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Emotional Reactions Following Silent Treatment: The Role of Guilt

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ABSTRACT

Silent treatment represents a subtle yet harmful form of ostracism, often accompanied by emotional distress and ambiguity regarding the reasons for exclusion. This research investigated the emotional responses of individuals exposed to silent treatment, with a particular focus on the role of guilt. Study 1 involved participants recalling episodes of silent treatment and neglect, allowing for a comparison of the emotions elicited in these relational contexts. Results indicated that guilt, sadness, and fear were more pronounced during silent treatment, while the source was perceived as expressing greater anger and disgust. Study 2 employed an experimental design to explore the specific nature of guilt, distinguishing between altruistic and deontological guilt. Findings revealed that silent treatment is associated with heightened deontological guilt, which is linked to violations of moral norms and uncertainty. These studies provide a contribution to the understanding of silent treatment and its implications for relational and emotional well-being.

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Altruistic guilt; deontological guilt; guilt; ostracism; silent treatment

Ostracism – the act of deliberately ignoring or excluding someone – represents one of the most powerful expressions of social exclusion and is experienced as a social pain (Williams, 1997, 2009). This type of pain activates the dorsal anterior cingulate cortex, the same brain region involved in the perception of physical pain (Eisenberger et al., 2003), suggesting that social exclusion poses a fundamental threat to human survival (see also Chen et al., 2020). Indeed, research has shown that ostracism undermines four fundamental psychological needs: belonging, self-esteem, control, and meaningful existence/ need to be recognized as existing (e.g., Williams, 2009; Zadro et al., 2005; see also Williams & Nida, 2022).

Although ostracism has been extensively studied, research has tended to focus on generalized or extreme forms of exclusion, such as social isolation or systemic marginalization (e.g., Wesselmann et al., 2012). However, ostracism manifests in various forms, ranging from interpersonal dynamics to organizational practices, digital communication, and cultural discrimination. Among these, a particularly insidious and frequent form is *silent treatment*, which involves deliberately ignoring someone through verbal silence, non-responsiveness, or physical withdrawal (e.g., Williams, 2009; Wirth et al., 2010). Despite its prevalence in relational dynamics, silent treatment has been comparatively neglected in scientific literature, overshadowed by studies focusing on broader or more overt expressions of exclusion (e.g., Zadro et al., 2005). Yet, evidence suggests that silent treatment may have unique and profound consequences (e.g., Dubey et al., 2026). It is frequently encountered in close relationships, including romantic partnerships, family dynamics, and workplace interactions, making it a common yet underexamined social phenomenon (e.g., Williams & Nida, 2022).

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Given its frequency in relational experiences and its potential for significant emotional harm, the silent treatment warrants greater scholarly attention. In the present research, we aim to investigate the emotional reactions of the target of this form of ostracism, with a particular focus on guilt. By addressing this gap in the literature, we hope to shed light on an overlooked but critical aspect of human interaction.

Silent treatment

Silent treatment is a behavior in which one person, to express disapproval or punishment, decides to ignore the other by deliberately suspending all forms of communication (e.g., Williams et al., 1998). This practice can result in a form of psychological punishment that creates confusion and disorientation in victims. A distinctive characteristic of silent treatment is the lack of clarity: in many cases, the target does not know whether the communication breakdown is temporary or permanent, nor can they fully understand the reasons behind the other person's behavior (e.g., Sommer et al., 2001; Williams & Nida, 2022). The lack of clarity in silent treatment exacerbates social pain, as the victim is forced to speculate on the possible causes of ostracism, sometimes self-blaming, which further aggravates their emotional distress. Consistent with this view, ambiguity in exclusion-related social cues has been shown to potentiate feelings of rejection, with stronger rejection responses emerging when cues are most ambiguous (Restrepo et al., 2025). On the contrary, the source may experience an increase in self-esteem and a sense of control (e.g., Nezlek et al., 2015; Williams et al., 1998; Zadro et al., 2005, 2008, 2016).

Another particular feature of silent treatment is that it is often used in intimate and familial interpersonal relationships (e.g., Buss et al., 1987; Dubey et al., 2026, Mandal & Wierzchoń, 2019; Sommer & Yoon, 2013; Vivolo-Kantor et al., 2016; Wright & Roloff, 2009). Rittenour et al. (2019) explored this dynamic in familial relationships, showing that silent treatment can be transmitted intergenerationally. According to the study's findings, parents who use silent treatment to express disapproval toward their children significantly influence the future behaviors of these children, who tend to replicate this communicative modality in their adult relationships to avoid conflict or express rejection. This practice has shown negative effects both on the individual and interpersonal levels, reducing the relational satisfaction and self-esteem of the children. Other studies have shown that, in the family context, parents often use silent treatment and sulking behavior as a tactic to exert pressure on their children to modify their behavior (Apostolou & Papageorgi, 2014), causing distress in them (Tokić & Pećnik, 2011). In romantic relationships, forms of communication withdrawal (such as silent treatment or stonewalling) may serve as conflict-management strategies and are associated with interpersonal and emotional costs for both partners (e.g., Dubey et al., 2026; Dvir et al., 2026). In particular, research suggests that when a partner withdraws communication through silent treatment, targets often infer interpersonal meaning from the absence of engagement, which can exacerbate distress and undermine the quality of the relationship (e.g., Liu & Roloff, 2015; Weinstein et al., 2024; Wright & Roloff, 2009). Recent work has also highlighted that, in intimate relationships, the silent treatment can constitute a form of psychological aggression, particularly when used deliberately to punish or control the partner, with serious consequences for targets' psychological well-being (Dvir et al., 2026).

However, research has shown that both sources and targets experience negative outcomes (e.g., Zadro & Gonsalkorale, 2014). Some studies have found that the source may experience ego depletion (Ciarocco et al., 2001), self-dehumanization (Bastian et al., 2013), and negative emotions such as anger, frustration, and guilt (e.g., Agarwal & Prakash, 2022; Poulsen & Kashy, 2012; Sommer et al., 2001; Williams et al., 1998). Nevertheless, the most impactful negative outcomes are those experienced by the targets (e.g., Zadro et al., 2005, 2008). Some studies have found that targets experience higher levels of anger and frustration (e.g., Poulsen & Kashy, 2012), while other studies report higher levels of guilt, worry, and fear (e.g., Sommer et al., 2001).

The findings on the consequences of silent treatment highlight the need to further examine the emotional reactions of targets, particularly in relation to psychological health outcomes (e.g., Tenore, 2016). One important area warranting further investigation is the role of guilt during and after episodes of silent treatment. The relevance of exploring guilt is driven by findings showing that silent treatment often involves a lack of clarity about the causes of exclusion, leading to frustration over the need for certainty (e.g., Hales & Williams, 2018; Sommer et al., 2001; Williams et al., 2019). This lack of clarity might force individuals to seek an explanation based on their own behavior, thereby fostering self-blame and emotional distress (e.g., Sommer et al., 2001). Thus, individuals who experience silent treatment are likely to spend considerable time ruminating on their worst fault – i.e., the transgression which they believe caused the relational exclusion (e.g., Liu & Roloff, 2015; Wesselmann et al., 2013). This search for blame inevitably amplifies the perception of personal guilt and emphasizes how easily a moral transgression can occur. Therefore, investigating guilt within the context of silent treatment may provide insights for mitigating the enduring psychological effects associated with relational exclusion (e.g., Cairns & Cairns, 1991; Leitner et al., 2014; Riva et al., 2026; Wesselmann et al., 2013; Williams, 2009; Zadro et al., 2016).

General aim

The main objective of the present research is to explore the emotional reactions of the target of silent treatment, with a specific focus on guilt. Previous studies have suggested that guilt may play a fundamental role in the emotional reactions of targets exposed to this specific form of ostracism (Sommer et al., 2001; Williams et al., 1998). Therefore, examining the emotional activation of the target in more detail could provide important contributions to the field of ostracism research, specifically enhancing our understanding of the dynamics of silent treatment.

Additionally, some research has focused on the interpersonal nature of ostracism, investigating the effects on both the target and the source and their reciprocal perceptions (Poulsen & Kashy, 2012). However, little attention has been paid to the target's perception of the source's emotional experience. Examining the emotions of the source – whether directly perceived or inferred from facial expressions – may provide valuable insights into the target's reactions. This approach is particularly important for understanding the type and intensity of emotions experienced by the target. Therefore, the present research examines the target's perspective concerning not only their emotions but also the emotions they attribute to the source of the silent treatment.

Thus, the first objective of the present research is to investigate the emotional experiences of the target of silent treatment, as well as the emotions they attribute to the source (a parent or another significant person). The second aim is to further explore the nature of the guilt experienced by the target, distinguishing between different types of guilt.

To achieve these objectives, two studies were conducted, in which participants were asked to recall and reflect on an episode in which they experienced silent treatment (Sommer et al., 2001) from a parent or another significant person. Study 1 compared the emotions in two different relational situations where individuals perceived themselves as being ignored: silent treatment and neglect. To deepen the findings of the first study, in Study 2 the hypotheses were tested using an experimental design. Thus, the second study examined the activation of two types of guilt by comparing a social pain condition (silent treatment) with a physical pain condition (e.g., Chen et al., 2008; Riva et al., 2011).

Study 1

The purpose of Study 1 was to investigate the presence of emotions experienced by the target of the silent treatment, as well as the perception of the source's emotions. This was also achieved by presenting images that displayed the typical facial expressions of specific emotions. We conducted a within-subjects study to identify emotions that were experienced

during episodes of silent treatment and neglect in childhood or adolescence. In this manner, the silent treatment's characteristics were compared to those of a control condition (neglect). It was hypothesized that individuals would experience greater guilt during silent treatment compared to neglect. Additionally, it was hypothesized that participants would perceive the source's anger more strongly during silent treatment, as some studies have reported that anger is frequently experienced by the source of silent treatment (e.g., Sommer et al., 2001; Williams et al., 1998).

Materials and methods

Participants

The sample size was estimated using G*Power (Faul et al., 2009). We assumed a within-factors repeated-measures design with one group, two measurements, an *alpha* probability level of .05, statistical power of .80, a correlation between repeated measures of .10, and a medium-small expected effect size ($f = .20$). Based on these parameters, a minimum sample size of 91 participants is required. The snowball sampling method was employed to recruit participants. Specifically, the survey link was disseminated via social media, and participants were asked to further share the link within their own networks. Data collection remained open for one month, a period planned to ensure that the final sample would exceed the minimum sample size required by the a priori power analysis. Over the course of the data collection period, 194 participants were included in the study with a mean age of 32.01 years ($SD = 11.05$). Age ranged from 20 to 65 years. The majority of participants (74.7%) identified as female, while 24.2% identified as male. 1% of the sample identified as neither male nor female.

The materials and the data that support the findings of this study are available at https://doi.org/10.17605/OSF.IO/T3FZ5.

Procedure

The study was divided into two sections: one that addressed silent treatment and the other that addressed neglect. Participants were required to complete both sections, as this was a within-subjects study. Participants were requested to recall and describe an event from their childhood or adolescence in which a parent or a significant other gave them the silent treatment ("*Continuing to be offended by someone, demonstrating it with a sulky facial expression*"). Subsequently, participants reported the emotions they and the sources experienced, and the frequency of specific facial expressions. In the second section, participants were required to recollect and describe an event of neglect ("*In which one of your parents ignored or emotionally or materially neglected you because they were preoccupied with other matters*") and to respond to the same questions that were posed for the silent treatment.

Measures

Target's emotions. Participants were asked to assess the degree to which they experienced various emotions (joy, anger, sadness, guilt, disgust, fear) during the described episodes using a scale ranging from 1 (Not at all) to 5 (Completely).

Source's emotions. The same emotions were assessed in relation to the source. Specifically, participants were asked to rate the extent to which they believed the parent/significant other experienced each emotion on a scale from 1 (Not at all) to 5 (Completely).

Source's facial expressions. Eight images illustrating facial expressions representing distinct emotional states were displayed (Langner et al., 2010). Participants rated the extent to which the source displayed a particular expression for each image, using a scale ranging from 0 (indicating no expression) to 10 (indicating a complete display of the expression). The facial expressions included

surprise, sadness, neutrality, joy, fear, anger, perplexity, and reproach. The eight images all portrayed the same adult male face; therefore, the stimuli did not vary in the source's gender or ethnic background.

This study includes additional, more exploratory measures that are useful for describing the silent treatment, but they are not examined in the present analyses.

Analyses and results

Repeated measures ANOVAs were conducted, considering the type of episode (silent treatment and neglect) as the within-subjects factor.

Target's emotions

Concerning the emotions felt by the participants (see Figure 1), the analyses revealed a significant difference in guilt scores, $F_{(1,\ 193)} = 81.05$, $p < .001$, $\eta_p^2 = .30$. Inspection of the means showed that the guilt experienced during the silent treatment was higher (M =3.67, SD =1.25) compared to neglect (M =2.70, SD =1.53). Moreover, the study revealed that individuals experienced significantly greater levels of sadness during the silent treatment (M =4.05, SD = .94) as opposed to neglect (M =3.81, SD =1.17), $F_{(1,\ 193)} = 9.19$, $p < .01$, $\eta_p^2 = .04$. Also, fear was significantly more pronounced during the silent treatment (M =2.55, SD =1.32) compared to neglect (M =2.29, SD =1.37), ($F_{(1,\ 193)} = 8.51$, $p < .01$, η_p^2 = .04). During episodes of neglect, the emotion of joy was found to have significantly higher levels (M =1.15, SD = .56) compared to the silent treatment (M =1.06, SD = .34), $F_{(1,\ 193)} = 6.16$, $p < .05$, η_p^2 = .03. There were no significant differences observed in anger and disgust between episodes of silent treatment and neglect.

Source's emotions

The analyses (see Figure 2) showed significantly higher levels of source's anger perceived by the target during episodes of silent treatment (M = 3.80, SD = 1.03) compared to episodes of neglect (M = 2.89, SD = 1.50), $F_{(1,\ 193)} = 64.46$, $p < .001$, $\eta_p^2 = .25$. Also, the scores of perceived source's disgust were significantly higher in the silent treatment (M =2.03, SD =1.26) compared to neglect (M =1.75, SD =1.24), $F_{(1,\ 193)} = 8.30$, $p < .01$, $\eta_p^2 = .04$. The participants attributed significantly greater levels of guilt to the source in cases of neglect (M =2.35, SD =1.34) compared to cases of silent treatment (M =1.96,

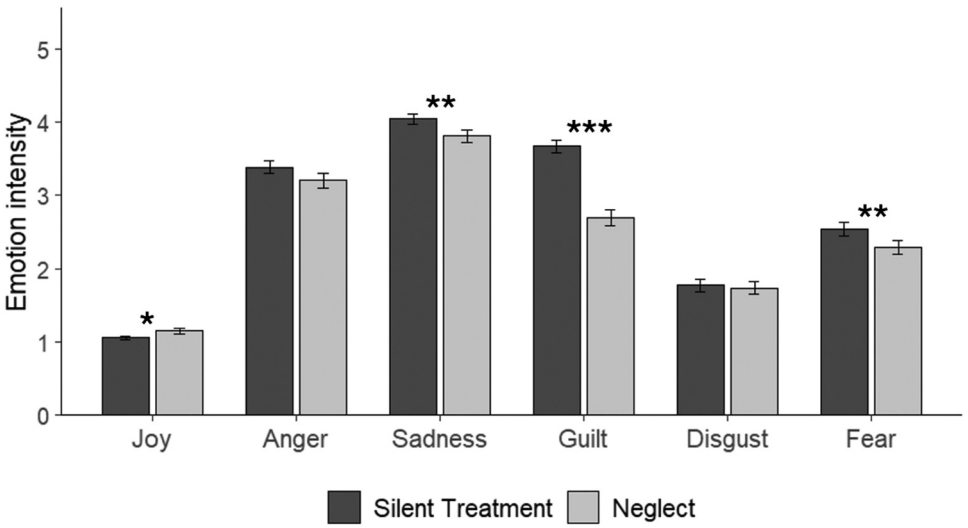

Figure 1. Targets' self-reported emotions during episodes of silent treatment and neglect. *$p \leq .05$, **$p \leq .01$, ***$p \leq .001$.

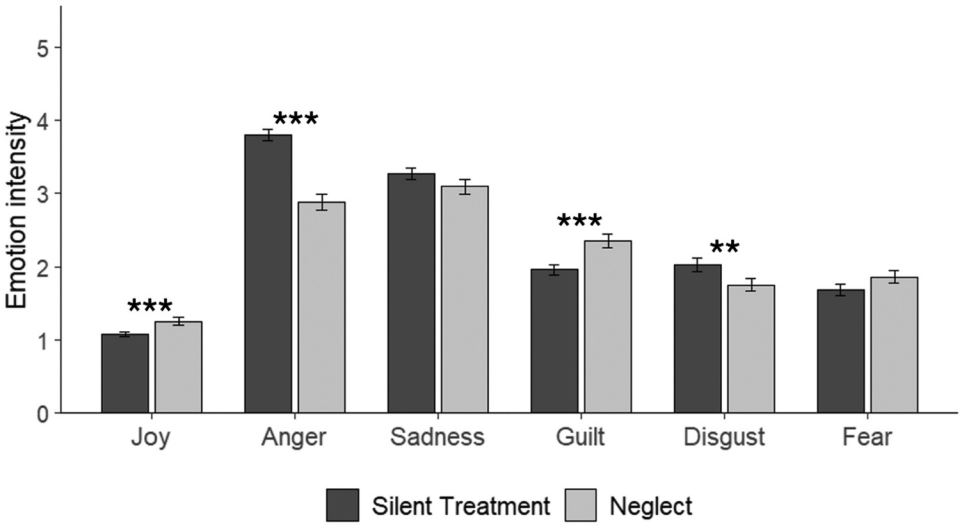

Figure 2. Targets' ratings of the source's emotions during episodes of silent treatment and neglect. $^{**}p \leq .01$, $^{***}p \leq .001$.

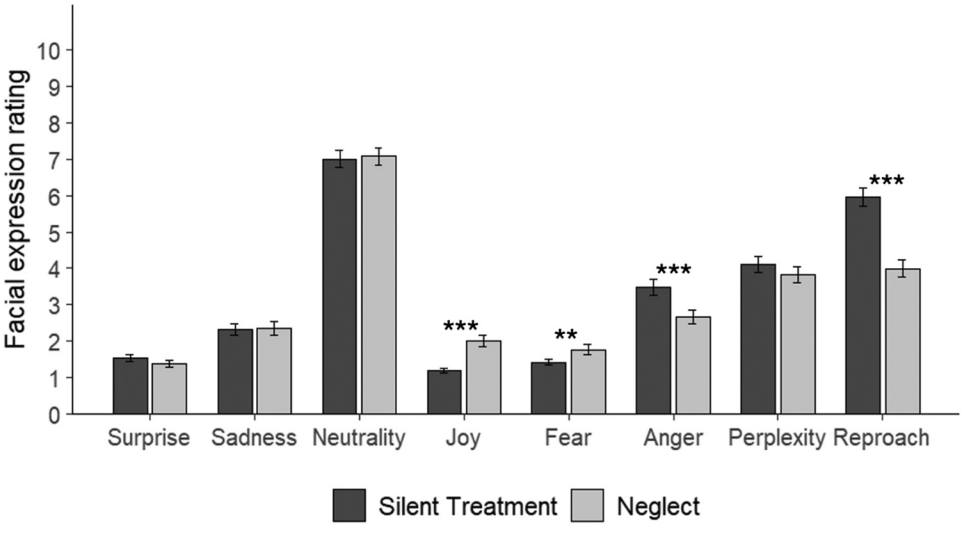

Figure 3. Targets' ratings of the source's facial expressions during episodes of silent treatment and neglect. $^{**}p \leq .01$, $^{***}p \leq .001$.

SD =1.02), $F_{(1,\ 193)} = 14.50$, $p < .001$, $\eta_p^2 = .07$. Similarly, the level of joy was significantly greater in the neglect episodes (*M* =1.25, *SD* = .71) compared to the silent treatment episodes (*M* =1.08, *SD* = .34), ($F_{(1,\ 193)} = 11.27$, $p = .001$, $\eta_p^2 = .05$). There were no significant differences observed in the perception of the source's sadness and fear.

Source's facial expressions

In accordance with the results concerning perceived source's emotions, the analyses (see Figure 3) revealed a significant difference in the expression of anger, $F_{(1,\ 193)} = 12.61$, $p < .001$, $\eta_p^2 = .06$. The expression of anger was reported more frequently during episodes of silent treatment (*M* =3.48, *SD* =2.98) compared to episodes of neglect (*M* =2.68, *SD* =2.61). Moreover, the occurrence of facial expression indicating reproach was significantly higher

during episodes of silent treatment (M =5.97, SD =3.44) compared to episodes of neglect (M =3.99, SD =3.25), $F_{(1,\ 193)} = 55.44$, $p < .001$, $\eta_p^2 = .22$. The expression of joy was significantly higher in the neglect episodes (M =2.02, SD =2.26) compared to the silent treatment episodes (M =1.20, SD = .83), $F_{(1,\ 193)} = 23.89$, $p < .001$, $\eta_p^2 = .11$. The expression of fear during neglect episodes (M =1.77, SD =1.93) was significantly higher than during episodes of silent treatment recalled by the participants (M =1.42, SD =1.11), $F_{(1,\ 193)} = 6.86$, $p < .05$, $\eta_p^2 = .03$. There were no significant differences observed in the facial expressions of surprise, sadness, perplexity, and neutral expression.

The analyses conducted in Study 1 revealed that participants reported experiencing guilt, sadness, and fear more frequently, and joy less frequently, when reflecting on silent treatment compared to neglect. Additionally, when considering silent treatment, participants perceived the source as more angered and disgusted, which led them to adopt facial expressions of anger and reproach more often, while expressions of joy were reported less frequently. Conversely, when reflecting on neglect, participants perceived the source as experiencing more guilt and joy; however, the most common facial expression attributed to the source of neglect was that of fear.

Study 2

In Study 1, we established that guilt is a central emotion in the experience of silent treatment. In the second study, we extended these findings in two significant ways. First, we investigated the causal relationship between silent treatment and guilt using an experimental design. Second, we examined the specific nature of guilt experienced, distinguishing between different types of guilt to provide a more nuanced understanding of its role in this context. In particular, two types of guilt were considered: altruistic guilt (AG) and deontological guilt (DG) (e.g., Mancini & Gangemi, 2021).

AG is related to the perception of having failed in an altruistic purpose or caused harm to someone, and is associated with empathy and compassion (e.g., Miceli & Castelfranchi, 2018). Conversely, DG is experienced in the presence of a violation of internalized moral norms, regardless of the presence of a victim, and is more closely linked to disgust and moral self-criticism (e.g., Basile & Mancini, 2011; Ottaviani et al., 2018). A study by Giacomantonio et al. (2019) found that under conditions of uncertainty, individuals engage in more controlling behaviors (aimed at restoring clarity) when experiencing deontological guilt rather than altruistic guilt. Furthermore, clinical research indicates that experiences of reproach, comparable to silent treatment, are frequently reported by patients characterized by a heightened sensitivity to deontological guilt (e.g., Basile et al., 2018). These findings may suggest that deontological guilt could be involved in the experience of silent treatment.

Individuals subjected to being ignored may engage in rumination about potential reasons for their exclusion. The lack of clarity surrounding the exclusion may lead the targets of silent treatment to reflect on potential moral transgressions they might have committed, thereby eliciting this specific form of guilt. To our knowledge, the nature of the guilt experienced by the target of silent treatment has not yet been explored. Investigating the activation of these two types of guilt could provide valuable insights into the target's experience, particularly regarding whether, during episodes of silent treatment, targets are more likely to engage in behaviors aimed at avoiding guilt associated with perceived moral norm transgressions or potential harm caused to the source. Examining these patterns may help predict psychological health outcomes linked to repeated efforts to avoid feelings of guilt (e.g., Basile et al., 2018; Tenore, 2016).

A between-subjects design was used to investigate the occurrence of deontological and altruistic guilt by comparing the experience of social pain (silent treatment) with the physical pain. Whereas Study 1 compared two interpersonal experiences of being ignored (silent treatment vs. neglect), Study 2 shifted to a social vs. physical pain contrast, consistent with a widely used experimental approach in the ostracism literature (e.g., Chen et al., 2008; Riva et al., 2011). Accordingly, the aim was not to contrast silent treatment with a different negative experience per se, but to use a standard comparison condition to examine which specific type of guilt is activated by the experience of silent treatment. It

was hypothesized that deontological guilt would be more strongly activated than altruistic guilt in participants in the silent treatment (vs. physical pain) condition, where the target experiences frustration of the need for clarity (Basile et al., 2018; Giacomantonio et al., 2019).

Materials and methods

Participants

A sample size estimation was conducted using G*Power (Faul et al., 2009). According to the assumptions of an *alpha* probability level of .05, statistical power of .80, and a medium-small expected effect size ($f = .20$), the minimum sample size for a one-way ANOVA between-factors design with two groups is 200 participants. Data collection was conducted over a preplanned one-month laboratory recruitment period, which was intended to reach this target sample size. However, within this period, 185 psychology students were recruited. Five participants were excluded from the analyses because they encountered interruptions during the experiment. Thus, the final sample included 180 participants (15.6% M, 84.4% F), aged 18–47 years ($M = 20.44$, $SD = 3.23$).

The materials and the data that support the findings of this study are available at https://doi.org/10.17605/OSF.IO/T3FZ5.

Procedure

Each participant was randomly assigned to one of two conditions: social pain or physical pain. In the first part of the experiment, participants were required to recall and provide a detailed description of the most significant episode in which they experienced either silent treatment (experimental condition) or physical pain (control condition). Subsequently, they were asked to report the emotions, thoughts, and behaviors they encountered during the social vs. physical pain episode (e.g., Chen et al., 2008). Lastly, participants were requested to provide a brief description of themselves. Altruistic guilt, deontological guilt, and other emotions were subsequently assessed in all participants.

Measures

The impact of the manipulation was assessed using two items that inquired how much participants felt punished and ignored during the recalled episode. Participants provided their responses on a scale ranging from 1 (Not at all) to 5 (Completely).

Two visual analogue scales (VAS) were employed to measure altruistic and deontological guilt. Participants were instructed to indicate the level of emotional intensity they were experiencing at the present moment, after recalling their experiences of social or physical pain, by marking a point on a horizontal line with endpoints of 0 and 100. Participants were informed that altruistic guilt is an emotion that arises when one realizes they have caused suffering or harm to another person, while also being aware that they did not intend or were unable to assist them. Deontological guilt refers to the violation of moral norms and the subsequent desire to make amends or seek forgiveness for one's immoral behavior.

Participants were also asked to complete seven additional VAS that assessed their levels of shame, sadness, fear, disgust, anger, sorrow, and happiness.

Analyses and results

Given the strong correlation between altruistic guilt and deontological guilt ($r = .46$, $p < .001$), we conducted analyses of covariance (ANCOVA) with the experimental condition (social pain vs. physical pain) as the between-subjects factor.

Manipulation check

In order to assess the effectiveness of the experimental manipulation, one-way ANOVAs were performed, using the experimental condition (silent treatment vs. physical pain) as the

between-subjects factor. The analysis of variance revealed that participants who were subjected to the silent treatment condition ($M = 3.36$, $SD = 1.50$) reported feeling significantly more punished compared to participants who were subjected to the physical pain condition ($M = 1.65$, $SD = 1.10$), $F_{(1,\ 178)} = 75.82$, $p < .001$, $\eta_p^2 = .30$. Moreover, in the experimental condition, participants (M =2.76, SD =1.52) reported significantly higher perceptions of being ignored compared to participants in the control condition (M =1.81, SD =1.21), $F_{(1,\ 178)} = 21.32$, $p < .001$, $\eta_p^2 = .11$.

Deontological and altruistic guilt

Analyses (see Figure 4) showed significant differences in deontological guilt scores between the two conditions, $F_{(1,\ 176)} = 5.19$, $p < .05$, $\eta_p^2 = .03$. The inspection of means revealed that individuals in the silent treatment condition (M =21.77, SD =31.69) reported greater levels of deontological guilt (controlling for altruistic guilt) compared to individuals in the physical pain condition (M =15.00, SD =25.22). In addition, the analysis revealed that participants assigned to the physical pain condition (M =34.68, SD =31.07) had higher scores of altruistic guilt (controlling for deontological guilt) compared to participants assigned to the silent treatment condition (M =30.16, SD =33.46). Nevertheless, this result did not reach conventional levels of statistical significance ($F_{(1,\ 176)} = 3.56$, $p = .06$, $\eta_p^2 = .02$).

As expected, the analyses showed that participants in the silent treatment (vs. physical pain) condition reported higher deontological guilt. Altruistic guilt exhibited an effect in the opposite direction, although it was not statistically significant.

Sensitivity analysis

As the a priori required sample size was not achieved, we conducted a sensitivity analysis using G*Power (Faul et al., 2009) to determine the minimum detectable effect size for our sample. Based on an *alpha* probability level of .05, a statistical power of .80, and a total sample size of 180 participants divided into two groups, the minimum required effect size was calculated to be $f = .21$ ($\eta_p^2 = .04$). This result indicates that the effect size observed for differences in deontological guilt was slightly below the threshold indicated by the sensitivity analysis.

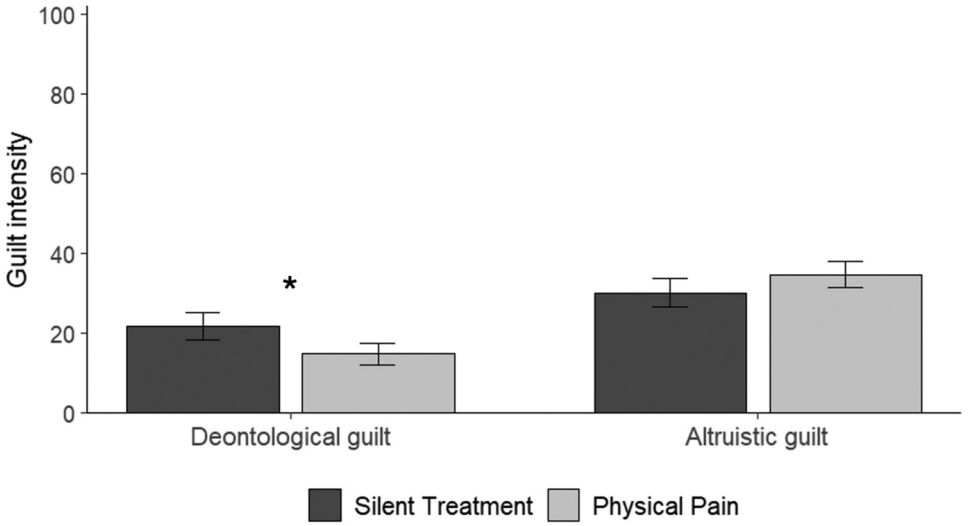

Figure 4. Deontological and altruistic guilt by condition (ANCOVA). *$p \leq .05$.

Other emotions

Although the primary objective of Study 2 was to examine guilt, we report the findings regarding the other emotions to ensure completeness. The analyses revealed no statistically significant difference in the levels of shame experienced by participants in the silent treatment condition ($M = 20.52$, $SD = 27.28$) and the physical pain condition ($M = 18.95$, $SD = 27.95$), $F_{(1,\ 178)} = .14$, $p = .71$, $\eta_p^2 = .001$. Additionally, there was no statistically significant difference ($F_{(1,\ 178)} = .92$, $p = .34$, $\eta_p^2 = .005$) between the physical pain condition ($M = 28.54$, $SD = 32.86$) and the silent treatment condition ($M = 24.15$, $SD = 28.51$) for sadness. Although the fear levels were higher in the physical pain condition ($M = 19.48$, $SD = 28.29$) than in the silent treatment condition ($M = 12.60$, $SD = 20.10$), the difference was not statistically significant ($F_{(1,\ 178)} = 3.55$, $p = .06$, $\eta_p^2 = .02$). In comparison to the silent treatment condition ($M = 5.59$, $SD = 9.97$), disgust levels were significantly higher in the physical pain condition ($M = 10.54$, $SD = 17.30$), $F_{(1,\ 178)} = 5.55$, $p < .05$, $\eta_p^2 = .03$. The silent treatment condition ($M = 22.03$, $SD = 29.67$) and the physical pain condition ($M = 18.88$, $SD = 30.44$) did not produce a significant difference in anger, $F_{(1,\ 178)} = .50$, $p = .48$, $\eta_p^2 = .003$. The silent treatment condition ($M = 31.71$, $SD = 32.25$) and the physical pain condition ($M = 34.89$, $SD = 30.17$) did not exhibit a significant difference in sorrow levels, $F_{(1,\ 178)} = .46$, $p = .50$, $\eta_p^2 = .003$. Finally, the levels of happiness of participants assigned to the silent treatment condition ($M = 40.37$, $SD = 29.97$) and the physical pain condition ($M = 39.26$, $SD = 33.92$) were not significantly different, $F_{(1,\ 178)} = .14$, $p = .71$, $\eta_p^2 = .001$.

General discussion

Silent treatment, a subtle yet highly damaging form of ostracism, constitutes a socially painful experience often accompanied by a lack of clarity regarding the reasons and intentionality behind the exclusion (e.g., Sommer et al., 2001; Williams & Nida, 2022). The primary objective of the present research was to investigate the emotional reactions of targets of silent treatment, with a specific focus on guilt and the emotions attributed to the source of the exclusion. Two studies were conducted. In the first study, participants were asked to recall and describe episodes where they were targets of silent treatment and neglect, to investigate their emotional experiences and those attributed to the source. Comparing the emotions elicited in two distinct relational contexts where the target is ignored allowed us to identify the unique features associated with silent treatment. By examining these differences, we were able to obtain a deeper understanding of how silent treatment stands apart from other forms of relational neglect, highlighting its specific emotional impact. The second study specifically explored the nature of guilt experienced by the target, distinguishing between altruistic and deontological guilt, and comparing silent treatment to a control condition (physical pain).

In the first study, participants reported experiencing guilt, sadness, and fear more intensely during silent treatment than during neglect, consistent with prior literature highlighting the activation of these emotions in the target (e.g., Sommer et al., 2001). Conversely, anger did not emerge as a characteristic emotion of targets of silent treatment. However, participants perceived the source of silent treatment as more angry and disgusted compared to the source of neglect, frequently attributing facial expressions of anger and reproach to them, as supported by previous studies (e.g., Sommer et al., 2001; Williams et al., 1998; see also Poulsen & Kashy, 2012). These findings highlight the role of emotions attributed to the source as a determinant of the target's experience. Perceptions of anger and disgust in the source, combined with the guilt experienced by the target, suggest a particularly harmful emotional dynamic that reinforces the target's perception of having committed a moral transgression. The significance of these findings extends to understanding the interpersonal dynamics and psychological implications of silent treatment, as the perception of emotions in the source – particularly anger and disgust – may contribute to the frustration of fundamental psychological needs such as belonging, self-esteem, and meaningful existence. Frustration of these needs is associated with emotions such as guilt, fear, and sadness in the target (e.g., Sommer et al., 2001; Williams, 2009; Zadro et al., 2005). Furthermore, the prevalence of silent treatment in intimate and familial relationships highlights its intergenerational potential, with parents using this strategy as a form of control over their children,

negatively affecting their emotional and relational development (e.g., Apostolou & Papageorgi, 2014; Rittenour et al., 2019). Similarly, in romantic relationships, silent treatment may serve as a potentially coercive tactic and a form of psychological aggression, with detrimental implications for targets' well-being (Dubey et al., 2026; Dvir et al., 2026).

The second study specifically examined the nature of guilt experienced by the target, revealing that silent treatment is associated with an intensification of deontological guilt compared to the control condition. Deontological guilt, linked to the perception of violating internalized moral norms, intensifies under conditions of uncertainty and ambiguity, which are intrinsic to silent treatment, where a lack of clarity about the reasons for exclusion and frustration of the need for certainty are often present (e.g., Basile et al., 2018; Giacomantonio et al., 2019; Hales & Williams, 2018; Mancini & Gangemi, 2021; Williams et al., 2019). This interpretation is consistent with evidence that uncertainty itself can elicit and amplify negative emotional states (particularly fear/anxiety and sadness/upset) and can modulate the intensity of affective responses more broadly (e.g., Morriss et al., 2022), including in social contexts (e.g., Bergquist & Ekelund, 2025). In contrast, altruistic guilt, associated with harm caused to others, did not show significant differences compared to the physical pain condition, suggesting that silent treatment specifically triggers reflections and ruminations on moral transgressions (e.g., Wesselmann et al., 2013). These findings are particularly relevant given that individuals frequently exposed to silent treatment may develop heightened sensitivity to guilt, especially deontological guilt, which plays a central role in obsessive-compulsive disorder (e.g., Barcaccia et al., 2015; Basile & Mancini, 2011; D'Olimpio & Mancini, 2014; Ottaviani et al., 2018). Consequently, the long-term outcomes of silent treatment may involve the development of dysfunctional beliefs and behavioral patterns associated with heightened deontological guilt sensitivity and moral self-criticism (e.g., Zaccari et al., 2024).

This research advances the literature on ostracism by addressing a relatively underexplored form of exclusion. Previous research has largely focused on broader, more overt forms of ostracism, such as systemic marginalization or social isolation, often neglecting the damaging dynamics of silent treatment (e.g., Wesselmann et al., 2012; Williams & Nida, 2022; Zadro et al., 2005). By focusing specifically on this form of exclusion, our research provides a deeper understanding of the emotional responses that differentiate silent treatment from other relational experiences of being ignored. An important contribution lies in examining guilt not merely as a consequence but as a central mechanism in the target's experience. By exploring both the intensity and the specific type of guilt associated with silent treatment, this research highlights the essential role of deontological guilt in shaping the target's emotional response. This finding bridges the gap between ostracism research and studies on moral emotions (e.g., Sunar et al., 2021), demonstrating how silent treatment creates unique psychological challenges due to its ambiguity and the target's tendency to internalize blame (e.g., Wesselmann et al., 2013).

Moreover, this research contributes to the broader psychological literature by emphasizing the relational dynamics that occur in this context, particularly by examining the perception of anger and disgust in the source, which exacerbates the target's distress (e.g., Cummings et al., 1981; Luppino et al., 2023). This relational perspective deepens our understanding of how silent treatment not only impacts individual emotional states but also perpetuates dysfunctional interpersonal patterns (e.g., Rittenour et al., 2019). Finally, the findings offer practical implications by suggesting that silent treatment, particularly when recurrent, may increase vulnerabilities associated with heightened sensitivity to guilt (e.g., Barcaccia et al., 2015). These connections highlight the importance of studying silent treatment as a relational phenomenon, with implications for therapeutic interventions aimed at addressing its long-term effects (e.g., Blackhart et al., 2009; Cairns & Cairns, 1991; Leitner et al., 2014; Wesselmann et al., 2013; Williams, 2009; Zadro et al., 2016).

However, this research includes some limitations that should be considered. The retrospective method adopted in both studies may have introduced memory bias among participants, limiting the accuracy of responses (e.g., Talari & Goyal, 2020). Nevertheless, because participants in each condition relied on the same recall procedure, memory-related distortions

may be less likely to systematically differ across conditions. Moreover, in Study 2 the recall task primarily served as an affective induction, after which participants reported their current emotional responses, instead of providing detailed factual information about the recalled episode. Future research should employ alternative experimental manipulations to observe emotional reactions in real-time during simulated episodes of silent treatment, thereby reducing recall bias.

In Study 1, the facial-expression stimuli were deliberately held constant, using the same person across all images, with no variation in the source's gender or ethnic background. Future research should incorporate stimuli varying these characteristics to test the robustness and generalizability of the findings. A further limitation is that the first study did not include disgust as a facial expression evaluated by participants, despite disgust being an emotion attributed to the source. Additionally, the two recall prompts may have differed in perceived clarity about the reason for being ignored: the neglect scenario explicitly attributed the parent's behavior to being preoccupied with other matters, whereas the silent treatment prompt did not specify a clear cause, potentially introducing differences in uncertainty that could have contributed to the observed emotional responses. At the same time, ambiguity about motives and relational meaning is a characteristic feature of silent treatment episodes, and participants' ratings were explicitly anchored to the specific event they recalled. Nevertheless, future work could focus on perceived uncertainty by manipulating or measuring it, to isolate its role more directly. A further limitation concerns the fixed order of the repeated-measures procedure in Study 1, as the two recall conditions were not counterbalanced. Nevertheless, participants received condition-specific instructions and all measures explicitly referred to the episode they had just described. Thus, any carryover is less likely to reflect confusion between episodes, even though an order effect cannot be excluded. Importantly, such order effects typically produce broad attenuation in responding in the second condition rather than a distinct emotional profile, as observed in the present findings. Future research should counterbalance or randomize condition order to more directly exclude order effects.

In Study 2, the sample size did not reach the expected numerosity. Sensitivity analyses suggested that the obtained sample size was better suited to detect small effects that are slightly larger than those observed here. Accordingly, replicating these findings in larger samples would strengthen statistical power and provide more precise effect size estimates.

Additionally, given that recall-based procedures are widely used in the ostracism and silent treatment literature, future research could examine the recalled episodes in greater depth while also taking into account contextual information from participants' written descriptions, to assess whether the observed effects vary across different interpersonal contexts.

Future studies could also explore how the emotions experienced by the target, particularly deontological guilt, relate to specific thoughts, behaviors, and perceived frustrated needs. For instance, it would be valuable to investigate the relationship between the target's emotions and reparative behaviors, guilt-avoidance strategies, and needs such as belonging, certainty, and meaningful existence. This approach could provide a more comprehensive understanding of the psychological and social dynamics of silent treatment, contributing to the development of targeted interventions to mitigate its negative impact on mental and relational adjustment.

In summary, the findings from these two studies suggest that guilt is a central emotion in the experience of silent treatment. Guilt in this context is tightly linked to the lack of clarity characterizing this form of ostracism, which induces strong frustration with the need for certainty, compelling targets to seek explanations based on their behavior, particularly through ruminating on moral transgressions (e.g., Hales & Williams, 2018; Sommer et al., 2001; Wesselmann et al., 2013). This dynamic is further amplified by the perception of anger and disgust in the source. Our findings suggest that silent treatment not only intensifies guilt but does so primarily through deontological guilt, which is closely associated with violations of internalized moral norms. Exploring guilt in this context enriches our understanding of the psychological impact of silent treatment and provides important insights into mitigating the long-term psychological effects associated with this form of relational exclusion.

Author contributions

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Data availability statement

The data that support the findings of this study are available at https://doi.org/10.17605/OSF.IO/T3FZ5.

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Ethics approval

All procedures performed in this study were in accordance with the ethical standards of the institutional and/or national research committee and with the 1964 Helsinki Declaration and its later amendments or comparable ethical standards. The study was approved by the Ethical Committee of the School of Cognitive Psychotherapy (No. 3/25).

Informed consent

Informed consent was obtained from all individual participants included in the study.

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