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RESEARCH ARTICLE

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Enhancing and weakening conformity in third-party punishment: The role of empathic concern

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Abstract

Conformity—shifting one's behavior patterns towards group norms—is both common and powerful. Prior research shows that conformity can drive behavioral patterns towards both positive and negative outcomes (e.g., environmentalism vs. anti-environmentalism). However, we know little about conformity in response to sanctions for norm violations. This research explores conformity in punishment for norm violations and how this behavior is enhanced or weakened by empathic concern ($N = 1108$). The participants acted as third parties to punish unfairness either in a third-party punishment game or in lifelike unfair allocation scenarios. They behaved in a group where other members inflicted either high or low punishment on the unfair proposers. The results of this study show that the participants conformed to both the high-punishment norm and the low-punishment norm, and their conformity persisted after removing the group context (Studies 1A and 1B). Studies 2A and 2B show that evoking empathic concern towards recipients (victims) in unfair situations increased the punishment of the dictator and diminished conformity to the low-punishment norm. Study 3 shows that the enhancement effect of empathic concern on conformity when embedded in the high-punishment norm strengthened over time, whereas the weakening effect of empathic concern on conformity among those representing a low-punishment norm declined over time. These findings extend the understanding of conformity and the role of emotion in this behavior, with the potential for conformity-modulating interventions.

KEYWORDS
conformity, emotion, morality, third-party punishment

1 | INTRODUCTION

It is common for individuals to be influenced by others. The way in which individuals may change their attitudes, judgments, and behavioral responses to match those of the group to which they belong is defined as conformity (Asch, 1956; Cialdini & Goldstein, 2004). Strong conformity is essential for cultural evolution, as it helps transmit traditions, values, and beliefs in groups (Bond & Smith, 1996; Henrich & Boyd, 1998). However, conformity can lead to either positive or negative consequences for both individuals and society. For example, people are more likely to recycle (Goldstein et al., 2008) and to donate (Frey & Meier, 2004; Shang & Croson, 2009) if they see that others are doing the same. Conversely, people conform to littering (Cialdini et al., 1990), being aggressive, and risk-taking (Cohen & Prinstein, 2006). Therefore, to improve human behavior or society, it is necessary to investigate the factors that lead to conformity with positive social norms and those that lead to conformity with harmful ones.

2 | LITERATURE REVIEW AND HYPOTHESES

2.1 | Conformity and third-party punishment

Third-party punishment is a costly sanction against norm-violating behaviors made by an uninvolved party rather than by an involved party (Bendor & Mookherjee, 1990). Several studies have shown that third-party punishers are easily affected by others. For instance, Piazza and Bering (2008) found that third parties punished unfair distribution more when their decisions and names were known by others than when they were not known. Fabbri and Carbonara (2017) set up an experiment where participants made punishment decisions in privacy at first, but after receiving information about the average punishment administered by their peers, they sought to conform. Moreover, when punishment is given as a group and the group is larger, group members are more likely to conform (Son et al., 2019).

In line with these studies, we hypothesize that people who are third parties show conformity when they determine punishments as a group (Hypothesis 1). First, researchers have proposed the following three key motivations for conformity: gaining the approval of others or avoiding punishment for violating social norms, improving the accuracy and correctness of one's behavior, and maintaining a positive self-concept (Bernhard et al., 2006; Cialdini & Goldstein, 2004). The first two are closely linked to third-party punishment for norm violations. When others in a group enact third-party punishment for violators, people might conform to avoid potential disapproval from the group or to improve one's accuracy of punishment. These two possibilities might lead them to behave as others behave.

Second, conformity has been reported to shape certain behaviors through a reinforcement learning approach (Cascio et al., 2015; Klucharev et al., 2009; Wu et al., 2016; Zaki et al., 2011). That is, people adjust their behaviors to a group's social norms through neural responses to prediction errors between the expected behaviors in the group and the individual's actual behavior on a one-on-one basis. Thus, when people confront a discrepancy between their own and another individual's behavior in a group setting, they might adjust their third-party punishment preference to the group norm to decrease the discrepancy.

2.2 | Empathic concern and conformity in third-party punishment

In the current study, we also focused on examining whether empathic concern would affect conformity in third-party punishment. Empathy is a multidimensional psychological concept that involves both a similar affective response to another person's emotional state and the cognitive and regulatory processes involved in the sharing of feelings (Batson et al., 1991; Eisenberg et al., 1994; Preston & de Waal, 2002). As the affective component of empathy, empathic concern emphasizes being able to relate to and sincerely care for other people's feelings.

To examine whether empathic concern affects conformity in third-party punishment, it is necessary to determine the target of empathic concern. There are three roles in third-party punishment: the violator (proposer), the victim (recipient), and the punisher (third party). Empathic concern towards both recipients and third parties might affect individuals' punishment in a group. Previous studies considered empathic concern towards victims as both feelings of victims' emotions and reactions to victims' plight (Staub, 1987; Vitaglione & Barnett, 2003). They found that empathic concern towards victims could inspire both punishment of the violators and help for victims. Thus, we only focus on the role of empathic concern towards recipients in third-party punishment in the current study.

Empathic concern towards recipients might change conformity by influencing motivations for third-party punishment. Previous studies proposed two motivations for third-party punishment: the deterrence function and the competitive function. The deterrence function serves to avoid future mistreatment in violations (Delton & Krasnow, 2017; Krasnow et al., 2016). The competitive function aims to enhance the punisher's status by reducing violators' inequality (Deutchman et al., 2021; Raihani & Bshary, 2019). Both of them might be enhanced by empathic concern. On the one hand, empathic concern towards recipients could enhance punishers' desires to deter future violations by helping them put themselves into others' situations (Eisenberg et al., 1994; FeldmanHall et al., 2015; Lamm et al., 2007). On the other hand, it could invoke punishers' empathic anger towards violators and then intensify punishers' competitive tendency in third-party punishment (Batson et al., 2007; Raihani & Bshary, 2019; Vitaglione & Barnett, 2003).

The enhanced deterring or competitive motivation might change punishers' perceived conflicts between themselves and a group that upholds a high- or low-punishment norm. When individuals face higher perceived conflicts between their own tendencies and a group norm, they are less likely to conform to the group (Packer, 2008; Packer & Miners, 2014). Then, when punishers are in a high-punishment group, the enhanced deterring or competitive motivation could lead them to feel lower perceived conflicts between their goals and the goal of the group. This, in turn, might increase their conformity to such a group. In contrast, enhanced deterring or competitive motivations might increase punishers' perceived conflicts between their goals and the goal of a group with a low-punishment norm. This then decrease their tendency to conform to the group. Thus, we hypothesize that empathic concern towards recipients in third-party punishment might strengthen conformity to a group with a high-punishment norm and weaken conformity to a group with a low-punishment norm (Hypothesis 2).

2.3 | Persistence of conformity and the effects of empathic concern on conformity in third-party punishment

Persistence of conformity includes both an individual's continued adherence to group norms after leaving the group and the duration of

an individual's compliance with group decisions in the group. Most previous studies have focused on the former. They tried to separate private acceptance (i.e., people internalize social norms and change their subjective preferences and behaviors) from public compliance (i.e., people appear to conform to social norms while privately holding divergent views). The results suggest that participants privately changed their preferences because they changed the neural structure of evaluation processing in the brain, such as in parts of the ventral striatum, the orbitofrontal cortex, and the ventromedial prefrontal cortex (Nook & Zaki, 2015; Zaki et al., 2011). Then, we hypothesize that people internalize group norms in third-party punishment after leaving the group context (Hypothesis 3a).

Few studies have discussed how long conformity persists in group settings. A study of donation conformity showed that it could persist for a short time (Nook et al., 2016). Thus, we assume that conformity in third-party punishment could persist for a period of time. Furthermore, empathic concern could strengthen the goal of third-party punishment to prevent future violations (Batson et al., 1981; Van Lange, 2008). It could also promote individuals' imitation of a group's behavior (Decety & Meltzoff, 2011; Iacoboni, 2009). Empathic concern might, therefore, increase the goal of high punishment in a group while conflicting with the goal of low punishment in a group. With this in mind, we hypothesize that the enhancing effect of empathic concern on the strength of conformity to a high-punishment norm might be sustainable over time, whereas the weakening effect of empathic concern on the strength of conformity to a low-punishment norm might decline over time (Hypothesis 3b).

3 | STUDY OVERVIEW

In the current study, the participants acted as a third party to decide how much to punish a proposer who unfairly divided an allocation to a recipient (the victim of unfairness) either in a dictator game (i.e., the recipient cannot reject the allocation portion but can only accept it) or in scenarios. We examined whether the participants conformed to groups with high-punishment norms or groups with low-punishment norms.

Five studies were conducted (Figure 1). Study 1A used a repeated third-party punishment game to examine conformity. The participants made decisions either independently or in a group wherein the average punishment of all the members in the group was used as the final decision. Study 1B conceptually replicated Study 1A by using scenarios and manipulating levels of hypothesis disclosure. Study 2A evoked empathic concern for the recipients in the third-party game in Study 1A to test how it affected conformity in a high- or low-punishment group. Study 2B conceptually replicated Study 2A. We used participants' own punishment after they observed other members' decisions in the group rather than the average punishment of all members as the final decision in the group context. Study 3 tested the persistence of conformity and the effects of empathic concern on conformity over time.

4 | STUDY 1

4.1 | Study 1A

To examine conformity in third-party punishment, we compared punishment for unfairness across the following four stages in Study 1A: (1) the Alone Before stage, in which the participants made punishment decisions alone; (2) the Group Before stage, in which the participants made punishment decisions in a group before they saw the other group members' decisions; (3) the Group After stage, in which they reassigned punishment decisions in a group after seeing others' decisions; and (4) the Alone After stage, in which the participants made punishment decisions alone after leaving the group decision-making context. In the group decision making, the participants were randomly assigned to groups with either a high-punishment or low-punishment norm. We used punishments in the Group Before and Group After stages for different group norms to examine the degree of conformity to both the high-punishment and low-punishment norms. We used punishment in the Alone After stage to assess the internalization of group norms after leaving the group context.

4.1.1 | Participants and design

We recruited 89 Chinese participants (57 women, $M_{age} = 21.85$; $SD = 3.29$) on a university campus in Beijing. All participants signed a consent form online through the Qualtrics platform. Seven participants were not included in the final dataset because they demonstrated an incorrect understanding of the task on the screening questions. This left 82 participants who were randomly assigned to either a high-punishment norm ($n = 42$) or a low-punishment ($n = 40$) norm condition. This sample size met the minimum requirement of 82 calculated by the G*Power program (Faul et al., 2009) for a medium effect size ($\eta^2_p = .06$) with an a priori statistical power ($1 - \beta$) of .80. The participants were paid 6 CNY (approximately 0.95 USD) for completion and a bonus of up to 4 CNY (approximately 0.63 USD) based on their decisions. When the participants punished more severely, their bonus was smaller (one punishment unit equals 0.09 CNY [approximately 0.14 USD] in the experiment). No credit was provided for participation.

This study used a 2 (Group Norm: High punishment vs. Low punishment) × 4 (Stage: Alone Before vs. Group Before vs. Group After vs. Alone After) mixed design in which Group Norm was a between-subjects factor and Stage was a within-subject factor.

4.1.2 | Procedure

The participants were instructed to act as a third party in a third-party punishment game (Fehr & Fischbacher, 2004). In this game, they needed to sanction some unfair distributions that had already been made by an anonymous proposer before this experiment. The same proposer played the role of a dictator who unfairly and repeatedly divided 10 money units between an anonymous recipient and

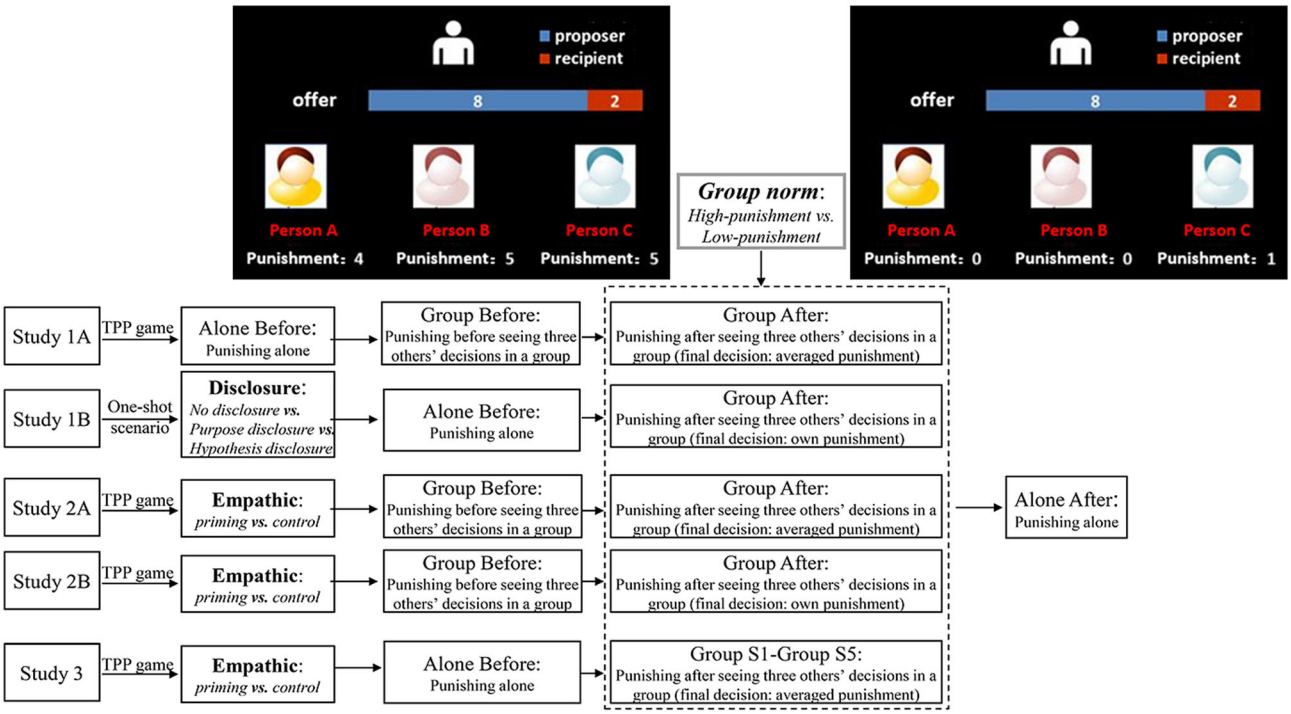

FIGURE 1 Procedures across five studies: (1) the participants in Study 1A finished a third-party punishment game in which they made third-party punishment to a proposer who repeatedly made unfair distributions between him/herself and a recipient, and the recipient could not reject but had to accept the distributions in a past dictator game. In the Alone Before stage, they made punishment decisions alone. Then, they enter the group decision stage, in which they made punishment decisions in a group (which has either a high-punishment or low-punishment norm) before they saw the other three group members' decisions (Group Before) and remade punishment decisions in a group after seeing others' decisions (Group After) trial by trial. The averaged punishment of the group was imposed as the final punishment. Finally, they made punishment decisions alone (Alone After). Group members were simulated, and their punishment was presented as small pictures. (2) The participants in Study 1B read a one-shot scenario, which describes an actor making an unfair allocation between a partner and themselves, and made third-party punishment rating to the actor in the Alone Before stage. After they entered a group and observed the other three members' decisions, they remade punishment decisions (Group After). They were either told about the purpose or the purpose and hypothesis or nothing about them of this study (different levels of disclosure). The participants' own punishment was imposed as the final punishment. Finally, they finished the Alone After stage. (3) The participants in Study 2A finished a third-party punishment game as in Study 1A. They read a paragraph about the recipient in the dictator game to prime their empathic concern towards the recipient or not, then completed the Group Before and Group After stages trial by trial, and finally completed the Alone After stage. The averaged punishment of the group was imposed as the final punishment in the group context. (4) Study 2B is similar to Study 2A. The only difference is that the participants' own punishment was imposed as the final punishment in the group context. (5) The participants in Study 3 were also primed with empathic concern towards the recipient or not as in Study 2, completed the Alone Before stage as third parties, then made punishment decisions after they saw the other three members' decisions in five Group After stages (Groups S1–S5), and finally completed the Alone After stage. [Colour figure can be viewed at wileyonlinelibrary.com]

him/herself in a dictator game. That is, the recipient could not reject the allocated money units but had to accept them. In each trial, the participants gained eight money units and could use up to five units to punish the unfair proposer. One punishment unit costs the participants one unit and costs the proposer two units. The participants were told that their final punishment in each trial would be summed to be deducted from their bonus. They never met the proposer or recipient or learned one another's identity. They entered the experiment only when they had correctly answered all the questions in a comprehension quiz about the dictator game (Appendix S1).

The experiment consisted of four stages. In the Alone Before stage, the participants punished three randomly presented unfair divisions, including 10:0 (i.e., the proposer allotted 10 units to him/herself and 0 to the recipient), 9:1, and 8:2, independently. They also completed three comprehension questions about third-party punishment, including their roles and whether the punishment is costly for them and the proposer. Then, they were told to work with three other third parties as a group (Persons A, B, and C) (Figure 1 and Appendix S2).

Next, after finishing a quiz about the group decision rule of third-party punishment (Appendix S2), they assigned punishment to another three unfair divisions as in the Alone Before stage trial by trial (Group Before). They observed other group members' punishments and then reassigned a punishment trial by trial (Group After). Each member's cost equaled the average number of punishment units that the group members chose to deduct from the proposer's gains. Therefore, if the average punishment of all group members in a trial is one unit, then this trial will cost each group member one unit and cost the proposer two units (Park et al., 2017). Then, the participants answered comprehension questions about the final punishment of the group and the final cost of everyone in the group.

Finally, in the Alone After stage, the participants completed three trials where they assigned punishment alone. After they finished all the tasks, they answered two following open-ended questions to test whether they detected the purpose of this study (Appendix S2).

In the high-punishment condition, the punishment units of three persons were extracted from the matrixes ([4 4 5]; [4 5 5]; [5 4 4]), in which the unit means were 4.33 and 4.67. In contrast, in the low-punishment condition, the punishment units were randomly extracted from the matrixes ([1 0 1]; [0 1 0]; [1 1 0]), in which the unit means were 0.33 and 0.67.

4.1.3 | Results and discussion

Effect of group norm

We ran a 2 (Group Norm) × 4 (Stage) mixed analysis of variance (ANOVA) on mean punishment in each stage. The results showed a nonsignificant main effect of Group Norm ($F(1, 80) = 1.81$, $p = .18$) or Stage ($F(3, 240) = 0.20$, $p = .90$) but a significant interaction of Group Norm × Stage ($F(3, 240) = 17.20$, $p < .001$, $\eta^2_p = .18$). Then, we examined the simple effects of the interaction.

In the high-punishment condition, the punishment unit mean was lower in the first two stages than in the Group After stage (Alone Before vs. Group After, $p = .001$; Group Before vs. Group After, $p = .003$; $F(3, 78) = 6.51$, $p = .001$, $\eta^2_p = .20$) (Figure 2a and Table 1). In the low-punishment condition, the punishment unit mean was higher in the first two stages than in the Group After stage (Alone Before vs. Group After, $p = .001$; Group Before vs. Group After, $p = .002$; $F(3, 78) = 5.07$, $p = .003$, $\eta^2_p = .16$). These findings suggest that the participants conformed to both the high-punishment and low-punishment group norms in third-party punishment, which supports Hypothesis 1.

Furthermore, the punishment unit mean was lower in the Alone Before stage than in the Alone After stage ($p = .003$) in the high-punishment condition, and it was higher in the Alone Before stage than in the Alone After stage ($p = .001$) in the low-punishment condition. These results indicate that conformity to both the high-punishment norm and low-punishment norm was extended from decisions in the group context to subsequent independent decisions after the participants left the group context, which supports Hypothesis 3a.

In addition, the punishment unit mean in the high-punishment condition did not differ from that in the low-punishment condition in the Alone Before ($F(1, 80) = 0.46$, $p = .50$) and Group Before stages ($F(1, 80) = 1.09$, $p = .30$). These findings suggest that the participants' baseline unit mean punishment did not differ between the two conditions.

4.2 | Study 1B

We ran Study 1B to replicate Study 1A by (1) using a one-shot scenario instead of the repeated third-party punishment game; (2) using the participants' own punishment after they observed other members' decisions in the group rather than the average punishment of all members as the final decision in the group context (i.e., this setting makes the final punishment dependent only on participants' punishment); and (3) manipulating the level of disclosure of the purpose and hypothesis of the study.

4.2.1 | Participants and design

Three hundred seventy-one Chinese participants with university-level education (241 women, $M_{age} = 28.57$; $SD = 8.32$) finished this study online through Credamo (https://www.credamo.com/#/, a reliable Chinese online platform similar to Qualtrics) with a signed consent form. Thirty of them were not included in the analysis because they misunderstood the task, which left 341 in a 3 (Disclosure: No disclosure vs. Purpose disclosure vs. Hypothesis disclosure) × 2 (Group Norm: High punishment vs. Low punishment) between-subject condition. The participants were paid 1 CNY (approximately 0.14 USD) for completion.

4.2.2 | Procedure

First, the participants finished a letter task with an item to find four words about color from a 10 × 10 matrix of capital letters. Afterwards, they were instructed to read scenarios adapted from real events in daily life. They were instructed to imagine that they were acting as a third party to decide the extent to which the actors in the scenarios should be punished according to a 6-point scale (0 = *should not be punished*; 5 = *should be punished severely*) (Alone Before) (Appendix S3). The participants were told to imagine that one punishment unit required them to finish one item of the letter task that appeared at the beginning of the experiment. Next, they were told that they would be randomly combined with three other participants who had finished the task as a group. After presenting the other three members' punishments ([4 5 5] in the high-punishment condition; [1 0 1] in the low-punishment condition), they remade a punishment decision as the final decision (Group After).

In the no disclosure conditions, we did not provide any instruction about the purpose or hypothesis of this study (the same as what we did in all the other studies). In the purpose disclosure conditions, we told participants the purpose of this study. In the hypothesis disclosure conditions, we told participants both the purpose and our hypothesis of this study (Appendix S3). Then, participants left the group, read another different scenario, and made decisions to punish the actors or not (Alone After) (Appendix S4). Finally, they completed a comprehension question, "What is your role in the task?" in all conditions. In the no disclosure conditions, they finished an open-ended question ("What do you think the purpose of this survey is?") and the two other open-ended questions used in Study 1A. In the purpose disclosure and hypothesis disclosure conditions, they finished questions to detect whether they learned the purpose or the purpose and hypothesis separately.

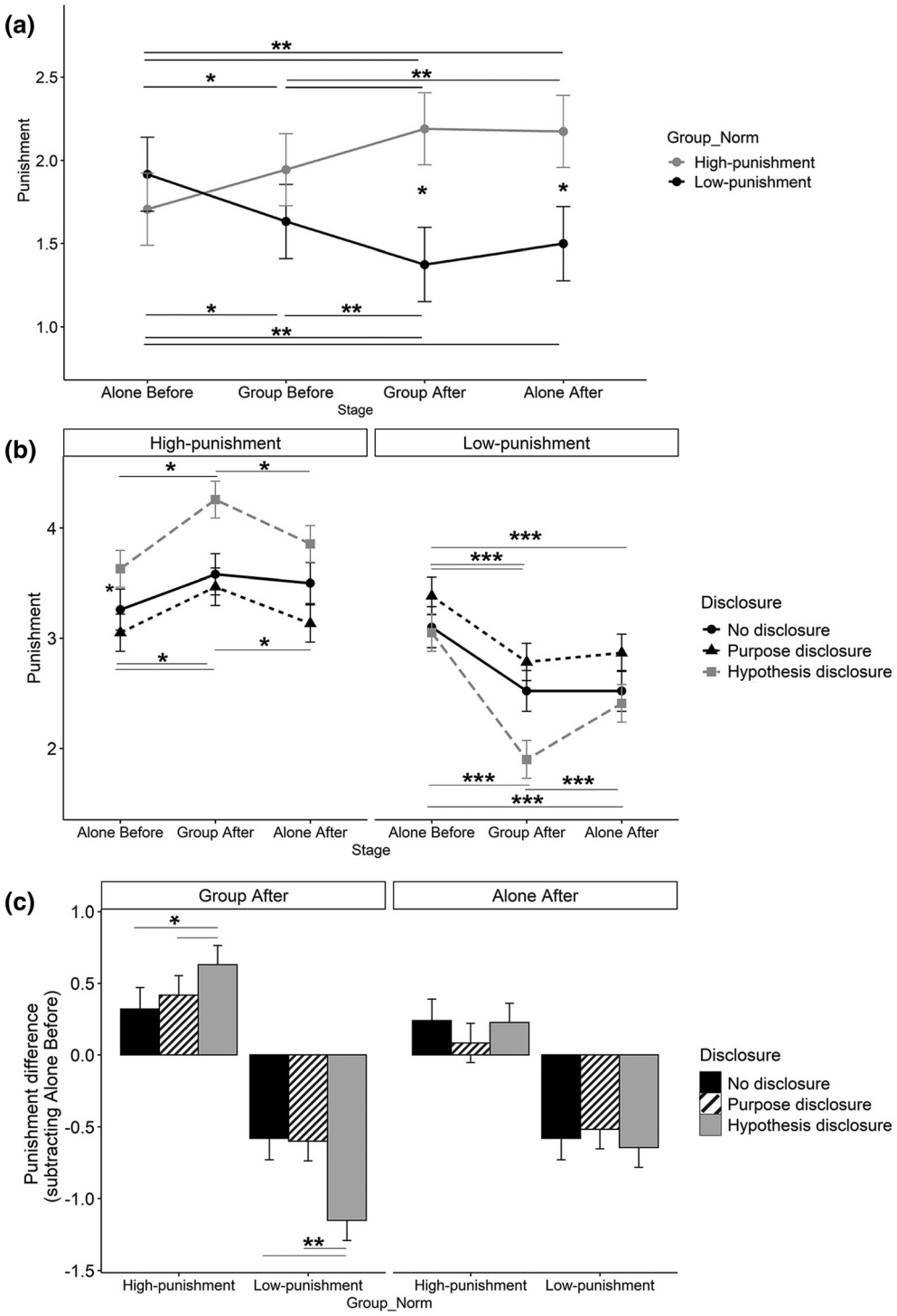

FIGURE 2 (a,b) Mean punishment across conditions and stages in Study 1A and Study 1B, respectively. (c) Punishment difference (subtracting punishment in Alone Before and being controlled with punishment in Alone Before) in Study 1B. Error bars represent standard errors. $^{*}p < .05$, $^{**}p < .01$, $^{***}p < .001$

4.2.3 | Results and discussion

Effects of disclosure and group norm

A 3 (Disclosure) × 2 (Group Norm) × 3 (Stage: Alone Before vs. Group After vs. Alone After) ANOVA on the mean punishment rating showed a significant main effect of Group Norm ($F(1, 335) = 39.52$, $p < .001$, $\eta^2_p = .11$), an interaction of Disclosure × Group Norm ($F(2, 335) = 8.74$, $p < .001$, $\eta^2_p = .05$), and an interaction of Disclosure × Group Norm × Stage ($F(4, 670) = 3.77$, $p = .005$, $\eta^2_p = .02$). The main effect of Disclosure was not significant ($F(2, 335) = 0.23, 0.80$).

The main effect of Group Norm showed that participants in all high-punishment conditions increased their punishment in Group After (vs. Alone Before) ($p < .03$, Figure 2b and Table 1), and participants in all low-punishment conditions decreased their punishment in Group After (vs. Alone Before) ($p < .001$). These effects in the no disclosure conditions replicated the conformity found in Study 1A. Additionally, the punishment in Alone Before differs among conditions, in

TABLE 1 Descriptive of punishment (mean [standard deviation]) across studies and adjusted difference of punishment (subtracting punishment in the first stage) (mean [standard errors]) in ANCOVAs in Studies 1B, 2, and 3

Group condition	Stage			
Study 1A-M (*SD*)	**Alone Before**	**Group Before**	**Group After**	**Alone After**
High punishment	1.70 (1.34)	1.94 (1.30)	2.19 (1.39)	2.17 (1.49)
Low punishment	1.92 (1.48)	1.63 (1.40)	1.38 (1.47)	1.50 (1.39)

Study 1B-M (*SD*)	**Alone Before**	**Group After**	**Alone After**	**Difference M_{adj} (*SE*)**	**Group After**	**Alone After**
No disclosure high	3.26 (1.54)	3.58 (1.40)	3.50 (1.34)		0.32 (0.13)	0.24 (0.13)
Purpose disclosure high	3.05 (1.45)	3.47 (1.32)	3.13 (1.31)		0.35 (0.12)	0.01 (0.12)
Hypothesis disclosure high	3.63 (1.15)	4.26 (0.87)	3.85 (0.96)		0.76 (0.12)	0.37 (0.12)
No disclosure low	3.10 (1.47)	2.52 (1.43)	2.52 (1.27)		−0.63 (0.13)	−0.64 (0.13)
Purpose disclosure low	3.38 (1.34)	2.78 (1.51)	2.87 (1.40)		−0.55 (0.12)	−0.47 (0.12)
Hypothesis disclosure low	3.05 (1.33)	4.26 (0.87)	2.41 (1.25)		−1.22 (0.12)	−0.72 (0.12)

Study 2A-M (*SD*)	**Group Before**	**Group After**	**Alone After**	**Difference M_{adj} (*SE*)**	**Group After**	**Alone After**
Empathic high	2.53 (1.01)	2.67 (1.12)	2.81 (1.04)		0.17 (0.10)	0.33 (0.10)
Control high	2.04 (1.06)	2.35 (1.25)	2.25 (1.27)		0.30 (0.10)	0.19 (0.10)
Empathic low	2.36 (1.11)	2.28 (1.40)	2.18 (1.20)		−0.06 (0.09)	−0.15 (0.09)
Control low	1.72 (.96)	1.40 (0.92)	1.58 (0.98)		−0.36 (0.10)	−0.19 (0.10)

Study 2B-M (*SD*)				**Difference M_{adj} (*SE*)**		
Empathic high	2.83 (1.07)	3.08 (1.06)	3.01 (1.14)		0.26 (0.06)	0.20 (0.09)
Control high	2.17 (1.16)	2.48 (1.31)	2.33 (1.32)		0.31 (0.05)	0.16 (0.08)
Empathic low	2.33 (1.21)	2.20 (1.21)	2.20 (1.36)		−0.12 (0.05)	−0.12 (0.08)
Control low	1.75 (1.09)	1.42 (1.09)	1.69 (1.11)		−0.35 (0.05)	−0.09 (0.08)

Study 3-M (*SD*)	**Alone Before**	**G1**	**G2**	**G3**	**G4**	**G5**	**Alone After**
Empathic high	2.50 (1.18)	3.07 (1.29)	3.14 (1.34)	3.44 (1.28)	3.52 (1.17)	3.40 (1.11)	3.05 (1.12)
Control high	2.04 (1.32)	2.62 (1.59)	2.70 (1.54)	2.66 (1.57)	2.67 (1.50)	2.75 (1.58)	2.51 (1.47)
Empathic low	2.61 (1.19)	2.38 (1.39)	2.34 (1.49)	2.27 (1.53)	2.25 (1.52)	2.17 (1.62)	1.94 (1.20)
Control low	2.01 (1.26)	1.60 (1.12)	1.49 (1.23)	1.62 (1.16)	1.69 (1.16)	1.67 (1.22)	1.71 (1.15)
Difference M_{adj} (*SE*)							
Empathic high		0.65 (0.13)	0.72 (0.14)	1.03 (0.14)	1.12 (0.14)	1.01 (0.15)	0.60 (0.09)
Control high		0.49 (0.15)	0.57 (0.16)	0.52 (0.16)	0.52 (0.16)	0.59 (0.17)	0.42 (0.10)
Empathic low		−0.10 (0.15)	−0.15 (0.16)	−0.20 (0.16)	−0.22 (0.16)	−0.28 (0.17)	−0.60 (0.10)
Control low		−0.51 (0.14)	−0.62 (0.15)	−0.50 (0.15)	−0.44 (0.15)	−0.48 (0.16)	−0.35 (0.10)

that it was higher in the hypothesis disclosure high-punishment condition than in the purpose disclosure high-punishment condition ($F(1, 121) = 5.98$, $p = .02$) and the hypothesis disclosure low-punishment condition ($F(1, 119) = 6.56$, $p = .01$).

To directly test whether the degree of conformity differs among conditions with different levels of disclosure, we focused on the interaction of Disclosure × Group Norm on the punishment difference (Group After minus Alone Before). We ran a 3 (Disclosure) × 2 (Group Norm) analysis of covariance (ANCOVA), in which punishment in Alone Before was used as a covariate. Using ANCOVA can statistically control the effect of distributional variance of punishment in Alone Before on punishment in Group After across conditions. This method is regarded to be more powerful than the ANOVA on simple change score (difference of punishment between Group After and Alone Before in this study) (Frison & Pocock, 1992; Judd et al., 2001; Wan, 2021).

The results showed a significant main effect of Group Norm ($F(1, 334) = 153.41$, $p < .001$, $\eta^2_p = .32$) and an interaction of Disclosure × Group Norm ($F(2, 334) = 11.95$, $p < .001$, $\eta^2_p = .07$). In detail, the punishment difference (Group After minus Alone Before) was significantly higher in the hypothesis disclosure high-punishment condition than in the purpose disclosure high-punishment ($p = .017$) and no disclosure high-punishment ($p = .016$) conditions ($F(2, 334) = 3.93$, $p = .02$, $\eta^2_p = .02$, Figure 2c and Table 1). In contrast, this punishment difference was significantly lower in the hypothesis disclosure low-punishment condition than in the purpose disclosure low-punishment ($p < .001$) and no disclosure low-punishment ($p = .001$) conditions ($F(2, 334) = 8.60$, $p < .001$, $\eta^2_p = .05$). The findings suggest

that participants are more likely to conform when they are made aware of both the purpose and hypothesis of the study, compared to when they are told only the purpose or given no information.

Punishment in Alone After was not significantly different from that in Alone Before in the no disclosure high-punishment ($p = .11$), purpose disclosure high-punishment ($p = .54$), and hypothesis disclosure high-punishment ($p = .09$) conditions (Figure 2b and Table 1). In contrast, punishment in Alone After was significantly lower than that in Alone Before in the no disclosure low-punishment ($p < .001$), purpose disclosure low-punishment ($p < .001$), and hypothesis disclosure low-punishment ($p < .001$) conditions. These findings suggest that conformity to a high-punishment group in a one-shot scenario did not significantly extend to subsequent decisions after leaving the group; but conformity to a low-punishment group did.

The 3 (Disclosure) × 2 (Group Norm) ANCOVA on the difference in punishment (Alone After minus Alone Before) showed a significant main effect of Group Norm ($F(2, 334) = 66.69$, $p < .001$, $\eta^2_p = .17$) and an interaction of Disclosure × Group Norm ($F(2, 334) = 3.39$, $p = .04$, $\eta^2_p = .02$). However, the post hoc tests of the interaction did not show significant difference among conditions with different level of disclosure ($F_{\text{high-punishment}}(2, 334) = 2.37$, $p = .095$; $F_{\text{low-punishment}}(2, 334) = 1.16$, $p = .31$, Figure 2c and Table 1). These results suggest that disclosing hypotheses and purpose did not have an effect on participants' conformity degree in subsequent decisions made after leaving the group.

Taken together, the results in the no disclosure conditions replicated the conformity found in Study 1A. This suggests that people conform to both high- and low-punishment norms in a one-shot third-party punishment scenario. We also coded the participants' answers to the open-ended questions in the no disclosure conditions. The results showed that 74% of the participants stated that the purpose of the experiment was related to punishment or unfairness or was unknown; 26% of the participants stated that it was related to social or peer influence (of which 5% directly stated conformity). We also tested whether these two kinds of participants differed in their conformity behavior and did not find a significant difference ($F(1, 96) = .08$, $p = .77$).

The comparisons of the degree of conformity among conditions with different levels of disclosure indicated how demand characteristics affected conformity. Our findings indicate that conformity was significantly increased when individuals were told both the purpose and hypothesis of the study, as opposed to being told only the purpose or nothing at all. Conformity did not differ when participants were only made aware of the purpose of the study and when they were not. The findings are consistent with those in no disclosure conditions that found no significant difference in conformity between participants who reported social or peer influence in the open-ended question and those who did not.

We did not find any evidence that this type of conformity was affected by imposing the participants' own punishment in the group context instead of imposing the average punishment of all members as the final decision. In addition, to make the one-shot scenario, we used different scenarios with different unfairness levels of allocation in the group stage (9:1) and the Alone After stage (8:2). This setting might lead to the trending but nonsignificant extension of conformity to the high-punishment norm in Alone After.

5 | STUDY 2

We replicated conformity in Study 1A and manipulated felt empathy to explore how empathic concern affects conformity to either a high- or low-punishment norm in Study 2A. It was unclear whether conformity in our study would be affected by the experimental setup that the average punishment of all members was imposed in decisions made in the group. Thus, we imposed the participant's own punishment in the group instead of the average punishment after they saw other members' decisions in Study 2B. We dropped the Alone Before stage to focus on how conformity changes in a group decision-making context with the priming of empathic concern.

5.1 | Study 2A

5.1.1 | Participants and design

Two hundred forty-four Chinese participants (129 women, $M_{\text{age}} = 26.46$; $SD = 5.91$) recruited from university campuses in Beijing. They randomly entered into 2 (Empathy Priming: Empathic vs. Control) × 2 (Group Norm: High punishment vs. Low punishment) between-subject conditions and finished this study online through the Qualtrics platform. Thirty participants were not included in the final dataset because they did not correctly answer the task comprehension questions. It left 214 participants in the following four conditions: the empathic high-punishment condition ($n = 53$), the control high-punishment condition ($n = 52$), the empathic low-punishment condition ($n = 56$), and the control low-punishment condition ($n = 53$). This sample size met the requirement of 171 calculated by G*Power for a medium effect size ($\eta^2_p = .06$) with a priori statistical power ($1 - \beta$) of .90. The participants were paid 2 CNY (approximately 0.32 USD) for completion and a bonus of up to 3 CNY (approximately 0.47 USD) based on their decisions (one punishment unit equals 0.3 CNY in the experiment). No credit was provided for participation.

This study used a 2 (Empathy) × 2 (Group Norm) × 3 (Stage: Group Before vs. Group After vs. Alone After) mixed design in which empathy priming and Group Norm are between-subject factors and the stage is a within-subject factor.

5.1.2 | Procedure

As in Study 1, the participants learned the rules of the third-party punishment task and group decision making and completed the comprehension quiz (see Appendices S1 and S2). Then, the participants were told to improve their knowledge about the recipient in the third-party punishment task before they began the task. They would read a paragraph to evoke empathic concern for the recipient (Nook et al., 2016).

In the empathic condition, the participants were told that the recipient had experienced a challenging time in the last month and needed help. In the control condition, they were told that the recipient had experienced a routine month (Appendix S5). The participants rated how compassionate, sympathetic, touched, and soft-hearted they felt towards the recipient by using a 7-point scale from 1 (*not at all*) to 7 (*extremely*). The ratings were averaged to calculate their felt empathy towards the recipient and to determine whether they had been successfully primed with empathic concern (Fultz et al., 1988; Nook et al., 2016).

Next, they entered a punishment in the Group Before and Group After stages, which consisted of three trials each. As in Study 1A, in each trial, the participants first assigned their own punishment in the Group Before stage, then observed the other group members' decisions, and reassigned a punishment in the Group After stage. Afterwards, they went to the next trial and made decisions in the same order. They responded to the comprehension questions as in Study 1. Then, they punished the proposer in the Alone After stage and answered the two open-ended questions as in Study 1A.

5.1.3 | Results and discussion

Empathy priming check

We analyzed felt empathy with a 2 (Empathy) × 2 (Group Norm) ANOVA calculation. The main effect of empathic concern was significant ($M_{empathy} = 5.22$, $SD = 1.19$ vs. $M_{control} = 3.70$, $SD = 1.43$), $F(1, 210) = 70.32$, $p < .001$, $\eta^2_p = .25$. The effect of Group Norm ($M_{low\text{-}punishment} = 4.58$, $SD = 1.48$ vs. $M_{high\text{-}punishment} = 4.36$, $SD = 1.55$, $F(1, 210) = 1.31$, $p = .26$) and the Empathic Concern × Group Norm interaction were not significant ($F(1, 210) = 0.37$, $p = .54$). Thus, the instruction paragraph successfully evoked empathic concern in the participants for the recipient in the third-party punishment task.

Empathic concern and group norm

A 2 (Empathy) × 2 (Group Norm) × 3 (Stage) ANOVA on punishment showed a significant main effect of Empathy ($F(1, 210) = 16.94$, $p < .001$, $\eta^2_p = .08$) and Group Norm ($F(1, 210) = 13.51$, $p < .001$, $\eta^2_p = .06$) and a significant Empathy × Group Norm × Stage interaction ($F(2, 420) = 3.62$, $p = .028$, $\eta^2_p = .02$) (Table 1 and Figure 3a). The main effect of Empathy and Group Norm suggests that participants were affected by these two factors. Below, we focus on the interaction of Empathy and Group Norm.

Interaction of empathic concern and Group Norm in decisions made in the group

To further denote the interaction of Empathy × Group Norm, we ran a 2 (Empathy) × 2 (Group Norm) ANCOVA on punishment difference (Group After minus Group Before) and treated punishment in Group Before as a covariate. The results showed a significant main effect of

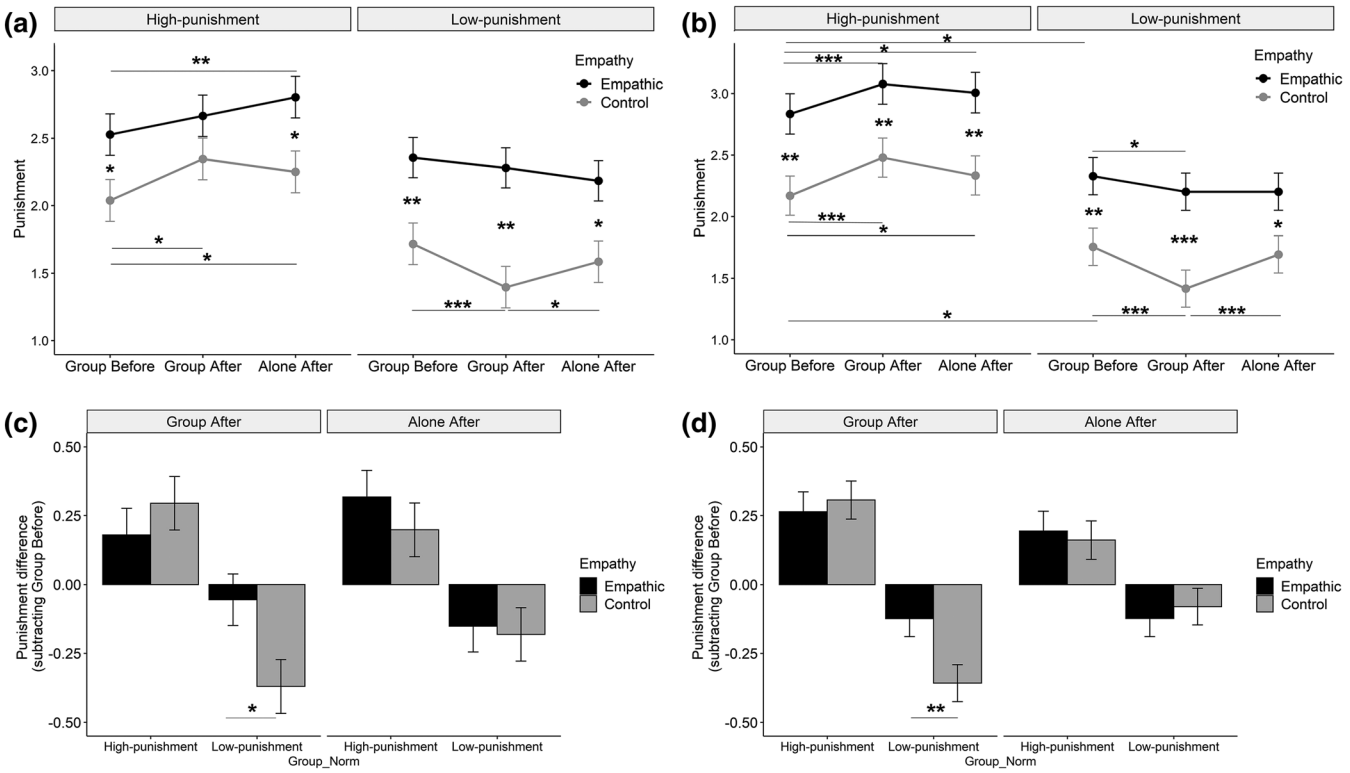

FIGURE 3 (a,b) Mean punishment across conditions and stages in Study 2A and Study 2B, respectively. (c,d) Punishment difference (subtracting punishment in Group Before and being controlled with punishment in Group Before) in Study 2A and Study 2B, respectively. Error bars represent standard errors. *$p < .05$, **$p < .01$, ***$p < .001$

Group Norm ($F(1, 209) = 20.69$, $p < .001$, $\eta^2_p = .09$) and an interaction of Empathy × Group Norm ($F(1, 209) = 4.84$, $p = .029$, $\eta^2_p = .023$) (Table 1 and Figure 3a,c). When the effects of punishment in Group Before were controlled for, the punishment difference (Group After minus Group Before) did not differ between the empathic high-punishment and control high-punishment conditions ($M_{empathic} = 0.14$ vs. $M_{control} = 0.31$, $F(1, 209) = 0.86$, $p = .36$, Figure 3c); in contrast, this punishment difference was higher in the empathic low-punishment condition than in the control low-punishment condition ($M_{empathic} = -0.07$ vs. $M_{adjusted\ control} = -0.32$, $F(1, 209) = 4.55$, $p = .03$, $\eta^2_p = .021$). These results directly suggest that the effect of empathic concern on conformity to the high- and low-punishment group norms was different. That is, empathic concern did not enhance conformity to the high-punishment norm in the group, but empathic concern weakened conformity to the low-punishment norm, which partially supports Hypothesis 2.

Effect of group norms on decisions made after leaving the group

The 2 (Empathy) × 2 (Group Norm) × 2 (Stage: Alone After vs. Group Before) ANOVA on punishment showed a significant main effect of Empathy ($F(1, 210) = 16.60$, $p < .001$, $\eta^2_p = .07$) and Group Norm ($F(1, 210) = 10.06$, $p = .002$, $\eta^2_p = .05$). However, the interaction of Empathy × Group Norm and the three-way interaction were nonsignificant ($F < 0.30$, $p > .58$). In detail, punishment in the Alone After (vs. Group Before) was higher in both empathic high-punishment ($p = .005$, Figure 3a and Table 1) and control high-punishment ($p = .03$) conditions. In contrast, punishment in the Alone After did not differ from that in Group Before in either empathic low-punishment ($p = .07$) or control low-punishment ($p = .18$) conditions. Therefore, the influence of empathic concern on conformity to the low-punishment norm did not extend to independent decisions made after the participants left the group. The 2 (Empathy) × 2 (Group Norm) ANCOVA on punishment difference (Alone After minus Group Before) showed the same trend ($F_{Group\ Norm}(1, 209) = 20.29$, $p < .001$, $\eta^2_p = .09$; $F_{Empathy \times Group\ Norm} = 0.20$, $p = .67$) (Figure 3c).

In addition, we found that felt empathy was significantly correlated with punishment in the Group Before, Group After and Alone After stages ($r > .29$ ($r = .29$, 95% CI = [0.021, 0.52]), $p_{corrected} < .04$, Table 2) in the empathic high-punishment condition. These similar

TABLE 2 Correlation ($r(p)$) between felt empathy and punishment across stages in Study 2 and felt empathy, distress score, and punishment in Study 3

Group	Stage		
Study 2A—felt empathy	**Group Before**	**Group After**	**Alone After**
Empathic high	**.29* (.036)**	**.32* (.018)**	**.30* (.028)**
Control high	.18 (.20)	.21 (.14)	.007 (.64)
Empathic low	**.30† (.026)**	**.28† (.035)**	.14 (.30)
Control low	.05 (.70)	−.001 (.99)	−.007 (.96)

Study 2B—felt empathy	**Group Before**	**Group After**	**Alone After**	**Study 2B—personal distress**	**Group Before**	**Group After**	**Alone After**
Empathic high	**.33* (.018)**	**.36* (.009)**	**.31* (.023)**		.24 (.086)	.27 (.052)	.11 (.44)
Control high	.50 (.72)	.13 (.35)	.09 (.52)		.16 (.24)	.21 (.13)	.18 (.18)
Empathic low	**.32* (.011)**	**.30* (.018)**	.21 (.107)		.20 (.13)	.20 (.12)	.13 (.30)
Control low	.09 (.48)	.17 (.19)	.22 (.088)		.13 (.30)	.20 (.12)	.21 (.11)

Study 3—felt empathy	**Alone Before**	**G1**	**G2**	**G3**	**G4**	**G5**	**Alone After**
Empathic high	.22 (.063)	**.35* (.003)**	**.25 (.038)**	**.35* (.003)**	**.26 (.033)**	.23 (.052)	.19 (.12)
Control high	−.20 (.15)	−.18 (.19)	−.03 (.82)	−.05 (.73)	−.10 (.48)	.05 (.71)	**−.27 (.044)**
Empathic low	**.35 (.01)**	**.28 (.039)**	.08 (.57)	.12 (.38)	−.09 (.51)	−.06 (.68)	.11 (.43)
Control low	.13 (.30)	.20 (.13)	.10 (.42)	.13 (.30)	.10 (.42)	.16 (.21)	.20 (.12)

Study 3—personal distress	**Alone Before**	**G1**	**G2**	**G3**	**G4**	**G5**	**Alone After**
Empathic high	.06 (.61)	.21 (.08)	.09 (.43)	.18 (.14)	.20 (.10)	.07 (.57)	.002 (.99)
Control high	−.18 (.20)	−.15 (.28)	−.02 (.91)	−.001 (.99)	−.02 (.90)	.12 (.37)	−.20 (.14)
Empathic low	**.36* (.007)**	.13 (.35)	.001 (.99)	.06 (.69)	−.19 (.18)	−.21 (.14)	.08 (.56)
Control low	−.01 (.93)	.10 (.42)	−.09 (.50)	−.03 (.80)	−.09 (.49)	−.03 (.79)	−.03 (.85)

Note: Correlations with original $p_{uncorrected} < .05$ are in bold.

*$p_{corrected} < .05$ (false discovery rate [FDR] correction with $p < .05$).†$p_{corrected} = .052$.

correlations were marginally significant after being multiple comparison corrected in the Group Before ($r = .30$, 95% CI = [0.037, 0.52], $p_{corrected} = .052$) and Group After stages ($r = .28$, 95% CI = [0.018, 0.51], $p_{corrected} = .052$) in the empathic low-punishment condition (Table 2, after false discovery rate [FDR] corrections with $p < .05$; Benjamini & Hochberg, 1995). No such significant correlation was found in the control high-punishment condition or control low-punishment condition. These findings support the conclusion that invoking empathic concern for recipients increases the participants' decisions to assign punishment for actors in third-party punishment.

5.2 | Study 2B

5.2.1 | Participants and design

Two hundred seventy-one Chinese participants (152 women, $M_{age} = 22.52$; $SD = 4.74$) recruited from university campuses in Beijing completed this study online through the Qualtrics platform. They signed a consent form and were randomly assigned to 2 (Empathy Priming: Empathic vs. Control) × 2 (Group Norm: High punishment vs. Low punishment) between-subject conditions as in Study 2A. Forty-two participants did not correctly answer the task comprehension questions. Thus, 229 participants were included in the analysis of the empathic high-punishment condition ($n = 52$), the control high-punishment condition ($n = 55$), the empathic low-punishment condition ($n = 61$), and the control low-punishment condition ($n = 61$). The participants' payments were calculated in the same way as in Study 2A.

5.2.2 | Procedure

We used the same design and procedure as in Study 2A. Previous studies have shown that empathic concern drives costly altruism (FeldmanHall et al., 2015) and mediates the effects of group norms on subsequent empathy-related behaviors (Nook et al., 2016). However, personal distress does not mediate these effects. Thus, to examine whether personal distress affects conformity in our study, we required the participants to rate both their empathic concern and the personal distress of the recipient in the third-party punishment task after they read the paragraph about the recipient (Appendix S5).

The participants made punishment decisions in the Group Before, Group After, and Alone After stages. The only difference from Study 2A is that after the participants saw other group members' punishments, their own punishment in the Group After stage (instead of the average punishment of all group members in each trial) was imposed as the final decision in the group context (Appendix S6). We also used instructions without compliance to undermine the possibility that the conformity was caused by compliance in the instructions (Appendices S6 and S7).

5.2.3 | Results and discussion

Empathy priming check

The 2 (Empathy) × 2 (Group Norm) ANOVA on felt empathy showed a significant main effect of Empathy ($M_{empathy} = 5.25$, $SD = 1.15$ vs. $M_{control} = 2.52$, $SD = 1.48$), $F(1, 225) = 244.25$, $p < .001$, $\eta^2_p = .52$. The effect of Group Norm ($M_{low\text{-}punishment} = 3.93$, $SD = 1.90$ vs. $M_{high\text{-}punishment} = 3.79$, $SD = 1.93$, $F(1, 225) = 0.34$, $p = .56$) and the Empathic Concern × Group Norm interaction were not significant ($F(1, 225) = 1.68$, $p = .20$). The same analysis on personal distress also showed a significant main effect of Empathy ($M_{empathy} = 3.93$, $SD = 1.34$ vs. $M_{control} = 1.93$, $SD = 1.24$, $F(1, 225) = 138.08$, $p < .001$, $\eta^2_p = .38$). No significant effect of Group Norm ($M_{low\text{-}punishment} = 2.98$, $SD = 1.63$ vs. $M_{high\text{-}punishment} = 2.84$, $SD = 1.63$, $F(1, 225) = 0.45$, $p = .50$) or Empathic Concern × Group Norm interaction was found ($F(1, 225) = 1.94$, $p = .17$).

Empathic concern and group norm

A 2 (Empathy) × 2 (Group Norm) × 3 (Stage) ANOVA on punishment showed a significant main effect of Empathy ($F(1, 225) = 17.67$, $p < .001$, $\eta^2_p = .07$) and Group Norm ($F(1, 225) = 22.62$, $p < .001$, $\eta^2_p = .09$) and a significant Empathy × Group Norm × Stage interaction ($F(2, 450) = 3.31$, $p = .037$, $\eta^2_p = .02$) (Table 1 and Figure 3b). Note that in these data, punishment in the Group Before differed among conditions: It was higher in empathic high-punishment (vs. empathic low-punishment) condition ($F(1, 225) = 5.59$, $p = .019$, $\eta^2_p = .02$) and was also higher in control high-punishment (vs. control low-punishment, $F(1, 225) = 3.89$, $p = .05$, $\eta^2_p = .02$) condition. Below, we focus on the interaction effect.

Interaction of empathic concern and Group Norm in decisions made in the group

We used 2 (Empathy) × 2 (Group Norm) ANCOVA, which treats punishment in Group Before as a covariate to control the distributional variance among conditions. The results of the ANCOVA on punishment difference (Group After minus Group Before) were similar to those of Study 2A. They showed a significant main effect of Group Norm ($F(1, 224) = 97.51$, $p < .001$, $\eta^2_p = .30$) and an interaction of Empathy × Group Norm ($F(1, 224) = 7.18$, $p = .008$, $\eta^2_p = .03$). When the effects of punishment in Group Before were controlled for, the punishment difference (Group After minus Group Before) did not differ between empathic high-punishment and control high-punishment conditions ($M_{empathic} = 0.24$ vs. $M_{control} = 0.31$, $F(1, 224) = .41$, $p = .52$, Figure 3b,d and Table 1); in contrast, punishment difference (Group After minus Group Before) was higher in empathic low-punishment condition than that in control low-punishment condition ($M_{empathic} = -0.13$ vs. $M_{control} = -0.34$, $F(1, 224) = 10.04$, $p = .002$, $\eta^2_p = .04$). These results replicated Study 2A by showing that empathic concern did not enhance conformity to the high-punishment norm, but empathic concern weakened conformity to the low-punishment norm.

We then ran a 2 (Empathy) × 2 (Group Norm) × 2 (Study: Study 2A vs. Study 2B) ANCOVA on punishment in the Group After stage.

We did not find a significant main effect of Study ($F(1, 434) = 0.08$, $p = .77$) or an interaction of Empathy × Group Norm × Study ($F(1, 434) = 0.46$, $p = .50$) but found a significant interaction of Empathy × Group Norm ($F(1, 434) = 10.42$, $p = .001$, $\eta^2_p = .02$). Therefore, we did not find any significant difference in the decisions made in the group between Studies 2A and 2B.

Effect of Group Norm on decisions made after leaving the group

The 2 (Empathy) × 2 (Group Norm) ANCOVA on punishment difference (Alone After minus Group Before) showed a significant main effect of Group Norm ($F(1, 224) = 11.75$, $p = .001$, $\eta^2_p = .05$) and a nonsignificant interaction ($F(1, 224) = 0.24$, $p = .63$) (Figure 3b,d and Table 1). These findings replicated Study 2A by showing that the influence of empathic concern on conformity was not extended to independent decisions made after the participants left the group.

The correlation between felt empathy and punishment also replicated Study 2A (Table 2). We did not find any significant correlation between personal distress and punishment. Taken together, Study 2B replicated Study 2A. These findings suggest that these two types of experimental setup for decisions in the group context (i.e., imposing the average punishment of all members in the group vs. the participants' own punishment after observing other members' decisions in the group) did not impact the effect of empathic concern on conformity in the current study. Instructions without compliance excluded that the conformity was caused by compliance in the instructions.

6 | STUDY 3

In Study 3, we measured the persistence of conformity to the high-punishment norm and low-punishment norm and the effects of empathic concern on these behaviors.

6.1 | Participants and design

Two hundred and eighty-six Chinese participants (151 women, $M_{age} = 26.82$; $SD = 6.51$) were recruited from university campuses in Beijing. They signed a consent form and participated in this study online through the Qualtrics platform. Forty-four participants who did not correctly understand the task, as determined by their responses to the comprehension questions, were not included in the final dataset. It left 242 participants in four conditions, namely, the empathic high-punishment condition ($n = 70$), control high-punishment condition ($n = 55$), empathic low-punishment condition ($n = 54$), and control low-punishment condition ($n = 63$). This sample size met the requirement of 212 calculated by G*Power for a medium effect size ($\eta^2_p = .06$) with a priori statistical power ($1 - \beta$) of .90. The participants were paid 3 CNY (approximately 0.47 USD) for completing the experiment and a bonus of up to 4 CNY (approximately 0.63 USD) based on their decisions (one punishment unit equals 0.04 CNY in the experiment). No credit was provided for participation.

This study is a 2 (Empathy) × 2 (Group Norm) × 7 (Stage: Alone Before vs. Group S1 [Stage 1] vs. Group S2 vs. Group S3 vs. Group S4 vs. Group S5 vs. Alone After) mixed design, in which empathic concern priming and Group Norm are between-subject factors and Stage is a within-subject factor.

6.2 | Procedure

The participants learned the rules of the task and completed the comprehension quiz (Appendix S1). Then, they read a paragraph about the recipient that was designed to evoke empathic concern (Appendix S6). They rated both their empathic concern and the personal distress caused by the scenario in the paragraph. Next, the participants completed seven stages that consisted of three trials in each stage and answered the same comprehension questions as presented in Study 1. In the first stage, the participants decided alone on a punishment for the proposer who made 10:0, 9:1, and 8:2 monetary distributions (randomized) (Alone Before). Then, they entered Group Stages 1–5, in which they completed 15 trials with the same three proposals (with the same proposer and responder) as in the Alone Before stage. Different from Studies 1 and 2, the participants only made punishment decisions after they observed the other three group members' punishments (i.e., they finished five Group After sessions without Group Before sessions, in contrast to Studies 1 and 2) (Appendix S8). Subsequently, they punished the proposer independently in three trials (Alone After) and answered the same two open-ended questions as in Study 1A. There were 21 trials in total, and the three proposals were randomized in each stage.

In the high-punishment condition, the punishment units of three persons were extracted from the matrixes ([4 4 5]; [4 5 5]; [5 4 4]; [4 5 4]; [5 5 4]; [5 4 5]), in which the unit means were 4.33 and 4.67. In contrast, in the low-punishment condition, the punishment units were randomly extracted from the matrixes ([1 0 1]; [0 1 0]; [1 1 0]; [1 0 0]; [0 1 1]; [0 0 1]), in which the punishment unit means were 0.33 and 0.67.

6.3 | Results and discussion

6.3.1 | Empathy priming check

The 2 (Empathy) × 2 (Group Norm) ANOVA on felt empathy showed a significant main effect of empathic concern ($M_{empathy} = 4.68$, $SD = 1.31$ vs. $M_{control} = 2.43$, $SD = 1.59$), $F(1, 238) = 180.04$, $p < .001$, $\eta^2_p = .43$. We found no significant effect of Group Norm ($M_{low\text{-}punishment} = 3.37$, $SD = 1.76$ vs. $M_{high\text{-}punishment} = 3.68$, $SD = 1.82$, $F(1, 238) = 0.19$, $p = .66$) or of the Empathic Concern × Group Norm interaction ($F(1, 238) = 0.60$, $p = .44$). We did find a significant effect of Empathy on personal distress ($M_{empathy} = 3.43$, $SD = 1.46$ vs. $M_{control} = 2.01$, $SD = 1.35$), $F(1, 238)$

= 59.13, $p < .001$, $\eta^2_p = .20$. However, we did not find any significant effect of Group Norm ($M_{low\text{-}punishment} = 2.59$, $SD = 1.49$ vs. $M_{high\text{-}punishment} = 2.89$, $SD = 1.64$, $F(1, 238) = 0.86$, $p = .35$) or of the Empathy × Group Norm interaction on personal distress ($F(1, 238) = 0.02$, $p = .90$).

6.3.2 | Empathic concern and group norm

The results of the 2 (Empathy) × 2 (Group Norm) × 7 (Stage) ANOVA on punishment showed significant main effects of Empathy ($F(1, 238) = 16.47$, $p < .001$, $\eta^2_p = .065$), Group Norm ($F(1, 238) = 36.01$, $p < .001$, $\eta^2_p = .13$), and Stage ($F(6, 1428) = 3.40$, $p = .001$, $\eta^2_p = .017$) (Figure 4a and Table 1). These findings suggest that participants were affected by both of these factors. The Empathy × Group Norm × Stage interaction was also significant, $F(6, 1428) = 2.37$, $p = .028$, $\eta^2_p = .01$. Note that the 2 × 2 × 2 (Stage: Alone Before vs. Group S1) showed significant main effects of Empathy and Group Norm ($F > 7.57$, $p < .006$) but a nonsignificant three-way interaction ($F(1, 238) = 0.43$, $p = .52$). This result indicates that removing the Group Before stage in Study 3 compared to Study 2 could have undermined the interaction of empathetic concern and group norms.

6.3.3 | Interaction of empathic concern and Group Norm in decisions made in the group

We used 2 (Empathy) × 2 (Group Norm) × 5 (Stage: Groups S1–S5) ANCOVA to analyze punishment difference (each stage minus Alone Before), in which we treated punishment in the Alone Before stage as a covariate. The results showed significant main effects of Empathy ($F(1, 237) = 6.72$, $p = .01$, $\eta^2_p = .03$), Group Norm ($F(1, 237) = 68.79$, $p < .001$, $\eta^2_p = .23$), and Stage ($F(4, 948) = 4.05$, $p = .003$, $\eta^2_p = .02$) and a significant interaction of Empathy × Group Norm × Stage ($F(4, 948) = 3.35$, $p = .01$, $\eta^2_p = .01$, Figure 4a,b and Table 1).

6.3.4 | Persistence of the effect of empathic concern on conformity in the high-punishment condition

The participants' punishment difference in Groups S1 and S2 in the empathic high-punishment (vs. control high-punishment) condition was not affected by empathic concern ($F_{S1}(1, 237) = 0.60$, $p = .44$; $F_{S2}(1, 237) = 0.48$, $p = .49$). However, the punishment difference in Groups S3 and S4 in the empathic high-punishment (vs. control high-punishment) condition was significantly increased by empathic

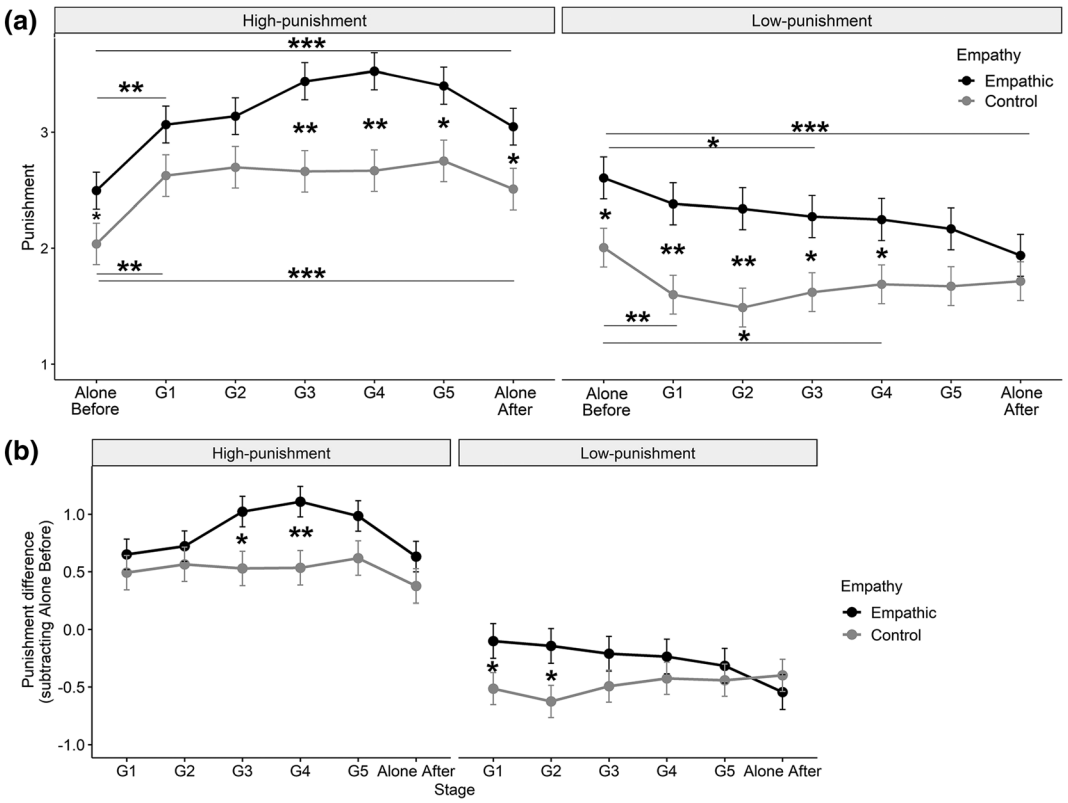

FIGURE 4 (a) Mean punishment across conditions and stages in Study 3. (b) Punishment difference (subtracting punishment in Alone Before and being controlled with punishment in Alone Before). Error bars represent standard errors. *$p < .05$, **$p < .01$, ***$p < .001$

concern ($F_{S3}(1, 237) = 5.63$, $p = .02$; $F_{S4}(1, 237) = 8.40$, $p = .004$; $F_{S5}(1, 237) = 3.51$, $p = .06$; Figure 4a,b and Table 1). The η^2_p in these five comparisons increased from Groups S1–S4: $\eta^2_{pS1} = .003$; $\eta^2_{pS2} = .002$; $\eta^2_{pS3} = .023$; $\eta^2_{pS4} = .034$; and $\eta^2_{pS5} = .015$. These findings indicate that the enhancing effect of empathic concern on conformity to the high-punishment norm in third-party punishment showed a delay in the group context; that is, the enhancement caused by empathic concern on conformity to the high-punishment norm revealed gradually over time.

6.3.5 | Persistence of the effect of empathic concern on conformity in the low-punishment condition

The participants' punishment difference in Groups S1 and S2 in the empathic low-punishment (vs. control low-punishment) condition was significantly increased by empathic concern ($F_{S1}(1, 237) = 3.89$, $p = .05$; $F_{S2}(1, 237) = 4.66$, $p = .03$, Figure 4a,b and Table 1). However, punishment difference in Groups S3 and S5 in the empathic low-punishment (vs. control low-punishment) condition was not affected by empathic concern ($F_{S3}(1, 237) = 1.83$, $p = .18$; $F_{S4}(1, 237) = 1.11$, $p = .29$; $F_{S5}(1, 237) = 0.72$, $p = .40$). Specifically, the η^2_p in these five comparisons showed a declining trend from Groups S1–S5: $\eta^2_{pS1} = .016$; $\eta^2_{pS2} = .019$; $\eta^2_{pS3} = .008$; $\eta^2_{pS4} = .005$; and $\eta^2_{pS5} = .003$. These results indicate that the weakening effect of empathic concern on conformity to the low-punishment norm declined over time, which partially supports Hypothesis 3b.

6.3.6 | Effect of group norm on decisions made after leaving the group

The 2 (Empathy) × 2 (Group Norm) ANCOVA on punishment difference (Alone After minus Alone Before) found a significant main effect of Group Norm ($F(1, 237) = 100.21$, $p < .001$, $\eta^2_p = .30$). It replicated that conformity caused by group norms extended to independent decisions made after participants left the group in Study 2. We also found a significant interaction of Empathy × Group Norm ($F(1, 237) = 4.69$, $p = .03$, $\eta^2_p = .02$). However, the post hoc test showed that this punishment difference in the empathic high-punishment (vs. control high-punishment) condition was not affected by empathic concern ($F(1, 237) = 1.66$, $p = .20$, Figure 4a,b and Table 1), and this punishment difference in the empathic low-punishment (vs. control low-punishment) condition was not significantly affected by empathic concern ($F(1, 237) = 3.00$, $p = .09$). These findings replicate Study 2 and suggest that the effect of empathic concern on conformity to both high-punishment and low-punishment norms did not extend to the subsequent Alone After stage decisions.

Additionally, in the empathic high-punishment condition, the positive correlation between felt empathy and punishment was significant in Groups S1 and S3 ($r = .35$, 95% CI = [0.13, 0.54], $p_{corrected} = .01$) after FDR corrections (Table 2). In the empathic low-punishment condition, this correlation failed to survive correction in the Group S1 stage ($r = .28$, 95% CI = [0.013, 0.51], $p_{corrected} = .14$) after FDR corrections. No significant correlation between felt empathy and punishment was found in the control high-punishment and low-punishment conditions. No significant correlation between personal distress and punishment was found. These findings show a trend wherein empathic concern rather than personal distress modulates high- and low-punishment norm conformity in third-party punishment.

6.4 | Analysis of the postexperimental open-ended questions across all the studies

We coded the answers to the question on why the participants changed their decisions after observing other group members' decisions (Study 1A, the no disclosure conditions in Study 1B, Study 2A, 2B, and Study 3, $N = 867$). The results showed that 9.46% participants thought that the majority or others' punishment might be more appropriate or correct than their own. A portion of participants (9.57%) said they adjusted their decisions to maintain concurrence or decrease disparity with the group, in which 4.03% directly stated they conformed to the group. Approximately 2.42% of participants stated they were concerned about other members' benefits or their own benefits (such as they did not want to cost others more because they gave higher punishment than others). These findings indicate the probable drivers of participants' conformity. No participants in Studies 2A, two participants in 2B and four participants in Study 3 reported that they changed their behaviors in the group context because they felt empathic towards the recipient. These results suggest that there are few participants who might correctly guess the hypotheses of the study.

7 | GENERAL DISCUSSION

Across five studies, we found that (i) the participants conformed to the high-punishment or low-punishment conditions in group decision making, and this effect persisted after they left the group context. We also found that (ii) evoking empathic concern for the recipients in third-party punishment increased punishment and inhibited conformity to the low-punishment norm. Finally, we found that (iii) the strengthening effect of empathic concern on conformity to a high-punishment norm increased over time, while the weakening effect of empathic concern on conformity to a low-punishment norm showed a declining trend over time.

Our results showed that even though punishment is costly (i.e., punishment reduces participants' own monetary payment), participants still conform to the group. They echoed Son et al.'s (2019) findings on the conformity of jurors' third-party punishment decisions. These findings contribute to implying the role of group norms in shaping and reinforcing people's behaviors.

However, we cannot differentiate the two possible drivers of conformity in third-party punishment (i.e., to avoid potential disapproval from the group or to improve the accuracy of punishment for

norm violations) (Bernhard et al., 2006; Cialdini & Goldstein, 2004). Our analysis of answers in the open-ended questions suggests the existence of these two drivers. Previous studies have tried to differentiate them by using perceptual decision-making tasks. In these tasks, such as deciding the length of lines or the dominant color in a square (Asch, 1956; Germar et al., 2013), participants might have accurate/correct answers for the current decision. However, it is difficult to determine the accuracy or appropriateness of a moral judgment or decision in many cases.

Our results extended previous studies that have posited that emotion is a key factor in the mechanisms underlying conformity. Researchers have argued that emotions associated with group affiliation facilitate conformity by enhancing peers' approval. The emotions that come with group affiliations are usually harmonious (or they would not remain a cohesive group); however, human nature can affect the cohesiveness of any group based on emotions such as embarrassment or shame (Scheff, 1988), anger or happiness (Heerdink et al., 2013), and pride (Suhay, 2015). In our study, empathic concern's effect on conformity was explored with regard to the role of the recipient in the third-party game. Our findings support previous findings that people feel empathy for victims as both an emotional response to the victims' emotional state and as a reaction to their difficult circumstances (Staub, 1987; Vitaglione & Barnett, 2003). Future studies that investigate how emotion relates to other roles in a third-party game (e.g., anger towards the violator or other third parties) might provide more information about the influence of emotion on conformity.

Our findings show that empathic concern towards recipients asymmetrically affects conformity to high- and low-punishment group norms. The elimination of empathic concern on conformity to a low-punishment norm is consistent with a recent finding that people become more inequality averse in a group setting than when they are by themselves (He & Villeval, 2017). Empathic concern could enhance either deterring or competitive motivation and then inhibit conformity to a low-punishment norm (Delton & Krasnow, 2017; Deutchman et al., 2021; Krasnow et al., 2016; Raihani & Bshary, 2019). However, the failure of empathic concern to enhance conformity to a high-punishment norm might imply that participants weighed their perceived conflicts with the group against the costs of taking punishment.

Interestingly, we found that people truly internalize group norms after leaving the group in third-party punishment for norm violations. These findings align with the notion that conformity shapes certain behaviors through a reinforcement learning approach (Cascio et al., 2015; Klucharev et al., 2009; Wu et al., 2016; Zaki et al., 2011). However, the effect of empathic concern on conformity to the high-punishment norm increased over time, and the effect of empathic concern on conformity to the low-punishment norm declined over time. Empathic concern and imitation are closely related (Decety & Meltzoff, 2011; Iacoboni, 2009). Thus, empathic concern and the high-punishment norm might gradually reinforce group members' influence on third-party punishment over time. When empathic concern conflicts with the goal of low punishment in a group, its influence is weakened. These results correspond to previous findings that peers with goal-consistent decisions amplified their influence on moral behavior (Yu et al., 2021). Overall, manipulating the consistency between group norms and emotion might be a way to shift the short- or long-term effects of conformity.

Despite these meaningful findings, our study has several limitations. First, our results might be affected by the experimental demand effect (i.e., participants played a good subject role by attempting to behave as what the experimenter hypothesizes) (Orne, 1962; Weber & Cook, 1972). The key to undermining the demand effect has been considered to be preventing participants from learning the hypothesis and adopting good subject roles (Weber & Cook, 1972). We adopted some methods proposed in previous studies to undermine and assess the demand effect, such as using quasicontrols proposed by Orne, (1962, 2009) and making the experiment anonymous as proposed by Weber and Cook (1972). In detail, in Study 1B, we used quasicontrols: the postexperimental inquiry, which asked for participants' thoughts about the purpose of the study, and the combination of the nonexperiment and simulator controls, which instructed participants to imagine that they made a decision in a scenario that did not cost them. We directly examined how disclosure of hypotheses affected conformity. The postexperimental inquiry showed that only a few participants (5%) learned the hypothesis in the no disclosure conditions in Study 1B. The conformity in the no disclosure and purpose disclosure conditions is significantly weaker than that in the hypothesis disclosure conditions. These findings suggest that conformity in our study was not primarily caused by the demand effect. If it was, conformity should be the same among the no disclosure, purpose disclosure and hypothesis disclosure conditions.

In line with Weber and Cook's (1972) statement about the difficulty of hypothesis learning in a complex context, hypothesis learning in Studies 1A, 2A, 2B, and 3 ($N = 767$) is likely to be infrequent. This is supported by the data in open-ended questions, which suggests that only 4.15% of the participants directly stated that they conformed to the group's decisions. Although the effect of empathy on punishment might be obvious for participants in Studies 2 and 3, we argue that it is harder for them to learn our hypothesis about the interaction between empathy and group norms. The data in open-ended questions support this statement by suggesting that only four participants reported that they changed decisions in the group for empathic concern.

Second, we used the average punishment as the final group decision in the group context in Studies 1A, 2A, and 3. On the one hand, this method might increase the demand effect and then increase conformity. On the other hand, this approach provided a chance for the participants to affect their group members' cost, which might weaken conformity. However, the use of the participants' own punishment after observing others' decisions in the group in both Studies 1B and 2B replicated the conformity found in Studies 1A and 2A. These findings suggest that the conformity in the current study is not caused by the setup of imposing the average punishment as the final group decision in the group context.

Third, we used extremely unfair proposals in the dictator game and simulated experimental situations in the current research. Previous studies suggest that third-party punishment decreases as the fairness of allocation increases (Delton & Krasnow, 2017; Fehr & Fischbacher, 2004; Krasnow et al., 2016). Thus, using moderately unfair proposals such as 6:4 or 7:3 would lead to less punishment and might weaken high-punishment norm conformity and its persistence, which future studies should explore.

Finally, the correlations between empathic concern and punishment in the selfish norm condition in Studies 2 and 3 were not robust enough to survive the multiple comparison corrections. Although the correlation between personal distress and third-party punishment was significant in the empathic low-punishment conditions, this correlation was not significant in the empathic high-punishment conditions. This is in line with previous studies that show that empathic concern rather than personal distress drives costly altruistic behaviors (FeldmanHall et al., 2015) and thereby mediates conformity to prosocial norms (Nook et al., 2016). More research is needed to explore how these two emotions can be manipulated using different materials or measurements and how they affect an individual's decision making in a group setting in regard to punishment (FeldmanHall et al., 2015; Lamm et al., 2007).

Accordingly, the current study extends the effects of conformity on high or low punishment for moral violations. More importantly, these findings shed light on the role of emotion in moral behaviors. They suggest that invoking emotions could be a way to influence conformity to prosocial and harmful behaviors.

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DATA AVAILABILITY STATEMENT

The data that support the findings of this study are available on OSF (https://osf.io/46je9/?view_only=0cca0c9c0b504d188232516042a23ccd).

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SUPPORTING INFORMATION

Additional supporting information can be found online in the Supporting Information section at the end of this article.

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