

Personality processes of everyday moral courage

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Abstract

Introduction: Moral courage manifests in acts intended to intervene to stop or redress witnessed moral norm violations, despite the risk of negative consequences for the intervener. We investigate moral courage in everyday life and ask what personality processes are involved. Based on an extended process model of moral courage, we derived hypotheses on cognitive and emotional processes that should facilitate or hinder intervention. Further, we identified candidate personality dispositions that should shape these processes and thereby predict who tends to intervene against others' norm violations and who does not.

Methods: Using a quota-based sample of the German population ($N = 1108$), we conducted a personality assessment, followed by a 7-day experience sampling during which participants reported norm violations witnessed in their daily life as well as their cognitive, emotional, and behavioral reactions.

Results: In total, 678 participants reported 1965 norm violations and intervened against 32% of them. Dispositional self-efficacy facilitated intervention by increasing a sense of efficacy when confronted with others' norm violations. Conversely, dispositional moral disengagement hindered intervention by reducing perceived own responsibility.

Discussion: Our findings provide novel insights into the situations affording moral courage in everyday life, and the personality processes that uniquely guide this behavior.

KEYWORDS

experience sampling, moral courage, personality processes

1 | INTRODUCTION

Who stands up to intervene against others' moral transgressions in everyday life? Arguably, it reflects moral courage when initially uninvolved individuals act to prevent, stop, or redress others' norm violations despite risking negative consequences for themselves (Miller, 2005; Osswald et al., 2010; Skitka, 2012). When thinking of morally courageous

exemplars, well-known cases come to mind in which individuals intervened under extraordinary circumstances, risking their life, social status, and well-being (Oliner & Oliner, 1988). However, our everyday lives might be rich with opportunities for morally courageous behavior when we witness unfairness, harassment, discrimination, bullying, ostracism, dishonesty, corruption, violence, or otherwise illegal, harmful, and norm-violating behavior (Halmburger

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et al., 2016). In such instances, intervention by observers who are not directly affected can make a difference by reinforcing the violated norm and thereby reassuring victims and preventing further transgressions by the perpetrator (e.g., Chaney & Sanchez, 2017). Nevertheless, intervention seems to be a rare phenomenon (Sckopke et al., 2022). Presumably, norm violations in everyday life vary greatly in their severity and moral relevance. Also, there are various ways to intervene, by directly confronting a perpetrator, supporting a victim, or indirectly by calling an authority or other bystanders to take action (Wee et al., 2016). In this research, we asked, across this rich variation in norm violations and ways to intervene, what personality characteristics predispose individuals, and through which psychological processes, to act morally courageously in everyday life.

We used an experience sampling approach to investigate intervention against observed norm violations in everyday life. This setup provided us with the opportunity to investigate three interrelated research questions. First, we wanted to explore how often people see themselves confronted with others' norm violations in everyday life and how often and how they intervene in such situations. Second, we tested the psychological processes that predict intervention against others' norm violations. Extending existing process models of moral courage (Baumert et al., 2013; Halmburger et al., 2016), we addressed the unique role of emotions, particularly anger and fear, along with cognitive appraisals (i.e., perceived moral severity, subjective uncertainty, responsibility, self-efficacy, and risk). Third, we asked which personality characteristics predispose individuals to display moral courage in everyday life. Specifically, we identified dispositions that should shape the psychological processes proposed to facilitate or inhibit intervention behavior. We hypothesized that by shaping relevant psychological processes, these dispositions yield unique predictive power regarding who intervenes and who does not.

1.1 | What is moral courage?

Moral courage has been a chatoyant concept in research and public discourse. A useful working definition has emerged in the literature specifying that moral courage manifests when people intervene against the violation of their moral principles without personally benefitting but risking negative consequences to themselves (Baumert et al., 2013; Osswald et al., 2010; Skitka, 2012). As a core element of the working definition, moral courage is concerned with protecting moral norms (Miller, 2005; Skitka, 2012). Hence, moral courage implies a focus on a perpetrator (or perpetrators). As such, it can be distinguished from helping behavior (Greitemeyer et al., 2006) and other ways to adhere to moral norms. Accordingly,

for a comprehensive understanding of the moral personality, personality processes of moral courage need to be considered in their own right.

Besides the *moral* aspect of moral courage, the working definition further emphasizes that *personal risks* need to be overcome. Potential negative consequences that people face when intervening against norm violations can involve physical, social, or financial costs. For example, confronting a perpetrator could not only lead to verbal or physical retaliation, but also ridicule or social exclusion from other bystanders or even disapproval of a potential victim (Miller, 2005). Beyond such risks, there are costs involved that may appear mundane but can be powerful inhibitors, such as the need to interrupt activities or the investment of time and energy to figure out what is going on and what could or should be done. Thus, it might be most enticing for observers to turn away and ignore the situation. So, even in everyday life, observers of others' norm violations must overcome psychological barriers to moral courage.

Notably, with the proposed working definition, we adopt a behavioral approach to moral courage. Rather than predefining a morally courageous mind-set or latent factor, we focus on actual behavioral reactions to others' norm violations. There is conceptual overlap with other behavioral concepts, most prominently social control (Chaurand & Brauer, 2008; Chekroun, 2008) and moral punishment (Hofmann et al., 2018; Molho et al., 2020). Yet, in distinction, moral courage emphasizes the reactions of initially uninvolved parties (rather than of victims, as in most research on punishment) to violations of moral principles endorsed by the individual (rather than to any kind of deviance, as in social control) despite risks. Morally courageous intervention includes not only confrontation or sanctioning of a perpetrator, but also further behaviors aimed at stopping, preventing, or redressing a norm violation, such as bringing a victim out of reach of the perpetrator, calling in authorities, or other bystanders to take action (Wee et al., 2016).

In sum, guided by the proposed working definition of moral courage, we focus on situations in which an initially uninvolved person witnesses that someone violates a morally relevant norm, and we investigate who is predisposed to take action to intervene and through which processes.

1.2 | Witnessing others' norm violations and (non)intervention in everyday life

So far, we can only speculate that situations requiring moral courage might appear regularly in people's everyday lives. For some types of norm violations (e.g., sexual harassment, Reuter et al., 2020) and some contexts (e.g., work place, Mathis et al., 1981), the estimated prevalence

of norm violations is high, with many cases presumably occurring under the eyes of witnesses. Adopting an experience sampling approach, Hofmann et al. (2014) repeatedly asked North-American participants about (positive and negative) morally relevant incidents during 3 days of their everyday routines. They found that morality played a pervasive role in people's lives. Critically, for about 10% of all morally relevant incidents, participants reported witnessing others' immoral behavior, mostly in public or in home settings (Hofmann et al., 2014). Building on their approach, Sckopke et al. (2022) instructed German university students to report any norm violation they witnessed as soon as possible after its occurrence. In this selected sample, individuals, on average, reported about three relevant instances during a 3-week sampling phase.

Sckopke et al. (2022) also found that participants reported having intervened only for slightly less than 15% of the witnessed norm violations. These results are clearly preliminary, given the highly selective sample. However, the results are well in line with previous findings regarding intervention rates. For example, studies with staged norm violations in laboratory or field settings found that in most cases only a small fraction of participants intervened in any noticeable way (e.g., against a theft, Kemper et al., 2022; embezzlement, Sasse et al., 2020; or sexual assault, Fischer et al., 2006).

1.3 | What are the psychological processes of intervention?

In light of this disconcerting inactivity, asking for the psychological processes that facilitate or hinder moral courage in everyday life seems crucial. Adapting the seminal model of helping (Latané & Darley, 1970), several authors have proposed that processes of (i) noticing and interpreting a norm violation, (ii) taking responsibility, (iii) choosing effective means, and (iv) appraisals of costs and risks, should determine whether a witness intervenes or not (Banyard, 2011; Halmburger et al., 2016; Jenkins & Nickerson, 2019).

Regarding the relevance of (i) interpretive processes, research has indicated that *subjective uncertainty* regarding a norm violation (Greitemeyer et al., 2006; Kemper et al., 2022; Toribio-Flórez et al., 2023) and low perceived *moral severity* (Hofmann et al., 2018; Near & Miceli, 1996) might be substantial barriers to intervention. Similarly, (ii) a low sense of *own responsibility* was found to be related to non-intervention, as indicated by intervention intentions (Ashburn-Nardo et al., 2014; Chaurand & Brauer, 2008) and retrospective reports (Greitemeyer et al., 2006, Study 3). Conversely, experimentally induced commitment was found to promote punishment of unfair others in a

financial decision setup (Nelissen & Zeelenberg, 2009) and interventions against a theft in field experiments (Guéguen et al., 2015). Further evidence speaks for (iii) a lack of perceived *efficacy* in a given situation as a strong barrier to moral courage (Ashburn-Nardo et al., 2014; Greitemeyer et al., 2006, Study 3). Finally, (iv) *perceived risks* of intervention should deter moral courage. This was found for intervention intentions (Ashburn-Nardo et al., 2014) and in retrospective reports (Henik, 2008).

In sum, initial evidence lends support to the proposed processes. Yet, for establishing an integrated process model of everyday moral courage, we are still lacking comprehensive tests of the independent contribution of processes to explaining intervention against others' norm violations. Moreover, the mentioned theoretical approaches have been limited in focusing on cognitive processes. Emotional processes have been highlighted as relevant for moral courage (Sasse et al., 2020; Sckopke et al., 2022). Specifically, *anger* has been proposed as a major driver of moral courage (Halmburger et al., 2015; Niesta Kayser et al., 2010; Sasse et al., 2020). Anger results from the perception of others' intentional moral transgressions, even when one is not directly affected by them (Russell & Giner-Sorolla, 2011). Anger often involves a heightened sense of self-efficacy (Ellsworth & Scherer, 2003) and is thought to fuel the motivation to act against the transgression, in line with its association with approach motivation (as opposed to avoidance; Carver & Harmon-Jones, 2009), and as such, should be considered alongside cognitive processes of moral courage. Conversely, *fear* should be considered as an emotional barrier to intervention. It is conceptually relevant, as fear is thought to be overcome by courage (Bauhn, 2003), and it is likely connected to elevated perceptions of risks and a low sense of certainty and control (Lerner & Keltner, 2001). Moreover, fear is traditionally associated with avoidance motivation (Carver & Harmon-Jones, 2009) or flight responses (Frijda et al., 1989). It is worth noting that some research also suggested that fear can lead to a fight reaction (e.g., Iyer et al., 2015); however, we expect that fight is less plausible for initially *uninvolved* individuals experiencing fear since risks for them only manifest once they take action.

In their experience sampling study, Sckopke et al. (2022) undertook the first attempt to test these candidate cognitive and emotional processes in concert. They found only a lack of efficacy and perceived risks as independent negative predictors of intervention against others' norm violations. However, the small samples (in terms of participants $N=100$, and reported situations $k=365$) limited the test power. Hence, in this research, we aimed to test the predictive relevance of each cognitive and emotional process (see Table 1, Hypotheses 1.1a–1.2c) in a large, quota-based sample. Most importantly, hypotheses on the

TABLE 1 Overview of hypotheses and relevant results.

Which psychological processes predict intervention?		Evidence	
Hypotheses		Bivariate effects	Unique effects
H1.1a	Perceived moral severity positively predicts intervention	✓	
H1.1b	Subjective uncertainty negatively predicts intervention	✓	
H1.1c	Perceived responsibility positively predicts intervention	✓	✓
H1.1d	Perceived efficacy positively predicts intervention	✓	✓
H1.1e	Subjective risk negatively predicts intervention	✓	
H1.2a	Anger positively predicts intervention	✓	
H1.2b	Fear negatively predicts intervention	✓	
Which personality dispositions predict intervention?		Bivariate effects	Unique effects
H2.1a	Moral attentiveness positively predicts intervention		
H2.1b	Moral disengagement negatively predicts intervention	✓	✓
H2.1c	Dispositional self-efficacy positively predicts intervention	✓	✓
H2.1d	Risk avoidance negatively predicts intervention		
H2.1e	Observer justice sensitivity positively predicts intervention		✓
H2.1f	Proneness to anxiety negatively predicts intervention	✓	
Do personality dispositions predict intervention indirectly via specific processes?		Bivariate effects	Unique effects^a
H2.2a	Moral attentiveness has a positive indirect effect on intervention via moral severity	✓	
H2.2b	Moral disengagement has a negative indirect effect on intervention via responsibility	✓	✓
H2.2c	Dispositional efficacy has a positive indirect effect on intervention via efficacy	✓	✓
H2.2d	Observer sensitivity has a positive indirect effect on intervention via anger	✓	
H2.2e	Proneness to anxiety has a negative indirect effect on intervention via fear	✓	

^aIn five separate analyses, the (unique) indirect effects were tested while controlling for all other dispositional and process variables.

cognitive and emotional processes guided our search for personality dispositions that should facilitate or hinder moral courage.

1.4 | Who is predisposed to intervene?

Research interested in personality predictors of intervention has addressed mostly broad personality factors (as described in the OCEAN or the HEXACO model of personality) without sufficiently specifying the processes by which personality should shape moral courage.

Across different norm violations and contexts (e.g., school bullying, racism, sexual harassment, transgressions at the workplace, and theft), extraversion and openness to experience emerged as positive predictors of intervention intentions (Baumert et al., 2013; Bjørkelo et al., 2010;

Freis & Gurung, 2013; Moiscu et al., 2018; Mowle, 2019; Redmond et al., 2014; Tedone & Bruk-Lee, 2021). However, beyond studies employing hypothetical scenarios, results are rather inconsistent (e.g., Baumert et al., 2013; Fredrickson, 2007; Mowle, 2019).

We argue that progress requires reconsideration at the conceptual and methodological level. At a conceptual level, personality dispositions shaping moral courage can best be identified based on sound theorizing about the psychological processes involved in moral courage. Dispositions that capture systematic interindividual differences in how these specific processes habitually unfold should be best suited as candidates to predict who intervenes against others' norm violations. In other words, we need conceptual clarity about the personality processes of moral courage. Broad personality factors collapse across a broad range of processes

(Baumert et al., 2017; Möttus et al., 2020) and therefore do not serve well to reveal the personality processes involved in a specific behavioral phenomenon as moral courage. Rather, facet-level personality variables should be targeted.

At a methodological level, the validity of hypothetical scenarios for the study of moral courage needs to be carefully reconsidered. Past research has indicated a lack of correspondence between what people say how they would react against others' norm violations and what they actually do (e.g., Bellmore et al., 2012; Goodwin et al., 2020). Most importantly, personality processes that determine whether somebody actually intervenes against a norm violation might diverge from those involved in forming hypothetical intentions to intervene (Baumert et al., 2013; Kemper et al., 2022; Mowle, 2019).

Last but not least, the symmetry principle (Brunswik, 1955; Wittmann, 1988) informs us that we should aim to conceptualize and measure predictors and outcomes at the same level of abstraction. This implies that it should be difficult to predict single instances of behavior under specific circumstances by personality measures, even at a facet-level of abstraction (Epstein, 1979). With an experience sampling approach, we are able to consider broad ranges of norm violations in various everyday contexts as well as multiple potential ways of intervening. This should help carve out the personality processes involved in morally courageous behavior at a medium level of abstraction.

Following these considerations, we derived hypotheses on candidate personality dispositions based on the proposed cognitive and emotional processes of moral courage. Informed by the hypothesized cognitive processes, we reasoned that high dispositional *moral attentiveness* should facilitate interpretive processes, low dispositional *moral disengagement* should promote taking own responsibility, high dispositional *self-efficacy* should foster a sense of efficacy in response to others' norm violations, and low dispositional *risk avoidance* should help to give less weight to perceived risks when deciding to intervene or not. Turning to the emotional processes, we reasoned that dispositional *justice sensitivity from the observer perspective* (henceforth, observer sensitivity) should entail strong anger reactions and that dispositional *prone to anxiety* should entail strong fear reactions in the face of witnessed norm violations. We will next briefly introduce each of these personality concepts and specify our hypotheses on the personality processes of everyday moral courage (see Table 1 for an overview of the preregistered hypotheses).

Moral attentiveness captures interindividual differences in the inclination to perceive and reflect on everyday

experiences as morally relevant (Reynolds, 2008). People with higher (vs. lower) moral attentiveness were found to show greater moral awareness (Reynolds, 2008), and to react more negatively toward the unethical behavior of leaders (van Gils et al., 2015), presumably because they saw such behavior as more morally severe. Accordingly, we hypothesized that moral attentiveness would predict a higher likelihood of intervening against others' norm violations in everyday life (H2.1a). We expected this effect to be mediated by greater perceived moral severity (H2.2a).

Moral disengagement describes the tendency to employ psychological strategies that allow the individual to behave inconsistently with their moral principles without negative self-related feelings. Denial of own responsibility is described among the key strategies of moral disengagement (Bandura, 1999). Pouwels et al. (2019) found that moral disengagement (negatively) predicted peer-reported defending against bullying. We hypothesized that moral disengagement would predict a lower likelihood of intervening (H2.1b), and that this effect would be mediated through lower perceived responsibility (H2.2b).

Dispositional self-efficacy captures interindividual differences in generalized beliefs about how capable one can cope effectively with everyday life challenges (Bandura, 1997). These generalized beliefs should become relevant when deciding what to do against an observed norm violation. Miceli et al. (2001) found self-efficacy positively related to whistle-blowing behavior. We hypothesized that dispositional self-efficacy would predict a higher likelihood of intervening (H2.1c), mediated by an increased sense of situational efficacy (H2.2c).

Dispositional risk avoidance is conceptualized as the general tendency to prefer safe options over uncertain ones (Dohmen et al., 2011) and to weigh potential negative consequences heavily (Kovaleva et al., 2014). So far, no study has linked it to actual intervention against others' norm violations. We hypothesized that risk avoidance would predict a lower likelihood of intervening (H2.1d). We did not specify a mediation hypothesis but explored whether risk avoidance was also related to greater perceived risk of intervention.

Dispositional observer sensitivity captures how readily and how strongly individuals react when perceiving a potential injustice that does not affect them directly (Schmitt et al., 2010). At its core, this involves negative emotional reactions toward others' wrongdoing, such as anger or outrage. Observer sensitivity was found to be related to the costly financial punishment of a perpetrator (Toribio-Flórez et al., 2023), and defending against bullying (Poteat & Vecho, 2016). Sasse et al. (2020) reported an indirect effect of observer sensitivity via anger reactions on intervention against a staged norm violation in the laboratory. Accordingly, we hypothesized that observer sensitivity

would predict a greater inclination to intervene in everyday life (H2.1e), mediated by stronger anger at others' norm violations (H2.2.d).

Dispositional proneness to anxiety describes the tendency to react with strong feelings of fear and anxiety when faced with a stressful situation (Rudaizky et al., 2012). So far, research on helping has indicated that proneness to anxiety can inhibit pro-social behavior (McGovern, 1976), but evidence for whether it hinders moral courage in everyday life is still missing. We expected that proneness to anxiety should predict a lower inclination to intervene against others' norm violations (H2.1f), mediated by heightened feelings of fear experienced in the respective situation (H2.2e).

1.5 | This research

In this study, we investigated morally courageous behavior in everyday life. We explored how often people see themselves confronted with others' norm violations and whether they intervene to stop, prevent, or redress them. Further, we tested hypotheses on the cognitive and emotional processes that should promote or hinder moral courage, and we explored their unique relevance (see Table 1, Hypotheses 1.1a–1.2b). Most importantly, we tested our hypotheses on the proposed personality dispositions that should explain who would tend to intervene in everyday life, and we explored their unique contribution vis à vis broad HEXACO personality factors (see Table 1, Hypotheses 2.1a–f). Moreover, we reasoned that each personality predictor would exert its impact on morally courageous behavior via specific cognitive or emotional processes. Accordingly, we tested their indirect effects (see Table 1, Hypotheses 2.2a–e).

We conducted an experience sampling study with a large quota-based sample of the German population. Personality characteristics were assessed at a first measurement occasion, followed by a 7-day experience sampling phase with two assessments per day. During this phase, participants were instructed to report norm violations that they directly observed without being involved as victims or perpetrators. If they had not encountered such a situation, they were asked about their last social interaction with filler items. If they encountered a norm violation, they were asked to openly describe the situation, followed by items regarding cognitive and emotional appraisals, as well as behavioral reactions. In order to ascertain that the reported situations were relevant in terms of our working definition of moral courage, independent raters coded the open-ended descriptions that participants had provided. Moreover, the described situations were rated in an independent sample regarding their moral relevance.

The experience sampling approach of our study serves to provide valuable insight into everyday experiences (Hofmann & Grigoryan, 2023). Yet, despite the longitudinal design with intensive assessment, the internal validity of causal inferences remains limited by the study's correlational nature. We test directed hypotheses, but we acknowledge that we cannot rule out alternative explanations, which we will turn to discuss in the Discussion.

1.6 | Transparency statement

Hypotheses and data analysis plan were preregistered before data analyses started (<https://osf.io/qgndw/>). The sample size of our main study was determined based on a priori power considerations. We provide our complete material, data, and analyses scripts at the above link. In this paper, we do not report our analyses for the preregistered hypotheses H1.2d–f regarding how anger might interact with perceived responsibility, efficacy, and risk. These results can be found in the supplement (Tables S10–S12).

2 | METHOD

2.1 | Sample and data exclusion

Based on a priori power simulations (Olvera Astivia et al., 2019) as specified in the preregistration, we aimed for a sample of (Level 2-) $N=500$, expecting that participants would report on average two norm violations (Level 1- $n=2$). Participants were recruited via a panel provider (Respondi & Bilendi). $N=1207$ completed the first measurement occasion T1. Data from seven participants were excluded from analyses because exclusion criteria were met at T1 (Supporting Information S1).

$N=1108$ (92.33%) returned to participate in the experience sampling phase and completed at least one daily assessment (completed assessments: $M=8.94$, $SD=4.44$; mode=12; Supporting Information S1 for histogram, Figure S1). In this sample, ages ranged from 18 to 80 years ($M=48.97$, $SD=17.2$), and 548 participants identified as woman (49.46%), 557 as man (50.27%), and three as diverse (0.27%). Regarding education level, 44.94% had obtained (at least) the general qualification for university entrance (typically "Abitur"). The living area for 31.23% classified as rural (<20,000 inhabitants), and for 68.77% as urban (>20,000 inhabitants). Most participants indicated German as their nationality (97.11%) and as their mother tongue (95.04%).

At a total of 9984 daily assessments, participants provided open-ended descriptions of 2689 situations

that they thought relevant. In two preregistered steps, we excluded those descriptions that did not reveal an observed norm violation (Supporting Information S1). This resulted in $k = 1965$ situation descriptions that met our criteria as observed norm violations. Our final sample consisted of $N = 678$ participants who had reported at least one norm violation according to our predefined criteria (age: range 18–79 years, $M = 47.68$, $SD = 13.32$; gender: 49.9% women; educational level: 46.2% with at least the general qualification for university entrance; 26.9% from rural living areas).

2.2 | Procedure

Our study consisted of two parts, a first measurement occasion (T1) with a detailed introduction to the study and assessment of demographic and personality variables; and an experience sampling phase, lasting 1 week. All assessments took place online programmed in SoSci Survey (Leiner, 2019). Data assessment took place December 1–16, 2021.

2.2.1 | The first measurement occasion T1

At T1, participants provided informed consent and demographic data. Then, they watched a video with information on the study procedure. They were informed about the assessment schedule in the experience sampling phase, the financial compensation and bonus for participation, and technical requirements. Further, participants were informed that the study focused on norm violations that they observed in everyday life. After watching the video, we probed for comprehension of the instructions. Participants were aware that they would only be able to participate in the study if they correctly answered four questions about the content of the video. See the supplement for further details on the instructions and comprehension checks.

Next, self-report measures of personality constructs were applied. Information on the attention check items placed within the survey is provided in the supplement. At last, we asked participants about their perceptions of restrictions to their social contacts due to the Covid-19 pandemic (Supporting Information S1), followed by items for self-reported data quality. T1 took approximately 30 min.

2.2.2 | The experience sampling phase

The second part of the study started on the subsequent day to T1. On seven consecutive days, participants received

prompts to start a short survey twice a day, in the morning at 11 a.m. and the evening at 7 p.m. The prompt was sent via text message and email, and contained the personalized link to the survey. Participants knew that this link was active for a 3-h time window.

At the beginning of each of these daily assessments, participants were asked whether they had witnessed a norm violation in the time since the last assessment. They were reminded of what constituted a relevant situation and encouraged to report situations if in doubt nevertheless. Depending on the response (Yes or No), participants either received the target survey or an alternative survey of equal length in which the items referred to their last social interaction. Both surveys took about 5 min to complete.

In the target survey, participants were first instructed to describe the situation containing the norm violation in an open-ended format. Further questions about the characteristics of the situation followed. Then, cognitive and emotional appraisals of the situation were assessed. Last, participants were asked whether they had intervened. Before closing the target survey, participants had the chance to report a further norm violation by starting a second target survey; otherwise, the assessment finished.

2.3 | Material

2.3.1 | Dispositional measures

Here, we report (in the order of assessment) only those dispositional measures which were relevant for our preregistered analyses (for full material, see <https://osf.io/qgndw/>). Response options for all dispositional measures ranged from 0 = totally disagree to 5 = totally agree.

2.3.1.1 | Moral attentiveness

We used the subscale for perceptual moral attentiveness from the German Moral Attentiveness Scale (Pohling et al., 2014; adapted from Reynolds, 2008). It consisted of four items (e.g., “I am regularly confronted with decisions that have significant ethical consequences”).

2.3.1.2 | Observer sensitivity

We employed the German short-version of the Justice Sensitivity Inventory (Baumert et al., 2014), and used the 2-item scale measuring observer sensitivity (e.g., “I am outraged when someone is undeservedly worse off than others”).

2.3.1.3 | Moral disengagement

Dispositional moral disengagement was assessed by means of 14 items taken from a German adaption of the questionnaire developed by Bandura et al. (1996). The

items assessed the inclination to use each of seven disengagement mechanisms (e.g., distorting consequences: “Teasing someone does not really hurt them”; moral justification: “It’s okay to lie to protect friends from trouble”).

2.3.1.4 | *Self-efficacy*

We used the German Generalized Self-Efficacy Scale (Schwarzer & Jerusalem, 1999), which consists of 10 items (e.g., “I can always manage to solve difficult problems if I try hard enough”).

2.3.1.5 | *Risk avoidance*

We used the two-item subscale of the German Impulsive Behavior Scale (I-8, Kovaleva et al., 2014), assessing the willingness to take risk (“I am willing to take risks.” “I am ready to risk something.”). Responses were recoded so that higher scores represent higher risk avoidance.

2.3.1.6 | *Proneness to anxiety*

We measured proneness to anxiety with a German translation and adaptation of the items developed by Rudaizky et al. (2012). Respondents are asked how likely they are to have each of five distinct feelings when finding themselves in a slightly stressful situation (e.g., “When I find myself in a somewhat stressful situation, ... I am nervous”). Response options ranged from 0 = *very unlikely* to 5 = *very likely*.

2.3.1.7 | *HEXACO*

We used a German translation of the Brief HEXACO Inventory (De Vries, 2013; Schröter & Mergenthaler, 2021). The six personality factors were assessed with four items each (e.g., Honesty-Humility: “I find it difficult to lie”).

2.3.1.8 | *Social desirability*

We assessed the inclination to respond in a socially desirable way with the 6-item German Social Desirability-Gamma scale (KSE-G; Kemper et al., 2014). Three items are designed to assess the tendency to claim overly positive social behaviors (e.g., “When I am in a conversation, I always pay full attention to what the other says”); and three items to assess the tendency to admit common but negative behaviors (e.g., “It has happened that I threw trash in the landscape or on the road”). The latter three items were recoded.

2.3.2 | Experience sampling measures

2.3.2.1 | *Situation description*

In an open-ended format, participants were instructed to describe the situation in which they had observed a norm

violation. They were encouraged to provide details on what had happened, what the violation consisted in, and who was involved. They were reminded that we only considered their daily assessment as completed if the description was comprehensible.

2.3.2.2 | *Interpersonal constellations*

Participants were further asked to indicate how long ago the situation occurred, how many people committed the norm violation (response options: 0, 1, and more), whether victim(s) were involved (response options: yes, no), and whether other bystanders were present (response options: yes, no). They were also asked to indicate whether they were acquainted with any of the other persons involved in the situation (coded 0 = no one, 1 = anyone involved).

2.3.2.3 | *Process variables*

We assessed cognitive and emotional appraisals (in the following order), with response options from 0 = *totally disagree* to 5 = *totally agree*. We instructed our participants to think back on the situation when they observed the norm violation and to indicate what they thought or felt.

We used three items to measure *subjective uncertainty* regarding the norm violation (e.g., “I had doubts whether I was interpreting the situation correctly”). Four items served to measure *perceived moral severity* (e.g., “The norm violation went against my most important moral convictions”). Two items were used for *perceived responsibility* (e.g., “I felt responsible to do something about the norm violation”), with one item being recoded so that higher values indicate higher perceived responsibility. We measured *perceived efficacy* with three items (e.g., “I felt competent to do something about the norm violation”). Three items were employed to assess *anger* about the norm violation and the transgressor (e.g., “I was angry about the behavior of the transgressor”). We used three items to assess the extent to which participants perceived the situation as *risky* (e.g., “I thought it would be risky for me to get involved in the situation”). We assessed *fear* associated with the situation and potential intervention with three items (e.g., “I was afraid that something could happen to me.”).

2.3.2.4 | *Intervention*

We asked participants whether they had done something against the norm violation (response options: yes, no). This variable served as our main dependent variable. We further asked participants whether they had displayed any of the 10 possible reactions in the situation (with response options yes/no for each possible reaction, e.g., stayed inactive; left; addressed the perpetrator verbally; called the police).

2.3.3 | Objective severity

We obtained consensus ratings of the moral severity of the reported norm violations. An independent sample of $N=341$ participants (Age: range 18–79 years, $M=50.56$, $SD=16.81$; gender: 49.5% women; educational level: 41.3% with at least the general qualification for university entrance) rated the open situation descriptions regarding their moral relevance. Each participant worked on a random set of situation descriptions for 20 min, and rated a minimum of 20 descriptions. For each situation description, the raters responded to four items (“I perceive the described behavior as very immoral,” “I find the described behavior very severe,” “I see the incident as injustice,” “The described situation goes against my moral convictions.”) which were developed based on the theoretical conceptualization of moral convictions (Skitka, 2010). Response options ranged from 0 = *totally disagree* to 5 = *totally agree*. We averaged the responses per situation into a single index for objective severity.

2.4 | Data analyses

We conducted multilevel analyses in R (R Core Team, 2020) with the lme4 package (Bates et al., 2015). We tested our hypotheses regarding predictors of intervention (0 = No; 1 = Yes) for all those $k=1965$ assessments at which a norm violation was reported according to our criteria (nested in $N=687$ persons). To account for our dichotomous dependent variable (intervention No/Yes), we used the glmer function (family = binomial). All multilevel models included a random person-intercept.

To test our hypotheses regarding cognitive (H1.1a–e) and emotional process variables (H1.2a–b), we regressed intervention separately on each of our process variables (Level 1) which were person-mean centered for this purpose (Enders & Tofighi, 2007). To explore the unique effects, we entered all cognitive and emotional process variables as simultaneous predictors. Because of the plausible intertwining of cognitive and emotional processes, we also explored the results of two multiple regression models in which we tested cognitive and emotional predictors separately.

To test our hypotheses regarding personality predictors (H2.1a–f), we regressed intervention separately on each of the personality dispositions (Level 2) which were grand-mean centered for this purpose. To explore unique effects, we entered all hypothesized personality predictors simultaneously. Moreover, we explored demographic variables, social desirability, as well as HEXACO personality factors as covariates.

We tested the hypothesized indirect effects (Hypotheses 2.2a–e) by means of the mediate function as implemented

in the R package mediation (Tingley et al., 2014, 2019). This package employs the so-called causal inference framework (Imai et al., 2010) for mediation analysis. Unlike the structural equation framework, it allows for binary dependent variables in multilevel designs (Muthén, 2011). Quasi-Bayesian Monte Carlo simulation (1000 simulations) were used to estimate average direct, indirect and total effects, their confidence intervals, and p values (Imai et al., 2010). In our mediation analyses, we z-standardized the Level-2 dispositional predictors, and estimated the effects for variation between -1 and $+1$ standard deviation. The estimated average indirect effect thus represents the expected difference in the (log-transformed) likelihood of intervention when the mediator (i.e., the respective process variable) takes the value that would be expected when the independent variable takes the value $+1$ versus -1 (i.e., at a high score, 1 SD above the sample mean on a personality disposition, vs. at a low score, 1 SD below the mean), while holding the independent variable itself constant (Tingley et al., 2014, 2019).

Mediation analysis has been discussed critically, and we acknowledge that inferences drawn from these analyses rest on strong (and untested) assumptions, most importantly regarding the absence of confounding variables (Bullock et al., 2010; Imai et al., 2010; Muthén, 2011; Rohrer et al., 2022). Nevertheless, we report results of mediation analyses because (under the mentioned strong assumption that confounding variables are absent) they can lend plausibility, albeit not strong evidence for the hypothesized effects.

3 | RESULTS

3.1 | How often did participants encounter norm violations in everyday life, and how often did they intervene?

Among the participants who had provided reports at least at one daily assessment ($N=1108$), per person $M=1.77$ norm violations were reported ($SD=2.36$, range from 0 to 14; total $k=1965$; Supporting Information S1 for histogram, Figure S2). On average, at 20% of the completed daily assessments, participants had encountered a norm violation, with 430 participants who had encountered no norm violation according to our criteria during the 1-week experience sampling. As reported in detail in the supplement (Table S1), we explored dispositional and sociodemographic predictors of the proportion of completed daily assessments at which norm violations were reported; and found dispositional moral attentiveness as a unique (positive) predictor, $B=0.06$, $SE=0.01$, $t=8.42$, $p<0.001$.

TABLE 2 Within-Pearson correlations (below diagonal), between-person correlations (above diagonal) and descriptive statistics for the process variables, the consensus-based objective severity, and intervention.

Variables	1	2	3	4	5	6	7	8	9
1. Severity	–	–0.19	0.41	0.29	0.09	0.73	0.32	0.26	0.33
2. Uncertainty	–0.12	–	–0.05	–0.07	0.29	–0.15	0.24	–0.10	–0.09
3. Responsibility	0.27	–0.09	–	0.55	–0.20	0.43	0.04	0.07	0.61
4. Efficacy	0.18	–0.06	0.54	–	–0.25	0.29	–0.13	–0.06	0.54
5. Risk	0.11	0.14	–0.14	–0.19	–	0.12	0.78	0.08	–0.25
6. Anger	0.61	–0.12	0.32	0.19	0.12	–	0.37	0.25	0.30
7. Fear	0.27	0.06	0.02	–0.08	0.73	0.30	–	0.17	–0.08
8. Objective severity	0.20	–0.08	0.05	0.02	0.06	0.21	0.11	–	0.01
9. Intervention	0.16	–0.09	0.54	0.54	–0.19	0.20	–0.08	0.07	–
Number of items	4	3	2	3	3	3	3	4	1
<i>M</i>	3.53	1.00	2.58	2.72	1.81	3.51	1.93	3.56	0.32
<i>SD</i> _{within}	0.95	0.97	1.27	1.34	1.23	1.02	1.16		
<i>SD</i> _{between}	0.77	0.83	0.84	0.94	0.84	0.92	0.91		
Omega/alpha _{within}	0.48	0.78	0.54	0.88	0.82	0.87	0.77	–	–
Omega/alpha _{between}	0.94	0.98	0.68	0.98	0.89	0.94	0.89	–	–
ICC	0.40	0.42	0.31	0.33	0.32	0.45	0.38	0.17	0.30

Note: $N_{\text{Level 1}} = 1965$ norm violations. $N_{\text{Level 2}} = 687$ persons. Within-person correlations calculated among person-mean centered variables; between-person correlations calculated among per person means for each variable. Correlations marked in bold were significantly different from zero at $p < 0.01$. The possible range of responses was 0 to 5; except for Intervention (0 = No; 1 = Yes). *M* = grand mean (i.e., mean across norm violations and persons); *SD*_{within} = within-person standard deviation; *SD*_{between} = between-person standard deviation; ICC = intraclass correlation coefficient. For measures consisting of three items or more, two-level omega (Geldhof et al., 2014) was computed in Mplus, and for measures consisting only of two items (where omega could not be computed), two-level alpha (Geldhof et al., 2014) was computed in Mplus.

We explored the interpersonal constellations in the reported norm violations. Besides the perpetrator(s), 50.3% of the reported situations involved a victim, and 75% involved other bystander(s). In most situations (69.4%), participants were unacquainted with all people involved in the situation. We found that the reported norm violations were evaluated as largely morally relevant in our independent sample. The consensus ratings of objective moral severity of the reported situations ranged between 1.69 and 4.86 ($M = 3.56$, $SD = 0.48$; with response options from 0 to 5). To give an impression of the variety of situations reported, Table S2 in the supplement displays a random selection of the open-ended descriptions of 60 situations, sorted by their consensus-rated moral severity.

Participants indicated to have intervened in 647 of the observed norm violations (32.93%). A multilevel null model for intervention (No/Yes) revealed an ICC of 0.295 (by means of R package sjstats), meaning that 29.5% of the total variance was accounted for by between-person differences. We explored how participants had intervened, and found that they most often addressed a perpetrator verbally (73.11% of those situations in which someone had intervened). Table S16 in the supplement gives a detailed overview of the types of intervention (see below for further exploration of predictors of type of intervention).

To test our hypotheses, we continued by analyzing intervention (No/Yes) collapsed across different types of intervention. We explored potential situational and demographic determinants of intervention (see Table S4 for details). We found that participants intervened more likely in situations in which a victim was involved (vs. no victim) and in situations in which they were acquainted with someone (vs. unacquainted with all persons involved); and that those participants were more inclined to intervene who were older and less educated (without rather than with general qualification for university entrance).

3.2 | What cognitive or emotional processes predicted intervention?

Descriptive statistics and bivariate correlations for the process variables (Level 1) as well as intervention (No/Yes) are presented in Table 2.

Separately regressing intervention on each cognitive process variable (i.e., subjective severity, uncertainty, responsibility, efficacy, and risk) and emotional process variable (i.e., anger, fear) revealed that they were all significant predictors. Results are displayed in Table 3, left

panel. As predicted, moral severity (H1.1a), perceived responsibility (H1.1c), situational efficacy (H1.1d), and anger (H1.2a) each predicted a higher likelihood of intervention. Conversely, subjective uncertainty (H1.1b), perceived risk (H1.1e), and fear (H1.2b) each predicted a reduced likelihood of intervention.

We explored the unique effects of the process variables, in a first step, in a full model containing all cognitive and emotional process variables as simultaneous predictors, as well as situational covariates (see Table S4). In the context of all other variables, we found that only perceived responsibility and efficacy uniquely predicted intervention. For further exploration, in a second step, we tested a model with all cognitive process variables as simultaneous predictors and a separate model with the emotional process variables (see Table 3, right panel). Among the cognitive process variables, we found that perceived responsibility, efficacy, and risk independently and uniquely predicted intervention. Further exploring redundancies indicated that perceived responsibility might have captured the variance that was, in the bivariate model, explained by subjective moral severity (see supplement Table S5 for the results of a model with all cognitive process variables except perceived responsibility). Among the emotional process variables, both anger and fear retained unique predictive relevance for intervention.

3.3 | What personality dispositions predicted intervention?

We report the descriptive statistics and bivariate correlations for the personality dispositions (Level 2) in Table 4.

We regressed intervention on each personality disposition, separately. Results are displayed in Table 5,

left panel. Partially consistent with our hypotheses, we found that dispositional moral disengagement (H2.1b) and dispositional anxiety proneness (H2.1f) negatively predicted the likelihood of intervention, and that dispositional self-efficacy positively predicted intervention (H2.1c). Other than hypothesized, moral attentiveness, observer sensitivity, and risk avoidance were not significant predictors (contradicting H2.1a, H2.1d, and H2.1e, respectively).

We explored the unique effects in a regression model with all dispositional variables as simultaneous predictors (see Table 5, right panel). Dispositional moral disengagement and dispositional self-efficacy retained their effects. In the context of all other predictors, observer sensitivity, in addition, emerged as a significant predictor of intervention, whereas anxiety proneness was not significant in the multiple regression model. We explored the potential redundancies among the dispositional variables and found that dispositional self-efficacy might have captured the variance that was, in the bivariate model, explained by anxiety proneness (see Table S6 for the results of a model with all dispositional predictors except self-efficacy). Next, we analyzed the broad HEXACO factors as predictors of intervention (see Table S7). In the context of the other HEXACO factors, only extraversion significantly positively predicted intervention.

3.4 | Indirect effects of dispositions via processes variables

We had hypothesized that the dispositional variables would exert their effect via specific process variables (see Table 1). As preregistered, we first tested these hypotheses

TABLE 3 Results of multilevel logistic regression analyses with process variables (person-centered) as separate predictors of intervention (left panel) as well as cognitive process variables (right panel, upper part) or emotional process variables (right panel, lower part), respectively, as simultaneous predictors.

Regression model	Single predictor per model					Simultaneous predictors					
	Predictor	<i>B</i> [95% <i>CI</i>]	<i>SE</i>	<i>OR</i>	<i>z</i>	<i>p</i>	<i>B</i> [95% <i>CI</i>]	<i>SE</i>	<i>OR</i>	<i>z</i>	<i>p</i>
	Severity	0.42 [0.27, 0.58]	0.08	1.53	5.51	<0.001	-0.03 [-0.24, 0.19]	0.11	0.97	-0.24	0.808
	Uncertainty	-0.22 [-0.35, -0.08]	0.07	0.80	-3.13	0.002	-0.05 [-0.24, 0.14]	0.10	0.95	-0.53	0.596
	Responsibility	1.51 [1.31, 1.72]	0.11	4.55	14.25	<0.001	1.17 [0.94, 1.41]	0.12	3.23	9.79	<0.001
	Efficacy	1.39 [1.20, 1.58]	0.10	4.01	14.56	<0.001	1.01 [0.81, 1.22]	0.10	2.75	9.68	<0.001
	Risk	-0.38 [-0.49, -0.26]	0.06	0.69	-6.51	<0.001	-0.22 [-0.38, -0.05]	0.08	0.80	-2.60	0.009
	Anger	0.53 [0.38, 0.68]	0.08	1.71	6.99	<0.001	0.66 [0.50, 0.82]	0.08	1.94	8.05	<0.001
	Fear	-0.16 [-0.27, -0.05]	0.06	0.85	-2.77	0.006	-0.33 [-0.46, -0.21]	0.06	0.72	-5.16	<0.001

Note: $N_{\text{Level 1}} = 1965$ norm violations. $N_{\text{Level 2}} = 687$ persons. *CI* = 95% confidence intervals. *OR* = Odds ratio. The right panel reports results of two separate regression model for cognitive variables (above the line) and emotional variables (below the line).

TABLE 4 Correlations and descriptive statistics for the dispositional variables (person-level).

	Variable	(1)	(2)	(3)	(4)	(5)	(6)
(1)	Moral attentiveness	–					
(2)	Moral disengagement	0.01	–				
(3)	Dispositional self-efficacy	0.12	–0.08	–			
(4)	Risk avoidance	0.34	0.07	0.32	–		
(5)	Observer sensitivity	0.28	–0.07	0.01	0.11	–	
(6)	Anxiety proneness	0.08	0.01	–0.32	–0.07	0.25	–
	<i>M</i>	2.23	1.50	3.25	2.71	3.17	3.26
	<i>SD</i>	1.11	0.80	0.78	1.21	1.17	1.12
	Omega/ <i>r</i>	0.87	0.85	0.91	0.81	0.74	0.92
	Number of items	4	14	10	2	2	5

Note: $N = 687$. Correlations marked in bold were significantly different from zero at $p < 0.01$. The possible range was 0–5. For measures consisting of three items or more, omega was computed with R package MBESS (omega total); and for measures consisting only of two items (where omega could not be computed), Pearson correlations are reported.

TABLE 5 Results of multilevel logistic regression analyses with dispositional variables (grand-mean-centered) as separate (left panel) and simultaneous (right panel) predictors of intervention.

Regression model Predictor	Single predictor per model					Simultaneous predictors				
	<i>B</i> [95% <i>CI</i>]	<i>SE</i>	OR	<i>z</i>	<i>p</i>	<i>B</i> [95% <i>CI</i>]	<i>SE</i>	OR	<i>z</i>	<i>p</i>
Moral attentiveness	0.06 [–0.07, 0.20]	0.07	1.06	0.89	0.373	0.003 [–0.14, 0.15]	0.07	1.00	0.05	0.963
Moral disengagement	–0.25 [–0.44, –0.07]	0.09	0.78	–2.71	0.007	–0.19 [–0.37, –0.01]	0.09	0.83	–2.04	0.041
Dispositional self-efficacy	0.53 [0.33, 0.72]	0.10	1.69	5.20	<0.001	0.44 [0.23, 0.66]	0.11	1.56	4.09	<0.001
Risk avoidance	0.09 [–0.03, 0.22]	0.06	1.10	1.44	0.149	–0.007 [–0.14, 0.13]	0.07	0.99	–0.10	0.921
Observer sensitivity	0.13 [0.00, 0.26]	0.07	1.14	1.95	0.051	0.14 [0.00, 0.28]	0.07	1.15	2.02	0.044
Anxiety proneness	–0.18 [–0.32, –0.05]	0.07	0.83	–2.61	0.009	–0.13 [–0.27, 0.01]	0.07	0.88	–1.79	0.074

Note: $N_{\text{Level 1}} = 1965$ norm violations. $N_{\text{Level 2}} = 687$ persons.
Abbreviations: *CI*, 95% confidence intervals; OR, odds ratio.

in separate models without covariates. We report the detailed results in the Supplement (Table S9). Except for moral attentiveness (H2.2a), all hypotheses (H2.2b–e) were supported by the results. However, mediation analysis rests on the prerequisite that there are no unmeasured confounding factors (Bullock et al., 2010; Muthén, 2011). Therefore, we turned to scrutinize the (unique) indirect effects while controlling for all other dispositional and process variables. For instance, we tested for the indirect effect of dispositional moral disengagement via perceived responsibility on intervention (see H2.2b), while controlling for the effects of moral attentiveness, dispositional self-efficacy, risk avoidance, observer sensitivity, and anxiety proneness on perceived responsibility; and while controlling the effects of subjective uncertainty, severity, efficacy, risk, anger, and fear on intervention as well as for the direct effects of all the mentioned dispositional variables on intervention.

These analyses yielded a significant indirect effect of moral disengagement on intervention, via perceived responsibility, ACME: $B = -0.033$, 95%CI [–0.054–0.01], $p = 0.002$ (consistent with H2.2b); as well as a significant indirect effect of dispositional self-efficacy on intervention, via perceived efficacy, ACME: $B = 0.038$, 95%CI [0.019–0.06], $p < 0.001$ (consistent with H2.2c). The detailed results are provided in the supplement (Table S10a–c).

3.5 | Additional explorations

Following the constructive feedback in the review process, we added further explorations. First, we explored whether the consensus-rated objective moral severity of the reported norm violations moderated the predictors of intervention. The nonsignificant interaction effects

(see Tables S14 and S15 for details) indicated that predictors of intervention did not differ for situations lower or higher in consensus-rated moral severity. As the only exception, the positive effect of perceived efficacy on intervention became stronger when situations were more (rather than less) morally severe, $B=0.52$, $SE=0.22$, $t=2.36$, $p=0.018$.

Second, we explored predictors for different types of intervention (i.e., direct, indirect, victim support; Wee et al., 2016; see Tables S17 and S18 in the Supplement). Most notably, differential patterns emerged for the cognitive process variables. While subjective responsibility and efficacy consistently predicted all types of intervention, subjective risk *negatively* predicted direct intervention, but *positively* predicted indirect intervention, and was not predictive of victim support. The same differential pattern emerged for subjective moral severity.

Last, we explored potential indicators of reactivity as repeated participation could have led to sensitization to the topic of norm violations (see Tables S19 and S20). On the one hand, the likelihood of intervening did not depend on how many assessments a participant had completed in total or how many norm violations they had reported. On the other hand, across the sequence of the daily assessments (Time), we found a linear increase of the likelihood of reporting a norm violation as well as of the likelihood of having intervened if a norm violation was reported. Time did not moderate any of the predictors of intervention (Tables S21 and S22). We address the implications of these explorations for our central findings in the Discussion.

4 | DISCUSSION

In this research, we asked who is predisposed to stand up against others' moral transgressions in everyday life, despite potential negative consequences for oneself. Our experience sampling study, with a large quota-based sample of the German population, provided rich insights into the situations affording morally courageous behavior in everyday life, and allowed us to investigate which psychological processes facilitated or hindered intervention against others' transgressions, together with the personality dispositions shaping these processes.

4.1 | Everyday life is rich with opportunities for moral courage

Across 1 week, most of our participants had reported at least one situation in which they became direct witnesses of others' norm violations. Subsequent evaluations of the described situations indicated that most

encountered violations could be considered morally relevant. Presumably, the risks entailed by intervening were mundane, as mirrored in the relatively low levels of perceived risk and fear reported by our participants. However, consistent with prior findings (e.g., Sckopke et al., 2022), intervention rates were low (roughly 32%). Interestingly, when people intervened, they most often addressed the perpetrator directly, even though a perpetrator's response to direct confrontation might be unpredictable and unpleasant.

Notably, not everyone in our sample had encountered (or reported) relevant situations in the assessment period, and this finding raises intriguing questions regarding who might encounter situations affording moral courage or who might tend to detect such norm violations. We will return to these questions below.

4.2 | Personality processes of moral disengagement and self-efficacy uniquely explained moral courage in everyday life

We used an integrated model of moral courage (Halmburger et al., 2016; Sckopke et al., 2022) to derive hypotheses on cognitive and emotional processes that should facilitate or hinder intervention. Based on this theorizing, we identified candidate personality dispositions that should shape how specific processes unfold in a situation when witnessing others' norm violations. Through these processes, we hypothesized that personality dispositions would exert indirect effects and help explain who is predisposed to intervene.

Consistent with our hypotheses, we found that dispositional *moral disengagement* negatively predicted how responsible individuals perceived themselves in the relevant situation. Through this process, individuals with higher (vs. lower) moral disengagement were less likely to intervene (H2.2b). Conversely, dispositional *self-efficacy* positively predicted how efficacious individuals felt when witnessing a norm violation, and through this process, individuals with higher (vs. lower) self-efficacy were more likely to intervene (H2.2c). Moreover, our explorations of unique effects indicated that moral disengagement and self-efficacy were indeed independent dispositional predictors of intervention, shaping moral courage through unique cognitive pathways. These findings are consistent with prior studies that had separately yielded situational responsibility (Guéguen et al., 2015; Nelissen & Zeelenberg, 2009), situational efficacy (Sckopke et al., 2022), dispositional moral disengagement (Pouwels et al., 2019), and dispositional self-efficacy (Miceli et al., 2001) as predictors of intervention against witnessed norm violations. By revealing the unique indirect effects of the dispositional variables

through situational processes, our study complements the prior evidence in meaningful ways and sheds light on the personality processes of moral courage in everyday life.

It is theoretically enlightening that the cognitive processes of taking responsibility and perceiving effective means of intervention appeared as the most powerful and robust predictors of intervention, and that accordingly, moral disengagement and self-efficacy stood out as crucial personality dispositions involved in moral courage. Notably, in the integrated model of moral courage, these processes are more proximate to intervention than, for instance, the interpretation of a norm violation. Our finding that the perceived severity of the norm violation did not retain predictive relevance in concert with perceived responsibility resonates with this proposed order of processes.

4.3 | Moral attentiveness did not predict intervention, but the proportion of daily assessments at which a norm violation was reported

Focusing on the cognitive processes proposed at the early stages of the model of moral courage, we hypothesized that dispositional *moral attentiveness* would shape the interpretation of a norm violation and, through this process, promote moral courage. In contrast to our prediction, moral attentiveness did not have a bivariate association with intervention (contradicting H2.1a) and was not significantly related to how severe the reported norm violations were perceived (contradicting H2.2a).

However, our explorations revealed that moral attentiveness was associated with the proportion of daily assessments at which participants had reported an observed norm violation (see Table S1). Note that with people low in moral attentiveness being less likely to have reported any observed norm violation, the chances of finding moral attentiveness as a significant predictor of intervention were reduced. However, we believe that, rather than being a statistical artifact, our findings suggest that moral attentiveness played a role in shaping whether incidents in everyday life were detected and interpreted as norm violation in the first place. In other words, the proposed initial processes of detection and interpretation (as shaped by moral attentiveness) might have determined whether situations were reported at all in the experience sampling. As such, these personality processes would have acted as “gate-keepers,” as necessary preconditions for intervention to occur.

Unfortunately, our design did not allow us to disentangle the exact processes responsible for the proportion of daily assessments with reported norm violations. People's

life circumstances could differ so that they objectively encountered more or fewer relevant situations; people's tendencies to detect and interpret situations as relevant could have played a role, but also their compliance and willingness to report relevant situations during our experience sampling. Interestingly, we did not find sociodemographic variables as significant predictors of the proportion of daily assessments at which a norm violation was reported; but extraversion was a significant predictor besides moral attentiveness. We can speculate that extraverted people might seek more social situations and be more attentive toward social cues, raising the likelihood of encountering, and detecting relevant situations that would afford moral courage.

4.4 | Subjective risk, but not dispositional risk avoidance, negatively predicted intervention

As hypothesized (H1.1e), subjective risk negatively predicted intervention, even when tested in concert with all other cognitive process variables. Dispositional risk avoidance, however, did not predict intervention (contrary to H2.1d). So, it does not seem that morally courageous people are dispositionally inclined or better practiced to take risks. Note that we did not preregister an indirect effect of risk avoidance because we thought it was unclear how risk avoidance would be related to subjective risk. Indeed, risk avoidance was unrelated to subjective risk. Instead, the subjective risk was positively related to anxiety proneness. Surprisingly, it was also positively related to moral disengagement as well as to moral attentiveness (see Table S10a – model 1e). Though exploratory and surprising, these findings provide some interesting insights into the role of subjective risk in moral courage. Its correlation with moral attentiveness suggests that those individuals who tend to perceive incidents as morally relevant also readily perceive intervention as risky. Potentially they anticipate more immoral behavior from someone who, in their eyes, already perpetrated against moral norms. Further, based on the positive correlation between moral disengagement and subjective risk, it appears that some individuals might consider risks somewhat strategically, as a form of motivated reasoning, in order to disengage.

4.5 | Anger and fear played opposing roles in intervention (but did not retain unique effects)

Alongside cognitive processes, we hypothesized that emotional processes should be relevant for moral courage.

Consistent with our predictions, we found that anger had a positive effect on intervention (H1.2a), whereas fear had a negative effect (H1.2b). Moreover, we found that dispositional observer sensitivity exerted a positive indirect effect on intervention via enhanced feelings of anger when witnessing a norm violation (H2.2e), and that anxiety proneness had a negative indirect effect via increased feelings of fear (H2.2f). These findings are in line with the general notion that anger is an approach-related emotion and fear an avoidance-related emotion (Carver & Harmon-Jones, 2009) and add to the existing evidence speaking for a key role of anger as a driver of intervention against norm violation (Halmburger et al., 2015; Hofmann et al., 2018; Niesta Kayser et al., 2010; Sasse et al., 2020). Compared to anger, less prior empirical research had focused on the role of fear, even though conceptually it is a key emotion, as it is thought to be overcome in moral courage (Bauhn, 2003; Henik, 2008). Our findings point out that fear, as shaped by dispositional proneness to anxiety, can be an important psychological barrier to moral courage.

Critically, we did not observe unique effects of anger and fear when tested in concert with the cognitive process variables. Similarly, observer sensitivity and anxiety proneness did not retain unique indirect effects when the other dispositional and process variables were considered simultaneously. We can speculate that our participants were not able to clearly distinguish between their cognitive and emotional reactions in retrospect when reporting on a recent situation. This seems highly likely as anger and fear are theoretically linked to particular cognitive appraisal patterns (Ellsworth & Scherer, 2003; Lerner & Keltner, 2001). Much in line with conceptual considerations, fear was highly correlated with perceptions of risk at the process-level; and anger was highly correlated with perceived severity of the norm violation (see Table 2; see Sckopke et al., 2022 for similar patterns). At the dispositional level, we found indication that dispositional self-efficacy captured variance in the likelihood of intervention that was tapped into also by anxiety proneness.

So, in sum, our study provides evidence for the opposing roles of anger and fear in facilitating or hindering moral courage. The personality dispositions that shape the specific emotional reactivities can help explain who intervenes against others' norm violations and who stays inactive. More research is needed, however, to fully understand how the different cognitive and emotional processes are connected and interact to shape moral courage.

4.6 | Limitations and future research

We want to point out several limitations that must be considered when drawing conclusions from our results.

First, we have to reflect critically on the generalizability of our findings. With a quota-based sample of the German population recruited through an online panel provider, we have no ground to assume representativeness beyond sociodemographic characteristics. Moreover, results might be different in other national or cultural contexts. Future studies could fruitfully build on our study to shed light on cultural dimensions of how others' norm violations are perceived and reacted to. We would also like to stress that our study took place under specific historical conditions, specifically regarding the Covid-19 pandemic. Since the pandemic's start, new social norms had emerged (e.g., related to social distancing and hygiene, Casoria et al., 2021). These specifics impacted what was reported as an observed norm violation (e.g., see Table S2 in the Supplement). Consequently, our findings regarding the frequencies and characteristics of situations involving norm violations might not be generalizable to other historical or cultural contexts.

Second, notwithstanding its advantages, the experience sampling approach comes with potential drawbacks. We employed experience sampling to obtain reports of relevant situations occurring in everyday life. Given the temporal proximity, we can assume that people relied on their episodic memory when describing the situation and their responses. Research has indicated that such designs help to reduce memory bias (Robinson & Clore, 2002). Nevertheless, we must acknowledge the limitations potentially resulting from using retrospective self-reports. It might have been difficult for participants to clearly distinguish the cognitive and emotional processes we wanted to assess. Fortunately, the within- and between-level correlations (see Table 2) were in line with conceptual relations between the process variables, speaking for sufficient construct validity of their assessment. Our design is limited, however, when it comes to investigating the temporal or causal ordering between the processes. Besides the directed hypotheses that we tested, our findings are consistent with alternative accounts. For example, reversed effects are possible and plausible (e.g., if a person remembered to have intervened, they might have concluded post hoc that they were responsible and efficacious in the situation). Furthermore, confounding third variables cannot be ruled out. Here, experimental approaches are needed to complement experience sampling.

Furthermore, our design did not allow us to disentangle the objective situations that participants encountered from their individual interpretations or their tendencies to (not) report certain situations. We explored sociodemographic and dispositional variables associated with the number of reported norm violations. It could be interesting for future research to use objective measures, such as the electronically activated recorder (EAR, Mehl, 2017).

This way, potential interindividual differences could be addressed in the inclination to encounter situations affording moral courage, separate from the inclination to recognize those situations as such. Also, such objective measures could help to identify reoccurring norm violations, which we cannot with our present data.

As a further potential drawback of experience sampling, we cannot exclude reactivity (Barta et al., 2012; Himmelstein et al., 2019). We found that our participants were more likely to report norm violations at later compared to earlier assessments in the experience sampling phase. Possibly, the repeated prompts (two surveys per day across 1 week) sensitized our participants to others' norm violations. Notably, they did not report more trivial instances across time, in terms of the consensus-rated moral severity of the norm violations. Across those assessments at which a norm violation was reported, however, the likelihood of intervention also increased. Importantly, this reactivity effect did not moderate the personality processes predicting intervention. In future studies, the applied potential of such reactivity effect—fostering morally courageous intervention by repeated prompts—could be scrutinized.

Third, we critically address whether the reported situations qualify as affording moral courage. To ascertain that our participants had directly witnessed somebody else's norm violation from the perspective of an observer, teams of trained raters coded the open descriptions accordingly. Further, we assessed the subjective moral severity and complemented it with social consensus ratings of the moral relevance of the open situation descriptions. These data indicated that the reported norm violations could be considered morally relevant. Our explorations showed that the predictors of intervention (cognitive and emotional processes and personality predictors) did not differ between rather mild or more severe norm violations, as reflected by the consensus ratings. So, within the range of reported norm violations, our findings seem to robustly reveal the personality processes of everyday moral courage. However, arguably, our data did not involve extreme cases of moral violations, and different methodological approaches (e.g., extreme groups comparisons, Huston et al., 1981; Oliner & Oliner, 1988) are necessary to investigate if personality processes of moral courage generalize beyond everyday life. Also, the social consensus approach is limited in itself because the moral beliefs of an agent might be distinct from or even incompatible with a broader societal consensus (Skitka, 2012), and, we cannot rule out that, in some cases, individuals might have intervened for reasons other than moral motivations (Chekroun, 2008).

Besides the moral character of the situations, a further aspect of the working definition of moral courage entails

that people act despite the risks of negative consequences for themselves. As we discussed above, participants' reports of perceived risks of intervention and fear were rather low. This suggests that they did not anticipate substantive physical or social threats connected to intervening. However, intervention rates were also relatively low, and comparable to what other studies on moral courage had revealed (e.g., Baumert et al., 2013; Sasse et al., 2020). We can speculate that intervention in everyday life could have involved mundane costs, such as interrupting the pursuit of current goals or being evaluated by others. Potentially, participants did not factor in all costs or lost opportunities when indicating perceived risks of intervention, even though those might be potent barriers that had to be overcome with intervention. In parallel to how we discussed the severity of moral violations, we have to ask whether the psychological processes of intervention and, relatedly, the relevant dispositional predictors could be different in everyday life with low risks compared to extraordinary circumstances when the morally courageous face threats to their life or well-being. It will be enlightening to compare our results to those obtained with people who had intervened in extreme situations. For instance, an elevated sense of efficacy stood out among individuals who had spontaneously intervened against crimes (Huston et al., 1981); and Oliner and Oliner (1988) reported a significant sense of responsibility and obligation among rescuers of Jews in Nazi Germany, providing first, tentative similarities across contexts.

Fourth, we note the implications of collapsing our analyses across types of intervention. We conceptualized morally courageous behavior broadly, as encompassing any intervention aimed to stop, prevent, or redress an observed norm violation. Our explorations into differential predictive patterns across types of intervention (Wee et al., 2016) yielded fascinating additional insights. On the one hand, we found that perceived responsibility, and efficacy were consistent predictors, across types of intervention. On the other hand, we found reversed associations for subjective risk, as well as for subjective moral severity, when predicting direct intervention (verbal or physical confrontation of the perpetrator) or indirect intervention (calling in other bystanders or authorities to act). Participants were more likely to intervene directly in situations that they perceived as less rather than more risky, and against violations that they perceived as less rather than more morally severe. By contrast, subjective risk and subjective moral severity were unique positive predictors of indirect intervention. We might speculate that individuals chose how to intervene in strategic ways, such that they intervene indirectly to actively avoid personal risk, and to effectively counter severe violations. These exploratory results could motivate further (experimental) investigation of the decision

processes in moral courageous intervention. Insights will be theoretically and practically important to help guiding people toward effective and safe ways to be morally courageous.

5 | CONCLUSION

In sum, our study provided important insight into the personality processes involved when individuals observe morally relevant violations in their everyday life and decide whether to intervene, with relatively low perceived risk associated. It thereby adds a piece to the puzzle of understanding the phenomenon of moral courage in everyday life.

As unique personality processes of intervention, we found that dispositional moral disengagement negatively predicted the likelihood to intervene, mediated through lower levels of perceived responsibility when confronted with someone's norm violation, and that dispositional self-efficacy positively predicted intervention, mediated through a heightened sense of efficacy in such situations. On a more general level, it proved fruitful to adopt a process-oriented approach to personality, and by focusing on moral courage in everyday life, we could add a piece to the puzzle of understanding the moral personality.

AUTHOR CONTRIBUTIONS

Anna Baumert designed and conducted the study, analysed the data, and wrote the manuscript. Felix Ezra Mentrup contributed to the design of the study and oversaw the data collection; he led the codings and collected the consensus-ratings; he contributed to data analyses and provided feedback to the manuscript. Lisa Klümper and Julia Sasse contributed to the writing of the manuscript.

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CONFLICT OF INTEREST STATEMENT

We have no conflict of interest to declare.

DATA AVAILABILITY STATEMENT

The preregistration, material, scripts, as well as the data that support the findings of this study are openly available at <https://osf.io/mf2rk>.

ETHICS STATEMENT

The reported data were collected according to ethical standards for the treatment of human subjects.

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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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