

Feeling Better When Someone Is Alike: Poor Emotion Regulators Profit From Pro-Social Values and Priming for Similarities With Close Others

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Abstract

Objective: The dispositional inability to self-regulate one's own emotions intuitively is described as state orientation and has been associated with numerous psychological impairments. The necessity to search for buffering effects against negative outcomes of state orientation is evident. Research suggests that state-oriented individuals can benefit from feeling close to others. Yet, there are individual differences in the extent to which supportive relationships are valued. The objective of the present article was to examine whether high importance of relatedness increases the utilization of its situational activation among state-oriented individuals.

Method: In two studies, we examined whether situational activation of relatedness (by priming for similarities with a close other) is particularly advantageous for state-oriented individuals who attach high importance to relatedness (i.e., benevolence values). The sample consisted of 170 psychology undergraduates in Study 1 and 177 in Study 2.

Results: In both studies, state-oriented participants high in benevolence had reduced negative mood after thinking about similarities (vs. differences). State-oriented participants low in benevolence did not benefit from priming for similarities. In Study 2, physical presence of a close other did not boost priming effects for state-oriented participants but stimulated action-oriented participants to attune their self-regulatory efforts to the context.

Conclusions: The results show that state-oriented individuals who value benevolence do benefit from a situational activation of relatedness.

Keywords: State versus action orientation, relatedness, personal values, benevolence, priming similarities

Imagine the following situation: Your paper has been rejected. You are overwhelmed by negative emotions and simply cannot stop ruminating about whether you will ever publish or simply perish. During lunch with a close colleague, you casually talk about the perfect vacation. Do you think it will make a difference for your well-being whether you learn about your shared preferences (e.g., beach vacation, big waves) or detect many differences (e.g., active adventure vs. lazy beach days)? We propose it does. A focus on similarities induces feelings of closeness and relatedness, which are proposed to be beneficial for poor emotion regulators—but only if they value relatedness.

Emotional self-regulation (i.e., action orientation) is the ability to regulate one's emotions intuitively without external support and has been associated with smooth psychological functioning and high social adjustment (Koole, 2009). In contrast, a low

ability to self-regulate emotions intuitively (i.e., state orientation) has been repeatedly associated with psychological and psychosomatic impairments—not only in response to large-scale stressors such as failure in an exam or a divorce but also small daily hassles and mild negative moods (Kuhl & Beckmann, 1994). Therefore, it is important to learn about factors that can reduce the personal costs for state-oriented individuals.

Previous findings indicate that state-oriented individuals benefit from supportive partners and accepting contexts (Baumann, Kaschel, & Kuhl, 2005; Koole & Fockenberg, 2011; Koole &

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Jostmann, 2004). However, supportive relationships are not valued by all individuals to the same extent. The perception and utilization of supportive contexts might depend on the importance individuals attach to relatedness. In this sense, values might play an important role because they represent abstract beliefs that serve as general guiding principles in people's lives and affect the perception and evaluation of other people and events (Schwartz, 1992). Especially pro-social values such as benevolence (loyalty, harmony, and cooperation) might be a prerequisite for detecting opportunities to receive external support (Schwartz & Bardi, 2001).

In the present article, we tested the separate and conjoint effects of state orientation, relatedness values (benevolence), and priming relatedness on naturally occurring negative mood. We expected state-oriented participants to benefit from a situational activation of relatedness only when they value benevolence. In the following paragraphs, we will discuss individual differences in emotional self-regulation in more detail, elaborate on the temporary and chronic activation of relatedness, and review previous studies on the relationship between emotional self-regulation and relatedness. Finally, we will give an overview of the present studies and state our hypotheses in detail.

State Versus Action Orientation

Although it is normal to occasionally feel sad and helpless, there are strong individual differences in the ability to cope with such negative feelings once they are aroused. Some people are able to channel their emotions efficiently in a favorable direction and are, thus, more capable of putting their intentions into actions than others. Such differences are assessed with the construct of state versus action orientation (Kuhl, 2000, 2001; Kuhl & Beckmann, 1994). Action orientation after failure (AOF) describes the ability to reduce negative emotions intuitively in a self-reliant manner. As such, it represents an active, nonrepressive coping style with negative emotions (Koole & Jostmann, 2004; Kuhl, 2001; Kuhl & Koole, 2008). In contrast, state orientation after failure (SOF or low AOF) describes a low ability to self-regulate negative emotions intuitively. Therefore, compared to their action-oriented counterparts, state-oriented individuals often remain feeling helpless when confronted with failure, loss, or demands and cannot get rid of even mild negative moods that naturally occur in their daily lives. Note that action-oriented individuals are not always in a better mood than state-oriented individuals. They often do not unfold their full regulatory capacity unless it is necessary, for example, because the negative mood reaches a critical threshold or interferes with a task or because there is some kind of challenge that triggers emotional self-regulation (for an overview, see Koole, 2009).

As state versus action orientation refers to self-reliant and intuitive regulation of emotions, the construct differs from other constructs that describe the emotional response to ongoing events, such as neuroticism (Baumann & Kuhl, 2002; Baumann & Quirin, 2006), self-control (Koole et al., 2014), or

extraversion (Koole & Coenen, 2007). For example, state orientation is not about how often or easily people *enter* negative moods (i.e., neuroticism) but how well they are able to *leave* a negative mood state once it is aroused (Baumann, Kaschel, & Kuhl, 2007). Furthermore, state-oriented individuals do not suffer from poor self-control but often use too much conscious control in order to compensate their low ability to *intuitively* regulate emotions (Koole & Jostmann, 2004; Koole et al., 2014).

State orientation has been associated with lower self-determination and lower efficiency in goal pursuit (Kuhl & Kazén, 1994), higher rumination about negative events, and lower social, mental, and physical well-being (Baumann et al., 2005, 2007; Baumann & Quirin, 2006). Even slightly negative moods that naturally occur in daily life suffice to impede state-oriented individuals' performance and reveal their inability to deal with negative emotions by themselves (Baumann & Kuhl, 2002, 2003; Koole & Jostmann, 2004). Yet these individual differences in emotional self-regulation have mainly been studied based on a concept of the individual as separate and detached from his or her social environment.

However, humans feel, think, act, and regulate their emotions as social beings. Recognizing this fact, there has been a shift in recent years to include contextual factors that influence emotional self-regulation (Aldao, 2013; Koole, Kuhl, Jostmann, & Vohs, 2005; Kuhl & Keller, 2008). For instance, several studies demonstrated that rumination, a typical sign of state orientation, and its negative outcomes can be diminished by a supportive social environment (Nolen-Hoeksema & Davis, 1999; Puterman, Delongis, & Pomaki, 2010). Moreover, experimental studies showed that state-oriented individuals profit from visualizing an accepting person (Baumann et al., 2005; Koole & Fockenberg, 2011; Koole & Jostmann, 2004). However, contextual factors *within* the individual (e.g., personal value orientations) that predispose people to seize on supportive contexts have rarely been included in research on emotional self-regulation (for a critical review, see Aldao, 2013).

Relatedness Values and Priming

In the present research, we suggest that values represent contextual factors within the individual that increase the readiness to detect the supportive nature of external contexts. Values are adopted during socialization and represent abstract beliefs about general desirable goals that transcend situations and guide behavior and evaluations of situations, persons, and actions (Schwartz, 1992, 2011). Most relevant for our purposes are the pro-social values that are expressed by a high importance to care for the welfare of close others and being loyal, honest, and helpful, which are subsumed as *benevolence*. Benevolence may be conceived of as an internal representation of supportive socialization experiences and chronic orientation toward relatedness (Schwartz, 2011) and an expression of attachment security (Mikulincer et al., 2003). Although it strongly overlaps with

other constructs of social relatedness (e.g., social identity, relational-interdependent self-construal), benevolence has the advantage that the measure focuses on motivational directions (i.e., desired rather than actual states) and does not explicitly ask for feelings or cognitions regarding separation from others.

In the pan-cultural comparison by Schwartz and Bardi (2001), benevolence was rated as the most important out of 10 basic values (e.g., self-direction or power) across different social groups and cultures. The authors attribute this to the central role of positive interactions associated with benevolence that are vital for social functioning, cooperation within groups, and realization of (inter)personal goals (see also Oishi, Diener, Suh, & Lucas, 1999). Nevertheless, there are strong interindividual differences in the importance attached to benevolence. In addition, situational cues can affect which aspects of one's value system are likely to be activated in a specific moment. In other words, individuals can switch between focusing on being close to or separated from others. Furthermore, chronic value orientations can moderate the responses to situational variations in relatedness.

Since values act as guiding principles, someone who gives high importance to relatedness might be more inclined to detect supportive features of a current situation (even if he or she may not be aware of it). Such an interaction between chronic and temporary features of relatedness has been demonstrated by Pöhlmann and Hannover (2006). After priming relatedness, interdependent participants (i.e., who perceive themselves as strongly intertwined with others) were able to retrieve more attributes that were consistent with their chronic (interdependent) self-construal than independently oriented participants (i.e., who perceive themselves as unique and separate from their social environment). After priming independence, in contrast, independent participants retrieved more independent attributes compared to their interdependent counterparts. The finding is in line with several other studies demonstrating that chronic preferences moderate which mental representations are more easily activated by priming (e.g., Lisjak, Molden, & Lee, 2012).

Emotional Self-Regulation, Benevolence, and Priming

In recent years, social psychological research has identified how personal relationships can influence self-regulation even without the physical presence of the other (for a review, see Fitzsimons & Finkel, 2010). For example, when individuals think that a specific goal is valued by a close partner, they are more efficient in channeling their emotions to pursue such a goal (Shah, 2003). However, research also shows that supportive contexts are more important for individuals with low volitional control over their own emotions (Koole & Fockenberg, 2011; Koole & Jostmann, 2004; Nolen-Hoeksema & Davis, 1999). Consistent with this idea, Chatterjee, Baumann, and Osborne (2013) showed that state-oriented participants who attached great importance to

benevolence reported higher levels of well-being even when they experienced their life circumstances as stressful.

So far, research has demonstrated that state-oriented individuals benefit from supportive rather than challenging contexts (Koole & Fockenberg, 2011; Koole & Jostmann, 2004). However, it is most likely that not all state-oriented individuals perceive external support to be helpful in emotion regulation to the same extent. For example, as described above, chronic preferences can influence the perception of situational cues (Lisjak et al., 2012; Pöhlmann & Hannover, 2006). In a similar fashion, recent experiences in social interactions can impact how much thinking of a supportive partner turns out to be helpful for self-regulation processes (Finkel et al., 2006; Vohs, Baumeister, & Ciarocco, 2005). Finally, effects of chronic preferences and recent experiences often escape deliberate control because they are, to a great part, processed on a nonconscious level (e.g., Finkel et al., 2006; Stajkovic, Locke, & Blair, 2006).

Based on this reasoning, we propose that the effects of self-regulation, values, and situational context have to be investigated conjointly because people most in need of social support (i.e., state-oriented individuals) may not be able to perceive and utilize supportive cues (i.e., priming for similarities with a close other) unless they emphasize benevolence as an essential principle in their lives.

Overview and Hypotheses

In two studies, we tested the interaction effect between self-regulation, benevolence values, and priming similarities (vs. differences) with a close other on mild negative mood that people brought naturally to the experiment. We expected state-oriented participants who highly value benevolence to benefit more from priming similarities (vs. differences) than those who value benevolence less. Based on previous findings on how supportive contexts facilitate emotion regulation among state-oriented people (e.g., Chatterjee et al., 2013; Koole & Fockenberg, 2011; Koole & Jostmann, 2004), we did not expect state-oriented participants who give less importance to benevolence to benefit from priming differences. In contrast, we assumed action-oriented participants to be differently influenced by benevolence and priming because they are highly capable of regulating emotions on their own. We did not necessarily expect them to show lower negative mood across all conditions but especially under challenging conditions (e.g., when priming mismatches chronic value orientations).

In both studies, negative mood (e.g., feeling helpless, puzzled, sad, and inhibited) was measured after the priming procedure (T2) and compared to the beginning of the experiment (T1). In Study 1, we used a standard priming procedure (i.e., imagining a close other) that is expected to affect mainly participants with congruent chronic orientations. In Study 2, we tested whether physical presence of a close other can boost the beneficial effects of priming similarities and influence even participants with

incongruent chronic orientations (i.e., state-oriented participants who attach little importance to benevolence).

STUDY 1

A previous priming study on a related topic revealed a small to medium effect size ($f^2 = .04$; Chatterjee et al., 2013, Study 2). Therefore, in both studies, we aimed at testing $N = 199$ participants because power analysis (G*Power: $1 - \beta = .80$, $\alpha = .05$) indicated this sample size as sufficient for detecting a three-way interaction with a small to medium effect size of $f^2 = .04$.

Method

Participants. One hundred seventy psychology undergraduates (139 women) from the University of Trier, Germany, voluntarily participated in the experiment and received course credit in return for their participation. Because there was a natural stop in the flow of participants and the sample size was only slightly below the one we aimed at, we terminated our data collection. Participants' mean age was 22.48 years (range = 18–45 years). Seven participants were of another nationality (two participants from Luxembourg and one participant each from Bosnia, Bulgaria, Greece, Canada, and the Netherlands). Because three participants needed less than 15 minutes to complete the whole experiment, it is unlikely that tasks were processed thoroughly. Data from these participants were excluded from further analysis so that the data from 167 participants were taken into account in the final analyses.

Materials

Momentary Mood. A mood adjective checklist similar to the Positive and Negative Affect Schedule (PANAS; Watson, Clark, & Tellegen, 1988) was administered at the beginning and at the end of the experiment. Participants were asked to rate their momentary mood ("Right now, I feel . . .") on a 4-point scale (1 = *not at all*; 4 = *very strongly*). Negative mood was assessed by the four items *helpless*, *puzzled*, *inhibited*, and *sad* (cf. Kuhl, 2001; Kuhl & Koole, 2008). In the present sample, internal consistency (Cronbach's alpha) of the scale was $\alpha = .76$.

Action Orientation after Failure (AOF). The German version of the Action Control Scale (ACS; Kuhl, 1994) was administered to assess how much individuals are able to downregulate negative affect. The AOF scale of the ACS consists of 12 items. An example item is "When I'm in a competition and have lost every time: (a) I can soon put losing out of my mind, or (b) The thought that I lost keeps running through my mind." In the given example, option "a" reflects the action-oriented response alternative. In contrast, option "b" represents the state-oriented response alternative. All action-oriented response alternatives were summed so that the scale ranged from 0 to 12, with lower scores indicating state orientation (SOF; i.e., lower action orientation) and higher scores indicating higher action orientation

(AOF). In the present sample, internal consistency of the AOF scale was $\alpha = .80$.

Value Orientation. The Portrait Value Questionnaire (PVQ; Schwartz et al., 2001) was used to assess values. The PVQ consists of 40 items with short descriptions of a person that point implicitly to the importance of one of 10 basic values. Participants were asked to indicate how much the (gender-matched) person depicted in each description resembles him or her on a 6-point scale (1 = *very much like me*; 6 = *not like me at all*). Benevolence was calculated by summing up values of loyalty (e.g., "It is important to her to be loyal to her friends"), helpfulness (e.g., "It is very important to help the people around her" and "It is important to her to respond to the needs of others"), and forgivingness (e.g., "Forgiving people who have hurt her is important to her"). On the whole, benevolence is measured by four items in the PVQ. In the present sample, internal consistency of benevolence was $\alpha = .71$.

Priming Similarities Versus Differences. The Similarities and Differences with Family and Friends Task (SDFF) by Trafimow, Triandis, and Goto (1991) was applied to prime similarities to and differences from significant others. Participants were asked to think of a person they feel close to. Next, in the differences condition, participants were asked to write down everything that makes them different from this person. In contrast, in the similarities condition, participants were asked to write down everything they have in common with this person. Across different social cognition priming studies, this task has repeatedly proven to be very effective in enhancing or reducing feelings and thoughts of relatedness (Oyserman & Lee, 2008; Trafimow et al., 1991).

Procedure. Participants were tested individually. For reasons of standardization, all questionnaires and tasks were administered via computer. Participants first completed an initial mood rating (T1). Next, they were asked to fill out the ACS-90 and the PVQ. This was followed by the similarities versus differences priming procedure using the SDFF. Participants were randomly assigned to one of the two priming conditions. In this way, 81 participants were asked to enter all differences between themselves and a visualized close other in a textbox displayed on their computer screen (thinking of differences), and 86 participants entered all they had in common with a person they feel close to (thinking of similarities). Subsequently, all participants rated their momentary mood again (T2) and were asked if they had any assumptions about the purpose of the experiment. Last, participants were debriefed and received course credit in return for their participation. In total, the session lasted between 15 and 30 minutes.

Results and Discussion

Descriptives and Correlations. The correlations between study variables are listed in Table 1 (above the diagonal). Age

Table 1 Descriptive Information and Correlations Between Variables in Study 1 (above the Diagonal) and Study 2 (below the Diagonal)

	(1)	(2)	(3)	(4)	(5)	(6)	<i>M</i>	<i>SD</i>	Scale Range	Observed Range
1. Action orientation (AOF)		-.03	-.23**	-.27***	.09	.26**	5.27	3.22	0–12	0–12
2. Benevolence values	-.07		-.08	-.11*	.00	-.31***	20.07	2.52	6–24	12–24
3. Negative mood T1	-.10	.00		.79***	.03	.01	4.99	1.69	4–16	4–13
4. Negative mood T2	-.23**	.10	.20**		-.05	-.12	4.87	1.59	4–16	4–12
5. Age	.14 [†]	.01	.01	.05		.07	22.50	3.44		18–45
6. Gender ^a	.42***	-.30***	-.04	-.13 [†]	.01					
<i>M</i>	5.50	20.03	4.86	7.49	22.28					
<i>SD</i>	3.11	2.92	1.40	3.10	2.33					
Scale range	0–12	6–24	4–16	4–16						
Observed range	0–12	6–24	4–13	4–15	18–30					

Note. ^aGender: female = 1; male = 2.

[†] $p < .10$. * $p < .05$. ** $p < .01$. *** $p < .001$.

was not significantly correlated with action orientation, benevolence, and mood ratings ($ps > .14$). In contrast, gender significantly correlated with action orientation and benevolence, with female participants giving more importance to benevolence values and being less action oriented (i.e., more state oriented) than male participants. Action orientation showed significant negative correlations with negative mood at the beginning and end of the experiment. Finally, negative mood at the beginning of the experiment was positively associated with negative mood at the end of the experiment.

Manipulation Check of Priming. To test whether participants followed instructions, we counted how often they used the pronouns *we* and *I* in each priming condition. *We* was used more often in the similarity compared to the difference condition (19 vs. 2), whereas *I* was used less often in the similarity compared to the difference condition (1 vs. 35). A log-likelihood test indicated a significant difference (log-likelihood = 51.52, $p < .001$).

In addition, we counted the total number of words as an indicator of how well participants responded to the priming. As

listed in Table 2, participants generated on average four more words in the difference compared to the similarity condition, $t(164) = 1.70$, $p = .092$. To test whether our study variables influenced how well participants responded to the priming, we correlated them with the number of words in each priming condition, respectively. Neither action orientation nor negative mood at T1 influenced how well participants responded to the priming (rs between $-.10$ and $.04$, ns). In contrast, benevolence was associated with longer descriptions of similarities ($r = .21$, $p < .05$) but not differences ($r = -.04$, ns). Findings indicate that state- and action-oriented participants did not differ in their perception of their friends as similar or different.

Benevolence as a Moderator of Priming Effects. To test whether benevolence moderated how much state-oriented participants benefit from priming similarities (vs. differences), we conducted a hierarchical regression analysis on negative mood at the end of the experiment (T2). In Step 1, we controlled for negative mood at the beginning of the experiment (T1). Negative mood at T1 had a significant main effect on negative mood at T2, $\beta = .79$, $t(165) = 16.58$, $p < .001$, $R^2_{\text{Step1}} = .63$, $p < .001$. In Step 2, we entered standardized AOF and standardized benevolence scores as well as priming condition ($-1 = \text{differences}$, $1 = \text{similarities}$). There were significant main effects of negative mood at T1, $\beta = .77$, $t(162) = 15.84$, $p < .001$, and AOF, $\beta = -.11$, $t(162) = -2.28$, $p < .05$, $\Delta R^2_{\text{Step2}} = .02$, $p < .05$. In Step 3, we entered all two-way interactions. There were significant main effects of negative mood at T1, $\beta = .76$, $t(159) = 15.49$, $p < .001$, and AOF, $\beta = -.10$, $t(159) = -2.06$, $p < .05$, and no significant two-way interactions, $\Delta R^2_{\text{Step3}} = .01$, ns . In Step 4, we entered the AOF \times Benevolence \times Priming interaction. Results for Step 4 are listed in Table 2 (left columns). Consistent with expectations, there was a significant AOF \times Benevolence \times Priming interaction on negative mood, $\beta = .10$, $t(158) = 2.18$, $p < .05$, $\Delta R^2_{\text{Step4}} = .01$, $p < .05$. This three-way interaction is illustrated in Figure 1. AOF scores are plotted at one standard deviation above the mean (action oriented) and one standard deviation below the mean (state oriented). Benevolence scores are also plotted at one standard deviation above and below the mean.

Table 2 Studies 1 and 2: Final Step (Step 4) in the Hierarchical Regression Analyses Predicting Negative Mood

	Study 1		Study 2	
	β	<i>t</i>	β	<i>t</i>
Control variable				
Negative mood T1	.75	15.32***	.20	2.70**
Main effects				
Action orientation (AOF)	-.10	-2.03*	-.21	-2.61**
Benevolence values	-.04	-.87	.08	1.03
Priming ^a	-.07	-1.53	-.05	.75
Two-way interactions				
AOF \times Benevolence	.10	2.06*	.21	2.03*
AOF \times Priming	.06	1.26	.04	.44
Priming \times Benevolence	-.04	-.75	-.04	-.50
Three-way interaction				
AOF \times Benevolence \times Priming	.10	2.18*	.29	2.90**

Note. ^aPriming: differences = -1 ; similarities = 1 .

[†] $p < .10$. * $p < .05$. ** $p < .01$. *** $p < .001$.

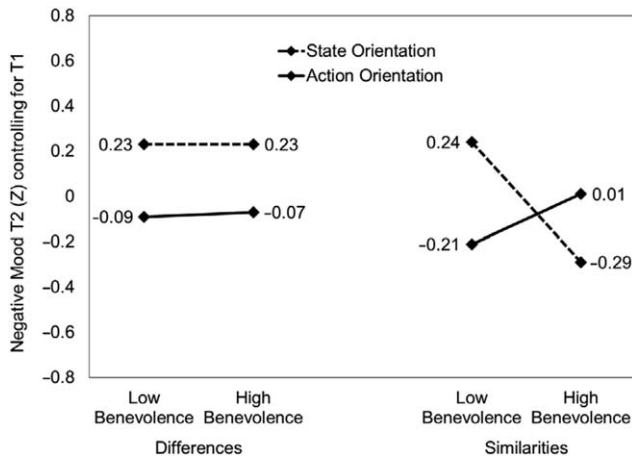


Figure 1 Study 1: Changes in negative mood as a function of benevolence, priming (differences vs. similarities), and emotional self-regulation (state vs. action orientation).

When primed for differences, simple slope analyses revealed no significant effects of benevolence on negative mood for state-oriented ($\beta = .00$, $t = .00$, *ns*) and action-oriented participants ($\beta = -.01$, $t = -.11$, *ns*). When primed for similarities, simple slope analyses revealed a highly significant effect of benevolence on negative mood for state-oriented participants ($\beta = -.26$, $t = -2.95$, $p < .01$), indicating that higher benevolence was associated with less negative mood among state-oriented participants primed for similarities. In contrast, there was no significant effect of benevolence on negative mood for action-oriented participants ($\beta = .11$, $t = 1.23$, *ns*). In the similarities condition, the slope difference test between state- and action-oriented participants was significant ($t = 2.96$, $p < .01$). These findings are consistent with our hypothesis that state-oriented participants benefit from priming similarities when they value benevolence. Results of the three-way interaction remained stable when we additionally controlled for gender, $\beta = .09$, $t(157) = 1.98$, $p < .05$, or without controlling for negative mood at T1 and gender, $\beta = .18$, $t(159) = 2.54$, $p < .05$.

Discussion

As expected, priming for similarities attenuated negative mood among state-oriented individuals who attach great importance to benevolence. Because benevolence values can be conceived of as internal representations of supportive socialization experiences, it is likely that they increase the sensitivity for cues of social support. Similarity to close others probably represents such a cue. Consistent with this idea, priming for similarities did not comfort state-oriented participants who attach little importance to benevolence. Their negative mood was as high as in state-oriented participants who were primed for differences. Additionally, state-oriented participants who devaluated benevolence did not benefit from priming differences. In comparison, action-oriented participants were affected neither by priming nor by

benevolence values and reported relative low levels of negative mood across all conditions.

In Study 1, the similarity priming activated only the congruent chronic orientations, but did not override incongruent chronic orientations. This result is in line with previous priming studies (e.g., Lisjak et al., 2012; Pöhlmann & Hannover, 2006). Nevertheless, it would be informative to explore whether the procedure can be intensified in a way that even state-oriented participants with low benevolence values profit from priming for similarities.

STUDY 2

Priming induces only short-lived changes in people's orientation, and when priming is incongruent with people's chronic orientations there are hardly any priming effects at all (Lisjak et al., 2012). Study 2 examined whether priming effects can be boosted with a slight variation in the procedure: the physical presence of a close other with whom one feels similar to or different from. We wanted to explore whether priming similarities with a physically present close other may help not only state-oriented participants with congruent chronic orientations (i.e., high benevolence values) but also those with incongruent chronic orientations (i.e., low benevolence values).

Method

Participants. One hundred seventy-seven psychology undergraduates (137 women) from the University of Trier, Germany, voluntarily participated in the experiment and received course credit in return for their participation. Because there was a natural stop in the flow of participants and the sample size was only slightly below the one we aimed at, we terminated our data collection. Participants' mean age was 22.18 years (range = 18–30 years). Sixteen were born outside Germany and 17 grew up abroad (one each in Belarus, Bosnia, Indonesia, Kazakhstan, Mongolia, Romania, Turkey, and Ukraine; two each in Azerbaijan, Luxembourg, and Russia; and three in Bulgaria).

Materials. As in Study 1, we used the four items *helpless*, *puzzled*, *inhibited*, and *sad* to assess negative mood (Cronbach's $\alpha = .85$), the Action Control Scale (ACS; Kuhl, 1994) to assess action orientation after failure (AOF; Cronbach's $\alpha = .78$), the Portrait Value Questionnaire (PVQ; Schwartz et al., 2001) to measure benevolence (Cronbach's $\alpha = .71$), and the Similarities and Differences with Family and Friends Task (SDFF; Trafimow et al., 1991) to prime similarities to and differences from significant others.

Procedure. The experiment was conducted in group sessions with 2–8 participants simultaneously. Before arriving for the study, participants were asked to bring a good friend with them to the experimental session. Both took part as participants. During the experiment, they were seated in separate, nonadjacent

cubicles and asked to work on their own. Thus, pairs of friends did not interact with each other during the study, and their data were analyzed independently. Participants first completed an initial mood rating (T1), followed by the ACS, the PVQ, and the SDFP task. Again, participants were randomly assigned to one of two priming conditions (thinking of similarities vs. differences). In contrast to Study 1, in the SDFP task, participants were instructed to refer to their accompanying friend. In all, 106 participants had to think of differences, and 71 participants were asked to think of similarities. After writing down all similarities/differences that came to mind, participants rated their momentary mood a second time (T2).¹ At the end of the experiment, all participants were asked if they had any assumptions about the purpose of the experiment. Finally, participants were debriefed and received course credit in return for their participation. In all cases, participants' accompanying friends were fellow students. As such, course credit was equally relevant for all participants. The experimental session lasted around 20–30 minutes.

Results and Discussion

Descriptives and Correlations. The correlations between study variables are listed in Table 1 (below the diagonal). As in Study 1, gender significantly correlated with action orientation and benevolence, with female participants giving more importance to benevolence values and being more state oriented than male participants. There were no significant correlations between action orientation, benevolence, and initial mood. However, negative mood at the end of the experiment was associated with higher negative mood at the beginning of the experiment and lower action orientation.

Manipulation Check of Priming. To test whether participants followed instructions, we counted how often they used the pronouns *we* and *I*. Participants used *we* more often in the similarity compared to the difference condition (58 vs. 3) and *I* less often in the similarity compared to the difference condition (134 vs. 263). A log-likelihood test indicated a significant deviation from equal distribution (log-likelihood = 91.32, $p < .001$). In addition, we counted the total number of words as an indicator of how well participants responded to the priming. The number of words did not significantly differ between similarity and difference conditions, $t(173) = -1.08$, *ns*. To test whether our study variables influenced how well participants responded to the priming, we correlated them with the number of words in each priming condition, respectively. There were no significant correlations (r s between .01 and .16, *ns*). Findings indicate that state- and action-oriented participants did not differ in their perception of their friends as similar or different.

Benevolence as a Moderator of Priming Effects. To test whether benevolence moderated the extent to which state-oriented individuals were influenced in their negative mood by thinking about being similar to (vs. different from) their

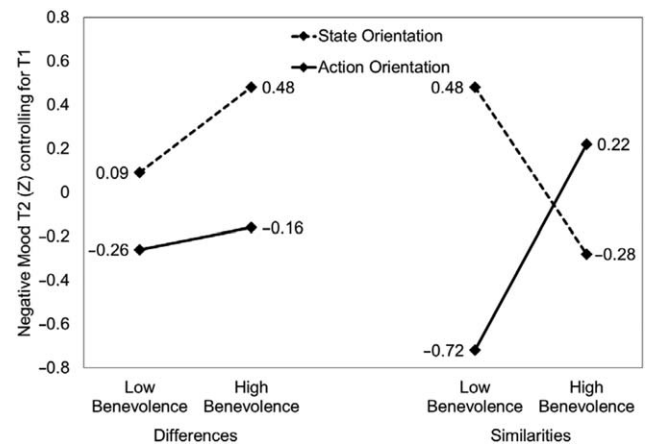


Figure 2 Study 2: Changes in negative mood as a function of benevolence, priming (differences vs. similarities), and self-regulation (state vs. action orientation).

accompanying friend, a hierarchical regression analysis was conducted. In Step 1, we controlled for effects of negative mood at the beginning of the experiment (T1). Negative mood at T1 had a significant main effect on negative mood at T2, $\beta = .20$, $t(175) = 2.75$, $p < .01$, $R^2_{\text{Step1}} = .04$, $p < .01$. In Step 2, we entered standardized AOF and standardized benevolence scores as well as priming condition ($-1 = \text{differences}$, $1 = \text{similarities}$). There were significant main effects of negative mood at T1, $\beta = .18$, $t(172) = 2.54$, $p < .05$, and AOF, $\beta = -.21$, $t(172) = -2.90$, $p < .01$, $\Delta R^2_{\text{Step2}} = .06$, $p < .05$. In Step 3, we entered all two-way interactions. There were significant main effects on negative mood at T1, $\beta = .19$, $t(169) = 2.55$, $p < .05$, and AOF, $\beta = -.19$, $t(169) = -2.31$, $p < .05$, and no significant two-way interactions, $\Delta R^2_{\text{Step3}} = .00$, *ns*. In Step 4, we entered the AOF \times Benevolence \times Priming interaction. Results for Step 4 are listed in Table 2 (right columns). Consistent with expectations, there was a significant AOF \times Benevolence \times Priming interaction, $\beta = .29$, $t(168) = -2.90$, $p < .01$, $\Delta R^2_{\text{Step4}} = .04$, $p < .01$. This three-way interaction is illustrated in Figure 2. AOF scores are plotted at one standard deviation above the mean (action oriented) and one standard deviation below the mean (state oriented). Benevolence scores are also plotted at one standard deviation above and below the mean.

When primed for differences, simple slope analyses revealed no significant effect of benevolence on negative mood for state-oriented ($\beta = .22$, $t = 1.42$, *ns*) or action-oriented participants ($\beta = .07$, $t = .57$, *ns*). When primed for similarities, simple slope analyses revealed a marginally negative effect of benevolence on negative mood for state-oriented participants ($\beta = -.36$, $t = -1.75$, $p < .10$). However, there was a significantly positive effect of benevolence on negative affect for action-oriented participants ($\beta = .49$, $t = 2.61$, $p < .05$). In the similarities condition, the slope difference test between state- and action-oriented participants was significant ($t = 2.61$, $p < .05$). Results of the three-way interaction remained stable when we additionally controlled for gender, $\beta = .25$, $t(167) = 2.93$, $p < .01$, or without

controlling for negative mood at T1 and gender, $\beta = .24$, $t(169) = 2.77$, $p < .01$. Taken together, these findings are consistent with our hypothesis that state-oriented participants benefit from priming similarities when they value benevolence. Because negative mood at T2 had a high mean and large standard deviation compared to Study 1, we conducted an analysis of standardized residuals (z -scores) to detect possible outliers. Using a 95% confidence interval ($\alpha = .05$), any z -score beyond ± 1.96 can be regarded as an outlier. Our analysis showed that it is unlikely that outliers might have induced a possible bias in our model because less than 5% of the cases had standardized residuals above 1.96 (Field, 2013). In addition, excluding the outliers yielded similar results.

Discussion

For the most part, in Study 2 we replicated the findings of Study 1. As expected, compared to action-oriented participants, state-oriented participants who highly value benevolence experienced less negative mood after focusing on similarities with a friend, whereas those low in benevolence did not. Thus, despite the physical presence of a close other, priming did not override a disadvantageous chronic orientation in state-oriented participants. This is in line with prior studies demonstrating that priming activates (or intensifies) rather than overrides chronic personal orientations (e.g., Lisjak et al., 2012; Pöhlmann & Hannover, 2006).

In contrast to Study 1, focusing on similarities influenced not only state- but also action-oriented participants—albeit in a reversed manner. Among action-oriented participants, focusing on similarities was associated with experiencing more negative mood the more they valued benevolence. Thus, they seemed to benefit from a mismatch between priming condition and chronic orientation. Prior studies demonstrated that action-oriented participants show increased performance and better emotional self-regulation under demanding compared to relaxing conditions (for an overview, see Koole, Jostmann, & Baumann, 2012). Thus, it is possible that priming an orientation that does not match the chronically preferred one could have represented a demanding condition and instigated action-oriented participants to unfold their full self-regulatory potential.

GENERAL DISCUSSION

In the present research, we investigated whether personal values moderate beneficial effects of priming social relatedness (feeling similar to someone). Building on observations that state-oriented individuals benefit more from external support than action-oriented individuals, we focused on benevolence because it strongly resembles internal representations of supportive socialization experiences. Although relatedness may not simply be conceived as interchangeable with external social support, it represents a positive social orientation toward another being (respectively, other beings) within the individual. In two studies,

we explored the interaction of benevolence and induced orientations that either matched (priming for similarities) or mismatched (priming for differences) chronic value orientation.

We assumed that state-oriented participants benefit more strongly from priming for similarities the more they value benevolence. We did not expect state-oriented individuals who attach little importance to benevolence to benefit from priming differences because a focus on differences represents a situation with no potential social support. Thus, priming for differences should not facilitate the downregulation of negative emotions among state-oriented participants. Finally, we assumed that action-oriented participants regulate their emotions in a self-reliant manner and, thus, regardless of their chronic orientation, priming for similarities or differences should have no effect on their self-regulation abilities.

For the most part, our results confirmed our assumptions and are consistent with findings of previous studies demonstrating that state-oriented individuals are more dependent on supportive contexts or an increased sense of relatedness in order to feel good or to reduce negative feelings than action-oriented individuals (Baumann et al., 2005; Chatterjee et al., 2013; Koole & Fockenberg, 2011; Koole & Jostmann, 2004). The new aspect of our two studies is the focus on the moderating effect of benevolence in perceiving and utilizing supportive contexts. Indeed, state-oriented individuals high in benevolence reported less negative mood after priming for similarities with a close other, regardless of whether this person was physically present during the experiment (Study 2) or just imagined (Study 1). In contrast, when state-oriented participants devaluated benevolence, they did not benefit from thinking about similarities but experienced more negative mood. Thus, while priming did activate chronic orientations, it did not override or compensate for them. If benevolence values do indeed reflect internal representations of past experiences of social support, they should be a vital resource against helplessness. Our findings indicate that state-oriented participants are not able to activate this resource by themselves. They depend on an external activation, for example, through priming for similarities. Without this external trigger, they are not able to benefit from past experiences of social support. Similarly, state-oriented participants do not profit from currently supportive contexts if they have not experienced the value of social support in the past. The results show that it is not congruence per se that helps state-oriented people to regulate their emotions, but the content of relatedness.

Action-oriented participants were emotionally less dependent on valuing and/or priming social support because they are able to regulate their emotions by themselves. In Study 1, they reported little negative mood across all conditions. In Study 2, however, there was a significant effect in the similarities condition: Action-oriented participants reported less negative mood the less they valued benevolence. In Study 2, the physical presence of the close other boosted the observed priming effects compared to Study 1. The similarities condition may represent a challenge for action-oriented participants who do not value relatedness and prompt them to activate their full self-regulatory

potential to the effect that they lighten up their mood by themselves. This interpretation is in line with many findings indicating that action-oriented participants unfold their full self-regulatory potential only in demanding situations, but not under relaxed conditions (Koole et al., 2012). Yet, further research is needed to examine whether previous results on demanding conditions can be extended to the present finding.

To our knowledge, this investigation is the first to study conjoint effects of values and priming on self-regulatory outcomes. The inclusion of values to scrutinize the effects of contextual factors on emotional self-regulation might be particularly promising because similar values have been identified and validated across different groups and cultures (Schwartz, 1992, 2011; Schwartz et al., 2001). Moreover, pro-social values, such as benevolence, represent internalized experiences of supportive contexts and are associated with strivings for relatedness and close relationships, which, in turn, support subjective well-being (Hofer, Chasiotis, & Campos, 2006; Oishi et al., 1999). In this way, learning more about the role of values and their interactions with situational aspects represents a promising approach to uncover hidden resources in state-oriented individuals.

LIMITATIONS AND FUTURE PERSPECTIVES

The findings of the studies presented here can be considered the first step in exploring the interaction between values, priming, and emotional self-regulation and, thus, leaves a host of questions for future research. First, we did not assess how similar or close participants actually felt toward their friend after the manipulation. However, state- and action-oriented participants did not differ in the number of similarities and differences they generated. Second, we manipulated conscious aspects of the self. Self-regulatory processes are also influenced by unconscious, automatic, and intuitive aspects of the self (Finkel et al., 2006; Koole & Jostmann, 2004; Stajkovic et al., 2006). Future research may include priming methods that tap more implicit aspects of the relational self, for example, the letter identification technique (Pöhlmann & Hannover, 2006), the pronoun-circling task (Brewer & Gardner, 1996), or the cultural scenery technique (Miyamoto, Nisbett, & Masuda, 2006).

Third, emotional self-regulation deficits typically do not impair performance and well-being unless people experience some kind of negative mood or stress (Baumann et al., 2005; Koole et al., 2012; Kuhl & Beckmann, 1994). In our studies, we did not induce stress but focused on naturally occurring moods. Our findings show that state-oriented participants cannot even downregulate mildly negative moods. At the same time, only little external support is needed (e.g., priming for similarities) to help state-oriented individuals access inner resources (high benevolence). Recent findings by Chatterjee et al. (2013) suggest that state-oriented participants also benefit from valuing benevolence (Study 1) or priming relatedness (Study 2) when dealing with experimentally induced stress. However, Chatterjee

et al. (2013) did not test conjoint effects of values and priming. Thus, our present findings extend previous work by showing that specific values may change how participants respond to cues of relatedness. Vice versa, situational cues may influence whether specific values can be utilized.

Fourth, we focused on benevolence, but there are more values that might interact with emotional self-regulation. For example, striving for values associated with self-direction (e.g., thinking independently, being creative, and exploring) might affect emotional self-regulation quite differently. Self-direction might not give comfort (attenuate negative affect) but energy (positive affect/arousal), influence completely different outcomes (e.g., performance on divergent thinking tasks), and respond to different situational cues. Thus, future studies could extend the range of values, situational cues, and self-regulatory outcomes in order to deepen our understanding of buffers against negative outcomes of state orientation and specify interventions.

Finally, our findings are based on WEIRD (Western, Educated, Industrialized, Rich, and Democratic) samples (Henrich, Heine, & Norenzayan, 2010). It is possible that there are cultural differences in the prevalence and outcomes of specific values, contexts, and self-regulatory abilities. For instance, Kuhl and Keller (2008) theoretically propose that interdependent (collectivistic) cultures may foster the development of state orientation—albeit without the stress-related impairments that have been observed in independent (individualistic) cultures. Our present findings are consistent with this idea because interdependent cultures emphasize benevolence and feeling close to others. Nevertheless, it remains a challenge for future research to explore the workings of values, situational constraints, and emotional self-regulation across different groups and cultures.

CONCLUDING REMARKS

The present article took a closer look at personal values as a hidden resource in people having a state orientation. Our findings show that benevolence values moderate how much state-oriented individuals profit from the situational activation of relatedness versus separateness. More specifically, only state-oriented individuals who endorse benevolence as an important value benefited from priming relatedness. At first glance, this might contradict prior observations that state-oriented individuals generally benefit from supportive conditions. However, our findings emphasize that state-oriented individuals do not always perceive and utilize supportive aspects of current situations to the full extent. On a more general note, the inclusion of values in future research may represent a promising approach for implementing Aldao's (2013) call to capture context in emotion regulation.

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Note

1. The data collection for this study was conducted over a period of several weeks and partly combined with another study. Data from 152 of the 177 participants were included in an additional study. For these participants, the experiment continued with watching a negative (vs. neutral) film and a final mood rating. Results of this additional study (i.e., recovery from a negative mood induction) are reported in Chatterjee et al. (2013, Study 2). Note that Chatterjee et al. (2013) analyzed only the mood *after* watching a film, whereas the current results concern the mood *before* watching a film and thus constitute an independent data set.

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