endorsed the conspiracy theory, but not when the alter opposed the conspiracy theory (H2a). In line with the previous findings, we further expected that participants' own conspiracy beliefs would moderate this effect, such that the expected change would be more pronounced among participants with lower (vs. higher) conspiracy beliefs (H2b). Regarding the role of perceived closeness, we predicted that the alter's endorsement of conspiracy theories would be indirectly associated with changes in relationship satisfaction through changes in perceived relational and attitudinal closeness (H2c).

5.1 | Method

5.1.1 | A priori power analyses

We conducted a priori power simulations, using a diff-in-diff approach to estimate the statistical power to detect a difference of $d = 0.25$ in the change of relationship satisfaction (pre- vs. post-measure) across two independent groups. This target effect size was smaller than the effect observed in Pilot Study 2 (i.e., $d = -0.31$), the study using the same stimuli to the present study. A sample size of $N = 800$ allowed us to detect the target effect with sufficient statistical power; this was 80% at the lowest intraclass correlation coefficient (ICC) we considered between the pre- and the postmeasure of relationship satisfaction (i.e., 0.20). The statistical power was $\geq 90\%$ at higher ICCs (for further details about the simulation, see Supporting Information).

5.1.2 | Participants and design

We collected data from UK participants via Prolific. We preregistered a sequential analysis approach to data collection, the advantage of

which is the potential to reduce the sample size necessary to test hypotheses, and therefore, optimize resources. This approach consists of deciding a priori to perform interim analyses during data collection while controlling for type I error rates and to stop data collection earlier if sufficient evidence against the null hypothesis is obtained after one of these analyses (Lakens, 2014). In this case, we preregistered that we would perform two equally spaced interim analyses after collecting $n = 400$ and $n = 800$ participants. However, our first batch of data (403 participants after exclusions) prevented us from performing equally spaced interim analyses. We addressed this deviation from our preregistration by correcting the adjusted inference criteria using spending functions (i.e., one-sided, $\alpha = .0126$; Lakens, 2014). The test of the effect of condition on the change of relationship satisfaction (i.e., H2a) was not significant at the corrected α level (for analyses with the first batch, see Supporting Information: Table S5). Therefore, we proceeded to collect a second batch of data (total of 818 participants). The final sample size after excluding participants who failed an attention check was 801 ($M_{\text{age}} = 41.08$, $SD_{\text{age}} = 13.84$, 49.31% female, 49.69% male, 0.99% nonbinary or self-described). Participants received £0.60 as compensation for their participation.

The study followed a pre–post design, with two measures of relationship satisfaction before and after the between-subjects manipulation. This consisted of the hypothetical scenario, in which participants considered that either the alter had endorsed a conspiracy theory (1: *pro-conspiracy* condition) or had opposed it (0: *anti-conspiracy* condition).

5.1.3 | Procedure and measures

After providing informed consent, participants listed one alter from their social network (without further instructions) and provided demographic information about this person (i.e., age, gender, and type of relationship). As a baseline measure of the alter's conspiracy beliefs, participants reported the extent to which they thought the alter believed that “the official version of the events given by authorities very often hides the truth.” This conspiracy statement was extracted from the preamble of the single item measure of conspiracy beliefs (Lantian et al., 2016). Then, they completed the measures of perceived closeness and attitudinal closeness used in Study 1, as well

as the relationship assessment scale (Cronbach's $\alpha_{\text{pre}} = .88$; Hendrick et al., 1998).

Next, we manipulated between-subjects the alter's endorsement of conspiracy theories by introducing the hypothetical scenario. We asked participants to imagine that they met the alter and engaged in conversation with them. During the conversation, the alter claimed to endorse (vs. oppose) the aforementioned conspiracy belief, extracted from Lantian et al.'s (2016) measure. Specifically, the alter claimed to believe either that “the official version of the events given by authorities, such as the 09/11 attacks, the death of Lady Diana, or the assassination of John F. Kennedy” very often hides the truth (pro-conspiracy condition) or that it can be relied upon as the truth (anti-conspiracy condition). We asked participants to consider that this situation took place to respond a second time to the measures of relational and attitudinal closeness and the relationship assessment scale (Cronbach's $\alpha_{\text{post}} = .91$).

Finally, participants reported their own conspiracy beliefs through Lantian et al.'s (2016) scale and reported their demographic information.

5.2 | Results

For most participants, the alter was one of their friends (51.19%) or family members (20.47%); yet, others named a significant other (11.49%), their spouse (8.74%), colleagues/classmates (5.37%), or others (2.61%).

Regarding the main analyses, we first checked whether participants held similar baseline perceptions of the alter across both conditions. As summarized in Table 2, participants' perceptions of the alter's conspiracy beliefs, relationship satisfaction, and relational and attitudinal closeness did not significantly differ across conditions. Having confirmed this, we proceeded to examine whether participants' relationship satisfaction with the alter had decreased in the pro-conspiracy condition compared to the anti-conspiracy condition. To do so, we regressed the difference score of relationship satisfaction (i.e., post–pre) on the experimental manipulation (see Table 3, Model 1). As expected, we observed a decrease in relationship satisfaction in the pro-conspiracy condition ($M_{\text{diff}} = -0.13$, $SE_{\text{diff}} = 0.03$), whereas relationship satisfaction did not change in the anti-conspiracy condition ($M_{\text{diff}} = 0.01$, $SE_{\text{diff}} = 0.03$).

TABLE 2 Pairwise comparisons of the alter's baseline perceptions between conditions: Study 2.

Measure	Anti-conspiracy condition	Pro-conspiracy condition	Mean difference	95% CI	<i>t</i> (799)	<i>p</i>
Alter's conspiracy beliefs	3.65	3.69	−0.04	[−0.29, 0.21]	−0.31	.758 (0.758)
Relationship satisfaction	6.04	5.99	0.05	[−0.07, 0.17]	0.77	.439 (0.440)
Relational closeness	78.87	77.56	1.31	[−1.51, 4.13]	0.91	.361 (0.363)
Attitudinal closeness	69.79	70.50	−0.71	[−3.41, 2.00]	−0.51	.608 (0.608)

Note: In parenthesis, *p* adjusted for the first preregistered interim analysis performed during data collection, using the R package GroupSeq (version 1.4.0) and following the instructions from Lakens (2014).

Abbreviation: 95% CI, 95% confidence interval.

TABLE 3 Linear regression models regressing difference in relationship satisfaction (post-pre) on manipulation of the alter's endorsement of conspiracy theories: Study 2.

Predictors	Model 1			Model 2		
	<i>b</i> [95% CI]	β [95% CI]	<i>t</i> <i>p</i>	<i>b</i> [95% CI]	β [95% CI]	<i>t</i> <i>p</i>
Intercept	0.01 [−0.05, 0.06]	.12 [0.02, 0.21]	0.20 .838	0.11 [−0.01, 0.23]	.12 [0.03, 0.22]	1.79 .074 (0.085)
Condition (Pro-conspiracy)	−0.13 [−0.21, −0.05]	−.23 [−0.37, −0.10]	−3.33 .001 (.025)	−0.54 [−0.71, −0.37]	−.22 [−0.36, −0.09]	−6.27 <.001 (.025)
Participants' conspiracy beliefs				−0.03 [−0.05, 0.00]	−.09 [−0.19, 0.00]	−1.89 .059 (0.072)
Condition (Pro-conspiracy) × Participants' conspiracy beliefs				0.11 [0.07, 0.15]	.37 [0.24, 0.51]	5.39 <.001 (.025)
Observations	801					
<i>R</i> ² / <i>R</i> ² adjusted	.014/.012					

Note: The *p* columns include in parenthesis *p*-values adjusted for the first preregistered interim analysis performed during data collection, using the R package GroupSeq (version 1.4.0) and following the instructions from Lakens (2014). Significant differences at *p* < .05 are highlighted in bold.

Furthermore, we tested whether participants' own conspiracy beliefs moderated this effect. We included the Condition × Participants' conspiracy beliefs interaction term into the model and it was statistically significant (see Table 3, Model 2). Simple slopes analysis indicated that the decrease in relationship satisfaction in the pro-conspiracy (vs. anti-conspiracy) condition was more pronounced among participants with weaker conspiracy beliefs (i.e., −1SD), $b = -0.75$, 95% CI [−0.99, −0.51], $t(797) = -6.14$, $p < .001$, Adj. $p = .025$, compared to those with stronger conspiracy beliefs (i.e., +1SD), $b = -0.33$, 95% CI [−0.44, −0.23], $t(797) = -6.11$, $p < .001$, Adj. $p = .025$.

We additionally tested whether the alter's endorsement of conspiracy theories was indirectly associated with the difference in relationship satisfaction through changes in perceived relational and attitudinal closeness. Thus, we fitted a mediation model, including the experimental manipulation as predictor, the difference score (i.e., post-pre) of relational and attitudinal closeness as parallel mediators, and the difference score of relationship satisfaction as criterion. The model accounted for the covariance among the two measures of perceived closeness. Based on the adjusted *p* values for the sequential analyses, the indirect effect through attitudinal closeness was statistically significant, $a2b2 = -0.08$, $p < .001$, Adj. $p = .025$, 95% Monte Carlo CI [−0.12, −0.05] (10,000 iterations), but not the indirect effect through relational closeness, $a1b1 = -0.03$, $p = .044$, Adj. $p = .059$, 95% Monte Carlo CI [−0.06, −0.01] (10,000 iterations).

In a second mediation model, we accounted for the observed moderating role of participants' own conspiracy beliefs. We included this moderator in the first path between the manipulation and the mediators (i.e., relational and attitudinal closeness). The model fit did not significantly improve relative to the first mediation model, $\Delta AIC = 14,433$, $\chi^2(2) = 2.16$, $p = .142$, Adj. $p = .149$. However, although the indirect effects through relational and attitudinal closeness remained significant, they were significantly moderated by participants' conspiracy beliefs (see Figure 3).

In summary, Study 2 experimentally demonstrated that people expected their relationship satisfaction to worsen when others explicitly endorsed conspiracy theories, compared to when they opposed them. In line with our previous results, this effect depended on people's own conspiracy beliefs: those with weaker conspiracy beliefs foresaw a greater erosion in their relationship satisfaction than those with stronger conspiracy beliefs. Furthermore, we consistently found that the decrease in relationship satisfaction was partly associated with perceptions of relational and attitudinal distancing.

Despite the consistent results regarding the potential eroding effect of conspiracy beliefs on relationship satisfaction, we considered it necessary to delve into the specific changes that people expected to occur within their relationships. We observed a decrease in relational and attitudinal closeness, but these findings were unclear insofar as the measures we had used did not clarify the specific relational and attitudinal changes people expected to occur. A decrease in relational closeness could be attributed to the distancing of people related to the conspiracy believer due to a process of

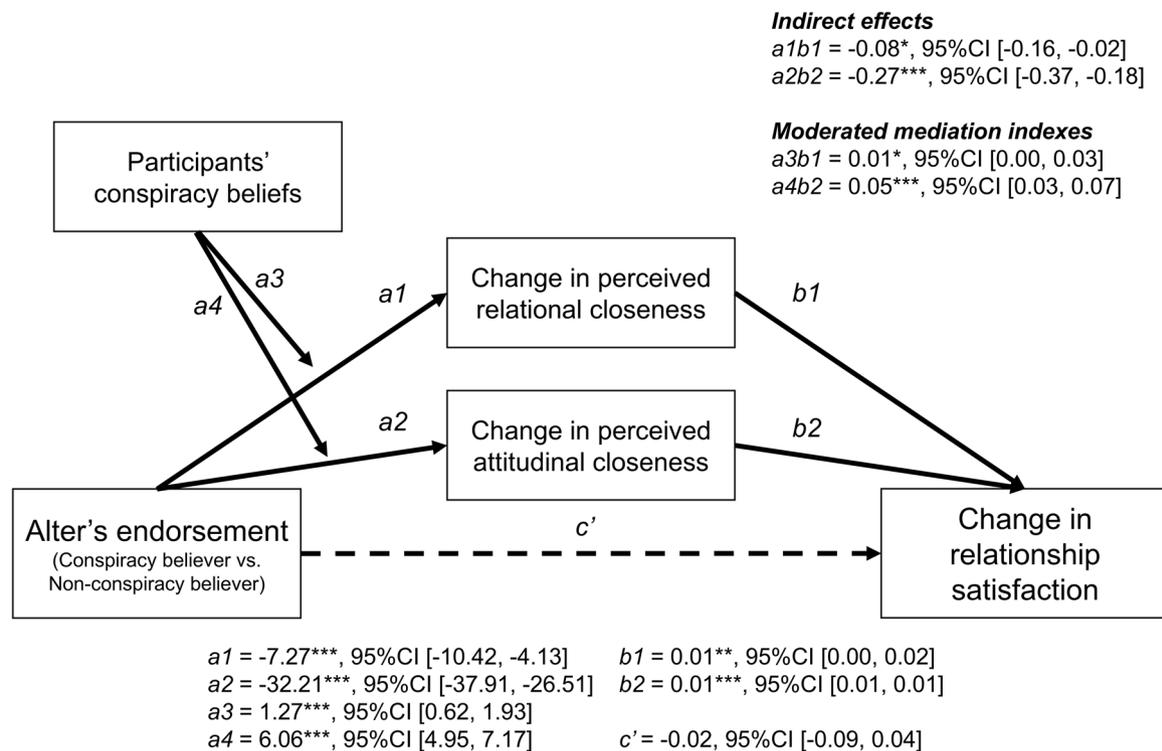


FIGURE 3 Fitted moderated mediation model describing the indirect effects of the alter's endorsement of conspiracy theories on relationship satisfaction via perceived closeness: Study 2. * $p < .05$, ** $p < .01$, *** $p < .001$. 95% CI, 95% confidence interval.

stigmatization and social exclusion (Lantian et al., 2018); yet, it could also be attributed to the conspiracy believer's effort of distancing themselves to fulfill specific individual and social motives (e.g., need for uniqueness, fostering ingroup's image; Biddlestone et al., 2021). Thus, a remaining question is which and whose behavioral reactions explained the decrease in relational closeness we observed in previous studies.

For its part, a perceived decrease in attitudinal closeness should refer to attitude changes regarding topics related (and not those unrelated) to the specific conspiracy theory being endorsed. We therefore aimed to examine whether the process of attitudinal distancing refers to topics related (vs. unrelated) to the belief in a specific conspiracy theory.

Finally, we wanted to examine the role of other potential factors, like interpersonal trust and political orientation. Interpersonal trust is a fundamental factor for the development and maintenance of interpersonal relationships (Simpson, 2007). Being rooted in, among other things, attitudinal closeness (Singh et al., 2015), interpersonal trust can be negatively affected by a process of attitudinal distancing. Researchers have further argued that the misrepresentation of social norms that accompanies conspiracy beliefs can negatively affect interpersonal trust, and ultimately, interpersonal relationships (Pummerer, 2022; van Prooijen et al., 2022). Thus, we considered it important to assess whether conspiracy beliefs were related to perceptions of interpersonal trust.

Regarding political orientation, some research shows that conservatives tend to display higher conspiracy beliefs (van der Linden et al., 2021), whereas other work suggests that conspiracy beliefs are endorsed by both poles of the political spectrum (Imhoff et al., 2022). Both scenarios indicate that the endorsement of conspiracy theories could contribute to the polarization of people's political attitudes and, therefore, to the process of attitudinal distancing that we argue might affect people's relationship satisfaction. We aimed to address these issues in Studies 3a and 3b.

6 | STUDIES 3A AND 3B

Similar to Study 2, Studies 3a and 3b examined the differences in relationship satisfaction between alters who endorsed (vs. opposed) conspiracy theories. However, we extended our battery of dependent measures to shed light on other potential explanations of this effect. In contrast to the previous studies, we assessed people's expectations of them and the alter engaging in specific behavioral reactions that arguably increased (vs. decreased) relational closeness. Furthermore, we investigated whether the alter's expression of conspiracy beliefs influenced people's perceptions and meta-perceptions of interpersonal trust. Moreover, we measured perceptions of attitudinal closeness regarding specific topics, these being related (vs. unrelated) to the conspiracy theory. Finally, we evaluated

whether the expression of conspiracy beliefs was associated with a change in the perception of the alter's relative political orientation.

In these two studies, we expected to replicate the negative effect of the alter's endorsement of conspiracy theories on relationship satisfaction, and the moderating role of people's own conspiracy beliefs (H3a). Furthermore, we hypothesized that when the alter endorsed (vs. opposed) a conspiracy theory, people would expect to behaviorally distance themselves from (vs. get closer to) the alter (H3b), and the alter from them (H3c). We also assumed that people would identify themselves or the alter as primarily responsible of this relational distancing, and therefore, we expected differences between the participants' and the alter's anticipated distancing reactions (H3d). Moreover, we predicted that when the alter endorsed (vs. opposed) a conspiracy theory, people would perceive the alter as less trustworthy (H3e), and they would expect the alter to perceive them as less trustworthy (H3f). In this condition, we also expected people's perceptions and meta-perceptions of trust to differ (H3g) based on the same assumption as before. Regarding attitudinal closeness, we hypothesized that when the alter endorsed (vs. opposed) a conspiracy theory, people would perceive lower attitudinal closeness; however, this effect would depend on the attitude object, such that it would only emerge when the attitude object is related (vs. unrelated) to the content of the conspiracy theory (H3h). Finally, we predicted that when the alter endorsed (vs. opposed) a conspiracy theory, people would perceive the alter to have more conservative political orientation than theirs (H3i).

6.1 | STUDY 3A

6.1.1 | Method

Participants and design

As preregistered, we collected data for 1 month and recruited 318 undergraduate students, who received course credits as compensation. After excluding eight participants who failed a preregistered attention check, the final sample consisted of 310 ($M_{\text{age}} = 19.42$, $SD_{\text{age}} = 2.27$, 83.23% female, 13.87% male, 2.9% nonbinary or self-described). Posthoc power simulations indicated that this sample size guaranteed sufficient statistical power (i.e., $1 - \beta > .90$) to detect the expected Condition \times Conspiracy beliefs interaction effect (for details, see Supporting Information).

In contrast to Study 2, the study design was exclusively between-subjects, but we used the same experimental manipulation (0: *anti-conspiracy condition*, 1: *pro-conspiracy condition*).

Procedure and measures

After providing informed consent, participants chose one alter from their social network and reported this person's demographic information and conspiracy beliefs through Lantian et al.'s (2016) scale. Then, we randomly assigned participants to the pro-conspiracy condition or the anti-conspiracy condition, where they read the same hypothetical scenarios, as in Study 2.

We asked participants to consider this scenario while responding to the different dependent measures. First, as in previous studies, we assessed relationship satisfaction through the relationship assessment scale (response options from 1 to 7, Cronbach's $\alpha = .88$; Hendrick et al., 1998). Second, participants reported their own and the alter's expected behavioral reactions through three bipolar scales, where low scores captured reactions decreasing relational closeness and high scores captured reactions that increased it (e.g., 1: *[I/The alter] would try to talk or meet less often with [the alter/me]*, 5: *No reaction*, 9: *[I/The alter] would try to talk or meet more often with [the alter/me]*; Cronbach's $\alpha_{\text{participant}} = .85$ and Cronbach's $\alpha_{\text{alter}} = .86$). Third, as a measure of perceptions and meta-perceptions of interpersonal trust, participants respectively indicated how trustworthy, dependable, and credible they would think the alter to be (i.e., perceptions; Cronbach's $\alpha_{\text{participant}} = .90$), and how the alter would think them to be (i.e., meta-perceptions; Cronbach's $\alpha_{\text{alter}} = .91$). Next, participants reported their attitude closeness with the alter in a scale from 1 (*Not at all close*) to 9 (*Extremely close*) regarding three attitude objects related to the conspiracy implied in the hypothetical scenario—that “the official version of the events given by authorities” might hide the truth (i.e., the government, politicians, and mass media)—and three attitude objects unrelated to this conspiracy (i.e., veganism, abortion, and immigration). Parallel analysis suggested clustering these items in two factors and item loadings from an exploratory factor analysis (EFA; see Supporting Information: Table S6) indicated that the items loaded on the two proposed clusters, that is, attitude objects related (Cronbach's $\alpha = .87$) and unrelated (Cronbach's $\alpha = .74$) to the conspiracy theory. Finally, we asked participants where they would place the alter's political orientation relative to theirs given the hypothetical scenario, on a scale from 0 (*Extremely more conservative than me*) to 100 (*Extremely more liberal than me*), with 50 representing political similarity. Participants finished the study by reporting their own conspiracy beliefs and demographic information, and they were debriefed, thanked and compensated.

6.1.2 | Results

Most participants identified the alter as a friend (46.45%), a family member (29.03%), or a significant other (19.03%), whereas a few listed other types of relationships (5.49%).

First, we tested the effect of the manipulation on relationship satisfaction. We fitted a linear regression model, including condition as main predictor, and participants' conspiracy beliefs as a moderator (see Table 4). We observed a significant effect of Condition and a significant Condition \times Participants' conspiracy beliefs interaction. Contrary to our prediction, the effect of Condition was positive, indicating that, at the mean level of participants' conspiracy beliefs, participants reported higher relationship satisfaction in the pro-conspiracy condition ($M = 5.73$, $SD = 1.09$), compared to the anti-conspiracy condition ($M = 5.54$, $SD = 0.93$). Simultaneously, the two-way interaction worked as expected: according to simple slopes analysis, the effect of condition reversed and became negative—yet nonsignificant—among weak conspiracy believers (i.e., $-1SD$),

TABLE 4 Linear regression models with relationship satisfaction and relative political orientation as dependent measures: Study 3a.

Predictors	Relationship satisfaction			Relative political orientation		
	<i>b</i> [95% CI]	<i>t</i>	<i>p</i>	<i>b</i> [95% CI]	<i>t</i>	<i>p</i>
Intercept	6.02 [5.44, 6.59]	20.62	<.001	61.55 [51.15, 71.95]	11.65	<.001
Condition (Pro-conspiracy)	-1.33 [-2.09, -0.57]	-3.44	.001	-25.38 [-39.14, -11.62]	-3.63	<.001
Participants' conspiracy beliefs	-0.09 [-0.20, 0.01]	-1.70	.091	-2.99 [-4.92, -1.07]	-3.06	.002
Condition (Pro-conspiracy) × Participants' conspiracy beliefs	0.30 [0.15, 0.44]	4.13	<.001	5.73 [3.18, 8.28]	4.42	<.001
Observations	310					
<i>R</i> ² / <i>R</i> ² adjusted	.074/.065			.073/.064		

Note: Significant differences at $p < .05$ are highlighted in bold.

$b = -0.27$, 95% CI [-0.59, 0.04], $t(306) = -1.72$, $p = .087$, whereas among strong conspiracy believers (i.e., +1SD) the increase in relationship satisfaction in the pro-conspiracy condition was more pronounced, $b = 0.66$, 95% CI [0.35, 0.97], $t(306) = 4.16$, $p < .001$. This interaction pattern indicated that the results were consistent with our previous findings. However, it suggested that the sample recruited for this specific study held on average strong conspiracy beliefs. Indeed, the average level of conspiracy beliefs was significantly higher than 4 (i.e., the midpoint of the scale), $M = 5.15$, 95% CI [4.98, 5.33], $t(309) = 12.86$, $p < .001$, and higher than in our previous samples (for differences about samples distributions, see Supporting Information: Figure S9). We will elaborate on this during the overall discussion of the study's results.

For the analysis of behavioral reactions of relational closeness, (meta-)perceptions of interpersonal trust, and attitudinal closeness, we deviated from our preregistration. We realized that the pre-registered linear analyses for these measures were inappropriate in that these were repeated measures. Thus, we used multilevel regression models, which included the participants' ID as random factor to account for the within-subjects variance. Every model included condition as predictor and participants' conspiracy beliefs as a moderator. Furthermore, we entered in each model an additional moderating factor that respectively captured the differences between participants' (0) vs. the alter's (1) behavioral reactions, perceptions (0) versus meta-perceptions (1) of trust, and attitudinal closeness regarding attitude objects related (0) versus unrelated (1) to the conspiracy theory (see Table 5).

The model on behavioral reactions of relational closeness showed a significant positive effect of condition. At the mean level of participants' conspiracy beliefs, participants expected themselves to get closer to the alter in the pro-conspiracy condition ($M = 6.16$, $SD = 1.52$), compared to the anti-conspiracy condition ($M = 5.29$, $SD = 1.16$). The Condition × Participants' conspiracy beliefs interaction was also significant. Simple slopes showed that this effect was null among weak conspiracy believers (i.e., -1SD), $b = -0.01$, 95% CI [-0.41, 0.40], $t(411.09) = -0.03$, $p = .973$, whereas among strong conspiracy believers (i.e., +1SD) the effect was more pronounced, $b = 1.78$, 95% CI [1.38, 2.19], $t(411.09) = 8.63$, $p < .001$. The effect or interactions with the factor capturing the differences between the participants' and the alter's reactions were not significant, which indicated that the same pattern of results applied to participants' expectations of how the alter would react.

Regarding interpersonal trust, a similar pattern emerged. There was a significant positive effect of condition. At the mean level of participants' conspiracy beliefs, participants perceived the alter as more trustworthy in the pro-conspiracy condition ($M = 6.99$, $SD = 1.67$), compared to the anti-conspiracy condition ($M = 6.61$, $SD = 1.85$). A significant Condition × Participants' conspiracy beliefs interaction and subsequent simple slopes analyses indicated that this effect was more pronounced among high conspiracy believers (i.e., +1SD), $b = 1.19$, 95% CI [0.64, 1.74], $t(372.33) = 4.24$, $p < .001$, and that among low conspiracy believers (i.e., -1SD) the effect seemed to reverse yet it was not significant, $b = -0.42$, 95% CI [-0.97, 0.13],

TABLE 5 Multilevel regression models with behavioral reactions, interpersonal trust, and attitudinal closeness as dependent measures: Study 3a.

Predictors	Relational closeness			Interpersonal trust			Attitudinal closeness			
	<i>b</i> [95% CI]	β [95% CI]	<i>t</i>	<i>b</i> [95% CI]	β [95% CI]	<i>t</i>	<i>b</i> [95% CI]	β [95% CI]	<i>t</i>	<i>p</i>
Intercept	5.92 [5.17, 6.66]	-.30 [-0.44, -0.15]	15.62 <.001	7.31 [6.30, 8.32]	-.04 [-0.19, 0.12]	14.19 <.001	5.87 [4.79, 6.95]	-.28 [-0.43, -0.13]	10.71 <.001	
Condition (Pro-conspiracy)	-2.03 [-3.01, -1.04]	.62 [0.42, 0.82]	-4.05 <.001	-2.25 [-3.58, -0.91]	.21 [-0.00, 0.43]	-3.29 .001	-2.96 [-4.39, -1.54]	.27 [0.06, 0.48]	-4.09 <.001	
Participants' conspiracy beliefs	-0.12 [-0.26, 0.02]	-.13 [-0.29, 0.02]	-1.73 .084	-0.13 [-0.32, 0.05]	-.12 [-0.28, 0.05]	-1.41 .159	-0.05 [-0.25, 0.15]	-.04 [-0.20, 0.12]	-0.48 .632	
Behavioral reaction (Alter)	0.14 [-0.44, 0.72]	.03 [-0.08, 0.14]	0.47 .637							
Condition (Pro-conspiracy) × Participants' conspiracy beliefs	0.57 [0.38, 0.75]	.63 [0.42, 0.83]	6.08 <.001	0.51 [0.26, 0.76]	.45 [0.23, 0.66]	4.04 <.001	0.68 [0.42, 0.94]	.54 [0.33, 0.75]	5.05 <.001	
Condition (Pro-conspiracy) × Behavioral reaction (Alter)	0.23 [-0.53, 0.99]	-.10 [-0.26, 0.05]	0.59 .553							
Participants' conspiracy beliefs × Behavioral reaction (Alter)	-0.02 [-0.13, 0.09]	-.02 [-0.14, 0.10]	-0.34 .730							
Condition (Pro-conspiracy) × Participants' conspiracy beliefs × Behavioral reaction (Alter)	-0.07 [-0.21, 0.07]	-.08 [-0.24, 0.08]	-1.01 .314							
Trust (Meta-perception)				-0.46 [-1.09, 0.18]	-.11 [-0.21, -0.01]	-1.41 .160				
Condition (Pro-conspiracy) × Trust (Meta-perception)				-0.04 [-0.88, 0.80]	-.04 [-0.18, 0.09]	-0.10 .923				
Participants' conspiracy beliefs × Trust (Meta-perception)				0.05 [-0.07, 0.17]	.04 [-0.06, 0.15]	0.83 .406				
Condition (Pro-conspiracy) × Participants' conspiracy beliefs × Trust (Meta-perception)				-0.01 [-0.16, 0.15]	-.01 [-0.14, 0.13]	-0.09 .926				
Attitude object (Unrelated)							0.47 [-0.48, 1.42]	.40 [0.27, 0.53]	0.98 .329	
Condition (Pro-conspiracy) × Attitude object (Unrelated)							0.69 [-0.57, 1.95]	-.19 [-0.38, -0.01]	1.07 .283	
Participants' conspiracy beliefs × Attitude object (Unrelated)							0.06 [-0.11, 0.24]	.05 [-0.09, 0.19]	0.70 .482	

TABLE 5 (Continued)

Predictors	Relational closeness			Interpersonal trust			Attitudinal closeness				
	<i>b</i> [95% CI]	<i>t</i>	<i>p</i>	<i>b</i> [95% CI]	<i>t</i>	<i>p</i>	<i>b</i> [95% CI]	<i>t</i>	<i>p</i>		
Condition (Pro-conspiracy) × Participants' conspiracy beliefs × Attitude object (Unrelated)							−0.21 [−0.44, 0.03]	−1.17	[−0.35, 0.02]	−1.75	.080
Random effects											
σ^2	0.49			0.60			1.34				
τ_{00}	1.14 _{ParticipantID}			2.43 _{ParticipantID}			2.09 _{ParticipantID}				
ICC	.70			.80			.61				
<i>N</i>	310 _{ParticipantID}			310 _{ParticipantID}			310 _{ParticipantID}				
Observations	620			620			620				
Marginal R^2 /Conditional R^2	.201/.759			.085/.819			.145/.666				

Note: Significant differences at $p < .05$ are highlighted in bold.

Abbreviations: 95% CI, 95% confidence interval; ICC, intraclass correlation coefficient.

$t(372.33) = -1.50, p = .134$. We did not find any significant effect or interactions with the factor capturing differences between perceptions and meta-perceptions of trust. Therefore, the same pattern of results should be assumed for participants' meta-perceptions of trust (i.e., how trustworthy they expected the alter to perceive them).

For attitudinal closeness, we found a significant positive effect of condition. Participants at the mean level of conspiracy beliefs perceived higher attitude closeness regarding topics related to the conspiracy theory in the pro-conspiracy condition, ($M = 6.13, SD = 2.09$), than in the anti-conspiracy condition ($M = 5.62, SD = 2.01$). The Condition × Participants' conspiracy beliefs interaction was significant. Simple slopes indicated that this difference between conditions was more pronounced among high conspiracy believers (i.e., +1 SD), $b = 1.61, 95\% \text{ CI } [1.03, 2.20], t(446.21) = 5.40, p < .001$, and that among low conspiracy believers (i.e., −1SD) the effect reversed, but was not significant, $b = -0.54, 95\% \text{ CI } [-0.12, 0.05], t(446.21) = -1.79, p = .073$. We did not find any further effect or interaction with the factor capturing differences between topics related and unrelated to the conspiracy theory.

Finally, for relative political orientation, we fitted a linear regression model as with relationship satisfaction (see Table 4). The model also showed a significant effect of condition. Participants perceived the alter as more politically liberal than them in the pro-conspiracy condition, ($M = 50.17, SD = 19.26$), compared to the anti-conspiracy condition ($M = 45.99, SD = 17.37$). There was a significant Condition × Participants' conspiracy beliefs interaction and simple slopes indicated that high conspiracy believers (i.e., +1SD) perceived the alter as even more liberal in the pro-conspiracy condition than in the anti-conspiracy condition, $b = 13.23, 95\% \text{ CI } [7.57, 18.89], t(306) = 4.60, p < .001$, whereas low conspiracy believers (i.e., −1SD) as more conservative, although this difference was not significant, $b = -4.89, 95\% \text{ CI } [-10.58, 0.79], t(306) = -1.69, p = .091$.

In summary, Study 3a reflected the pattern of results that one would expect in a sample of strong conspiracy believers, based on the moderating role of participants' own conspiracy beliefs that we have consistently observed in this and the previous studies. This is, when people have strong conspiracy beliefs and someone they have a relationship with expresses similar beliefs, the former expects a positive effect on the relationship.

Our participants were on average high conspiracy believers who found the alter's expression of conspiracy beliefs generally positive for their relationship (i.e., higher relationship satisfaction, higher behavioral intentions to increase relational closeness, higher perceptions and meta-perceptions of interpersonal trust, and higher perceived attitudinal closeness), while they perceived the alter as more politically liberal than themselves. Among the fewer participants with weaker conspiracy beliefs, the picture was slightly different, as the direction of the aforementioned effects seemed to reverse, despite these were not statistically significant at 1 SD below the mean. Put differently, for participants with weaker conspiracy beliefs, the alter's endorsement of conspiracy theories seemed to decrease their relationship satisfaction, their perceived interpersonal trust and attitudinal closeness. In contrast to high conspiracy

believers, they seemed to find the alter as more conservative than them.

Thus, Study 3a unexpectedly showed us the other side of the coin that we had previously examined, namely the effects that the expression of conspiracy theories have for the relationships of strong conspiracy believers. However, to confirm our original rationale, we conducted an exact replication of Study 3a with a sample from the same online pool of participants used in our previous studies. This sample should not only be more demographically representative (i.e., general population vs. student sample) but, more importantly, it should also hold a lower average belief in conspiracy theories based on the distributions from previous studies.

6.2 | STUDY 3B

6.2.1 | Method

Participants and design

We recruited 300 UK participants from Prolific ($M_{\text{age}} = 43.03$, $SD_{\text{age}} = 14.13$, 49.67% female, 50% male, 0.33% nonbinary or self-described), who received £0.90 as compensation. None failed the preregistered attention checks or provided incomplete responses. Posthoc power simulations indicated that this sample size guaranteed sufficient statistical power (i.e., $1 - \beta > .90$) to detect the expected Condition \times Conspiracy beliefs interaction effect (for details, see Supporting Information).

The study followed the same between-subject design, as Study 3a (0: *anti-conspiracy condition*, 1: *pro-conspiracy condition*).

Procedure and measures

Every procedural detail was identical to Study 3a.

After the manipulation of the alter's endorsement of conspiracy theories, we used the same measures to assess relationship satisfaction (Cronbach's $\alpha = .92$), participants' and the alter's behavioral reactions to increase relational closeness (Cronbach's $\alpha_{\text{participant}} = .85$ and Cronbach's $\alpha_{\text{alter}} = .88$), participants' perceptions and meta-perceptions of interpersonal trust (i.e., for perceptions, Cronbach's $\alpha_{\text{participant}} = .95$; for meta-perceptions, Cronbach's $\alpha_{\text{alter}} = .95$), and the alter's relative political orientation. For perceptions of attitude closeness regarding the same related (vs. unrelated) topics, parallel analysis suggested a two-factor solution, and item loadings from an EFA (see Supporting Information: Table S6) indicated that the topics could be clustered as in Study 3a—that is, related (the government, politicians, and mass media; Cronbach's $\alpha = .90$) versus unrelated (veganism, abortion, and immigration; Cronbach's $\alpha = .79$).

6.2.2 | Results

Participants mostly identified the alter as a friend (55%), a family member (19%), or a spouse (10.33%), whereas the rest listed colleagues/classmates, significant others, or acquaintances (15.34%).

Critically, participants in this study showed moderate levels of conspiracy beliefs, as they did not significantly differ from 4 (i.e., the midpoint of the scale), $M = 3.95$, 95% CI [3.74, 4.17], $t(299) = -0.43$, $p = .670$, (for details on the sample distribution, see Supporting Information: Figure S9).

Our analytical approach was identical to the one followed in Study 3a. The linear regression models for relationship satisfaction and relative political orientation are summarized in Table 6, whereas the multilevel models for behavioral reactions of relational closeness, (meta-)perceptions of interpersonal trust and attitudinal closeness are summarized in Table 7.

The model on relationship satisfaction showed significant effects of Condition, participants' conspiracy beliefs, and a significant two-way interaction. In line with our initial prediction, but in contrast to Study 3a, the effect of Condition was negative. At the mean level of participants' conspiracy beliefs, participants reported lower relationship satisfaction in the pro-conspiracy condition ($M = 5.22$, $SD = 1.36$), compared to the anti-conspiracy condition ($M = 5.63$, $SD = 1.01$). As expected, the two-way interaction further showed that the negative effect of condition was stronger among weaker conspiracy believers (i.e., $-1SD$), $b = -1.18$, 95% CI [-1.57, -0.80], $t(296) = -6.10$, $p < .001$, whereas among strong conspiracy believers (i.e., $+1SD$), this effect became significantly positive, $b = 0.41$, 95% CI [0.03, 0.78], $t(296) = 2.13$, $p = .034$, indicating a higher relationship satisfaction in the pro-conspiracy condition, compared to the anti-conspiracy condition.

The model on behavioral reactions of relational closeness showed significant effects of Condition and participants' conspiracy beliefs, and a significant two-way interaction. In line with our initial prediction, but in contrast to Study 3a, the effect of Condition was negative. At the mean level of participants' conspiracy beliefs, participants expected themselves to get less close to the alter in the pro-conspiracy condition ($M = 5.10$, $SD = 1.55$), compared to the anti-conspiracy condition ($M = 5.53$, $SD = 1.30$). However, the significant interaction indicated that the effect of Condition was conditional on participants' own conspiracy beliefs. As initially hypothesized, simple slopes showed that this effect was stronger among weak conspiracy believers (i.e., $-1SD$), $b = -1.46$, 95% CI [-1.89, -1.02], $t(380.99) = -6.51$, $p < .001$, while it reversed among strong conspiracy believers (i.e., $+1SD$), $b = 0.81$, 95% CI [0.38, 1.24], $t(380.99) = 3.70$, $p < .001$, who actually expected to become closer to the alter in the pro-conspiracy condition. Moreover, we found a significant Condition \times Participants' conspiracy beliefs \times Behavioral interaction—the pattern we just described was less pronounced regarding the behavioral reactions that participants expected from the alter.

Regarding interpersonal trust, we observed the effects of Condition and Participants' conspiracy beliefs, as well as their interaction to be significant. In line with our initial prediction, but in contrast to Study 3a, the effect of Condition was negative. At the mean level of participants' conspiracy beliefs, participants perceived the alter as less trustworthy in the pro-conspiracy condition ($M = 6.85$, $SD = 1.76$), compared to the anti-conspiracy condition ($M = 7.35$,

TABLE 6 Linear regression models with relationship satisfaction and relative political orientation as dependent measures: Study 3b.

Predictors	Relationship satisfaction			Relative political orientation		
	<i>b</i> [95% CI]	β [95% CI]	<i>t</i> <i>p</i>	<i>b</i> [95% CI]	β [95% CI]	<i>t</i> <i>p</i>
Intercept	6.48 [5.98, 6.97]	.25 [0.09, 0.41]	25.70 <.001	49.66 [41.67, 57.65]	.08 [-0.09, 0.24]	12.23 <.001
Condition (Pro-conspiracy)	-2.05 [-2.67, -1.42]	-.32 [-0.54, -0.10]	-6.45 <.001	-8.23 [-18.30, 1.84]	-.11 [-0.34, 0.13]	-1.61 .109
Participants' conspiracy beliefs	-0.19 [-0.29, -0.09]	-.30 [-0.46, -0.13]	-3.59 <.001	0.28 [-1.38, 1.94]	.03 [-0.14, 0.20]	0.33 .741
Condition (Pro-conspiracy) \times Participants' conspiracy beliefs	0.42 [0.28, 0.56]	.66 [0.44, 0.88]	5.83 <.001	1.59 [-0.70, 3.87]	.16 [-0.07, 0.40]	1.37 .173
Observations	300			300		
<i>R</i> ² / <i>R</i> ² adjusted	.131/.122			.025/.016		

Note: Significant differences at $p < .05$ are highlighted in bold.
Abbreviation: 95% CI, 95% confidence interval.

$SD = 1.59$). As expected, the significant two-way interaction and subsequent simple slopes analyses indicated that this effect was more pronounced among low conspiracy believers (i.e., $-1SD$), $b = -1.09$, 95% CI [-1.68, -0.50], $t(357.50) = -3.61$, $p < .001$, while among high conspiracy believers (i.e., $+1SD$) the effect was null, $b = 0.17$, 95% CI [-0.41, 0.75], $t(357.50) = 0.58$, $p = .560$. We additionally observed the Condition \times Participants' conspiracy beliefs \times Trust interaction to be significant—the pattern we just described was more pronounced for participants' meta-perceptions of how trustworthy the alter would perceive them.

For attitudinal closeness, we found significant effects of Condition and Participants' conspiracy beliefs, and a significant two-way interaction. In line with our initial prediction, but in contrast to Study 3a, the effect of Condition was positive. At the mean level of conspiracy beliefs, participants perceived a lower attitude closeness regarding topics related to the conspiracy theory in the pro-conspiracy condition, ($M = 5.61$, $SD = 2.13$), than in the anti-conspiracy condition ($M = 6.08$, $SD = 1.94$). As hypothesized, the Condition \times Participants' conspiracy beliefs interaction indicated that this difference between conditions was more pronounced among low conspiracy believers (i.e., $-1SD$), $b = -1.38$, 95% CI [-2.04, -0.73], $t(397.20) = -4.14$, $p < .001$, and that among high conspiracy believers (i.e., $+1SD$) the effect reversed becoming positive, $b = 0.69$, 95% CI [0.04, 1.33], $t(397.20) = 2.09$, $p = .037$, indicating stronger attitudinal closeness in the pro-conspiracy condition. Furthermore, a significant Condition \times Participants' conspiracy beliefs interaction \times Attitude object interaction showed that this pattern of results was less pronounced among those attitude objects unrelated to the conspiracy theory.

Finally, for relative political orientation, our findings did not show any effect or the interaction to be significant, in contrast to what we hypothesized and what we observed in Study 3a.

Study 3b mostly confirmed the predictions we initially formulated regarding the effect of conspiracy beliefs on the extended battery of relationship-related dependent measures. It not only supported the prediction that the alter's expression of these type of beliefs can negatively affect perceptions of relationship satisfaction, but also offered potential explanations. For example, the more skeptical people were about conspiracy theories, the more they expected to distance themselves from the alter (and to a lesser extent, the alter from them), the less they perceived the alter as trustworthy (and the less they expected the alter to perceive them as trustworthy), and the less they consider themselves to be attitudinally close to the alter regarding topics related to the alter's conspiracy belief (and to a lesser degree, regarding other unrelated topics). We did not find, however, effects of the expression of conspiracy beliefs on the perception of the alter's relative political orientation, which may suggest that people's association between the endorsement of conspiracy beliefs and political orientation might not be as clear as we predicted.

Taken together, Study 3a and 3b offered complementary results of the effects of conspiracy beliefs on interpersonal relationships, insofar as they exemplified the moderating role people's own conspiracy beliefs played across both studies. While Study 3a showed

TABLE 7 Multilevel regression models with behavioral reactions, interpersonal trust, and attitudinal closeness as dependent measures: Study 3b.

Predictors	Relational closeness			Interpersonal trust			Attitudinal closeness			
	b [95% CI]	β [95% CI]	t	b [95% CI]	β [95% CI]	t	b [95% CI]	β [95% CI]	t	p
Intercept	6.41 [5.84, 6.98]	.14 [-0.02, 0.30]	22.10 <.001	7.90 [7.14, 8.67]	.26 [0.10, 0.41]	20.25 <.001	6.77 [5.92, 7.62]	.11 [-0.06, 0.27]	15.63	<.001
Condition (Pro-conspiracy)	-2.69 [-3.41, -1.97]	-.23 [-0.45, -0.01]	-7.36 <.001	-1.77 [-2.74, -0.81]	-.25 [-0.47, -0.02]	-3.60 <.001	-2.51 [-3.58, -1.43]	-.17 [-0.41, 0.06]	-4.59	<.001
Participants' conspiracy beliefs	-0.20 [-0.31, -0.08]	-.27 [-0.43, -0.11]	-3.25 .001	-0.12 [-0.28, 0.04]	-.13 [-0.29, 0.04]	-1.51 .131	-0.15 [-0.33, 0.02]	-.15 [-0.31, 0.02]	-1.71	.088
Behavioral reaction (Alter)	-0.14 [-0.54, 0.27]	.07 [-0.04, 0.19]	-0.66 .511							
Condition (Pro-conspiracy) × Participants' conspiracy beliefs	0.60 [0.44, 0.76]	.81 [0.59, 1.04]	7.22 <.001	0.33 [0.11, 0.55]	.34 [0.12, 0.57]	2.98 .003	0.55 [0.30, 0.79]	.52 [0.29, 0.75]	4.41	<.001
Condition (Pro-conspiracy) × Behavioral reaction (Alter)	1.23 [0.71, 1.74]	.09 [-0.06, 0.25]	4.70 <.001							
Participants' conspiracy beliefs × Behavioral reaction (Alter)	0.06 [-0.02, 0.15]	.08 [-0.03, 0.20]	1.40 .162							
Condition (Pro-conspiracy) × Participants' conspiracy beliefs × Behavioral reaction (Alter)	-0.28 [-0.39, -0.16]	-.38 [-0.54, -0.22]	-4.68 <.001							
Trust (Meta-perception)				0.24 [-0.24, 0.71]	-.04 [-0.13, 0.06]	0.98 .328				
Condition (Pro-conspiracy) × Trust (Meta-perception)				-1.27 [-1.87, -0.68]	-.20 [-0.34, -0.06]	-4.20 <.001				
Participants' conspiracy beliefs × Trust (Meta-perception)				-0.08 [-0.17, 0.02]	-.08 [-0.18, 0.02]	-1.53 .127				
Condition (Pro-conspiracy) × Participants' conspiracy beliefs × Trust (Meta-perception)				0.23 [0.09, 0.36]	.24 [0.10, 0.37]	3.34 .001				
Attitude object (Unrelated)							-0.13 [-0.79, 0.53]	.04 [-0.09, 0.16]	-0.39	.694
Condition (Pro-conspiracy) × Attitude object (Unrelated)							1.43 [0.60, 2.26]	.05 [-0.13, 0.23]	3.38	.001
Participants' conspiracy beliefs × Attitude object (Unrelated)							0.05 [-0.08, 0.19]	.05 [-0.08, 0.18]	0.74	.457

TABLE 7 (Continued)

Predictors	Relational closeness			Interpersonal trust			Attitudinal closeness		
	<i>b</i> [95% CI]	<i>t</i>	<i>p</i>	<i>b</i> [95% CI]	<i>t</i>	<i>p</i>	<i>b</i> [95% CI]	<i>t</i>	<i>p</i>
Condition (Pro-conspiracy) × Participants' conspiracy beliefs × Attitude object (Unrelated)									
Random effects									
σ^2	0.43			0.58			1.13		
τ_{00}	1.26 _{ParticipantID}			2.49 _{ParticipantID}			2.65 _{ParticipantID}		
ICC	.74			.81			.70		
<i>N</i>	300 _{ParticipantID}			300 _{ParticipantID}			300 _{ParticipantID}		
Observations	600			600			600		
Marginal R^2 /Conditional R^2	.133/.778			.104/.830			.055/.717		

Note: Significant differences at $p < .05$ are highlighted in bold.

Abbreviations: 95% CI, 95% confidence interval; ICC, intraclass correlation coefficient.

how the expression of conspiracy beliefs can have beneficial effects for interpersonal relationships within groups of conspiracy believers, Study 3b demonstrated that for a representative majority with weaker conspiracy beliefs, the effect that the expression of conspiracy theories can have on interpersonal relationships is negative.

7 | STUDY 4

Having provided consistent evidence of the negative association between people's relationship satisfaction and conspiracy beliefs, we conducted one more study to extend the scope of our investigation. Specifically, we questioned whether the association between relationship satisfaction and conspiracy beliefs would emerge in the process of impression formation of others who do not belong to people's social network. Research suggests that the endorsement of conspiracy theories may influence the impressions people form of strangers (e.g., politicians; Green, Toribio-Flórez, Douglas, Brunkow, et al., 2023). Here, we concretely examined whether the endorsement of conspiracy theories influenced how people think their relationship satisfaction would be with a stranger.

This question is particularly relevant in multiple daily-life contexts, such as partner choice or employee selection, where individuals rely on first impressions to decide whether to (emotionally or financially) invest in a (personal or professional) relationship. We used the first of these contexts and, more specifically, the setting of online dating apps, to investigate how the explicit expression of conspiracy beliefs affects people's estimation of hypothetical relationship satisfaction.

In line with our previous results, we expected that information regarding the person's endorsement of conspiracy theories (vs. no information or information regarding the person's opposition to conspiracy theories) would negatively predict participants' estimation of the hypothetical relationship satisfaction with this person (H4a). We further hypothesized that participants' own conspiracy beliefs would moderate this effect, such that the effect of the person's endorsement of conspiracy theories would be more pronounced among participants with lower (vs. higher) conspiracy beliefs (H4b).

7.1 | Method

7.1.1 | Participants and design

We recruited 540 US participants from Prolific, who received £0.75 as compensation. We excluded 69 participants who reported that their relationship status was not single, and four who failed an attention check, resulting in 467 participants ($M_{\text{age}} = 30.58$, $SD_{\text{age}} = 10.45$), 227 female (33.91% heterosexual, 0% homosexual, and 13.17% bisexual), 227 male (41.25% heterosexual, 4.1% homosexual, and 3.67% bisexual) and 13 self-identified as other or did not report their gender. Sensitivity analysis indicated that this sample size

guaranteed the detection of between-subjects differences as small as $d = 0.21$ in an independent sample t test, with 90% statistical power and assuming $\alpha = .05$.

The study followed a three-cell between-subject design, with the target's endorsement of conspiracy theories as the experimental manipulation (0: *control*, 1: *pro-conspiracy*, -1: *anti-conspiracy*).

7.1.2 | Procedure and measures

Participants provided informed consent and were asked to provide some demographic information. Specifically, they reported whether they were currently in a romantic relationship (i.e., screening criteria), their age, their gender, and the gender to which they were attracted to (i.e., male, female, male and female, other).

Then, we presented participants with a bogus dating app profile, simulating a real profile from the well-known dating app Tinder. The profile showed a blurred picture of a person (either male, named Tom, or female, named Jessica), some labels describing generic personal preferences and hobbies, and a bio with a short text offering a more detailed description of the target's preferences (see Supporting Information: Figure S8). The gender of the target presented to each participant corresponded with the gender participants reported to be attracted to. In the case participants indicated attraction to both male and female or "other," one of the targets was randomly selected.

Participants were randomly assigned to one of the three experimental conditions. In the control condition, the target's bio offered a generic description of the target's preferences (i.e., "I enjoy travelling, cooking and spending time with friends & family"). In the pro-conspiracy condition, the generic description was followed by a sentence describing the target's conspiracy belief regarding the 2020 US presidential elections (i.e., "The 2020 election was rigged, people. The facts speak for themselves!"). In the anti-conspiracy condition, the target's bio described the target's opposition to this conspiracy belief (i.e., "The 2020 election was not rigged, people. The facts speak for themselves!").

After seeing the respective profile, participants answered questions assessing their interpersonal impression of the target (e.g., honesty, intelligence, kindness, and so on), which were part of a different investigation and, therefore, are not reported in this manuscript. Among these questions, we included a short measure of hypothetical relationship satisfaction. This consisted of three items adapted from the relationship assessment scale (e.g., "I think that a relationship with this person would be satisfying", Cronbach's $\alpha = .97$; Hendrick et al., 1998).

Next, participants reported their own conspiracy beliefs through Lantian et al.'s (2016) scale and their demographics (i.e., nationality, ethnicity, religiosity), including a 3-item scale of political orientation (e.g., political orientation overall, in terms of sociocultural issues, and in terms of economic issues; 1: *Extremely liberal*, 7: *Extremely conservative*, Cronbach's $\alpha = .95$).

7.2 | Results

Our main results are summarized in Table 8 (Model 1). We first conducted a linear regression model in which we entered the manipulation as predictor and relationship satisfaction as criterion. The model indicated that, whereas the estimated relationship satisfaction for the control profile ($M = 4.17$, $SD = 1.51$) and the anti-conspiracy profile ($M = 3.90$, $SD = 1.69$) did not significantly differ from each other, the relationship satisfaction that participants estimated for the pro-conspiracy profile ($M = 2.20$, $SD = 1.63$) was significantly lower than for the control profile.

In a second model, we examined the moderating role of participants' own conspiracy beliefs by including this variable and its interaction term with the manipulation as additional predictors (see Table 8, Model 2). The model showed that the effect of the manipulation was significantly moderated by participants' conspiracy beliefs. As expected, the positive interaction term indicated that the difference between the control and the pro-conspiracy condition was progressively less pronounced the higher the participants' conspiracy beliefs were.

Due to the political and partisan nature of the conspiracy theory we used as stimulus, we fitted a third regression model where we introduced the participants' political orientation as an additional covariate (see Table 8, Model 3). This way we could rule out that the effect of the targets' endorsement of conspiracy theories was driven by participants' political attitudes, partisanship or alignment with the outcome of the 2020 US elections. The model confirmed that both the effect of the targets' endorsement of conspiracy theories and its interaction with participants' own conspiracy beliefs remained unaffected.

The findings from Study 4 supported our hypotheses and were consistent with the results of the previous studies. Through a different experimental setup, we demonstrated that the negative association between conspiracy beliefs and relationship satisfaction is not limited to current interpersonal relationships, but that it also influences first impressions, such as those formed in online dating environments.

Once more, the negative association between conspiracy beliefs and relationship satisfaction seemed to be driven by those people who do not endorse conspiracy theories. Their forecasted relationship satisfaction clearly distinguished the target who endorsed a conspiracy theory from the control target and the target who denied the conspiracy theory. Importantly, this pattern of results was independent of participants' political orientation, which arguably could play a critical role in determining whether people (especially, conservatives) dismiss the endorsement of such a conspiracy theory when evaluating the potential relationship satisfaction with the target.

8 | GENERAL DISCUSSION

Across seven studies, six of them preregistered, we systematically found correlational and experimental evidence of the association between conspiracy beliefs and satisfaction in interpersonal

TABLE 8 Linear regression models regressing estimated relationship satisfaction on manipulation of targets' endorsement of conspiracy theories: Study 4.

Predictors	Model 1			Model 2			Model 3			
	<i>b</i> [95% CI]	β [95% CI]	<i>t</i>	<i>b</i> [95% CI]	β [95% CI]	<i>t</i>	<i>b</i> [95% CI]	β [95% CI]	<i>t</i>	<i>p</i>
Intercept	4.17 [3.92, 4.42]	.41 [0.28, 0.55]	32.58	4.46 [3.90, 5.02]	.42 [0.28, 0.56]	15.63	4.59 [4.02, 5.15]	.43 [0.29, 0.56]	16.06	<.001
Condition (Pro-conspiracy)	-1.97 [-2.33, -1.62]	-1.08 [-1.27, -0.88]	-10.91	-3.15 [-3.94, -2.36]	-1.07 [-1.27, -0.88]	-7.83	-3.21 [-4.00, -2.43]	-1.09 [-1.28, -0.90]	-8.05	<.001
Condition (Anti-conspiracy)	-0.27 [-0.63, 0.09]	-.15 [-0.35, 0.05]	-1.50	-0.42 [-1.20, 0.37]	-.16 [-0.35, 0.04]	-1.04	-0.39 [-1.17, 0.38]	-.16 [-0.35, 0.03]	-1.00	.317
Participants' conspiracy beliefs				-0.06 [-0.15, 0.04]	-.08 [-0.21, 0.06]	-1.14	-0.08 [-0.18, 0.02]	-.11 [-0.24, 0.03]	-1.57	.116
Condition (Pro-conspiracy) × Participants' conspiracy beliefs				0.24 [0.10, 0.38]	.33 [0.13, 0.53]	3.32	0.25 [0.11, 0.39]	.34 [0.14, 0.53]	3.43	.001
Condition (Anti-conspiracy) × Participants' conspiracy beliefs				0.03 [-0.11, 0.17]	.04 [-0.16, 0.23]	0.36	0.02 [-0.12, 0.16]	.03 [-0.16, 0.22]	0.30	.768
Participants' political orientation							0.12 [0.05, 0.19]	.13 (0.05, 0.21)	3.18	.002
Observations	467			467			465			
<i>R</i> ² / <i>R</i> ² adjusted	.230/.227			.253/.245			.270/.261			

Note: Significant differences at $p < .05$ are highlighted in bold.

Abbreviation: 95% CI, 95% confidence interval.

relationships. Participants generally reported lower relationship satisfaction with people from their social network who they thought endorsed (vs. opposed) generic (Pilot Studies 1 and 2) or specific conspiracy theories (Study 1). Furthermore, participants anticipated their relationship satisfaction to decrease if people they knew explicitly endorsed (vs. opposed) conspiracy theories (Studies 2 and 3b). Regarding prospective relationships, exposure to online dating profiles in which the person explicitly endorsed (vs. opposed) a conspiracy theory led participants to expect lower relationship satisfaction with this person (Study 4).

Furthermore, our findings shed light on some of the relational changes that may accompany the perceived loss in relationship satisfaction associated with conspiracy beliefs. The first and clearest change referred to the perception of closeness, and more specifically, of attitudinal closeness between the two members of the relationship. On average, participants perceived less attitudinal closeness with members of their social network who endorsed conspiracy theories (Studies 1–2), especially, regarding topics that were related to the conspiracy narrative (Study 3b). Put differently, people expected that the endorsement of conspiracy theories entailed an attitude change related to those beliefs that distanced the conspiracy believer from their own attitudes. This attitudinal distancing arguably reduces the chances of receiving social validation in a relationship (Byrne et al., 1971; Hardin & Higgins, 1996), which could explain why people expected their relationship satisfaction to erode. This finding further suggests that people are aware of some of the potential effects that exposure to conspiracy theories (e.g., Albertson & Guiler, 2020; Douglas & Sutton, 2008) and the internalization of conspiracy beliefs (Sutton & Douglas, 2022) may have on the attitudes of conspiracy believers.

Moreover, we observed that participants expected other relational changes associated with the endorsement of conspiracy beliefs. First, they anticipated a decrease of the reciprocal interpersonal trust between them and the conspiracy believers. Prior work has demonstrated a negative association between conspiracy beliefs and interpersonal trust (Goertzel, 1994; Meuer & Imhoff, 2021), which might have its roots in conspiracy believers' generalized distrust in the institutional system (van Prooijen et al., 2022). Our research shows this association in the context of actual interpersonal relationships and its potential connection with the eroding effect that conspiracy beliefs have on the quality of those relationships. A second change that participants expected was that both parties (i.e., participants and conspiracy believers) would intend to distance themselves and interact less. These results are consistent with Mousaw's (2022), who showed that close contacts of QAnon supporters reported lower frequency and quality of interactions regarding the time after the latter started supporting QAnon. The increasingly dissimilar attitudes and beliefs between conspiracy believers and nonbelievers may hinder the conversational dynamics within a relationship and, ultimately, reduce people's satisfaction within that relationship.

Critically, all the effects discussed above were always conditional on people's own conspiracy beliefs. Although we observed that the

average effects of conspiracy beliefs on relationship satisfaction were mainly driven by participants who held moderate to weak conspiracy beliefs, among participants with stronger conspiracy beliefs, we often observed opposing effects. For example, for strong conspiracy believers, perceiving that others also believed in conspiracy theories was associated with higher relationship satisfaction, higher perceived attitudinal closeness, higher expectations of interpersonal trust, and higher intentions to become closer and interact more (Study 3a). These findings are consistent with theoretical frameworks of shared reality (Higgins et al., 2021) and suggest that conspiracy theories, despite being opposing narratives to the publicly accepted understanding of events and the social context (Douglas & Sutton, 2023), may also form a set of shared beliefs that interpersonal relationships can be founded upon (Biddlestone et al., 2021). Moreover, these results highlight an important methodological issue in most research on conspiracy beliefs, namely the need to study strong conspiracy believers and not assume the same patterns of results from data based on moderate or weaker conspiracy believers.

Overall, the present research indicates that conspiracy beliefs negatively affect some interpersonal relationships. Yet, a few unexpected results should be addressed. First, our findings on the perceived changes in the alters' relative political orientation in Studies 3a and 3b were not congruent with the prediction that people may perceive conspiracy believers as more politically conservative, as suggested by previous research (Swami et al., 2011; van der Linden et al., 2021). One possible explanation for this is that people do not clearly associate conspiracy beliefs with specific political orientations (see Study 3b), although we believe this is implausible, given the association between conspiracy beliefs and political extremism (e.g., Imhoff et al., 2022). Alternatively, people's own conspiracy beliefs might modulate the lens through which people assess others' political orientation. For example, in Study 3a, in which we recruited a sample with relatively higher conspiracy beliefs, those with weaker conspiracy beliefs considered conspiracy believers as more conservative than them, while people with stronger conspiracy beliefs considered other conspiracy believers as more liberal. It should be noted that in our studies, we asked people to think of someone from their social network and anticipate if this person's political orientation differed after explicitly endorsing a conspiracy narrative. It could simply be that people did not expect drastic changes in political orientation in this hypothetical scenario. Future research should assess if conspiracy believers actually experience these changes in their political orientation over time and how they may affect their relationship with others. A final consideration is that our initial prediction regarding political orientation could have been insufficiently warranted. Findings from existing research are mixed, with some work suggesting a linear relationship between political orientation and conspiracy beliefs (i.e., greater endorsement of conspiracy theories among political conservatives; van der Linden et al., 2021), and other work indicating a curvilinear relationship (Imhoff et al., 2022). More research is necessary to disentangle the potential moderators of this relationship (e.g., polarization, cultural wars, political power dynamics). Regarding our

hypothesis, we acknowledge it may have been too ambitious to assume at this point that the inconclusive association between political orientation and conspiracy beliefs can influence people's perceptions about the effects of conspiracy beliefs on their interpersonal relationships.

A second important limitation of the present research is that the experimental studies mainly rely on participants' hypothetical judgments of the effect that conspiracy theories may have on their relationship satisfaction. These judgments are valuable evidence of the potential effect of conspiracy beliefs on relationships, as they represent people's implicit theories about conspiracy beliefs and conspiracy believers, which are arguably grounded on people's previous relationships and experiences. However, we think it is important for future research to provide further evidence through more direct methodologies (e.g., ambulatory assessments of dyadic relationships). These may entail other methodological limitations (e.g., practical and ethical boundaries of manipulating conspiracy beliefs), but they can help to ascertain that conspiracy theories are indeed eroding people's interpersonal relationships.

Last but not least, the generalizability of the present findings may highly depend on how stigmatized conspiracy theories are in specific cultural and socio-political contexts. Our data were all collected in either UK or US samples, but cross-national studies suggest that conspiracy beliefs can differ across countries with different social and economic circumstances (Alper & Imhoff, 2022; Douglas & Sutton, 2023; Hornsey & Pearson, 2022; Hornsey et al., 2023). In some contexts, endorsing conspiracy beliefs can be a positively valued social cue that enhances interpersonal relationships by means of creating a shared understanding of the socioeconomic situation. In other contexts, this may not be the case.

9 | CONCLUSION

Anecdotal reports of the eroding effect of conspiracy theories on people's interpersonal relationships do not seem unfounded. In the present article, we provided a systematic assessment of the influence that people expect conspiracy beliefs to have on their interpersonal relationships. Indeed, conspiracy beliefs are generally expected to erode people's satisfaction in their relationships with others, reducing people's perceptions of attitudinal closeness and interpersonal trust, and motivating them to distance themselves from conspiracy believers. However, people with stronger conspiracy beliefs did not expect their relationships with other conspiracy believers to be eroded, but rather benefited, by sharing these beliefs. Future research should delve further into the relational changes that occur when people believe in, and share, conspiracy theories.

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CONFLICT OF INTEREST STATEMENT

The authors declare no conflict of interest.

DATA AVAILABILITY STATEMENT

All the data, the code for the performed analyses, and research materials for reproducing the results of the present manuscript are publicly available in the Open Science Framework at https://osf.io/59fxx/?view_only=f576deede91147efa240b8f0ce58912b.

ORCID

Daniel Toribio-Flórez  <http://orcid.org/0000-0001-9706-709X>

Ricky Green  <http://orcid.org/0000-0001-7634-3024>

Karen M. Douglas  <http://orcid.org/0000-0002-0381-6924>

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