

**Does Loneliness Matter? Understanding the Influence of Loneliness on the Relationship
Between Social Exclusion and Attitude Moralization**

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Abstract

Moralization is a psychological process that can strongly influence our thoughts, feelings, and behaviors. However, no study has yet investigated how aspects of social exclusion might influence the moralization of group relevant societal issues. We propose that moralization can be triggered as a response to being socially excluded from a group. Because the extent to which people feel that they are lonely might influence people's reaction to being excluded, we also examined whether this relationship between social exclusion and attitude moralization is moderated by people's perceived levels of loneliness. We tested the hypotheses by conducting an online experimental study in which social exclusion was manipulated by telling people that they would or would not fit into a fictitious student association ($N = 43$). Our findings showed that being socially excluded did not lead to greater moralization than being socially included; and this relationship was not moderated by loneliness. Therefore, these results did not support our hypotheses, and in turn, social exclusion did not seem to trigger the moralization of issues relevant to the group (i.e., gender equality). However, since our findings are based on an underpowered study, we suggest that it is worthwhile to conduct further research in this area. Theoretical implications for the literature on moralization and suggested directions for future research are discussed.

Keywords: moralization, moral conviction, social exclusion, acceptance, loneliness

Does Loneliness Matter? Understanding the Influence of Loneliness on the Relationship Between Social Exclusion and Attitude Moralization

The role that moral convictions play throughout our lives is frequently underestimated. Morally convicted attitudes are defined as one's fundamental beliefs that something is right or wrong (Skitka et al., 2005), and in turn, they have been shown to have a strong effect on one's thoughts, feelings, and behavior (Skitka, 2010). For example, many women think that limiting a woman's access to abortion services is fundamentally wrong and this belief can be used to justify a wide range of (i.e., radical) actions. For that reason, it is important to understand how moral convictions emerge. Following up on this, the present research examined whether and when being excluded from a social group may lead to changes in a person's morally convicted attitudes (i.e., the process of moralization; Rozin, 1999).

To date, we know relatively little about how the process of attitude moralization might be triggered, and about how group processes could shape moralization (Leal et al., 2021a; Skitka et al., 2021). Despite that, previous research on a person's reaction to social exclusion may provide a promising avenue for studying this phenomenon. In this current study, we conceptualize being socially excluded as the subjective feeling of being ignored and excluded by a group of people (Williams, 2007b)¹. An extensive amount of research has shown that social exclusion might motivate efforts that are aimed at increasing one's likelihood of being accepted (DeWall, 2010; Richman et al., 2014). For instance, Richman et al. (2014) showed that people who had been socially excluded were more likely to change their self-concept to increase their similarity to others than non-excluded people. Further, participants may behave consistently with a group's morally convicted attitudes to maximize one's social acceptance (Pfundmair & Wetherell, 2019). For these reasons, we argue that social exclusion might also

¹ In previous studies, social exclusion was often referred to as being separated from others (Williams, 2007a), whereas ostracism was defined as being ignored and excluded by individuals or by a group (Williams, 2007b). In the present research, we will use them as two interchangeable terms.

lead to moralization of issues that are relevant to the group. Moreover, we examine whether feelings of loneliness may moderate the relationship. Specifically, we expect that the effect of social exclusion on moralization would be stronger for those people who are feeling lonely.

Attitudes Held with Moral Conviction and the Process of Moralization

Moral convictions are defined as attitudes that are based on one's fundamental beliefs about what is right and wrong (Skitka et al., 2005). Aside from that, attitudes held with moral conviction are oftentimes perceived as objective, and as universal, true facts about this world (Skitka et al., 2005). Past research has shown that variances in moral convictions may predict intolerance of opposing attitudes (Skitka et al., 2005), participation in collective action (Leal et al., 2021b), and one's willingness to engage in extreme behaviors on behalf of their ingroup (Pfundmair & Wetherell, 2019). Therefore, attitudes held with moral conviction are a special type of strong attitudes that have a strong influence on one's thoughts, feelings, and behaviors (Skitka, 2010). Importantly, morally convicted attitudes (e.g., "I am against restricting access to abortion because I think it is absolutely wrong") should be theoretically distinguished from other strong but nonmoral attitudes, such as personal preferences and conventions (Skitka et al., 2021). Attitudes based on one's personal preferences (e.g., "I am against restricting access to abortion because I simply prefer to have the choice") are a matter of a person's subjective inclinations, and are thus not influenced by social regulations (Skitka, 2010). In comparison, conventional attitudes (e.g., "I am against restricting access to abortion because all my friends are against it") are shaped by the shared norms that have been established within the ingroup (Skitka et al., 2021). Taken together, the findings provide evidence that moral convictions are special strong attitudes that predict social behaviors that may lead to social change or that can bring groups together (e.g., in a movement, at a protest). For these reasons, it is important to understand how and under which conditions moral convictions emerge.

In the present study, we conceptualize attitude moralization as a psychological process based on which relatively nonmoral attitudes change into stronger moral convictions (Leal et al., 2021a; Rozin, 1999; Wisneski & Skitka, 2017), or are becoming more morally significant (Skitka et al., 2021). In spite of the fact that moral convictions are important motivational and behavioral guides (Skitka, 2010), only comparatively little is known about how attitudes held with moral conviction emerge, and about what could be a trigger for the processes underlying attitude moralization (Skitka et al., 2021). However, there is some evidence that suggests that emotions, even emotions in group contexts, can cause changes in a person's moral convictions (Leal et al., 2021a).

Previous research has demonstrated that moral convictions also have clear connections to group processes (Ellemers & Van der Toorn, 2015; Pfundmair & Wetherell, 2019). In fact, researchers have suggested that a person's personal moral convictions are guided by the moral values that are shared within one's social group (Ellemers & Van der Toorn, 2015), and thus, people would be more susceptible to moralizing group relevant issues. In addition to this, Leal et al. (2021a) showed that value violating outgroups may also function as a trigger for the process of moralization by eliciting other-condemning emotions (e.g., anger, disgust). To the best of our knowledge, no studies have been conducted to determine whether or not being socially excluded might influence the processes through which moralization of group relevant societal issues takes place.

The Impact of Social Exclusion and Ostracism on Attitude Moralization

In our day to day lives, we need to feel a sense of belonging and much of our behavior is motivated by wanting to gain acceptance from others. This reflects the fundamental need to belong, and a lack of belongingness has been shown to have negative effects on both physical and mental health (Baumeister & Leary, 1995). A specific life experience that has been found to threaten one's need to belong is to be socially excluded (e.g., by one's ingroup) or to be

ostracized (Williams, 2007b). Besides the need to belong, the experience of being socially excluded can also threaten one's self-esteem, sense of control, and one's meaningful existence (Williams, 2009). Further, ostracism is associated with feelings of pain (Williams, 2007b), and social pain is more easily reexperienced than physical pain (Chen et al., 2008). This initial pain response to being socially excluded might act as a signal to motivate behaviors that are aimed at restoring one's threatened needs (Williams, 2007a). From this perspective, a threat to one's sense of belonging has been suggested to be associated with changes in behaviors that could improve a person's chances of gaining acceptance (Williams, 2007a). This is especially true when the relationship is meaningful for this excluded person (Smart Richman & Leary, 2009).

Indeed, previous work has found that being socially excluded is associated with a wide breath of affiliation-seeking behaviors (Williams, 2007a). Interestingly, trying to be more socially acceptable has also been revealed to have a noteworthy effect on one's nonconscious behavior (e.g., mimicry; Lakin et al., 2008; visual attention; DeWall et al., 2009; selective memory; Gardner et al., 2000). These findings nicely show the far-reaching impact that social exclusion might have. Moreover, an important line of research has shown that being socially excluded can also cause changes in one's attitudes. For example, Williams et al. (2000) found that people who had been excluded were more likely to conform to the group norm when making perceptual judgments. Again, this finding suggests that people react to being excluded by restoring one's need to belong, and by conforming to the judgements of potential affiliates, and even when the group gives incorrect answers. Aside from this, social exclusion might also lead to a shift in attitudes towards those of one's interaction partner (DeWall, 2010), and to changes in one's self-concept to expand similarity to other participants (Richman et al., 2014). These results demonstrate that participants also change their attitudes to become more socially acceptable, and to connect to other people.

As mentioned previously, excluded participants may also be more likely to endorse the moral beliefs shared within a social group as a way to fulfill their need for social acceptance (Pfundmair & Wetherell, 2019), and to indicate that they are members of this group (Ellemers & Van der Toorn, 2015). Thus, we anticipate that those participants who have been socially excluded would be more likely to moralize societal issues that are relevant to this social group than those included, because this may make them more likely to be perceived as a part of the group.

There is already some evidence that suggests that being socially excluded could trigger the process of attitude moralization (Pfundmair & Wetherell, 2019). The findings revealed that, amongst those people high in the need to belong, ostracism motivated one to perceive the values of one's ingroup as more morally right and as less morally wrong. However, the study merely concentrated on the increases in moral significance of the ingroup's shared values. For that reason, the results cannot be used to explain the moralization of attitudes connected to specific societal issues that are relevant to this social group. Here, we extend this literature by proposing that social exclusion, even at a group level, can also trigger moralization of group relevant societal issues, and this may contribute to a better understanding of the very complex processes underlying moralization.

The Moderating Effect of Loneliness

In the current research, we hypothesize that loneliness could moderate the relationship between social exclusion and moralization. Loneliness is defined as an unpleasant emotion that occurs when there is a discrepancy between one's desired and achieved number of social relations, and it has a strong influence on people's affiliative behaviors (Perlman & Peplau, 1981). However, previous studies are in disagreement about whether or not the experience of loneliness may motivate reconnection with others (Lucas et al., 2010). In fact, Kanterman et al. (2021) observed that when lonely people are being excluded in a game of "cyberball", they

are more likely to ask to receive the ball (e.g., by pressing a key to “wave their hand”) than non-lonely people. Accordingly, participants who are feeling lonely do seem to have a higher inclusion motivation than their less lonely counterparts. Research also suggests that feeling lonely is associated with actively engaging in health-risk behaviors (e.g., smoking; DeWall & Pond, 2011) when these behaviors are accepted within the region. This finding implies that lonely people might even take part in potentially harmful behaviors to be socially accepted by others.

Aside from this, loneliness has also been associated with increasing attention towards positive as well as negative social cues (i.e., vocal tone, facial expression), and enhanced memory for socially relevant information (Gardner et al., 2005). Furthermore, the tendency for lonely people to engage in overcautious social behavior has been found to be reduced when the participants are primed with cues of acceptance (Lucas et al., 2010). Taken together, these findings suggest that lonely people look for more opportunities for reconnection than non-lonely people, even when they can have negative effects.

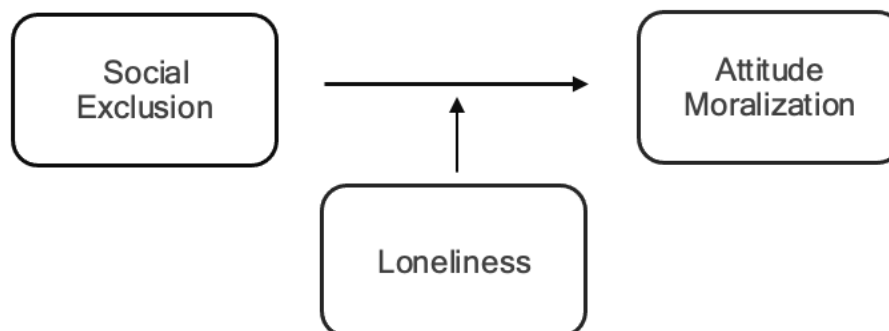
Previous research has suggested that socially excluded participants may be more likely to moralize a group’s values as a way to re-establish a sense of belongingness (Pfundmair & Wetherell, 2019). Seeing that lonely people are also motivated to feel connected to others, we expect that loneliness may moderate the effects of social exclusion on attitude moralization. This could be explained by the fact that lonely people have a higher inclusion motivation than their less lonely counterparts (Kanterman et al., 2021), and in turn, they might be better able to focus their attention on ways to gain social acceptance. For this reason, we hypothesize that socially excluded people who are feeling lonely may moralize more than non-lonely people. This means that socially excluded participants with higher levels of loneliness are expected to maximize their sense of belonging in a group by moralizing group relevant societal issues.

Overview of the Present Research

In the present research, we conducted an experimental study to examine the influence of social exclusion and loneliness on the process of attitude moralization. We hypothesized that people who are socially excluded from a group would be more likely to moralize societal issues that are relevant to the group than those socially included. In addition to this, we expected this relationship between social exclusion and attitude moralization to be moderated by loneliness. In particular, we hypothesized that socially excluded people that score high on loneliness would moralize more than those people with lower scores (i.e., non-lonely people). This proposed moderation model is presented in the figure below (Figure 1). We do not expect an association between loneliness and moralization.

Figure 1

The Moderating Role of Loneliness in the Relationship Between Social Exclusion and Attitude Moralization



Method

Participants and Design

We aimed to recruit over 200 students to have 80% power to detect a moderate Cohen *d*'s effect size 0.40 (Leal et al., 2021a), but were unable to achieve the desired sample size because of the lack of responses from the participant pool. Forty-nine international first-year

Psychology students enrolled at the University of Groningen completed an online study in exchange for partial course credit. Participants were recruited online via Sona Systems. Six of the participants were excluded from our data analyses because they failed one or more of the attention check questions. The final sample consisted of 31 female university students and 12 male students. Participants had a mean age of 19.98 years ($SD = 1.73$), the age ranging from 18 to 26 years (one participant did not wish to disclose their age). Participants were randomly assigned to one of two experimental conditions: social exclusion ($N = 21$) or social inclusion ($N = 22$). We included loneliness as the moderator, and attitude moralization as the dependent variable of this research. The Ethics Committee of the Faculty of Behavioural and Social Sciences at the University of Groningen (EC-BSS) approved the study.

Procedure

In the first part of this study, participants were informed that the purpose of this study was to understand students' opinions about current societal issues and student associations. Before completing the online survey, participants were assured confidentiality, and they gave informed consent. Afterwards, participants filled out a questionnaire regarding their attitude strength and moral convictions about several societal issues (e.g., workplace diversity, gender equality, and animal testing in medical research) at time 1. For this research, gender equality was the target issue of moralization relevant to the group, and workplace diversity and animal testing in medical research were used as filler items to enhance the believability of the cover story.

In the second part of this study, participants read that this university wanted to provide support for international students and was interested in understanding how students felt about student associations. Then they received some information about a soon-to-be fictitious student association called "SpeakUp Groningen". We created a student association that would care about gender equality in an implicit way, namely, participants read that the student association

promotes values of social justice and cultural diversity at the university. Participants were also shown the flyer for “SpeakUp Groningen” (see Appendix Figure A1). To evaluate whether students have carefully read the description, we also added two attention check questions (true or false; i.e., “SpeakUp Groningen supports international students’ social life by organizing social events and activities” and “SpeakUp Groningen is motivated to promote social justice and cultural diversity by [...] fighting against gender and racial discrimination”). Afterward, participants answered several filler questions about what they thought and how they felt about “SpeakUp Groningen” (e.g., “I think SpeakUp Groningen is important for students” and “I feel I want to be a member of SpeakUp Groningen”). The filler questions were only included to increase the believability of the cover story, and in turn, are not considered within our data analyses.

Next, we introduced the context of the social exclusion/social inclusion manipulation. We asked participants to complete a short questionnaire to determine how well they fit into the student association. Specifically, they were asked to rate the importance of many different activities (e.g., “Getting to know new people and students”, “Supporting minority rights”, and “Helping to organize group activities”), by using a 7-point scale ranging from 1 (*not at all*) to 7 (*extremely*). Students were told that how well they fit into the student association was based on whether their responses were compatible with the values of “SpeakUp Groningen” and its other members. However, in reality, all participants were randomly assigned to one of the two experimental conditions: social exclusion or inclusion. In the *social exclusion* condition, participants were presented with the following text: “We are sorry to inform you that you do not fit into SpeakUp Groningen. Based on your answers, you do not seem to have the profile that fits with the profile of SpeakUp Groningen. This association cares about equality and social justice and values students who stand up for these issues. Perhaps there may still be another opportunity to join this association in the future.” In contrast, our participants in the

social inclusion condition read the following: “We are happy to inform you that you fit into SpeakUp Groningen. Based on your answers, you seem to have the profile that fits with the profile of SpeakUp Groningen. This association cares about equality and social justice and values students who stand up for these issues. Perhaps there may even be another opportunity to join another association in the future.” Afterwards, participants completed manipulation check items to ensure that the experimental manipulation was successful.

In the third and last part of this study, students’ attitude strength and moral convictions about several societal issues (e.g., workplace diversity, gender equality, and animal testing in medical research) were measured again at time 2. Moreover, we also measured students’ self-perceived levels of loneliness. Further, since this research is part of a larger research program, we included additional measures that were not relevant to our hypotheses. After providing their socio-demographic characteristics (e.g., gender and age), participants were debriefed and thanked. To minimize or eliminate potential negative effects from our manipulation, students were also presented with a considerable amount of information about real student associations they could become a member of as well as about campus-wide social supports to students.

Measures

Manipulation Check

To assess participants’ perceived social exclusion or inclusion, students were asked to complete a 17-item scale of need-threats and mood (Williams, 2009), by using a 5-point Likert-type scale ranging from 1 (*not at all*) to 5 (*extremely*). This scale has been commonly used to determine psychological experiences of social exclusion or inclusion. The scale consisted of four subdimensions: belonging (three items: e.g., “I feel disconnected”; $\alpha = .90$), self-esteem (three items: e.g., “I feel good about myself”; $\alpha = .83$), meaningful existence (three items: e.g., “I feel invisible”; $\alpha = .90$), and mood (eight items: e.g., “I feel good”, “I feel bad”; $\alpha = .86$). All of the items for the dimension of self-esteem and the items that captured

positive mood were reverse coded. We also averaged all the items and created a composite for overall feelings of exclusion ($\alpha = .94$). Higher scores indicated higher levels of need threat, negative mood, and overall feelings of exclusion.

Moralization

We assessed attitude moralization (i.e., changes in moral convictions) by measuring moral convictions about gender equality at time 1 and at time 2. Participants were first asked to indicate their general attitudes towards gender equality by rating the extent to which they supported this societal issue. Afterwards, participants completed a 3-items measure of moral convictions (cf. Skitka et al., 2009; Wisneski & Skitka, 2017). Students reported how much their opinion on gender equality was a reflection of their core moral beliefs and convictions, was connected to their beliefs about fundamental right and wrong, and how much it was based on their moral principle ($\alpha_{time1} = .90$, $\alpha_{time2} = .86$). Participants answered the items on a 7-point scale (1 = *not at all* to 7 = *very much*). We computed attitude moralization by subtracting the participants' average score of moral convictions at time 1 from the participants' average score of moral convictions at time 2.

Attitude Strength. To separate moralization of the attitudes from strengthening of the attitudes, we also measured two subdimensions of attitude strength, namely importance and extremity, as control variables (adapted from Wisneski & Skitka, 2017). The participants were asked to rate how much their opinion on gender equality was important to who they were as a person (importance), and how strongly they felt about the issue of gender equality (extremity). Correlations between the two items ($r_{time1} = .79$; $r_{time2} = .72$; $ps < .001$) were strong. Both of the questions were answered using a 7-point scale (1 = *not at all* to 7 = *very much*).

Loneliness

We used three items from the UCLA Loneliness Scale (Version 3; Russell, 1996) to measure students' subjective feelings of loneliness. Participants were asked to respond to each

of the following questions: “How often do you feel isolated from others?”, “How often do you feel part of a group of friends?” (reverse-coded), and “How often do you feel left out?” ($\alpha = .74$), by using a 4-point Likert-type scale (1 = *never* to 4 = *always*). We calculated the average of these items, and higher total scores indicated a higher level of perceived loneliness ($M = 2.37, SD = 0.56$).

Results

Manipulation Check

To ensure that our experimental manipulation was effective, we conducted a 2 (social exclusion vs. social inclusion) x 2 (high vs. low scores on loneliness) design on the three need threats (i.e., belonging, self-esteem, meaningful existence), mood (Hales & Williams, 2018; Williams, 2009), and on participants’ overall feeling of social exclusion. We ran five separate regression analyses which found main effects of social exclusion on belonging, $\beta = 0.37, t(39) = 2.62, p = .012, f^2 = .16, CI_{95\%} = [0.21, 1.60]$, lack of self-esteem, $\beta = 0.49, t(39) = 3.95, p < .001, f^2 = .32, CI_{95\%} = [0.39, 1.21]$, negative mood, $\beta = 0.41, t(39) = 3.22, p = .003, f^2 = .20, CI_{95\%} = [0.22, 0.95]$, and on participants’ overall feeling of social exclusion, $\beta = 0.41, t(39) = 3.15, p = .003, f^2 = .20, CI_{95\%} = [0.23, 1.03]$. However, the condition did not have a significant effect on our subdimension of meaningless existence, $\beta = 0.16, t(39) = 1.04, p = .303, f^2 = .03, CI_{95\%} = [-0.29, 0.90]$ ($M_{social\ exclusion\ condition} = 1.95, SD = 1.04; M_{social\ inclusion\ condition} = 1.65, SD = 0.96$). Participants in the social exclusion condition reported higher levels of need to belong ($M = 2.71, SD = 1.16$), lack of self-esteem, ($M = 3.40, SD = .73$), negative mood ($M = 2.64, SD = .74$), and overall feeling of social exclusion ($M = 2.67, SD = .75$) than those in the social inclusion condition ($M_{need\ to\ belong} = 1.82, SD = 1.17; M_{lack\ of\ self-esteem} = 2.61, SD = .72; M_{negative\ mood} = 2.06, SD = .58; M_{overall\ exclusion} = 2.04, SD = .67$). As expected, perceived loneliness was also associated with need to belong $t(39) = 2.07, p = .045$, lack of self-esteem $t(39) = 2.87, p = .007$, meaningless existence $t(39) = 2.19, p = .034$, negative mood $t(39) = 2.61, p = .013$, as

well as participants' overall feeling of exclusion $t(39) = 2.83, p = .007$, and there were no significant interactions between condition and loneliness on any of these five variables, $ps > .05$. Consequently, we conclude that we effectively manipulated social exclusion.

Hypotheses Testing

Before testing our hypotheses, we first tested whether participants' moral convictions about gender equality at time 1 did not vary across conditions. A t test indicated no significant differences in moral convictions about gender equality at time 1 across these two conditions, $t(41) = -0.22, p = .830$. Afterwards, we tested whether our participants' attitudes about gender equality became moralized (i.e., attitude moralization) and stronger (i.e., strengthening of the attitude) from time 1 to time 2, independent of condition. A paired-samples t test indicated no significant evidence for participants' attitude moralization of gender equality, $t(42) = 0.07, p = .943$ ($M_{time 1} = 6.12, SD = 1.02; M_{time 2} = 6.12, SD = .91$) from time 1 to time 2, independent of the two conditions. Additionally, a second paired-samples t test indicated that participants' attitudes about gender equality did not become significantly stronger, $t(42) = -0.72, p = .474$, from time 1 ($M = 5.30, SD = 1.55$) to time 2 ($M = 5.38, SD = 1.62$), independent of condition.

Before running our regression model, we first centered the variables for loneliness and attitude strength at time 1 and time 2, and then computed an interaction between condition and loneliness (centered). To test our hypotheses, we ran one linear regression to test whether condition, loneliness (centered), and the interaction between these two variables predicted attitude moralization of our target issue of moralization relevant to the group, namely, gender equality, when controlling for attitude strength at time 1 and at time 2 (both centered). We controlled for attitude strength to remove any effects of strengthening of the attitudes from the moralization of the participants' attitudes (adapted from Wisneski & Skitka, 2017). This is relevant because attitudes grounded in moral conviction are also strong attitudes (Skitka et al.,

2005), and we are interested in isolating the psychological process of attitude moralization from the strengthening of an attitude.

A regression analysis found a statistically nonsignificant effect of condition on attitude moralization of gender equality when controlling for people's attitude strength, $\beta = -0.08$, $t(37) = -0.51$, $p = .611$, $f^2 = .01$, $CI_{95\%} = [-0.59, 0.35]$. Seeing as we did not find evidence that a person's attitudes about gender equality became significantly stronger from time 1 to time 2, we also tested the model without controlling for attitude strength, and the effect remained the same, $\beta = -0.08$, $t(39) = -0.50$, $p = .619$, $f^2 = .01$, $CI_{95\%} = [-0.56, 0.34]$. As a result, we did not find support for our first hypothesis. In line with this finding, our participants in the social exclusion condition were not more likely to moralize the societal issue of gender equality ($M = -0.06$, $SD = 0.63$) than those in the social inclusion condition ($M = 0.05$, $SD = 0.79$). As we expected, there was no significant association between perceived loneliness and participants' moralization of gender equality, $\beta = -0.19$, $t(37) = -0.89$, $p = .380$, $f^2 = .02$, $CI_{95\%} = [-0.78, 0.31]$, (and when attitude strength was not controlled for in the model, $\beta = -0.20$, $t(39) = -0.99$, $p = .327$, $f^2 = .03$, $CI_{95\%} = [-0.77, 0.26]$). Finally, we found no significant interaction between condition and loneliness (centered) on students' moralization of the issue of gender equality, $\beta = 0.14$, $t(37) = 0.69$, $p = .496$, $f^2 = .01$, $CI_{95\%} = [-0.56, 1.14]$, (also when attitude strength was not controlled for in our model, $\beta = 0.15$, $t(39) = 0.75$, $p = .459$, $f^2 = .01$, $CI_{95\%} = [-0.52, 1.12]$). For this reason, our second hypothesis for the moderating effect of loneliness was also not supported in our study.

Discussion

The main objective of this research was to examine whether and when social exclusion can trigger attitude moralization. Specifically, we hypothesized that people who are socially excluded from a group would be more likely to moralize societal issues that are relevant to the group than those socially included. Secondly, we expected this relationship between social

exclusion and moralization to be moderated by people's levels of loneliness. More concretely, we hypothesized that the effect of social exclusion on attitude moralization would be stronger amongst those people with higher levels of loneliness than those with low levels of loneliness. To test these two hypotheses, we conducted an online experimental study in the context of a fictitious student association and recruited a sample of Psychology students. For this research, the target issue of moralization was gender equality. We found no evidence to support either of our two hypotheses.

Not supporting the first of our hypotheses, we found that social exclusion did not lead to changes in people's moral convictions (i.e., moralization) about gender equality. Further, there was no evidence supporting the moderating effect of perceived loneliness on the process of attitude moralization, and in turn, participants with high levels of loneliness were not more likely to moralize in the social exclusion than in the social inclusion condition than those with lower levels of loneliness. As expected, we found that self-perceived loneliness was also not associated with participants' moralization. Finally, it is worth mentioning that loneliness was clearly related to need to belong, lack of self-esteem, meaningless existence, negative mood, and overall feelings of exclusion, which are expressions of an experience of social exclusion. This means that lonely students were more likely to have a stronger subjective experience of exclusion (independent of the condition of the experimental manipulation). However, we must highlight that this current study was underpowered ($N = 43$), and in turn, we might have been unable to detect statistically significant effects in this sample. As a result, our findings need to be approached and interpreted with caution.

Theoretical Implications

Despite the null findings, the present study makes some theoretical contributions to the current literature. We believe that the ideas of our study are promising research directions for the moralization and ostracism literature, and we recommend a conceptual replication of these

hypotheses with a larger sample. First, this is the first study to examine when and how the context of social exclusion (i.e., at the group level) can act as a trigger for the psychological process of moralization. In fact, previous research has found that socially excluded people were more likely to moralize the ingroup's morals, and they were also more willing to engage in violent behavior on behalf of their ingroup (Pfundmair & Wetherell, 2019). These studies, however, had not considered whether social exclusion could trigger moralization of issues that are relevant to the social group, which would be an indicator of adherence to group morals and values. That idea is supported by the fact that an effective way to show one's belongingness to a group is to think or be consistent with the group's shared moral values (Ellemers & Van der Toorn, 2015), and in turn, this may reduce the negative consequences from being socially excluded. In this sense, our study puts forward the idea that moralization would be triggered by social exclusion as a way of gaining social acceptance from the members of the group, and in turn, to fulfill one's need to belong. Although we did not find enough evidence to support this hypothesis, future research should further refine this new idea as moral convictions have a strong influence on our behavior (Skitka et al., 2005).

Although some studies have investigated people's responses to ostracism (see DeWall, 2010; Gardner et al., 2000; Williams et al., 2000), research has not yet examined whether participants would also change their core moral convictions after being socially excluded by a group. Prior work by Richman et al. (2014) found that social exclusion motivates people to modify their self-concepts to become more similar to another person, presumably in the hopes of satisfying their need for social acceptance. However, moralization could reflect a deeper way of changing oneself as it involves fundamental shifts in one's beliefs and values (Skitka et al., 2021). Thus, even though we did not find evidence that social exclusion can trigger moralization of an issue, we recommend conducting further research in the field to deepen our

knowledge of the consequences of ostracism that could tap into a person's core morals, values and beliefs (e.g., in group contexts).

Finally, to our knowledge, this is the first study to suggest that self-reported loneliness could moderate the relationship between social exclusion and attitude moralization. Even though the relevance of loneliness was not supported by the current findings, Kanterman et al. (2021) found that lonely people have a higher motivation for reconnecting with others (i.e., during social exclusion) compared to non-lonely people. However, only when social inclusion required little effort from the participant (e.g., a few keypresses). As our study was severely underpowered to detect meaningful interaction effects, this could be one plausible explanation for our null finding. Another explanation for our results may be that changing one's moral convictions is too effortful, and in turn, people who feel lonely might believe that they benefit more from being passive rather than actively trying to get included in a social group. This idea would be consistent with those of Lucas et al. (2010) who suggest that lonely people typically engage in overly cautious social behaviors unless they are primed with cues of acceptance. Future theory and research could examine in further detail how loneliness and other individual characteristics are connected to moralization in the contexts of social exclusion (i.e., at the group level), because this would help to explain why some people may be more susceptible to moralizing group relevant issues than others.

Limitations and Future Directions

The findings of this study need to be considered in the light of a number of limitations. First, we were unable to recruit the desired sample size because of the lack of response from the participant pool. Consequently, the experimental study may have had insufficient power to detect significant effects of social exclusion and perceived loneliness on changes in people's moral convictions. We thus recommend that future research should replicate this current study

with larger sample sizes to increase the probability of detecting even rather small effects that are significant.

Another limitation is that the findings are based on a sample of first-year Psychology students enrolled at a Dutch university, which limits the generalizability of our study's results. However, as we used students from the international track of this bachelor's degree program, we expect that our approach to changing people's moral convictions can also be used for other samples. Still, researchers should replicate this study with more a diverse sample to confirm or reject the null findings, and to establish more generalizable results. A potential direction for future research is to also explore if age-related changes can affect how attitudes are moralized. For example, an older person might be more resistant to changes in moral convictions when they have stronger pre-existing preferences (Skitka et al., 2021). Further research is needed to better understand how individual differences influence the processes underlying moralization.

Third, the participants in this study already had strong moral convictions about gender equality at the beginning of the experiment (i.e., at time 1). Thus, there was a severely limited opportunity for moralization to occur. Previous research found that university students hold moderate convictions about gender-related issues (e.g., sexism; Leal et al., 2021a), which was why we chose this target issue of moralization. This was however not the case in the current study sample. Future research could, for instance, include more and different issues to become moralized. Such research should only be carried out when the participants hold moderately strong prior convictions about the societal issue to ensure that moralization can actually occur. Despite these limitations, the present study can be seen as a first step towards extending our understanding of the processes underlying moralization. We are hopeful that the current study will stimulate further research in this area.

Concluding Remarks

Moral convictions are a special type of attitudes that strongly influence one's thoughts, feelings, and behaviors (Skitka, 2010). Still, we know very little about how and under which conditions the psychological process of moralization occurs, and especially, in group contexts (Leal et al., 2021a). The study contributes to the existing literature by suggesting the idea that the context of being excluded from a social group plays a significant role in triggering attitude moralization (i.e., changes in moral conviction), and this is moderated by a person's feelings of loneliness. Our findings, however, did not seem to support the hypothesis that moralization occurs in response to social exclusion. At the same time, loneliness also did not moderate the relationship between the variables. Nonetheless, as the findings are based on an underpowered study, more research evidence is needed in order to draw accurate conclusions. Continuing in this line of research lays the foundations for better understanding (1) how moralization occurs in a group context; and (2) how individual differences can influence this process.

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Appendix

Figure A1

Flyer for the Fictitious Student Association “SpeakUp Groningen”

