Relatedness as a Resource in State Orientation

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“The knowledge that you have emerged wiser and stronger from setbacks means that you are, ever after, secure in your ability to survive. You will never truly know yourself, or the strength of your relationships, until both have been tested by adversity. Such knowledge is a true gift, for all that it is painfully won, and it has been worth more than any qualification I ever earned.”

J. K. Rowling,
The fringe benefits of failure, Harvard University Commencement, 2008
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Chapter 1

An Introduction to Self-regulation in the Context of Relatedness
Introduction

Some years ago, a famous German goalkeeper committed suicide. After his death, when it became public that he had suffered from depression, a debate unleashed in the media about poor stress coping abilities among those who had formerly been considered as emotionally invulnerable, while, at the same time, the acceptability of speaking about problems of overcoming personal setbacks increased. The discourse back then is exemplary for showing that even people who apparently seem balanced and successful in their lives might suffer from self-regulation problems. Indeed, the wide-spread phenomenon has also been recognized by research: on the one hand, research on emotion regulation emphasizes the ability to exert volitional control over one’s emotions without external support as the building block for many domains of psychological functioning and a precondition for well-being (Koole, 2009; Kuhl, 2001). On the other hand, however, “up to 50% of the normal, non-clinical population in Western countries” suffer from emotional self-regulation deficits (Koole, Kuhl, Jostmann, & Vohs, 2005, p. 218). Furthermore, cross-cultural literature proposes that in non-Western countries even more people might display a dispositional inability to exert volitional control over their emotions (Kuhl & Keller, 2008). Yet, despite their deficient volitional abilities, many people get along reasonably well in their lives. Thus, how do these people compensate for their self-regulation deficits?

The idea of self-regulation as a hallmark of psychological functioning is based on a Western conception of the individual as unique and separate from its social world. However, humans do not live in a social vacuum, but are social creatures. Individuals are constantly engaged in construing their social reality and how they proceed in doing this depends to large parts on how they perceive themselves. A growing body of literature in social cognition and cross-cultural research demonstrates that varying degrees of feeling related to others affects a multitude of psychological processes (e.g., cognition, emotion, and motivation; Kuhl & Keller, 2008; Markus & Kitayama, 1991, 1994, 2010; Nisbett & Miyamoto, 2005). The shift to include interpersonal aspects of the self into research on regulation processes could unpack important aspects of coping processes (Finkel & Fitzsimons, 2011; Fitzsimons & Finkel, 2012; Shah, 2003). Despite these first approaches, empirical investigations are still rare. But in conceptual and theoretical work the importance of contextual factors has meanwhile been recognized (Aldao, 2013). Taken together, literature strongly suggests that social distance and proximity are key factors that impinge on
emotion regulation. To date, however, little is still known about the interaction between social connectedness and individual differences in emotional self-regulation.

The present thesis aims at contributing to the ongoing research on interpersonal aspects of the self (i.e. relatedness) and dispositional differences in emotion regulation abilities (i.e. action versus state orientation). In particular, two constructs will be at the center of interest: First, the construct of action versus state orientation that differentiates between individuals with high emotional self-regulation abilities (action orientation) and those who have deficits modulating adverse emotions (state orientation). Second, relatedness as a contextual factor within the individual that promotes social closeness and the feeling of being intertwined with a significant other. The frame of this thesis is set up by the differentiation between the three facets of the self in reference to its social world: (1) a personal, (2) a relational, and a (3) collective self (Brewer & Gardner, 1996; Greenwald & Pratkanis, 1984; Triandis, 1989); albeit, all three facets of the ‘self’ coexist within the same individual, available to be activated at a specific time or in specific contexts (Brewer & Gardner, 1996; Sinha & Tripathi, 1994).

(1) The private or personal self describes aspects that differentiate the self from its social environment. The private self is also referred to as independent self and comprises traits, states, and behaviors of a person as a unique being and detached from its social environment. This conception of the self has been thoroughly scrutinized in Western psychology (Brewer & Gardner, 1996). The first section of the introductory section picks up the conception of the private self by giving special attention to the self as the main agent of emotional self-regulation and, specifically, individual differences in self-regulation abilities.

(2) The relational or interdependent self describes the incorporation of tight relationships - for instance with a partner, a family member, or a close friend - as abstract schemes about the self (Li, 2002; Markus & Kitayama, 1991; Pöhlmann & Hannover, 2006). The second section of Chapter 1 expands the field to the related self and its interaction with emotional self-regulation abilities. Chapters 2 and 3 present empirical studies to explore the conjoint effects of relatedness and action versus state orientation on indicators of well-being.

(3) At a more impersonal level, the interdependent self can also refer to the membership of a group or a collective. It is, therefore, often described as collective self. This notion of the self corresponds with the concept of social identity that, for instance, is addressed in social identity theory (Tajful & Turner, 1986) or self-categorization theory (Turner, Hogg, Oakes, Reicher, & Wetherell, 1987) and can also be conceived as an
agglomeration of internalized goals, norms, and expectations of important reference groups (Breckler & Greenwald, 1986). Moreover, the collective self often describes cultural constraints to an individual’s behavior (Harb & Smith, 2008; Oyserman, Coon, & Kemmelmeier, 2002). The cultural impact on the self is addressed in the second part of this thesis (Chapters 4 and 5) and expands the examination of self-regulation to a cross-cultural field. Comparisons between Western and non-Western (that is mainly Eastern) cultures can be conceived as the prototypical comparison between independent (Western) and interdependent (Eastern) cultural orientations. In Chapters 4 and 5, I argue that socialization experiences within different cultural settings influence the necessity for self-regulation abilities. Despite cultural differences, it is likely that universal underlying mechanisms might render psychological processes similar in different cultures. Taking cultural differences and universalities simultaneously into account, Chapter 5 presents a cultural study that was designed to show cultural similarities in the structure and direction of individual differences in self-regulation, while, at the same time, highlighting (cultural) differences in the strength of some paths that lead from poor self-regulation to the impairment of psychological well-being. Finally, in Chapter 6 I summarize and discuss the most important aspects and results in a general context.

1. Emotional Self-Regulation

1.1. Intuitive Affect Regulation

In recent years, research on emotion regulation has concentrated on three distinct emotion regulation processes, namely deliberate, automatic, and intuitive affect regulation1 (Gross & John, 2003; Koole & Jostmann, 2004; Kuhl, 2001; Muraven & Baumeister, 2000). Although deliberate and automatic affect regulation are both efficiently contribute to emotional well-being, they are not central to the present thesis. This should not be taken as

---

1 The following section introduces the key ideas about emotional self-regulation. In this depiction, the terms emotion, mood and affect are often used interchangeable, because “at the heart of all emotional state is core affect” (Koole, 2009, p. 7). Additionally, stress research conceives stress as a form of negative emotional states or affect. Therefore, in the following emotion/affect regulation are equated with the coping of stress. Finally, the thematic introduction to self-regulation does not represent an exhaustive analysis about the ability to modulate own emotions under stressful conditions, but highlights those aspects that are most important for a deeper understanding of individual differences in the ability to change adverse emotions in a self-reliant manner.
an indication that these two affect regulation processes are less relevant in everyday life compared to intuitive self-regulation. Yet, a deeper exploration of deliberate and automatic affect regulation leads far beyond the scope of the focus of the present work. Without diminishing their relevance for psychological functioning, their limitations are used here to underline the specific strength of intuitive self-regulation and to illustrate the benefits of intuitive self-regulation.

Whereas the deliberate affect regulation draws on limited volitional capacities that easily deplete under stressful circumstances, automatic affect regulation does not contribute to personal growth because it only addresses the symptom but not the source of negative affect. To give an example, deliberate emotion regulation is closely associated with logical-analytical thinking and, by these means, involves conscious and effortful control of attention, emotion, and behavior by simultaneously overruling or inhibiting competing preferences (Gross & John, 2003; Koole, 2009; Muraven & Baumeister, 2000). Deliberate affect regulation supports explicit goal pursuit and can be adjusted to current preferences and plans, but it can lead to reduced self-control efforts for subsequent attempts to regulate adverse emotions (Baumeister, Schmeichel, & Vohs, 2007; Koole, Jostmann, & Baumann, 2012; Kuhl & Fuhrmann, 1998; Muraven & Baumeister, 2000; Vohs, Baumeister, & Ciarocco, 2005). To expand the example given above, automatic regulation, on the other hand, facilitates fast reactions under stressful conditions that are, however, not necessarily coordinated with superordinate personal goals (Kuhl, 2001; Kuhl & Koole, 2008).

Intuitive emotion regulation, in contrast, combines the positive aspects of automatic and deliberate emotion regulation processes (Koole & Jostmann, 2004; Koole et al., 2012; Kuhl & Koole, 2008). On the one hand, intuitive emotion regulation is highly automatic and effortlessly, on the other hand, it facilitates the flexibility to attune to ongoing goal strivings. The combination of these different characteristics within intuitive emotion-regulation enhances the capability to act even under threatening and demanding conditions. Nevertheless, intuitive emotion regulation is qualitatively distinct from the other two emotion regulation processes, because it is not controlled by low-level reflexes like automatic emotion regulation, nor does it represent a conscious and effortful control of attention, emotion, and behavior like deliberate emotion regulation (Koole & Jostmann, 2004).

Research has meanwhile not only revealed the key role of intuitive emotion regulation in the experiences and effects of stress, but also the functional basis driving it that is
provided by the *implicit self-system* – as to speak of the implicit and rather unconscious representations of the self (Kuhl, 2001; Kuhl & Koole, 2008; Koole et al., 2012). For this reason, the increased interest in intuitive regulation processes is closely linked to a (re)new(ed) interest in the function of high-level unaware, automatic and intuitive (that is implicit) self-aspects (Epstein, 1994; Greenwald & Banaji, 1995; Kuhl, 2001). The role of the implicit self in intuitive self-regulation is introduced in the next section².

1.2. Self-Regulation of Negative Affect

1.2.1. Self-Regulation within the Frame of the Personality-Interaction Theory

The Personality-Interaction (PSI) theory (Kuhl, 2001; Kuhl & Koole, 2008) integrates most relevant developments in research on the self and its role for intuitive and self-reliant emotion-regulation. Therefore, in the following, assumptions about self-reliant emotion regulation within the frame of PSI theory are elaborated in more detail.

PSI theory represents a broad approach to explain motivational, emotional, and personality functioning by assuming an “integrative functional architecture of personality” (Kuhl, 2001; Kuhl & Koole, 2008). The central assumption of PSI theory is that different modes of action control are achieved by the interaction pattern of four personality systems (resp. macro-systems) that are involved in behavior and experience and that comprise *intention memory, intuitive behavior control, extension memory,* and *object recognition system*. The activation and information exchange between these personality systems depends on affective changes (e.g. changes in moods or emotions). In short, a change of affect might activate specific personality systems. Before going deeper into the discussion on self-regulation of negative affect, below the four macro-systems are briefly introduced.

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² The emphasis on the implicit self, here, does not indicate that explicit and conscious aspects of the self are less important for psychological functioning. Rather explicit processes correspond with analytical and sequential mode of processing information (i.e., intention memory). Thus, they are involved in the way people explicitly construe their own identity and – referring to emotion regulation – in which direction they consciously redirect their emotions (Epstein, 1994; Greenwald & Banaji, 1995; Kuhl, 2001). Finally, although the focus in the present thesis lies on the implicit self, it is important to bear in mind that the interaction between implicit and explicit processes represents a vital condition for smooth psychological functioning (Kuhl, 2001; Kuhl & Koole, 2008).
Intention memory (IM) can be conceived as a conscious and sequential-analytic high-level processing system that supports complex thinking and planning. Referring to a person’s identity, this also includes analytic and language-related presentations of own preferences (Kuhl & Kaschel, 2004). IM-based operations facilitate the identification of concrete goals and action steps to achieve these goals. By doing this, IM maintains the symbolic representations of intended actions activated in working memory for the time being until conditions are convenient to put them into action. Since intention memory operates in opposition to automatic and emotional processes, this system requires effortful attention and consumes a great deal of energy resources (Baumeister et al., 2007).

Intuitive behavior control (IBC) operates at an implicit-automatic level and typically executes learned behavior sequences. Thus, compared to IM, it represents a more elementary system based on perceptive networks that are sensitive to orientation, movement, and context information. IBC characteristically operates without conscious action control, is rather spontaneous, and flexible in the way that it can quickly adjust to changing contexts without the need of complete information about the whole situation.

According to PSI theory’s positive affect modulation assumption, positive affect modulates the interaction between IM an IBC (Kuhl, 2001; Kuhl & Koole, 2008). More precisely, when faced with a problematic situation, positive affect decreases, while at the same time IM is activated. As soon as positive affect is restored, IBC facilitates the enactment of explicitly planned intentions (stored in IM). In the present thesis, however, the focus is on the regulation of negative affect in which the following two cognitive macro-systems (extension memory and object recognition system) are involved. For this purpose, the next two systems are introduced more thoroughly.

According to PSI theory, the implicit self represents the self-related part of extension memory (EM; Kuhl, 2000, 2001). Extension memory can be conceived as a high-inferential system of extended semantic networks that operates in accordance with principles of parallel distributed processing (Rumelhart, McClelland, & The PDP Research Group, 1986; Beeman et al., 1994; Rotenberg & Weinberg, 1999). At a neural level, the parallel and holistic processing of extension memory is supported by right-hemispheric functions (Beeman et al., 1994; Rotenberg & Weinberg, 1999; Northoff et al., 2006; Van Overwalle & Baetens, 2009). Extension memory is also characterized by a high back-ground attention to potentially self-relevant internal and external experiences comparable with elevated vigilance (Posner & Rothbart, 1992). Access to extension memory, thus, supports the perception of own needs
and provides an overview over action alternatives based on autobiographical memory (Kuhl, 2001). The capacity to convey a holistic feeling about the appropriate course of action and its meaningfulness, even if someone cannot give rational reasons why, is comparable with Jung’s conception of the cognitive basic function of “feeling” (Jung, 1921). Similarly, extension memory is strongly associated with the feeling of freedom (autonomy), as “the maximum level of freedom is postulated whenever (global) personal goals guide behavior” (Kuhl & Quirin, 2011, p.77). Finally, functions of extension memory are connected to the autonomic nervous system and in this way communicate with bodily experiences (e.g., Dawson & Schell, 1982; Wittling, 1990).

Losing access to extension memory is often accompanied by feelings of alienation and the experience of internal conflicts. According to PSI theory this process is accompanied by an increased activation of object recognition system; a system that is specialized in recognizing single perceptual or semantic entities as separate from the context. Object recognition system is antagonistically connected to extension memory and relies on sequential processing in which only one object or sensory modality (e.g. hearing, seeing) is extracted at one time (Kuhl, 2001; Kuhl & Koole, 2008). This kind of low-level analytic processing facilitates to find new, unexpected, or discrepant aspects and to perceive them detached from the context. In particular, when fast reactions to potential threats are essential to survive, the activation of the object recognition system is highly adaptable because it is also connected to elementary behavioral systems that support fast (“fight-or-flight”) responses. But repeated exposure to increased uncontrollable stress levels and the experience of being unable to cope with them while own preferences are not accessible anymore, can eventually lead to performance impairments (“learned helplessness”), paralyze self-determined action, and increase the risk of developing psychosomatic symptoms (Kuhl, 1981, 2001, 2011).

In combination with functions of IM, object recognition system is involved in deliberate control (i.e., self-control) of emotions, whereas automatic emotion regulation rather relies on interactions between object recognition system and IBC (Kaschel & Kuhl, 2004; Kuhl, 2001, 2011; Kuhl & Koole, 2003). In comparison, as soon as negative affect is intuitively downregulated (i.e., stress decreased) access to integrated self-representations is facilitated (Baumann & Kuhl, 2003; Koole & Jostmann, 2004; Kuhl, 2001). In other words, the reduction of negative affect eliminates the antagonism between object recognition and extension memory in such a way that isolated experiences can be integrated in congruent
representations of own needs and goals and, by this means, might even activate self-growth (negative affect modulation assumption). Yet, individual differences arise in the ease of initiating affective changes and to access integrated self-representation of extension memory.

1.2.2. Individual Differences in Intuitive Affect Regulation

The personality disposition of state versus action orientation describes stable individual differences in the ability to self-regulate emotions across various stressful situations. Individual differences in emotion-regulation abilities derive from early interactions experiences during childhood, but are also molded by individual socialisation experiences and the personal biography (Kuhl, 2001; Kuhl & Keller, 2008; Kaschel & Kuhl, 2004; this aspect is also further elaborated in Chapter 4).

Action orientation is conceived of as the ability to downregulate negative affect and to upregulate positive affect. In this sense it refers to the ability to focus on task-relevant cognitions and represents a change-promoting volitional mode that facilitates intuitive and implicit self-regulation of emotional and motivational states. The ability to self-regulate emotions enables action-oriented individuals to retain their capability to act even when confronted with obstacles and other stressful circumstances (Baumann, Kaschel, & Kuhl, 2005, 2007; Brunstein, 2001). By contrast, a low action orientation is referred to as state orientation which describes the inability to exert volitional control over aversive affective states and therefore can be considered as a change-preventing volitional mode. The insufficient ability to change adverse emotional states once they have emerged, increases the risk that state-oriented individuals are more easily carried away or “hijacked” by their emotions (Goleman, 1995).

Two types of stressors can place limits to volitional top-down control: First, demands such as many changes in current life circumstances or facing difficult tasks are associated with reduced positive affect and, second, threats such as feelings of sadness, failure, or loss that increase negative affect (Kuhl, 2000, 2001; Baumann et al., 2005; Baumann & Kuhl, 2002). For this reason, two different dimensions of action versus state orientation are distinguished. The demand-related or decision-related action versus state orientation (AOD vs. SOD) is the high versus low ability to upregulate positive affect under high demanding conditions (Baumann et al., 2005; Jostmann & Koole, 2006; Kuhl, 1994). The threat-related or failure-related dimension of action versus state orientation (AOF vs. SOF) is the high versus low ability to downregulate negative affect under threatening conditions (Kuhl, 2001;
Kuhl & Beckmann, 1994; Kuhl & Koole, 2008). This dimension will be in the center of focus in the remainder of this thesis. In terms of PSI theory, threat-related action orientation is the capability to access integrated self-representations of extension memory under stressful conditions. Especially, in the context of socially stressful situations, negative experiences represent a threat to the self-worth or, even more, the whole identity of a person. In this way, coping with negative affect directly taps on the agency of the (implicit) self.

1.2.3. The Search for the Bright Side of State Orientation

Over 30 years of research on action versus state orientation have clearly confirmed the ‘bright side’ of action orientation and demonstrated the ‘dark side’ of state orientation (Koole et al., 2012; Kuhl, 1981, 2001, 2011). The numerous positive effects associated with self-regulation are addressed in this and later chapters. Therefore, it seems unnecessary to reiterate them at this point. Just to mention some examples, action orientation has been linked to physical and psychological health (e.g. Baumann et al., 2005; Baumann & Quirin, 2006), satisfaction in relationships (e.g. Butler et al., 2003; Gross & John, 2003), high work performance (e.g. Diefendorff, Hall, Lord, & Strean, 2000), and general smooth psychological functioning (e.g. Kuhl, 2001, 2011). In comparison, the repeated preservation in adverse affective states, typical for state-oriented individuals, has been linked to multiple psychological impairments, such as rumination, procrastination, working memory deficits, and an increased risk to develop psychosomatic symptoms (Baumann et al., 2005; Baumann & Quirin, 2006; Jostmann & Koole, 2006; Koole et al., 2005; Kuhl, 2011).

During the last decade, however, there have been increasing doubts whether state orientation is only disadvantageous compared to action orientation. As outlined before, around 50% of the normal, non-clinical population in Western countries, show state-oriented tendencies (Koole et al., 2005). State orientation can therefore be regarded as a common psychological condition. While not all of these 50 % may suffer from psychological impairments, the downside of state orientation becomes evident as soon as people are exposed to stressful life circumstances. The widespread prevalence and limited (short-time) malleability of both state orientation and stress has stimulated research along two interconnected questions. First, with so many people being prone to getting stuck in negative mood, is it possible that state orientation has some advantageous qualities, too? Second, is it possible that some of these potentially protective factors could also represent conditions that
render state orientation a more positive adaption to the social environment than previously expected?

An increasing amount of work has theoretically or indirectly covered these questions (e.g. Baumann et al., 2005; Koole & Jostmann, 2004; Koole & Fockenberg, 2011; Koole et al., 2005; Kuhl & Keller, 2008). For example, in their search for the “hidden benefits of state orientation”, Koole and associates (2005) proposed that state-oriented individuals’ tendency to become preoccupied with potential risks and obstacles might also improve their sensitivity to potential threats. Furthermore, in recent years, considerable practical advisory has addressed protective factors against negative effects of state orientation (e.g. Storch & Kuhl, 2011; Martens & Kuhl, 2004). Most importantly, throughout this growing body of literature, positive social connections and relatedness have emerged as the most promising candidates to reduce the negative effects of state orientation. But despite the importance attached to relatedness with close others – besides real existing social support –, the interaction between self-regulation abilities (i.e. action versus state orientation) and feelings of relatedness on psychological functioning has not been empirically scrutinized, so far.

2. Relatedness

James’ statement (1890, p. 294) that a person has “as many different social selves as there are distinct groups of persons about whose opinion he cares” has impacted research up to date (Damasio, 2010; Hannover, 1997). Indeed, from the beginning of research on what constitutes the self, there has always been an interest in interpersonal aspects of the self (e.g., Aron, Aron, & Smollan, 1992; Baumeister, 1987; Chen, Boucher, & Tapias, 2006; James, 1890) and how individuals define themselves in terms of their relationships to others and to social groups (Fiske, 1993; Fiske & Taylor, 2008; Markus & Kitayama, 1991). Social contexts do not only influence how the self operates (Kühnen, Hannover, & Schubert, 2001; Nisbett & Miyamoto, 2005; Pöhlmann & Hannover, 2006) but are at the core of its construal (Kagitçibasi, 1996, 2005; Markus & Kitayama, 1991, 1994, 2010; Oyserman et al., 2002; Triandis, 2001). In short, relatedness to others is more than just affiliation. The following section provides an overview of the conception and the function of relatedness with others. In the next paragraphs, important aspects of the basic need of feeling related to others and aspects that might contribute to individual differences are reviewed. This is followed by the discussion on situational impacts on feelings of relatedness.
Over the last 30 years, research has used different labels to describe relatedness to others, such as *interdependent, relational, relational interdependent, holistic*, or *connected* (for a review see Chen et al., 2006 or Markus & Kitayama, 1991). The variety of labels does not only mirror the vivid interest in exploring the nature of relatedness, but also accentuates specific facets of relatedness. For instance, Markus and Kitayama (1991) introduced the term *interdependent self-construal* to describe a self-construal in which cognitions, emotions, and behavior are directed towards the maintenance of interpersonal relationships based on the motivation “to find a way to fit in with relevant others” (Markus & Kitayama, 1991, p. 227). Thus, an interdependent self-construal can be regarded as a situational adaption to contextual factors. The construct originally aimed at contrasting typical self-construals of members of non-Western cultures from the independent self-construals of members from Western cultures who experience themselves as unique and separate from others. However, in line with other authors (Singelis, 1994; Triandis, 1989), Markus and Kitayama (1991; 2010) also admit that, albeit the self-construal might be profoundly shaped by culture and exerts an influence on the relative development of various self-other-orientations, independent and interdependent self-aspects can exist independently within each person in any culture (this aspect is further elaborated in Chapter 4).

### 2.1. Relatedness as a Human Condition

The interest in relatedness underpins that the need of connection and belonging to others is a human condition (Baumeister & Leary, 1995; Bowlby, 1982; Deci & Ryan, 2000; Schwartz & Bardi, 2001). Relatedness even seems to be a prerequisite for self-experience, because the self is not fully accessible by introspection, but must involve other people’s reflection of one’s own emotions, cognitions, and behaviors (Cooley, 1902; Mead, 1934; Kohut, 1977; Sedikides & Skowronski, 1997). This is particularly illustrated by observations that during (early) infancy reactions of caretakers to rudimentary self-expression of the child do not only affect the development of emotion-, cognition-, and behavior-patterns, but also fundamentally contribute to shaping later self-regulation abilities (Kuhl, 2001; Kuhl & Keller, 2008).

In adulthood, relatedness remains one of the most important human needs across the lifespan. Maslow (1970), for example, ranked “love and belongingness needs” as more basic than self-esteem or self-actualization needs. Even when people prefer to construe themselves as independent, they might nevertheless value interdependent self-aspects and are able to
activate interpersonal attributes of the self when necessary (Li, 2002; Pöhlmann & Hannover, 2006; Singelis, 1994). Additionally, the need to be connected with significant others can be observed across cultural groups that attach different importance to connectedness with others (Schwartz & Bardi, 2001; Harb & Smith, 2008). Seen from an evolutionary perspective, the connection between the self and social representations within the self are quite reasonable (Baumeister & Leary, 1995; Deci & Ryan, 2000; Schwartz & Bardi, 2001; Sedikides & Skowronski, 1997): Belonging and caring for close others are requirements for cooperation, promotion, and preservation of a social group. By this means, feelings of relatedness might secure the survival and the prosperity of the group.
2.2. Individual, Contextual and Situational Differences in Relatedness

Despite the universal need for relatedness, there are also individual differences in social distance and relatedness within and across societies (Aron, Aron, & Smollan, 1992; Bowlby, 1982; Hofer, Chasiotis, Campos, 2006; Schwartz & Bardi, 2001). Beside specific cultural socialization experiences (this aspect is further elaborated in Chapter 4), the individual developmental history impinges on the need for relatedness (Kuhl & Keller, 2008). In particular, different attachment experiences during childhood affect the need for affiliation and relatedness and are often re-experienced and relived in later relationship with others (Bowlby, 1982; Mikulincer, Florian, & Hirschberger, 2003b). This view is further supported by research on individual differences in personal values. Values guide behavior across situations and shape how individuals arrange their interpersonal relationships (Schwartz, 1992; 1994). Pro-social values, for instance, reflect the importance people place on caring for the welfare of close others, as well as valuing loyalty, honesty, and helpfulness and pro-social values determine the amount of effort people put into becoming close with others. Individual differences in pro-social value orientation might therefore to some extent represent individual differences in attachment security (Mikulincer et al., 2003a; Schwartz, Sagiv, & Boehnke, 2000).

In addition, contextual factors can influence the feeling of relatedness. Over their life course, people go through uncountable situations in which they feel connected or separated with others. However, the amount of knowledge people are principally able to retrieve exceeds human mental capacities so that only a small part can be activated in a given moment (Brewer & Gardner, 1996; Gaertner, Sedikides, & O’Mara, 2008; Kühnen & Hannover, 2010). The degree to which individuals feel related to others is linked to (a) semantic contents (i.e., processing information that matches an independent or interdependent orientation) and (b) the style of information processing (Kühnen & Hannover, 2010; Kühnen et al., 2001; Nisbett, Peng, Choi, & Norenzayan, 2001). As such, contents of cognitions are related to specific procedural modes of information processing (Hannover & Kühnen, 2004; Kühnen, Hannover & Schubert, 2001): A focus on independent aspects of the self supports analytic, context-independent and abstract thinking. In contrast, the activation of relatedness and interdependent aspects of the self fosters a holistic, context-dependent mode of thinking in which objects are seen in their relation to the context (Lin, Lin, & Han, 2007; Miyamato, Nisbett, & Masuda, 2006; Nisbett & Miyamoto, 2005; Oyserman, Sorensen, Reber, & Chen, 2009).
Relatedness as a human condition, a cultural condition, a personal orientation, or as triggered by situational cues is a central construct in the present thesis. Chapters 2 and 3 address personal orientations towards relatedness as assessed by pro-social values and experimental manipulations of cues that prime relatedness. While Chapter 2 investigates chronic relatedness values and situational priming of relatedness separately, Chapter 3 adds complexity by focusing on the interaction between chronic and situational aspects of relatedness. Chapter 4 introduces cultural differences in relatedness that are also in part sketched in the empirical investigation of Chapter 5.

3. Relatedness and Self-Regulation: Contextual Influences on State Orientation

Up to date, self-regulation has mainly been scrutinized in the context of a conception of the self as separated and isolated from its social context. The interaction between relatedness and self-regulation has not directly been investigated, yet. However, based on previous research it is very likely that the experience of relatedness ameliorates the detrimental effects of a poor ability to regulate emotions in a self-reliant manner. Indeed, in recent years, research has started to unpack the profound implications that feeling connected with others has on self-regulation (Finkel & Fitzsimons, 2011; Fitzsimons & Finkel, 2012; Koole et al., 2005).

Supportive conditions can be classified into three categories: experienced social support (3.1), visualizing/imagining supportive contexts (3.2), and feeling related to others (3.3). Their impact on emotional self-regulation has been empirically investigated to varying extents.

3.1. Social Support

Experienced social support has been intensively investigated and has been found to reduce adverse effects of acute stress at psychological and physiological levels (Finkel & Fitzsimons, 2011; Heinrichs, Baumgartner, Kirschbaum, & Ehlert, 2003; Mikulincer et al., 2003b; Uchino, Cacioppo, & Kiecolt-Glaser, 1996). These beneficial effects are particularly pronounced for state-oriented individuals (Jostmann & Koole, 2006; Koole & Jostmann, 2004; Koole & Fockenberg, 2011; Nolen-Hoeksema & Davis, 1999). Whereas action-oriented individuals are capable to volitionally control adverse feelings without external support, state-oriented individuals depend on external support (Koole et al., 2005; Nolen-
Hoeksema & Davis, 1999; Puterman, Delongis, & Pomaki, 2010). When social contexts are perceived as supportive, even extremely critical life events do not impede state–oriented persons’ development (Lepore, Silver, Wortman, & Wayment, 1996; Tedesci & Calhoun, 2004). For instance, mothers with state-oriented symptoms (e.g., rumination) showed better coping after their infants’ death one and a half years later, when they received consolation from others, compared to mothers without (sensitive) social support (Lepore et al., 1996). In a similar vein, Koole et al. (2005) assumed that state-oriented individuals have a high inclination to enter “symbiotic relationship” in which the other partner initiates the regulatory change they are not able to generate on their own.

According to PSI theory, through this indirect route, state-oriented persons regain access to the integrated representations of the self that are stored in extension memory (Koole et al., 2005). In addition, social contexts may directly activate extension memory, for instance, when providing people the experience of a deeper meaning in their actions (Kuhl & Beckmann, 1994; Kuhl & Quirin, 2011). Yet, social connectedness can bear possible disadvantages for state-oriented individuals, too. For example, the openness for social connections renders state-oriented individuals more sensitive to social expectations than action-oriented individuals (Baumann & Kuhl, 2003; Koole et al., 2005; Righetti, Finkenauer, & Finkel, in press): Under stressful conditions (and increased difficulties to access integrated self-representations), in particular, they become susceptible to introject social expectations (Baumann & Kuhl, 2003; Kazén, Baumann, & Kuhl, 2003). Unaware of the self-alien nature of these introjections, state-oriented individuals might then adopt external goals, expectations, standards, and values even if these do not match with their integrated needs and desires.

3.2. Visualizing Supportive Contexts

In recent years, social psychological research has shown that personal relationships can influence self-regulation even in the absence of real experiences of support (Finkel & Fitzsimons, 2011; Fitzsimons & Finkel, 2010). For example, when participants are told that a specific goal is valued by a close partner they are more efficient in channeling their emotions to pursue such a goal (Fitzsimons & Bargh, 2003; Gore & Cross, 2006; Shah, 2003). Similarly, visualizing an accepting (vs. demanding) person/context has been found to prevent stress-related impairments among state-oriented individuals as indicated by levels of emotional recovery, motive-goal congruence, and performance that was comparable to their
action-oriented counterparts (Baumann et al., 2005; Jostmann & Koole, 2006; Koole & Jostmann, 2004; Koole & Fockenberg, 2011).

3.3. Relatedness

There is a significantly positive relationship between state orientation and relatedness (Olvermann, Metz-Göckel, Hannover, and Pöhlmann, 2004) indicating that they have some overlap. Despite this overlap, there are conceptual differences between the two constructs. Due to a stress-contingent inhibition of the self, state-oriented individuals are more likely to introject social expectations and to feel pressured by others (Baumann & Kuhl, 2003; Kazén et al., 2003). In contrast, individuals who value relatedness are more likely to integrate social expectations of important others into the self and to experience harmony with others (van Horen, Pöhlmann, Koeppen, & Hannover, 2008). Further support for this reasoning can be drawn from psychobiological research showing that the stress-contingent responses observed in state-oriented individuals are associated with an elevated activation of the biological stress-system (Lupien & Lepage, 2001; Quirin, Baumann, Kazén, Kuhl, & Koole, 2009), whereas the activation of supportive contexts is linked to physical anxiolytic and anti-stress reactions (Heinrichs et al., 2003; Uvnäs-Moberg & Magnusson, 2005). Taken together, accumulating evidence points to a protective function of relatedness against negative effects of state orientation. But up to date, these assumptions have been on a speculative sphere derived from findings of the positive functions of actual support and visualizing supportive contexts.

4. The Present Studies: State Orientation in the Context of Relatedness

After this general introduction into the field of relatedness and self-regulation, the following two chapters focus more specifically on the interaction between state orientation and relatedness and provide first empirical tests. As Chapters 2 and 3 are two independent articles, the reflections and argumentation of this introductory chapter will reiterate at some point. Additionally, considering the wide range of unsolved questions, the empirical

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3 Although interdependent values of harmony can be adopted for many different reasons, integration does occur way more often than introjection (Chirkov, Ryan, Kim, & Kaplan, 2003). In contrast, introjection is the default in state-oriented individuals under stress.
investigations focus on specific aspects of the moderating role of relatedness on effects of state orientation that are investigated from different angles.

Drawing on social cognition as well as cross-cultural personality research, in Chapters 2 and 3, I argue that relatedness as a contextual factor within the self can buffer negative effects of state orientation. Based on this abstract idea, Chapter 2 focuses on the interaction between state orientation, relatedness, and stress. In particular, based on prior observations that visualizing an accepting person supports emotional recovery and self-access among state-oriented individuals under stress (Baumann et al., 2005; Koole & Fockenberg, 2011; Koole & Jostmann, 2004), relatedness was expected to play a crucial role to attenuate stress and negative mood. Chapter 2 presents two studies that aim at testing this assumption. Relatedness is either assessed as a chronic value orientation or situationally activated through priming. Chapter 3 presents two additional studies that further elaborate on the interaction between chronic and temporary feelings of relatedness among state-oriented individuals.

Taken together, the four studies represented in Chapter 2 and 3 were designed to answer the following questions: (1) Does relatedness buffer negative effects of state orientation under stress? and (2) Does an emphasis on relatedness (i.e., expressed as a pro-social value orientation) among state-oriented individuals increase the openness to perceive situational cues of relatedness (i.e. priming for similarities with a close other) as supportive?
Chapter 2

You are not alone: Relatedness reduces adverse effects of state orientation on well-being under stress*

Abstract

A low ability to self-regulate emotions (state-orientation) is associated with reduced well-being – especially under stress. Until now, research has approached this topic from an asocial perspective that views the self as devoid from relatedness concerns. However, people are social creatures who benefit from their relationships with others. As such, we expected that personally valuing (Study 1) and experimentally priming (Study 2) a sense of relatedness with others would act as a buffer against stress-related impairments in state-oriented individuals. In Study 1, high (vs. low) benevolence values removed the adverse effect of state orientation on well-being found under stressful life circumstances. In Study 2, focusing on similarities (vs. differences) while comparing oneself with a friend removed the adverse effect of state orientation on recovery from a negative mood induction. Our findings suggest that individuals with low self-regulatory competencies may profit from valuing and directing their attention toward their relatedness with others.

Keywords: state orientation, relatedness, values, benevolence, priming
1. **Introduction**

Imagine that you have put all your effort into doing a good job only to learn that your hard work was done in vain. How would you react? Would you push away your negative thoughts and begin a different task? Or would you find it difficult to do anything at all for the foreseeable future? Whereas the first response is typical of individuals who are effective at self-regulating their emotions (i.e., action-oriented individuals), the second response is typical of individuals who have trouble coping with negative emotions (i.e., state-oriented individuals). However, there may be a way for the latter group to reduce the risk of losing themselves in their negative emotions. Namely, state-oriented individuals could draw upon a feeling that they are (at least hypothetically) not alone to buffer themselves from the negative effects of dealing with a trying situation.

Emotional self-regulation is the ability to increase, maintain, or decrease positive and negative emotions by oneself and constitutes a major building block for many aspects of psychological functioning (Koole, 2009). Research on the adverse consequences of low self-regulation (i.e., state orientation) has viewed the self primarily as an entity detached from the social world. Research on social cognition, however, suggests that individuals often perceive themselves as being inseparably connected to their immediate social environment (Brewer & Gardner, 1996; Markus & Kityama, 1991, 2010; Oyserman, Coon, & Kemmelmeier, 2002; Trafimow, Triandis, & Goto, 1991). In recent years, research has started to unpack the profound implications that feeling connected with others has on the self-regulation of one’s emotions (e.g., Fitzsimons & Finkel, 2010; Koole, Kuhl, Jostmann, & Vohs, 2005).

The present paper seeks to integrate and extend these lines of research by examining the interaction between self-regulation and feeling connected with close others (i.e., feelings of relatedness). In the following paragraphs, we will elaborate on individual differences in self-regulation, discuss factors that influence an orientation towards relatedness, and state our hypotheses concerning their interactive effect on well-being.
1.1. State and Action Orientation

State versus action orientation describes individual differences in the ability to self-regulate emotions. Action orientation after failure (AOF) captures people’s ability to (a) effortlessly (and intuitively) down-regulate negative emotions, (b) disengage from ruminations about failure, and (c) retain the capability to act even when faced with obstacles. By contrast, state orientation after failure (i.e., low AOF) describes people’s inability to exert volitional control over aversive affective states. Given that “up to 50 % of the normal, non-clinical population in Western countries may be predisposed towards state orientation” (Koole et al., 2005, p. 218), state orientation is a common psychological condition. While not all of these 50 % suffer from psychological impairments, the downside of state orientation becomes evident as soon as people are exposed to stressful life events.

More than 30 years of research demonstrate the multiple psychological impairments state-oriented individuals experience when confronted with stressful life events: They suffer from alienation, rumination, procrastination, a tendency to strive for unwanted goals, performance decrements, psychosomatic symptoms, and impaired well-being (Baumann, Kaschel, & Kuhl, 2005, 2007; Koole & Jostmann, 2004; Kuhl, 1981, 2000, 2001). Because of the widespread prevalence and limited malleability of both state orientation and stressful life events, it is important to examine the factors that can provide a buffer against the negative effects of their co-occurrence. In contrast to other emotion regulation strategies such as suppression and reappraisal (Butler, Lee, & Gross, 2007; Mascolo & Bhatia, 2002; Matsumoto et al., 2008), action orientation refers to people’s ability to actively cope with negative emotions in a self-reliant (rather than avoidant) manner (Koole, 2009; Koole & Jostmann, 2004; Kuhl, 2001; Kuhl & Koole, 2008).

It is possible, however, that self-regulation represents a path towards well-being that is more important in independent contexts than in contexts that emphasize relatedness (Koole et al., 2005; Kuhl & Keller, 2008). If this were the case, then low competencies in self-regulation (state orientation) should be followed by more severe psychological consequences when the uniqueness of a person is highly valued than when the focus is on a person’s relatedness with others. In line with this reasoning, research suggests that contextual factors have a substantial impact on self-regulatory outcomes. For example, emotional support under relatively undemanding conditions has been shown to reduce the adverse effects associated with state orientation (e.g., Baumann et al., 2005; Koole & Jostmann, 2004; Koole & Fockenberg, 2011; Koole et al., 2005; Koole, Jostmann, & Baumann, 2012; Kuhl &
Keller, 2008; Nolen-Hoeksema & Davis, 1999). The representation of contextual factors within the individual, however, has rarely been investigated in the context of self-regulation.

1.2. Relatedness

Individuals differ in the degree to which they value relationships with others and/or their social groups (Brewer & Gardner, 1996; Markus & Kitayama, 1991, 2010; Trafimow et al., 1991). Personal values are particularly important in shaping how individuals arrange their interpersonal relationships, as well as determining the amount of effort they put into becoming close with others. According to Schwartz’ value theory (1992, 1994), values represent affect-laden beliefs that guide the selection and evaluation of actions, people, and events. Although values are profoundly shaped by culture, people within a given culture hold a range of values that vary in their strength and importance (e.g., Bardi & Schwartz, 2003; Bilsky & Schwartz, 1994; Schwartz, 2011). That is, value orientations are rooted in rather specific cultural socialization experiences which, in turn, contribute to large within-culture value differences (Schwartz, 2011; Schwartz & Bardi, 2001).

Most relevant for our purposes is the value of benevolence. Specifically, benevolence represents the importance that people place on caring for the welfare of close others, as well as valuing loyalty, honesty, and helpfulness. Referring to Maslow’s theory of needs (1955), Bilsky and Schwartz (1994) suggested that growth needs such as benevolence are associated with well-being because benevolent-related attitudes and behaviors support the realization of personal and interpersonal goals. Furthermore, benevolence may be conceived of as an internal representation of supportive socialization experiences (Schwartz, 2011). Therefore, it is likely that placing high importance on benevolence could, at least to some extent, counteract the negative effects that self-regulation deficits have on various outcomes.

Beyond socialization experiences, situational (i.e., contextual) cues can affect which aspects of ones self-cognitions are likely to be activated in a specific moment. In other words, individuals can switch between focusing on attributes that either separate them from, or connect them with, others. Indeed, experimental priming studies demonstrate that situational circumstances can facilitate (or impede) a person’s orientation toward relatedness (e.g., Hannover & Kühnen, 2002; Kühnen, Hannover, & Schubert, 2001; Kühnen & Oyserman, 2002; Na & Choi, 2009; Oyserman, Sorensen, Reber, & Chen, 2009; Pöhlmann & Hannover, 2006; Trafimow et al., 1991). However, priming procedures have rarely been systematically used to investigate the effect that differing social orientations have on self-regulation outcomes (for a notable exception, see Kühnen & Hannover, 2010).
1.3. State Orientation and Relatedness

Several approaches have been used to study how the activation of representations of close relationships interacts with self-regulation (e.g., Fitzsimons & Bargh, 2003; Iyengar & Lepper, 1999). For example, Shah (2003) found that priming representations of significant others can influence the evaluation of goals and goal-directed actions. Specifically, participants primed to think of others who were confident in their abilities felt more capable of solving a difficult task than did participants in a control condition.

Other investigations have directly scrutinized the differential impact of supportive contexts on self-regulation for state- versus action orientation (Jostmann & Koole, 2006; Koole & Jostmann, 2004; Koole & Fockenberg, 2011; Nolen-Hoeksema & Davis, 1999). For instance, Koole and Fockenberg (2011) demonstrated that, after visualizing a relaxing period of life, state-oriented participants showed better self-regulation of aversive feelings than did similar participants who visualized a demanding period of life. Moreover, in comparison with state-oriented participants, action-oriented participants were more effective at self-regulating aversive feelings when thinking about a demanding period in their life.

To summarize, although previous approaches have found that contextual factors affect self-regulation abilities, the direct impact of relatedness on well-being among state- and action-oriented individuals has never been studied. Nevertheless, previous research strongly suggests that valuing (or priming thoughts of) one’s relatedness with others may help state-oriented individuals buffer the negative psychological outcomes that emerge when they are placed under stress (Cross, Bacon, & Morris, 2000; Koole et al., 2005).

We designed two studies to investigate the effect that variations in relatedness have on the relationship between state orientation and well-being. In Study 1, we concentrated on natural variations in benevolence (i.e., a value associated with relatedness) and perceived stress. In Study 2, we experimentally manipulated an orientation toward relatedness via a standard priming technique and tested its effects on recovery from a subsequent negative (vs. neutral) mood induction. In both studies, we predicted a moderating effect of relatedness: Under conditions of low relatedness, we expected to replicate the disadvantageous effect of state (relative to action) orientation on well-being observed when people are under stress. Under conditions of high relatedness, in contrast, we expected the adverse effect of state orientation on well-being under conditions of stress to be substantially muted. When stress levels are low, however, the differential effects of self-regulation competencies (i.e., state-vs. action-orientation) on well-being were expected to be less profound (or even absent).
2. Study 1

In Study 1, we investigated the effects of natural variations in benevolence among a sample of psychology undergraduates in the USA. Benevolence represents a desire to achieve closeness and relatedness. As such, we predicted that placing high importance on benevolence would help state-oriented individuals cope with their stressful life circumstances and, therefore, experience relatively high levels of well-being. In contrast, we predicted to replicate the adverse effects of stress on well-being among state-oriented individuals who place little importance on benevolence.

2.1. Participants

One hundred and fifty-one psychology undergraduates (118 women and 33 men) from the University of California, Los Angeles, voluntarily participated in an online survey comprising a series of questionnaires. Forty-seven participants were born outside the USA (5 China, 1 Hong Kong, 2 India, 5 Iran, 1 Japan, 1 Korea, 4 Mexico, 1 Philippines, 2 Russia, 2 South Korea, 3 Taiwan), but all grew up in the USA. Participants received course credit in return for their participation.

2.2. Materials

2.2.1. Action Orientation after Failure (AOF)

From the Action Control Scale (ACS; Kuhl, 1994), the failure-related dimension of action orientation (AOF) was used to assess the ability to down-regulate negative affect following a failure. The AOF dimension of the scale consists of 12 items. An example item is “When I am told that my work has been completely unsatisfactory: (a) I don’t let it bother me for too long, or (b) I feel paralyzed”. In this example, option “a” reflects the action-oriented response alternative and option "b" reflects 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 lower action orientation (i.e., state orientation) and higher scores indicating higher action orientation. In the present sample, the internal consistency (Cronbach's alpha) of the AOF scale was $\alpha = .71$.

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4 Seventeen participants clicked through the Online-Survey in less than five minutes and were not included in the present sample.
2.2.2. Value Orientation

The Portrait Value Questionnaire (PVQ; Schwartz et al., 2001) was used to assess individual value orientation. 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 are asked to indicate how much the (gender-matched) person depicted in each description resembles him- or herself on a 6-point scale (1 = “very much like me”; 6 = “not like me at all”). Benevolence ($\alpha = .82$) was calculated by averaging the basic values of loyalty (e.g., “It is important to her to be loyal to her friends”; “She wants to devote herself to people close to her”), helpfulness (e.g., “It is very important to help the people around her”; “She wants to care for their well-being”) and forgivingness (e.g., “Forgiving people who have hurt her is important to her”).

2.2.3. Perceived Stress

The perception of stressful life circumstances was assessed with the threats subscale from the short version of the Self-Regulation-Inventory (SRI-K3; Kuhl & Fuhrmann, 1998). Participants were asked to indicate how much each statement applies to them on a four-point scale (1 = “not at all”; 4 = “completely”). The four threat items (“There have been many changes in my life, which I need to cope with”; “I must deal with big changes in my life”; “Recently, I have had a lot of trouble”; “I must adjust to completely new life circumstances”) were summed to form a single measure of perceived stress ($\alpha = .89$).

2.2.4. Well-Being

Subjective well-being was measured with the WHO-Five Well-Being Index (WHO, 1998). Participants were asked to rate their well-being over the last two weeks on a 6-point scale (1 = “at no time”; 6 = “all of the time”). The five items (During the last two week: “I have felt cheerful and in good spirits”; ”I have felt calm and relaxed”; “I have felt active and vigorous”; “I woke up feeling fresh and rested”; “my daily life has been filled with things that interest me”) were summed to form a single measure of well-being ($\alpha = .89$).
2.3. Results

2.3.1. Descriptives and Correlations

Table 1 gives an overview of the descriptive results and correlations among our study variables. There was a marginally significant positive correlation between action orientation and age. In addition, there was a significant negative correlation between gender and benevolence indicating that men expressed lower levels of benevolence than women. Therefore, we controlled for age and gender in our subsequent analyses.

Table 1

Descriptives and Bivariate Correlations (Spearman) Between Variables in Study 1

<table>
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<th>M</th>
<th>SD</th>
<th>Scale Range</th>
<th>Observed Range</th>
<th>(2)</th>
<th>(3)</th>
<th>(4)</th>
<th>(5)</th>
<th>Gender^a</th>
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</thead>
<tbody>
<tr>
<td>(1) Action</td>
<td>4.95</td>
<td>2.82</td>
<td>0 - 12</td>
<td>0 - 12</td>
<td>-.14</td>
<td>-.15</td>
<td>.16 *</td>
<td>.15</td>
<td>.10</td>
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<td>Orientation</td>
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<td>(2) Benevolence</td>
<td>4.85</td>
<td>.84</td>
<td>1 - 6</td>
<td>1.25 – 6</td>
<td>-.01</td>
<td>.19 *</td>
<td>-.03</td>
<td>-.36 ***</td>
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<tr>
<td>(3) Perceived</td>
<td>8.90</td>
<td>3.43</td>
<td>4 - 16</td>
<td>4 - 16</td>
<td>-.39 ***</td>
<td>.08</td>
<td>.09</td>
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<tr>
<td>Stress</td>
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<td></td>
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<tr>
<td>(4) Well-being</td>
<td>19.38</td>
<td>5.14</td>
<td>5 - 30</td>
<td>5 - 30</td>
<td>-.11</td>
<td>-.05</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(5) Age</td>
<td>21.09</td>
<td>3.96</td>
<td>18 - 52</td>
<td></td>
<td>-.01</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

^a female = 1; male = 2

* p < .05  ** p < .01  *** p < .001
2.3.2. Regression Analysis and Well-being

To test our prediction, a hierarchical regression analysis was conducted on subjective well-being. Age and gender were entered in step 1, AOF, benevolence, and stress in step 2, the two-way interactions in step 3, and the three-way interaction in step 4. Following Aiken and West’s (1991) recommendations, we centered our predictor variables before calculating their interaction terms. The results are summarized in Table 2.

Results indicated that there were significant main effects of AOF ($\beta = .20, t(145) = 2.87, p < .01$), benevolence ($\beta = .22, t(145) = 2.85, p < .01$), and stress ($\beta = -.36, t(145) = -4.92, p < .001$). Higher action orientation, stronger valuation of benevolence and lower perceived stress were associated with higher well-being. More importantly, there was a significant AOF x Benevolence x Stress interaction, $\beta = .17, t(141) = 2.05, p < .05$. Figure 1 illustrates this three-way interaction effect.

When perceived stress was low, there was no significant relationship between AOF and well-being. Simple slope analyses yielded no significant effects of AOF for participants low in benevolence ($\beta = 1.04, t = 1.18, ns$), nor among participants who were high in benevolence ($\beta = 1.09, t = 1.53, ns$). In contrast, when perceived stress was high, simple slope analyses yielded a significant effect of AOF on well-being for participants low in benevolence, $\beta = 2.39, t = 2.86, p < .005$. However, there was no significant effect of AOF on well-being for participants high in benevolence, $\beta = -.59, t = -.99, ns$. The slope difference test between these latter two conditions was highly significant, $t = -3.04, p < .003$. These findings are consistent with our hypothesis that benevolence buffers state-oriented individuals from the negative effects of stress on well-being.
Table 1

*Hierarchical Regression Analyses Predicting Well-Being in Study 1*

<table>
<thead>
<tr>
<th></th>
<th>Δ$R^2$</th>
<th>β</th>
</tr>
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<tbody>
<tr>
<td><strong>Well-Being</strong></td>
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<td></td>
</tr>
<tr>
<td>Step 1</td>
<td>.01</td>
<td></td>
</tr>
<tr>
<td>Age</td>
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<td>-.11</td>
</tr>
<tr>
<td>Gender</td>
<td></td>
<td>-.05</td>
</tr>
<tr>
<td>Step 2</td>
<td>.22***</td>
<td></td>
</tr>
<tr>
<td>Action Orientation (AOF)</td>
<td></td>
<td>.20**</td>
</tr>
<tr>
<td>Relatedness</td>
<td></td>
<td>.22**</td>
</tr>
<tr>
<td>Stress</td>
<td></td>
<td>-.36***</td>
</tr>
<tr>
<td>Step 3</td>
<td>.02</td>
<td></td>
</tr>
<tr>
<td>AOF x Relatedness</td>
<td></td>
<td>-.11</td>
</tr>
<tr>
<td>AOF x Stress</td>
<td></td>
<td>.01</td>
</tr>
<tr>
<td>Stress x Relatedness</td>
<td></td>
<td>-.11</td>
</tr>
<tr>
<td>Step 4</td>
<td>.02*</td>
<td></td>
</tr>
<tr>
<td>AOF x Relatedness x Stress</td>
<td></td>
<td>-.17*</td>
</tr>
<tr>
<td>Total $R^2$</td>
<td>.28***</td>
<td></td>
</tr>
<tr>
<td>N</td>
<td>151</td>
<td></td>
</tr>
</tbody>
</table>

* p < .05  ** p < .01  *** p < .001
2.4. Discussion

In Study 1, we assessed participants’ endorsement of benevolence in order to capture their natural orientation towards relatedness. Consistent with our hypothesis, higher stress was associated with reduced well-being for state-oriented individuals who devalued benevolence. In contrast, state-oriented individuals who highly valued benevolence reported levels of well-being that were comparable to their action-oriented counterparts, despite both groups reporting high levels of stress. Thus, the results of Study 1 provide preliminary support for our hypothesis that an orientation towards relatedness may reduce the adverse effects of stress in state-oriented individuals. However, because these findings are based on correlational data, inferences about the causal direction of our results must be made with caution. It is possible, for example, that higher levels of well-being lead people to feel more closely connected with others. In this case, benevolence would be the result – rather than the cause – of well-being. Therefore, Study 2 utilizes an experimental approach to examine the causal effect of relatedness on state-oriented individuals’ ability to recover from a negative mood induction.
3. Study 2

Whereas values grasp longer-lasting orientations, situational contexts can also influence the accessibility of specific orientations (e.g., Brewer & Gardner, 1996; Higgins & Bargh, 1987; Hannover & Kühnen, 2002). In Study 2, we experimentally primed relatedness in a sample of psychology undergraduates in Germany by asking participants to write about similarities (vs. differences) between themselves and a friend (Trafimow et al., 1991). The similarity condition has been repeatedly shown to be very effective at priming collective self-cognitions (Oyserman & Lee, 2008; Trafimow et al. 1991). The label “collectivistic” is ambiguous, however, because it confounds high relatedness with low autonomy (Kagitcibasi, 2005). According to Kagitcibasi (2005), a collectivistic orientation is indeed associated with high relatedness but can vary on the dimension of autonomy. Thus, priming for similarities can be better conceived of as increasing the accessibility of relatedness (rather than collectivism).

Because a state orientation is only disadvantageous under stressful and negative conditions, we also experimentally induced a negative (vs. neutral) mood. We expected that state-oriented (compared to action-oriented) participants would show impaired recovery from a negative mood induction after priming for differences (i.e., low relatedness). In contrast, we expected that state-oriented participants would show a mood recovery effect similar to their action-oriented counterpart after priming for similarities (i.e., high relatedness). No differential effects of priming were expected to emerge for state- versus action-oriented participants in the neutral mood condition.

3.1. Participants

One hundred and fifty-two psychology undergraduates (117 women and 35 men) from the University Trier, Germany, voluntarily participated in the experiment and received course credit in return for their participation. Their mean age was 22.17 years (range 18-30 years).

3.2. Materials

3.2.1. Momentary Mood

To assess participants’ mood during the experiment, we used a mood adjective-checklist similar to the PANAS (Watson, Clark, & Tellegen, 1988). 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 affect was assessed by nine items (helpless, puzzled, inhibited, listless, sad, anxious, tense, worried, distressed). In the present sample, the internal consistency of the mood scale was $\alpha = .78$.

### 3.2.2. Action Orientation after Failure (AOF)

As in Study 1, the failure-related dimension (AOF) of the Action Control Scale (ACS; Kuhl, 1994) was used. In the present sample, the AOF scale had an internal consistency of $\alpha = .78$.

### 3.2.3. Priming

An orientation towards relatedness was primed using the Similarities and Differences with Family and Friends Task (SDFF) developed by Trafimow et al. (1991). Specifically, participants were asked to write down either everything that makes them different from their friend (difference priming) or everything they have in common with their friend (similarity priming). Our study differed from the original task developed by Trafimow et al. (1991), however, in that participants did not come to the experiment alone. Rather, participants were asked to arrive at the study with a good friend. Furthermore, they were specifically told to compare themselves with their accompanying friend (instead of between themselves and the amorphous statement of “friends and family”). In this way, the concept of relatedness was expected to be particularly salient for participants in this study.

### 3.2.4. Mood Induction

In order to induce different mood states, one of two seven-minute film sequences were presented. In the negative mood condition, the film contained a report about the terrible living conditions of orphaned children living in a Romanian orphanage (Aust, 1995). This film sequence has been used as an effective mood induction in prior research (e.g., Baumann & Kuhl, 2003). In the neutral mood condition, the film contained a report and interviews with experts about the use of solar energy (Fareski, 2010). Thus, both film sequences are comparable in regard to social interactions that are shown and the style of reporting.

### 3.3. Procedure

The experiment was conducted in group sessions with two to eight participants simultaneously. Before arriving for the study, participants were asked to bring a good friend with them to the experiment. In all cases, participants brought friends who were fellow
students. As such, course credit was equally relevant for all participants. Once they arrived, participants were seated in separate, non-adjacent, cubicles and asked to work on their own. Thus, pairs of friends did not interact with each other during the study.

Participants first completed an initial mood rating (T1), followed by the AOF scale and the SDFF priming procedure. For the SDFF, participants were instructed to refer to their accompanying friend after being randomly assigned to one of two priming conditions. Specifically, participants were asked to enter either all of the differences, or all of the similarities, between themselves and their accompanying friend. Participants were instructed to list everything that came to mind and were able to enter this information in a textbox displayed on their computer screen.

After completing the SDFF, participants were randomly assigned to one of two (negative vs. neutral) mood conditions. Priming and mood conditions were balanced across participants. After watching the film sequences, participants rated their momentary mood a second time (T2). They were then asked if they had any assumptions about the purpose of the experiment. Finally, participants were debriefed and received course credits in return for their participation.

The experimental session lasted between 30 and 40 minutes. Because the main purpose of this study was to investigate the differential effects of the relatedness prime on mood recovery for state- and action-oriented participants, we did not consider the effects of pairs of friends.

3.4. Results

3.4.1. Initial Group Differences

The four experimental groups did not differ in their initial mood ($F(1, 148) = 0.43, ns$), AOF ($F(1, 148) = 1.01, ns$), age ($F(1, 148) = 0.97, ns$), or gender ($\chi^2(3, N = 152) = 0.67, ns$). To further test for baseline differences in initial mood, a hierarchical regression analysis was conducted on mood at T1. Centered AOF scores, priming (-1 = differences, 1 = similarities), and mood induction (-1 = neutral, 1 = negative) were entered in step 1, all two-way interactions in step 2, and the AOF x Priming x Mood Induction interaction in step 3. Results indicated only a marginally significant main effect of AOF on initial mood, $\beta = -.16$, $t(148) = -1.97, p < .055$. There were no main or interaction effects for priming and mood induction, which indicates that there were no initial differences between experimental conditions for these baseline measures.
3.4.2. Regression Analyses on Negative Affect

To test our hypothesis, a hierarchical regression analysis was conducted on mood at T2. Age, gender and initial mood (T1) were entered in step 1, centered AOF scores, priming (-1 = differences, 1 = similarities), and mood induction (-1 = neutral, 1 = negative) in step 2, all two-way interactions in step 3, and the AOF x Priming x Mood Induction interaction in step 4. Results are listed in Table 3.

Results indicated that there were significant main effects of initial mood ($\beta = .52$, $t(148) = 7.43, p < .001$), AOF ($\beta = -.22$, $t(147) = -3.12, p < .01$), and mood induction ($\beta = .33$, $t(147) = 5.16, p < .001$). More importantly, there was a significant AOF x Priming x Mood Induction interaction ($\beta = .18$, $t(141) = -2.69, p < .01$). This three-way interaction effect is illustrated in Figure 2. The AOF x Priming x Mood Induction interaction remained significant when removing baseline mood, age, and gender from our regression model ($\beta = .21$, $t(144) = 2.64, p < .01$).

In the neutral mood induction condition, there was no significant relationship between AOF and mood recovery. Simple slope analyses yielded no significant effects of AOF for participants primed for differences ($\beta = -.07$, $t = -.45, ns$), nor among participants primed for similarities ($\beta = -.45$, $t = -1.90, ns$). In contrast, in the negative mood induction condition, simple slope analyses yielded a highly significant effect of AOF on mood recovery for participants primed for differences, $\beta = -.50$, $t = -3.95, p < .001$. However, there was no significant effect of AOF on mood recovery for participants primed for similarities, $\beta = .09$, $t = .50, ns$. The slope difference test between these latter two conditions was significant, $t = 2.76, p < .01$. These findings are consistent with our hypothesis that priming for similarities helps state-oriented participants recover from a negative mood.
Table 2

*Hierarchical Regression Analyses Predicting Changes in Negative Affect in Study 2*

<table>
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<tr>
<th>Step</th>
<th>( \Delta R^2 )</th>
<th>( \beta )</th>
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</thead>
<tbody>
<tr>
<td>Step 1</td>
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<td>.04</td>
</tr>
<tr>
<td>Age</td>
<td></td>
<td>-.04</td>
</tr>
<tr>
<td>Gender</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Negative Affect T1</td>
<td>.52***</td>
<td></td>
</tr>
<tr>
<td>Step 2</td>
<td>.16***</td>
<td></td>
</tr>
<tr>
<td>Action Orientation (AOF)</td>
<td>-.22**</td>
<td></td>
</tr>
<tr>
<td>Relatedness(^a)</td>
<td>.07</td>
<td></td>
</tr>
<tr>
<td>Stress(^b)</td>
<td>.32***</td>
<td></td>
</tr>
<tr>
<td>Step 3</td>
<td>.01</td>
<td></td>
</tr>
<tr>
<td>AOF x Relatedness</td>
<td>.07</td>
<td></td>
</tr>
<tr>
<td>AOF x Stress</td>
<td>-.05</td>
<td></td>
</tr>
<tr>
<td>Stress x Relatedness</td>
<td>-.04</td>
<td></td>
</tr>
<tr>
<td>Step 4</td>
<td>.03**</td>
<td></td>
</tr>
<tr>
<td>AOF x Relatedness x Stress</td>
<td>.18**</td>
<td></td>
</tr>
<tr>
<td>Total ( R^2 )</td>
<td>.47***</td>
<td></td>
</tr>
<tr>
<td>( N )</td>
<td>152</td>
<td></td>
</tr>
</tbody>
</table>

* \( p < .05 \)  ** \( p < .01 \)  *** \( p < .001 \)
3.5. Discussion

In Study 2, we induced an orientation towards relatedness by priming for similarities (vs. differences) and investigated its effects on recovery from a negative (vs. neutral) mood induction. In the difference condition, we replicated earlier work showing that action-oriented participants can down-regulate negative emotions better than state-oriented individuals (e.g., Baumann et al., 2005, 2007; Baumann & Kuhl, 2002; Koole & Jostmann, 2004). As expected, however, state- and action-oriented participants did not differ in their ability to recover from a negative mood induction when asked to think about the similarities between themselves and a close friend. Thus, focusing on aspects of relatedness helped state-oriented participants regulate the negative affect elicited by a sad movie.

Study 2 replicated and extended the findings in Study 1 in three important ways. First, we experimentally manipulated an orientation towards relatedness via a priming procedure. Thus, we were able to demonstrate the causal role of relatedness on well-being. Second, we temporarily changed the focus of people’s orientations. Thus, relatedness does not merely
produce buffering effects via chronic value orientations, but rather, can be temporarily activated by cues in the environment. Third, we manipulated stress experimentally. Thus, feeling related and connected with others is not just the outcome of relaxed life circumstances, but rather, can serve as a real buffer for state-oriented participants who experience acute stress (e.g., negative mood inductions and/or feelings of helplessness).

4. General Discussion

In two studies, we investigated the moderating role of relatedness on the relationship between self-regulation and stress-contingent differences in subjective well-being. We expected that an orientation towards relatedness would buffer individuals from the adverse effects that having a state orientation has on well-being under conditions of stress. Our results from Study 1 confirmed that state orientation, in conjunction with endorsement of benevolent values (e.g., responding to the needs of others and support those one knows), was associated with elevated levels of well-being within the context of stressful life circumstances. In a similar vein, our results from Study 2 showed that priming for similarities buffered state-oriented participants from the negative effects that watching a sad film sequence had on their moods. Taken together, the results of Studies 1 and 2 confirm our hypothesis that state-oriented individuals profit from contexts that foster relatedness.

A particular strength of the present research is that we obtained converging results with two different ways of operationalizing relatedness (personal values of benevolence and priming for similarities between self and a close friend) that varied by duration (stable values vs. short-lived priming effects) and scope (content vs. accessibility of self-cognitions). In addition, our results are consistent across two different study designs (correlational and experimental), two different cultures (USA and Germany), and two different self-regulatory outcomes (subjective well-being and affective response to an experimentally induced stressor). This methodological convergence increases confidence in the robustness of our results.

Until now, the impact that feeling interconnected with one’s social environment has on the relationship between state (versus action) orientation and well-being has only been briefly discussed in the literature (for a notable exception, see Koole et al., 2005). Moreover, to the best of our knowledge, this topic has never been subjected to empirical scrutiny. Thus, our studies are the first to empirically demonstrate the buffering effect of relatedness for individuals with self-regulatory deficits. Moreover, our findings suggest that relatedness can buffer individuals from the adverse effects a state orientation has on multiple self-regulatory
outcomes. Furthermore, contexts promoting relatedness do not necessarily have to change one’s core set of personal values. Rather, Study 2 demonstrated that simply reminding someone of his/her similarities with others (“you’re not alone”) can sufficiently compensate for low self-regulatory competencies.

5. Limitations and Future Perspectives

Because this research represents the early stages of a broad program of research, there are many questions open for future research. First, in the investigation of variation in the importance of relatedness, we included only WEIRD (Western, Educated, Industrialized, Rich, and Democratic) samples. Non-student samples and a broader range of cultural contexts are needed to draw conclusions about the generalizability of our findings. It is conceivable that, in more collectivistic cultures, a higher tendency towards state orientation will be found – albeit without the impairments observed in individualistic cultures under stressful conditions (Kuhl & Keller, 2008). Moreover, such cultural contexts may not only compensate for self-regulatory deficits, but they could also show that a state orientation is better-suited (relative to an action orientation) to embed the individual in his/her social context.

Second, experimentally varying the accessibility of different self-cognitions can mirror cross-cultural differences in the content of these thoughts, as well as the processes underlying them (Oyserman & Lee, 2008; Oyserman et al., 2009). At the same time, priming offers the advantage of reducing potential confounds that tend to limit the utility of cross-cultural comparisons (for a review, see Hofstede & Hofstede, 2006; Oyserman & Lee, 2008). Indeed, priming effects can be demonstrated across many different parts of the world (Gardner, Gabriel, & Lee, 1999; Oyserman & Lee, 2008; Oyserman et al., 2002, 2009). Nevertheless, our present data cannot rule out the possibility that a chronic cultural orientation could interfere with the priming of specific attributes of the self that are incongruent with a given chronic orientation (e.g., Pöhlmann & Hannover, 2006). Moreover, the Western conception of relatedness might be slightly different from the collectivistic idea of relatedness (Cross et al., 2000; Markus & Kitayama, 2010).

Third, asking participants to produce a list of differences (vs. similarities) between themselves and close others alludes to explicit cognitions about oneself. That is, the individual consciously retrieves information that seems relevant in the moment. However, we do not know the extent to which unconscious, automatic, and intuitive parts of the self (i.e., the implicit self) are involved when explicit self-cognitions are measured. Priming
methods that do not directly aim to emphasize differences or similarities (e.g., the letter identification task (Pöhlmann & Hannover, 2006), the pronoun-circling task (Brewer & Gardner, 1996; Gardner et al., 1999; Oyserman et al., 2009), or the cultural scenery technique (Goto, Ando, Huang, Yee, & Lewis, 2010; Miyamoto, Nisbett, & Masuda, 2006)) could bring forward implicit aspects of the relational self. Thus, including implicit measures could complement findings on the relationship between independent versus interdependent self and self-regulation competencies.

6. Concluding Remarks

The present research takes a closer look at the interplay between striving for relatedness and self-regulation. Our findings show that relatedness can buffer individuals from the adverse effects of low self-regulation competencies under stress. State-oriented individuals are not always defenseless against negative emotions, nor are action-oriented individuals always better at overcoming emotional distress. Even in individualistic cultures such as the USA and Germany, the concern for relatedness and closeness (i.e., knowing that “you are not alone”) provides a context in which state orientation is not disadvantageous and may even have a bright side.
Chapter 3

Feeling close to others as a hidden benefit of state orientation: Relatedness values moderate effects of priming relatedness*

* This Chapter is based on Chatterjee, Baumann, and Koole (under review). Feeling close to others as a hidden benefit of state orientation.
Abstract

The dispositional inability to exert volitional control over emotions 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. In two studies, we examined if 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). In both studies, state-oriented participants high in benevolence had increased feelings of security after thinking about similarities with (vs. differences to) a close other. In contrast, 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 sensitively attune their self-regulatory efforts to the context.

Keywords: state versus action orientation, relatedness, personal values, benevolence, priming similarities
1. Introduction

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 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 is the ability to exert volitional control over one’s emotions without external support (i.e., action orientation) and has been associated with smooth psychological functioning and high social adjustment (Koole, 2009). In contrast, a low ability to self-regulate emotions (i.e., state orientation) has been repeatedly associated with psychological and psychosomatic impairments. 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; Jostmann & Koole, 2006; Koole & Fockenberg, 2011; Koole & Jostmann, 2004). However, supportive relationships are not valued by all state-oriented 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, prosocial 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 paper, we tested the separate and conjoint effects of state orientation, relatedness values (benevolence), and priming relatedness on feeling secure. 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 self-regulation in more detail, elaborate on the temporary and chronic activation of relatedness, and review previous studies on the relationship between self-regulation and
relatedness. Finally, we will give an overview of the present studies and state our hypotheses in detail.

1.1. 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 more able to channel their emotions more 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, 1981, 2000, 2001; Kuhl & Beckmann, 1994). Action orientation after failure (AOF) describes the ability to reduce negative emotions intuitively and autonomously in a self-reliant manner. As such, it represents an active, nonrepressive coping with negative emotions (Koole, 2009; Koole & Jostmann, 2004; Kuhl, 2001; Kuhl & Koole, 2008). In contrast, state orientation after failure (SOF or low AOF) is conceived as a low ability to exert volitional control over negative affective states. Therefore, state-oriented individuals often remain feeling helpless when confronted with failure, loss, or demands. As state versus action orientation refers to the self-dependent regulation of adverse emotions, the construct differs from other constructs that describe the emotional response to ongoing events, such as neuroticism (Baumann & Kuhl, 2002; Baumann & Quirin, 2006) or extraversion (Koole & Coenen, 2007).

Because of their inability to downregulate negative emotions on their own, state-oriented individuals are less self-determined and less efficient in their goal pursuit (Brunstein, 2001), run a higher risk of ruminating about negative experiences, and often experience lower social, mental, and physical well-being than action-oriented individuals (Baumann et al., 2005, Baumann, Kaschel, & Kuhl, 2007; Baumann & Quirin, 2006; Butler et al., 2003). Especially under stressful conditions, state-oriented individuals show reduced performance and struggle more to overcome negative emotions compared to their action-oriented counterparts (Baumann & Kuhl, 2002, 2003; Kazén, Baumann, & Kuhl, 2003; Koole & Jostmann, 2004; Kuhl & Kazén, 1994). Yet these individual differences in self-regulation efficiency have often been studied based on a concept of the individual as separate and detached from the social environment.

However, humans feel, think, act, and regulate their emotions as social beings. Recognizing this fact, in recent years there has been a shift to include contextual factors that impinge on self-regulation processes (Aldao, 2013; Fitzsimons & Finkel, 2010; 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 visualizing an accepting person facilitates self-regulation processes among state-oriented individuals (Baumann et al., 2005; Jostmann & Koole, 2006; 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 self-regulation (for a critical review see Aldao, 2013).

1.2. 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 (Bilsky & Schwartz, 1994; Schwartz, 1992; Schwartz, 2011). Most relevant for our purposes are the pro-social values subsumed as benevolence (e.g., caring for the welfare of close others, being loyal, honest, and helpful). Benevolence may be conceived of as an internal representation of supportive socialization experiences and chronic orientation toward relatedness (Schwartz, 2011) and, by this way, might represent an expression of attachment security (Mikulincer et al., 2003a).

Schwartz and Bardi (2001) have suggested that benevolence stands out from other values because across different social groups and cultures benevolence has been rated as most important out of 10 basic values. The authors attribute this to the central role of positive interactions associated with benevolence which are vital for social functioning, cooperation within groups, and the realization of personal and interpersonal 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/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 (Higgins, Bargh, & Lombardi, 1985; Lisjak, Molden, & Lee, 2012; Park & Huang, 2010).

1.3. 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 (Fitzsimons & Bargh, 2003; Gore & Cross, 2006; Shah, 2003). However, research also shows that supportive contexts are more important for individuals with low volitional control over their own emotions (Jostmann & Koole, 2006; Koole & Jostmann, 2004; Koole & Fockenberg, 2011; Nolen-Hoeksema & Davis, 1999). Consistent with this idea, Chatterjee, Baumann, and Osborne (2013/ Chapter 2 in this thesis) showed that state-oriented participants who attached great importance to benevolence reported higher levels of well-being even when they experienced their life circumstances to be stressful.

So far, research demonstrated that state-oriented individuals benefit from supportive rather than challenging contexts (Jostmann & Koole, 2006; Koole & Jostmann, 2004; Koole & Fockenberg, 2011). 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; Sagiv, Sverdlik, & Schwarz, 2011). In a similar fashion, recent experiences in social interactions can impact on 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.

2. Overview and Hypotheses

In two studies, we tested the interaction between self-regulation, benevolence values, and priming similarities (vs. differences) with a close other on feeling secure. We expected state-oriented participants who attach high importance to benevolence to benefit more from priming similarities (vs. differences) than those giving little importance to benevolence. In contrast, we assumed that benevolence and priming would not moderate feelings of security among action-oriented participants because they are highly capable of regulating their emotions on their own.

In both studies, feeling secure was represented by the absence of negative feelings (e.g., helplessness, sadness, and inhibition) after the priming procedure (T2) 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).
3. Study 1

3.1. Participants

One hundred and seventy psychology undergraduates (139 women) from the University of Trier, Germany, voluntarily participated in the experiment and received course credits in return for their participation. Their mean age was 22.48 years (range 18-45 years). Seven participants were of another nationality (2 participants were from Luxembourg and 1 participant each from Bosnia, Bulgaria, Greece, Canada, and the Netherlands). Because one participant needed less than 15 minutes to complete the whole experiment, it is unlikely that tasks were processed thoroughly. Data of this participant were excluded from further analysis so that the data of 169 participants were taken into account in the final analyses.

3.2. Materials

3.2.1. Momentary Mood

A mood adjective-checklist similar to the 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). Feeling secure was assessed by reversing the scores on the four items helpless, puzzled, inhibited, and sad. These items capture negative affect (Kuhl, 2001; Kuhl & Koole, 2008). In our studies, we chose the label feeling secure to indicate the absence (or downregulation) of negative affect. In the present sample, internal consistency (Cronbach's alpha) of feeling secure was $\alpha = .76$.

3.2.2. 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 are summed up 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 $\alpha = .80$.

### 3.2.3. 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 are asked to indicate how much the (gender-matched) person depicted in each description resembles him- or herself on a 6-point scale (1 = “very much like me”; 6 = “not like me at all”). Benevolence was calculated by averaging 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 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 $\alpha = .71$.

### 3.2.4. Priming for Similarities versus Differences

The Similarities and Differences with Family and Friends Task (SDFF) by Trafimow, Triandis, and Goto (1991) was applied to prime similarities and differences to 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).
3.3. 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 PVQ and ACS-90. 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, 83 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. At last, participants were debriefed and received course credit in return for their participation. In total, the session lasted between 15 and 30 minutes.
3.4. Results

3.4.1. Initial Group Differences

The correlations between study variables are listed in Table 4. Age was not significantly correlated with self-regulation, benevolence, and initial mood ($p$s > .27). Therefore, age was dropped from all subsequent analyses. In contrast, gender differences could be detected in self-regulation and benevolence with female participants giving more importance to benevolence values and being less action-oriented (i.e., more state-oriented) than male participants. Therefore, we controlled for gender in all subsequent analyses. The initial mood was associated with AOF indicating that action-oriented participants felt more secure at the beginning of the experiment. Because participants were randomly assigned to different priming conditions it is unlikely that the significant main effect of AOF had any consequences for later results. Furthermore, initial mood was not significantly related with benevolence.

Table 4

*Bivariate Correlations (Spearman) Between Variables in Study 1*

<table>
<thead>
<tr>
<th></th>
<th>(2)</th>
<th>(3)</th>
<th>(4)</th>
<th>(5)</th>
<th>Gender $^2$</th>
</tr>
</thead>
<tbody>
<tr>
<td>(1) Action Orientation</td>
<td>-.04</td>
<td>-.11</td>
<td>.22**</td>
<td>.09</td>
<td>.26**</td>
</tr>
<tr>
<td>(2) Benevolence</td>
<td></td>
<td>.12</td>
<td>.08</td>
<td>.00</td>
<td>-.31***</td>
</tr>
<tr>
<td>(3) Priming$^1$</td>
<td></td>
<td>-.10</td>
<td>.12</td>
<td>.03</td>
<td></td>
</tr>
<tr>
<td>(4) Feeling Secure T1</td>
<td></td>
<td></td>
<td>-.03</td>
<td>.02</td>
<td></td>
</tr>
<tr>
<td>(5) Age</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>.07</td>
</tr>
</tbody>
</table>

$^1$ Priming: Differences = -1; Similarities = 1

$^2$ Gender: female = 1; male = 2

$^\dagger p < .10$  * $p < .05$  ** $p < .01$  *** $p < .001$
3.4.2. 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 feeling secure at the end of the experiment (T2). In step 1, we controlled for feeling secure at the beginning of the experiment (T1) and gender. In step 2, we entered standardized AOF and benevolence scores as well as priming condition (-1 = differences, 1 = similarities). In step 3, we entered all two-way interactions. In step 4, we entered the AOF x Benevolence x Priming interaction. As listed in Table 5, there was a main effect of benevolence, $\beta = .10, t(163) = 2.09, p < .05$. Results revealed no further significant main effects or two-way interactions. Consistent with expectations, there was a significant AOF x Benevolence x Priming interaction on feeling secure, $\beta = -.09, t(159) = -1.98, p < .05$. This three-way interaction is illustrated in Figure 3. AOF scores are plotted at the mean +1 SD (action-oriented) and -1 SD (state-oriented). Benevolence scores are also plotted at the mean ±1 SD.

When primed for differences, simple slope analyses revealed no significant effects of benevolence on feeling secure for state-oriented ($\beta = .05, t = .59, ns$) and action-oriented participants ($\beta = .06, t = .72, ns$). When primed for similarities, simple slope analyses revealed a highly significant effect of benevolence on feeling secure for state-oriented participants ($\beta = .27, t = 3.54, p < .001$) indicating that higher benevolence was associated with higher feelings of security among state-oriented participants primed for similarities. In contrast, there was no significant effect of benevolence on feeling secure for action-oriented participants ($\beta = -.06, t = -.78, ns$). In the similarities condition, the slope difference test between state- and action-oriented participants was significant, $t = -2.64, p < .01$. These findings are consistent with our hypothesis that state-oriented participants benefit from priming similarities when they value benevolence.
### Table 5

*Hierarchical Regression Analyses Predicting Feeling Secure in Study 1*

<table>
<thead>
<tr>
<th>Step 1</th>
<th>( \Delta R^2 )</th>
<th>( \beta )</th>
</tr>
</thead>
<tbody>
<tr>
<td>Feeling Secure T1</td>
<td>.64 ***</td>
<td>.79 ***</td>
</tr>
<tr>
<td>Gender(^1)</td>
<td></td>
<td>.13 **</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Step 2</th>
<th>( \Delta R^2 )</th>
<th>( \beta )</th>
</tr>
</thead>
<tbody>
<tr>
<td>Action Orientation (AOF)</td>
<td></td>
<td>.07</td>
</tr>
<tr>
<td>Benevolence Values</td>
<td></td>
<td>.10 *</td>
</tr>
<tr>
<td>Priming(^2)</td>
<td></td>
<td>.08 †</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Step 3</th>
<th>( \Delta R^2 )</th>
<th>( \beta )</th>
</tr>
</thead>
<tbody>
<tr>
<td>AOF x Benevolence</td>
<td></td>
<td>-.08 †</td>
</tr>
<tr>
<td>AOF x Priming</td>
<td></td>
<td>-.05</td>
</tr>
<tr>
<td>Priming x Benevolence</td>
<td></td>
<td>.04</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Step 4</th>
<th>( \Delta R^2 )</th>
<th>( \beta )</th>
</tr>
</thead>
<tbody>
<tr>
<td>AOF x Benevolence x Priming</td>
<td></td>
<td>-.09 *</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Total ( R^2 )</th>
<th>( \Delta R^2 )</th>
<th>( \beta )</th>
</tr>
</thead>
<tbody>
<tr>
<td>N</td>
<td>169</td>
<td></td>
</tr>
</tbody>
</table>

\(^1\) Gender: female = 1; male = 2

\(^2\) Priming: Differences = -1; Similarities = 1

\(^\dagger\) \( p < .10 \)  \* \( p < .05 \) \** \( p < .01 \) \*** \( p < .001 \)
Figure 3. Changes in feeling secure as a function of benevolence, priming (differences vs. similarities), and self-regulation (state vs. action orientation) in Study 1.

3.5. Discussion

As expected, priming for similarities reinforced feelings of security 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 feelings of security were as low as in state-oriented participants who were primed for differences. In contrast, action-oriented participants were neither affected by priming nor by benevolence values and had high feelings of security across all conditions.

Our results 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 than action-oriented individuals (Baumann et al., 2005; Chatterjee et al., 2013/Chapter 2; Jostmann & Koole, 2006; Koole & Fockenberg, 2011;
Koole & Jostmann, 2004). A new aspect of our study is the focus on the moderating effect of benevolence in perceiving and utilizing supportive contexts. When appreciating loyalty, harmony, and cooperation (benevolence) represents a guiding principle in an individual’s life, associated mental representations are easily activated (e.g., by focusing on similarities with close others) and corresponding emotions (e.g., security) are established. Without benevolence as a guiding principle, however, supportive characteristics of current circumstances (e.g., similarity to close others) seem to vanish.

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.

4. 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 if priming effects can be boosted with a slight variation in the procedure: the physical presence of a close other one feels similar to or different from. We wanted to explore whether priming similarities to 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).

4.1. Participants

One hundred and seventy-seven psychology undergraduates (137 women) from the University of Trier, Germany, voluntarily participated in the experiment and received course credits in return for their participation. Their mean age was 22.28 years (range 18-30 years). Sixteen were born outside Germany and 17 grew up abroad (1 in Belarus, Bosnia, Indonesia, Kazakhstan, Mongolia, Romania, Turkey, and Ukraine, 2 in Azerbaijan, Luxembourg, and Russia, and 3 in Bulgaria). One participant needed less than 20 minutes to complete the whole experiment, so her data were excluded from further analyses. Thus, for the final analyses, data from 176 participants were taken into account.
4.2. Procedure

The experiment was conducted in group sessions with two to eight participants simultaneously. Before arriving for the study, participants were asked to bring a good friend with them to the experimental session. 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. Measures were the same as in Study 1. Participants first completed an initial mood rating (T1), followed by the ACS and the SDFF task. Again, participants were randomly assigned to one of two priming conditions (thinking of similarities vs. differences). In contrast to Study 1, in the SDFF task, participants were instructed to refer to their accompanying friend. 105 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).5 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 credits 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 to 30 minutes.

4.3. Results

4.3.1. Initial Group Differences

The correlations between study variables are listed in Table 6. There were no significant correlations between action orientation, benevolence, and initial mood. However, as in Study 1, there were gender differences in self-regulation and benevolence, with female participants giving more importance to benevolence values and being more state-oriented than male participants. Therefore, we controlled for gender in all subsequent analyses.

5 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.
Table 6

*Bivariate Correlations (Spearman) Between Variables in Study 2*

<table>
<thead>
<tr>
<th></th>
<th>(2)</th>
<th>(3)</th>
<th>(4)</th>
<th>(5)</th>
<th>Gender^2</th>
</tr>
</thead>
<tbody>
<tr>
<td>(1) Action Orientation</td>
<td>-.07</td>
<td>-.02</td>
<td>.10</td>
<td>.14</td>
<td>.24***</td>
</tr>
<tr>
<td>(2) Benevolence</td>
<td>.06</td>
<td>.00</td>
<td>.01</td>
<td>-.30***</td>
<td></td>
</tr>
<tr>
<td>(3) Priming¹</td>
<td>-01</td>
<td>.07</td>
<td>-03</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(4) Feeling Secure T1</td>
<td></td>
<td>-.01</td>
<td>.04</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(5) Age</td>
<td></td>
<td></td>
<td>.10</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

¹ Priming: Differences = -1; Similarities = 1
² Gender: female = 1; male = 2
† p < .10   * p < .05   ** p < .01   *** p < .001

4.3.2. Benevolence as a Moderator of Priming Effects

To test whether benevolence moderated the extent to which state-oriented individuals were influenced in their feelings of security from thinking about being similar to (vs. different from) their accompanying friend, a hierarchical regression analysis was conducted. In step 1, we controlled for effects of feeling secure at the beginning of the experiment (T1) and gender. In step 2, we entered standardized AOF and benevolence scores as well as priming condition (-1 = differences, 1 = similarities). In step 3, we entered all two-way interactions. In step 4, we entered the AOF x Benevolence x Priming interaction. As listed in Table 7, results revealed a significant main effect of AOF, $\beta = .21$, $t(171) = 2.58$, $p < .05$. More important, there was a significant AOF x Benevolence x Priming interaction, $\beta = -.30$, $t(167) = -2.93$, $p < .01$. This three-way interaction is illustrated in Figure 4. AOF scores are plotted at the mean +1 SD (action-oriented) and -1 SD (state-oriented). Benevolence scores are also plotted at the mean ±1 SD.
**Table 7**

*Hierarchical Regression Analyses Predicting Feeling Secure in Study 2*

<table>
<thead>
<tr>
<th>Step</th>
<th>$\Delta R^2$</th>
<th>$\beta$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Step 1</td>
<td>.06 **</td>
<td>.20 **</td>
</tr>
<tr>
<td>Feeling Secure T1</td>
<td></td>
<td>.20 **</td>
</tr>
<tr>
<td>Gender$^1$</td>
<td></td>
<td>.12</td>
</tr>
<tr>
<td>Step 2</td>
<td>.04 *</td>
<td></td>
</tr>
<tr>
<td>Action Orientation (AOF)</td>
<td></td>
<td>.21 *</td>
</tr>
<tr>
<td>Benevolence Values</td>
<td></td>
<td>-.09</td>
</tr>
<tr>
<td>Priming$^2$</td>
<td></td>
<td>.05</td>
</tr>
<tr>
<td>Step 3</td>
<td>.00</td>
<td></td>
</tr>
<tr>
<td>AOF x Benevolence</td>
<td></td>
<td>-.01</td>
</tr>
<tr>
<td>AOF x Priming</td>
<td></td>
<td>-.04</td>
</tr>
<tr>
<td>Priming x Benevolence</td>
<td></td>
<td>.02</td>
</tr>
<tr>
<td>Step 4</td>
<td>.04 **</td>
<td></td>
</tr>
<tr>
<td>AOF x Benevolence x Priming</td>
<td></td>
<td>-.30 **</td>
</tr>
<tr>
<td>Total $R^2$</td>
<td>.15 **</td>
<td></td>
</tr>
<tr>
<td>$N$</td>
<td>177</td>
<td></td>
</tr>
</tbody>
</table>

$^1$ Gender: female = 1; male = 2  
$^2$ Priming: Differences = -1; Similarities = 1  

$^\dagger p < .10$  
$^* p < .05$  
$^{**} p < .01$  
$^{***} p < .001$

When primed for differences, simple slope analyses revealed a significantly negative effect of benevolence on feeling secure for state-oriented ($\beta = -.19$, $t = -2.06$, $p < .05$) and no effect for action-oriented participants ($\beta = .04$, $t = .76$, ns). When primed for similarities, simple slope analyses revealed a significantly positive effect of benevolence on feeling secure for state-oriented participants ($\beta = .40$, $t = 1.99$, $p < .05$) indicating that higher benevolence was associated with feeling more secure among state-oriented participants.
primed for similarities. In contrast, there was a significantly negative effect of benevolence on feeling secure for action-oriented participants ($\beta = -0.47$, $t = -2.48$, $p < .02$). In the similarities condition, the slope difference test between state- and action-oriented participants was significant, $t = -2.64$, $p < .01$. These findings are consistent with our hypothesis that state-oriented participants benefit from priming similarities when they value benevolence.

![Figure 4. Changes in feeling secure as a function of benevolence, priming (differences vs. similarities), and self-regulation (state vs. action orientation) in Study 2.](image)
4.4. Discussion

For the most part, in Study 2 we replicated the findings of Study 1. As expected, state-oriented participants who highly value benevolence felt secure 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 did not only influence state- but also action-oriented participants – albeit in a reversed manner. Among action-oriented participants, focusing on similarities was associated with feeling more secure the less they valued benevolence. Thus, they seemed to benefit from a mismatch between priming condition and chronic orientation. How can this be explained? Prior studies demonstrated that action-oriented participants show increased performance and better self-regulation under demanding compared to relaxing conditions (for an overview, see Koole, Jostmann, & Baumann, 2012). Priming an orientation that does not match the chronically preferred one could have represented a demanding condition and, thus, instigated action-oriented participants to unfold their full self-regulatory potential. Priming an orientation that matches personal values, in contrast, could have represented a relaxing condition in which self-regulation is not required.

To summarize, we replicated the beneficial effect of priming relatedness for state-oriented participants who value relatedness. Physical presence of a close other did not boost the similarity priming to such an extent that it compensated low benevolence values in state-oriented participants. However, physical presence of a close other stimulated action-oriented participants to attune their self-regulatory efforts more sensitively to the context.
5. 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 towards 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.

Our results confirmed our assumption. State-oriented individuals high in benevolence felt secure 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). When state-oriented participants devalued benevolence, in contrast, they did not benefit from thinking about similarities but reported low feelings of security. Thus, while priming did activate chronic orientations it did not override or compensate 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.

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 felt secure across all conditions. In Study 2, however, there was an unexpected effect in the similarities conditions: Action-oriented participants felt more secure the less they value benevolence. 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 feel highly secure. This interpretation is in line with many findings indicating that action-oriented participants unfold their full self-
regulatory potential only in demanding situations (Koole et al., 2012). Whereas state-oriented participants are often not able to regulate their emotions, action-oriented participants are sometimes not motivated to do so.

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 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 (Deci & Ryan, 2000; Hofer, Chasiotis, & Campos, 2006; Oishi et al., 1999). In this way, learning more about the role of values and their interactions with self-regulation and situational aspects represents a promising approach to uncover some hidden benefits of state orientation.

6. Limitations

The findings of the studies presented here can be considered the first step in exploring the interaction between values, priming, and self-regulation and, thus, leaves a host of questions for future research. First, we asked participants to write down similarities and differences. Thus, we manipulated conscious aspects of the self. However, many 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; Gardner, Gabriel, & Lee, 1999; Oyserman, Sorensen, Reber, & Chen, 2009), or cultural scenery technique (Goto, Ando, Huang, Yee, & Lewis, 2010; Miyamoto, Nisbett, & Masuda, 2006; Nisbett & Miyamoto, 2005).

Second, self-regulation deficits typically do not impair performance and well-being unless people experience some kind of stress (Baumann et al., 2005, Koole et al., 2012; Kuhl & Beckmann, 1994). In our studies, we did not explicitly assess or induce stress. Recent findings by Chatterjee et al. (2013 / Chapter 2) suggest that valuing benevolence (Study 1) as well as priming relatedness (Study 2) buffer adverse effects of stress in state-oriented participants but are less relevant under relaxed conditions. However, Chatterjee et al. (2013 /
Chapter 2) did not test conjoint effects of values and priming on self-regulatory outcomes. Thus, our present findings extend previous work by demonstrating that endorsing specific values may change how participants respond to cues of relatedness versus separateness. Vice versa, situational cues may influence whether specific values can be utilized. In future research, it would be informative to explore the interaction of values, priming, and self-regulation under stressful versus relaxing conditions.

Third, we focused on benevolence. But there are more values that might interact with self-regulation. For example, striving for values associated with self-direction (e.g., thinking independently, being creative, and exploring) might affect 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 completely 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 to provide more specific aids.

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 self-regulation across different groups and cultures.
7. Concluding Remarks

The present paper took a closer look at personal values as a hidden benefit of state orientation. Our findings show that benevolence values moderate how secure state-oriented individuals feel after 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 into future research may represent a promising approach for implementing Aldao’s (2013) call to capture context in emotion regulation.
Chapter 4

State Orientation in a Cross-Cultural Context
1. Introduction

The first three Chapters of this thesis delved into the conjoint effects of state orientation, relatedness values (benevolence), and priming relatedness on current states of mood (Chapter 2/Study 2 and Chapter 3/Studies 1 and 2) and subjective well-being over the last two weeks (Chapter 2/Study 1). Yet, these investigations were restricted to variations in WEIRD (Western, Educated, Industrialized, Rich, and Democratic) samples.

As already proposed in the introduction, it is possible that cultural differences exist in the prevalence and effects of relatedness, self-regulatory abilities, and their concurrence. Furthermore, the Western conception of relatedness might differ from the Eastern (collectivistic) idea of relatedness (Cross, Bacon, & Morris, 2000; Kuhl & Keller, 2008; Markus & Kitayama, 2010). Based on this consideration, cross-cultural investigations of cultural pathways in development, and assumptions derived from PSI theory, Kuhl and Keller (2008) set up a theoretical framework for explaining the emergence and effects of action and state orientation within divergent social and cultural contexts. Most importantly, the authors proposed 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. The first objective of this chapter is to elaborate on this proposition by providing an overview of assumed cultural differences in the development of action versus state orientation and its effects on psychological functioning.

In contrast to the proposed cultural differences in emotional self-regulation, research in the field of motive disposition theory (Hofer, Busch, Bond, Li, & Law, 2010; Hofer & Chasiotis, 2003; Hofer, Chasiotis, & Campos, 2006) and self-determination theory (Chirkov, Ryan, & Sheldon, 2011; Sheldon et al., 2004) suggests strong cultural similarities in the role of need satisfaction for psychological well-being. Up to date, however, cross-cultural studies have given little attention to the role of emotional self-regulation for satisfying personal needs. Therefore, the second objective of this chapter is the integration of a cultural relativistic view that emphasizes cultural differences in the necessity for emotion self-regulation with a universalistic view that emphasizes the importance of satisfying personal needs across cultures.
2. Culture(s) and Relatedness

During the last century, cross-cultural comparisons have gradually expanded the research on personality from a monocultural to a cross-cultural field. In the course of unpacking culture-specific principals of psychological functioning and disentangling them from universal principals, the influence of society on an individual’s identity has always been emphasized (Church, 2008; Harb & Smith, 2008). Thereby, a particular interest was given to how members of various cultures/countries differ in their preferences of relatedness and social closeness (Hofstede & Hofstede, 2006; Kagitcibasi, 1996; Markus & Kitayama, 1991, 1998, 2010). Above all, in this context the distinction between independent and interdependent self-construals has received special attention (Markus & Kitayama, 1991, 1994, 2010).

As already sketched in the first Chapter, an independent self-construal has classically been associated with individualistic cultural contexts that are predominately found in Western countries (Hofstede & Hofstede, 2006; Kagitcibasi, 2005; Markus & Kitayama, 1991, 1994, 2010; Oyserman, Coon, & Kemmelmeier, 2002; Triandis, 2001). An independent self-construal is characterized by feeling separate from others and striving for uniqueness and independence. The unique composition of an individual’s inner attributes is seen as the reason for his or her actions. Thus, having the capacity for self-regulated emotional coping can be considered one of the hallmarks of such an independent self-construal. An interdependent self-construal, in contrast, is promoted in collectivistic contexts, often found in East-Asian cultures (Greenfield, Keller, Fuligni, & Maynard, 2003; Kagitcibasi, 2005; Kuhl & Keller, 2008; Markus & Kitayama, 1991, 1994, 2010) in which notions of relatedness, belonging, and harmony represent core values. Thus, independent and interdependent orientations differently affect cognitions, emotions, their expression and regulation (Matsumoto et al., 2008; Koopmann-Holm & Matsumoto, 2010; Nisbett, Peng, Choi, and Norenzayan, 2001).

In recent years, however, the simple dichotomy of allocating countries to either independent (individualistic) or and interdependent (collectivistic) cultures and, in a similar fashion, attributing an independent or interdependent self-construal to the citizens of these countries, has been increasingly criticized (Breugelmans, 2011; Harb & Smith, 2008; Oyserman et al., 2002). A main point of criticism referred to the variation in cultural orientations between and within countries that have been assumed to share the same cultural orientation. As such, the differences between members of one culture become most evidently
in regard to socioeconomic status (SES) with a higher SES being associated with stronger independent self-orientations (Breugelmans, 2011; Greenfield et al., 2003; Hofstede & Hofstede, 2006; Oyserman & Lee, 2008).

Several cultural explanatory models have aimed to close the gap between societal level and individual level (e.g. Schwartz, 2011; Kagitcibasi, 1996, 2005). For instance, Schwartz (2011) distinguishes between cultural values at a societal level and personal values at an individual level. Other theories have more directly addressed the interaction between society, family organization, and socialization (Greenfield et al., 2003; Kagitcibasi, 1996, 2005). Accordingly, changes in living conditions might entail changes in the family system that, in turn, primarily affects socialization processes. For example, Kagitcibasi (1996) proposed the distinction between three family interaction patterns: (a) An interdependent pattern in an extended family that is typically found in classically collectivistic cultures, (b) an independent pattern that Kagitcibasi associated with Western middle class nuclear families, (c) and an integration of both patterns that comprises material independence, but emotional interdependence and which she associated with middle class families in many threshold countries. According to Kagitcibasi (1996), the last family pattern supports an autonomous-relational self-orientation by combining autonomous agency with a focus on relatedness. The focus on close others within an autonomous-relational orientation might also explain why many features of interdependent emotion-regulation also apply to more independently oriented members in interdependent (collective) cultures.

Given the complex picture of relatedness within various cultural contexts, how can variations in cultural contexts explain individual differences in self-regulation abilities (i.e., action versus state orientation)? And why should state orientation be less disadvantageous for psychological functioning in interdependent cultures than in independent cultures? The next sections approach these questions.

3. Action and State Orientation within a Cross-Cultural Frame

Up to date, cross-cultural differences and similarities in action versus state orientation have not been directly scrutinized. The discussion on cultural differences has rather been constricted to the theoretical realm drawing on observations in Western cultures and research on family systems and parenting styles across cultures. The following overview gives a rough impression on this theorizing.
3.1. Cultural Developmental Pathways to Action and State Orientation

The ability to self-regulate emotions is acquired through the interaction with others. Especially, interaction experiences during early childhood shape the development of later self-regulation abilities (Kuhl, 2001). Natural variations in social environments and developmental conditions, however, result in individual differences in self-regulation and personal inclinations for action or state orientation. Similarly, cultural differences in independent or interdependent orientations and their effects on the ability to self-regulate adverse emotions are very likely rooted in specific cultural socialization experiences that are inextricably linked to specific parenting ethnotheories about care and upbringing of children (Keller, 2003; Keller et al., 2006; Keller, Yovsi, & Völker, 2002). In short, different socialization strategies might stimulate the emergence of action or state orientation to a different degree.

Socialization strategies in independent (individualistic) Western cultures characteristically involve face-to-face interactions between caregivers and children (Keller, 2003). Observations in Western Cultures indicate that individual differences in action versus state orientation originate from experiences during early childhood and are influenced by the quality of these face-to-face interactions between children and their caregivers (Keller, 2003; Kuhl & Keller, 2008; Kuhl & Völker, 1998). According to Kuhl and Völker (1998), the acquisition of emotional self-regulation depends to great part on the appropriate and contingent response of caretakers to affective self-expressions of the child. Referring to a generalization of the classical conditioning model, repeated, contingent, and sensitive responses of caretakers to these emotional expressions foster a conditioning of initially external emotion-regulation on the activation of extension memory and the self. Gradually increasing the latency between emotional expressions of the child and reactions of caretakers supports the development of self-other-separation, agency, and self-regulation abilities (Keller & Gauda, 1987; Volling, McElwain, Notaro & Herrera, 2002). In contrast, a low sensitivity of a mother towards self-expressions of her child is assumed to impede the development of self-regulation abilities (Keller & Gauda, 1987).

Accordingly, childhood poverty, family turmoil, or – generally speaking – neglecting, unsupportive, or controlling social developmental contexts can reduce attempts to express oneself and prevent the formation of connections between the self (extension memory) and affective systems (Kim et al., 2013; Kuhl, 2001). Furthermore, explicit and high parental standards might increase the tendency towards introjection and feelings of deprived
autonomy up to adulthood. As outlined in the first Chapter, although early experience might be most formative for the development of self-regulation abilities, individual experience throughout the lifespan can have an effect on system interactions (Kaschel & Kuhl, 2004; Kuhl, 2001).

Yet, this explanatory model for the emergence of action versus state orientation explains variations within independent culture and has primarily applied to Western cultures. As mentioned before, divergent socialization goals between cultures are reflected in implicit parenting ethnotheories (Keller, 2003; Keller et al., 2002; Keller et al., 2006; Kuhl & Keller, 2008). These ethnotheories come to operation in very early stages of childhood and might also promote dispositional differences in action and state orientation (Kuhl & Keller, 2008). For example, interdependent socialization strategies promote cooperation, harmony, and a flexible adaption to situational conditions and are associated with close body contact and frequent synchronization of behaviors between infant and caretakers. Even more directly related to the development of emotion regulation abilities are observations that interdependent mothers are often engaged in immediate or anticipatory behavior to prevent aversive states of their children (Keller, 2003). The prevention of negative emotional states before they could arise reduces the frequency that conflicting emotions and cognitions emerge as detached of each other. Additionally, it is very likely that an interdependent parenting style promotes the development of interconnectedness with close others. This results in a social fusion rather than a clear distinction between own and other. During the process of socialization, children gradually adopt the sensitivity for needs and expectations of others, but also learn to suppress signs of negative emotions (Keller, 2007).

Taking a meta-perspective, Kuhl and Keller (2008) assumed that “to the extent that these cultures place more emphasis on synchronic interaction (i.e. frequent coordinated behaviors of mother and child), self-growth primarily draws upon assimilation of new experience” (p. 28). Assimilation represents a direct exposure to divergent impressions and emotions and their simultaneous integration within a holistic mode (of extension memory) that might be less coupled to self-regulation abilities. By contrast, in independent cultures, self-development is rather driven by the integration of contradicting emotions and cognitions, for example, when negative affect is actively downregulated. Despite these cultural differences in socialization goals and parenting ethnotheories, overlaps in parenting styles are substantially across cultures. While face-to-face interactions can also be observed among interdependent mothers, independent mothers can also become engaged in the prevention of adverse emotional states of their infants. Thus, it can be assumed that cultures
3.2. State Orientation in Interdependent Cultures

Socialization takes place within cultural contexts and is guided by cultural values, norms, and conceptions. Accordingly, even in adulthood adjustment to cultural norms is directly or indirectly rewarded and affects well-being (Fulmer et al., 2011; Kitayama & Park, 2007; Matsumoto et al., 2008). In this sense, interdependent cultures might promote mutual emotional dependency as well as the anticipation of other people’s feelings, while devaluing emotional autonomy (Matsumoto et al., 2008; Koole, Kuhl, Jostmann, & Vohs, 2005). In other words, emotion-regulation in interdependent cultures represents a more intrapersonal process than an interpersonal one. Indeed, cross-cultural comparisons corroborate that different emotion regulation strategies are important and adaptive in independent and interdependent cultural contexts. However, the majority of these studies have focused on deliberative and automatic emotion-regulation strategies described in Chapter 1 (e.g., Butler, Lee, & Gross, 2007; Grossmann & Kross, 2010; Matsumoto et al., 2008). Stable differences in the ability to intuitively regulate emotions by the agency of the self, in contrast, have rather been discussed at a theoretical basis (Koole et al., 2005; Kuhl & Keller, 2008; Markus & Kitayama, 1991) and not yet tested empirically in cross-cultural studies.

Given the cultural differences in emotion regulation strategies and the presumed differences in the effects of state orientation, raises the question whether there are also cross-cultural similarities – similar to those found in the research on motive disposition and self-determination. More precisely, although members of interdependent cultures more often align their personal goals with expectations of close others (Iyengar & Lepper, 1999; Kagitcibasi, 2005; Greenfield et al., 2003), the deprivation of feelings of control might be experienced as a loss of autonomy in agency and, by this means, impair psychological well-being (Chirkov et al., 2011; Kagitcibasi, 2005; Sheldon et al., 2004). Bearing in mind that investigations in Western cultures could establish a direct link between state orientation and a reduced ability to access the self resulting in increased need frustration, this indirect route might also be true for members of interdependent cultures (Baumann, Kaschel, & Kuhl, 2005; Baumann & Quirin, 2006). But, so far, no cross-cultural study aimed at answering...
whether state orientation might lead to need frustration and, in this way, indirectly impair on well-being.

4. The Present Study

After this general introduction to cultural comparative considerations on action versus state orientations, Chapter 5 presents a first empirical test of cultural differences and similarities in the relationships between action versus state orientation, satisfaction of basic social needs, and well-being. The following questions were central throughout Chapters 1 to 3: (1) Does relatedness buffer negative effects of state orientation under stress? and (2) Does an emphasis on relatedness (i.e., expressed as a pro-social value orientation) among state-oriented individuals increase the openness to perceive situational cues of relatedness (i.e. priming for similarities with a close other) as supportive? In Chapter 5 the research is expanded to a cross-cultural field and aims at answering two more questions: (3) Is a state orientation less disadvantageous for well-being in interdependent than in independent cultures? And, finally (4) can state orientation indirectly affect well-being across cultures, because it is associated with less satisfaction of basic social needs that, in turn, are linked to reduced subjective well-being? Like Chapters 2 and 3, Chapter 5 was originally written as an article that can be understood alone without the introduction given by the previous Chapters.
Chapter 5

If You Don`t Get What You Need: Effects of State Orientation in Germany, India, and Bangladesh*

* This Chapter is based on Chatterjee, Baumann, Tripathi, Mahmud, & Koole (under review). If You Don`t Get What You Need: Effects of State Orientation in Germany, India, and Bangladesh.
Abstract

State orientation is the dispositional inability to self-regulate emotions and has been associated with numerous impairments. However, much of this research has been limited to Western contexts. The present research investigates the effects of state orientation on well-being among samples of three different countries: Germany, India, and Bangladesh. Eastern cultures attach more importance on interpersonal relationships, but less on self-regulation. Despite cultural differences, state orientation was expected to be associated with less satisfaction of basic social needs and, in turn, reduced subjective well-being across samples. As expected, moderated mediation revealed significant indirect paths from state orientation to reduced well-being through need frustration across the three samples. In addition, state orientation was a stronger antecedent of need frustration in the German compared to the Indian and Bangladeshi samples. Our research suggests that state orientation is (a) detrimental to well-being through impeding need satisfaction across different cultural contexts, and (b) less detrimental and/or more easily compensated for in cultural contexts emphasizing relatedness.

Keywords: state versus action orientation, need frustration, well-being, cross-cultural
1. Introduction

When we are sad, we tend to see only the negative aspects in our life. For example, we think the neighbor who does not say “hello” either rejects us or we ponder about whether we have done something wrong. Especially, people who easily get stuck in a negative mood are prone to this kind of rumination. These people are referred to as state-oriented because they are preoccupied with their negative state of mood and not able to actively seek for a solution. In this article, we suggest that state (compared to action) orientation might enhance the experience of frustration in social needs (for relatedness/affiliation, achievement, and power) which, in turn, reduces well-being. Furthermore, we suggest that the path from low emotional self-regulation (i.e., state orientation) via need frustration to impaired well-being represents a mechanism that can be observed across different cultures like Germany, India, and Bangladesh.

Two fields of research are relevant for our present topic. First, research on state and action orientation over the last 30 years highlights the relevance of emotional self-regulation to promote the fulfillment of personal needs and to establish and maintain subjective well-being (Baumann, Kaschel, & Kuhl, 2005; Baumann & Quirin, 2006; Brunstein, 2001; Diefendorff, Hall, Lord, & Strean, 2000; Koole & Jostmann, 2004; Kuhl, 1981, 2000, 2001; Kuhl & Beckmann, 1994). Up to date, however, the effects of state versus action orientation have mainly been scrutinized in Western cultures. Thus, it is not known whether a lack of self-regulation (i.e., state orientation) has similar adverse effects in Eastern cultures.

Second, cross-cultural research has established a close link between need satisfaction and well-being that is valid across different cultures and across different measures for need satisfaction derived from motive disposition theory (Hofer, Busch, Bond, Li, & Law, 2010; Hofer & Chasiotis, 2003; Hofer, Chasiotis, & Campos, 2006) and self-determination theory (Chirkov, Ryan, & Sheldon, 2011; Sheldon et al., 2004). Up to date, however, cross-cultural studies on need satisfaction have given little attention to personal antecedents such as emotional self-regulation.

In the present study, we aimed at integrating these two fields of research by looking at the interplay between state orientation, need frustration, and well-being cross-culturally. In the following paragraphs, we will (a) elaborate on individual differences in self-regulation, (b) review previous findings on the role of (cultural) contexts in self-regulation research, and (c) state our hypothesis for the present study.
1.1. State versus Action Orientation

Emotional self-regulation is the ability to increase, maintain, or decrease positive and negative emotions by oneself and constitutes a major building block for many aspects of psychological functioning (Koole, 2009). State versus action orientation assesses dispositional differences in the ability to self-regulate negative affect. More specifically, action orientation after failure (AOF) is the ability to effortlessly and intuitively downregulate negative emotions, disengage from ruminations about negative emotional states, and, thus, stay capable of acting even under stressful conditions. In contrast, state orientation after failure (SOF) is the dispositional tendency to become flooded by uncontrollable negative feelings once they have emerged (Koole & Jostmann, 2004; Kuhl, 1994, 2001; Kuhl & Koole, 2008). Due to their poor self-regulation abilities, state-oriented individuals often are impaired in assessing and satisfying personal needs, have more difficulties to establish satisfactory levels of well-being, and run a higher risk to develop psychosomatic symptoms than their action-oriented counterparts (Baumann et al., 2005, 2007; Baumann & Quirin, 2006; Brunstein, 2001; Koole, Jostmann, & Baumann, 2012; Kuhl, 2000, 2001).

To further explore the mechanism underlying the adverse effect of state orientation on well-being, Baumann et al. (2005) assessed participants’ amount of striving for unwanted (need-incongruent) goals and/or failing to strive for wanted (need-congruent) goals in the achievement domain. In their three studies, this indicator of need frustration partially mediated the adverse effects of state orientation on well-being and psychosomatic symptoms—especially under stressful conditions. Baumann and Quirin (2006) assessed need frustration more explicitly by asking participants to rate the degree to which they experience negative feelings and rumination concerning the three basic needs for relatedness/affiliation, achievement, and power. Again, need frustration partially mediated the relationship between state orientation and reduced well-being.

To our knowledge, research on state and action orientation has mainly been conducted in WEIRD (Western, Educated, Industrialized, Rich, and Democratic; Henrich, Heine, & Norenzayan, 2010) cultural contexts. However, different cultural contexts may necessitate emotional self-regulation and/or compensate its lack to a varying degree depending on how much relatedness to close others is valued as a core cultural conception (Chatterjee, Baumann, & Osborne, 2013 / Chapter 2; Koole, Kuhl, Jostmann, & Vohs, 2005; Kuhl & Keller, 2008). Whereas cross-cultural research has established a universal link between need
satisfaction and well-being, little is known about the role of emotional self-regulation as an antecedent of need satisfaction across cultures. Thus, learning more about the moderating role of culture on the impact of state and action orientation on need satisfaction and well-being seemed particularly compelling.

1.2. Cultural Contexts

Western (e.g., North-American and European) cultures are assumed to foster an independent self-orientation in which the individual is characterized by feeling separated from others and striving for uniqueness and independence. As the unique composition of an individual’s inner attributes is regarded as the reason for a person’s actions (Hofstede & Hofstede, 2006; Kagitcibasi, 2005; Markus & Kitayama, 1991, 2010; Oyserman, Coon, & Kemmelmeier, 2002; Triandis, 2001), the capacity to self-regulate adverse emotion represents one of the hallmarks of the self within independent contexts. In non-Western (e.g., Eastern/Asian) cultures, in contrast, an interdependent orientation among their members is important to meet central cultural conceptions of relatedness, belonging, and harmony (Greenfield, Keller, Fuligni, & Maynard, 2003; Kagitcibasi, 2005; Kuhl & Keller, 2008; Markus & Kitayama, 1991, 2010). Because identity is less construed as unique and different from others (compared to Western cultures) but rather as a part of significant others or a social group, an individual's social status and role in a particular group are crucial for his/her own identity.

These cross-cultural differences suggest that different emotion regulation strategies are important and adaptive in Western versus Eastern cultural contexts. Indeed, a growing literature has empirically supported interactions between culture and emotion regulation. However, the majority of these studies have focused on the strategies of reappraisal and suppression (e.g., Butler, Lee, & Gross, 2007; Grossmann & Kross, 2010; Matsumoto et al., 2008). Stable differences in the ability to regulate emotions by the agency of the self, in contrast, have rather been discussed on a theoretical basis (Koole et al., 2005; Kuhl & Keller, 2008; Markus & Kitayama, 1991) and not yet scrutinized in empirical cross-cultural investigations.

From studies within Western cultures, there is some support for the theoretical assumption that contexts emphasizing relatedness may reduce adverse effects of state orientation. For example, social support networks reduce adverse effects of rumination (Nolen-Hoeksema & Davis, 1999; Puterman, Delongis, & Pomaki, 2010). Furthermore,
mentally visualizing an accepting (vs. demanding) person/context reduces adverse effects of state orientation (Koole & Fockenberg, 2011; Koole & Jostmann, 2004; Jostmann & Koole, 2006). Finally, chronically valuing relatedness and being primed for similarities (vs. differences) with a close other helps state-oriented participants to recover from naturally occurring and experimentally induced negative affect (Chatterjee, Baumann, & Koole, under review / Chapter 3; Chatterjee, Baumann, & Osborne, 2013 / Chapter 2). These findings are in line with the idea that, within interdependent contexts, adverse effects of state orientation are attenuated. Nevertheless, state orientation might affect well-being indirectly to the extent that it interferes with the self-regulated satisfaction of needs.

2. Present Research

In the present study, we aimed at integrating the research on the interplay of self-regulation, need frustration, and well-being into a cross-cultural frame. We assumed that in all three samples the relationship between state orientation and reduced well-being would be mediated by need frustration because state-oriented individuals are less able to self-regulate the satisfaction of their basic social needs and, as a result, experience lower levels of well-being in everyday life. Additionally, we hypothesized that the adverse effects of state orientation would be stronger in the German than the Indian and Bangladeshi samples because, in the latter, individual self-regulation deficits are more easily compensated socially. Thus, we predicted universality in the structure and direction of the paths and cultural differences in the strength of some paths. Figure 5 depicts the conceptual model of our assumptions.

Our study included data from German, Indian and Bangladeshi university undergraduates. In the selection of our three samples, we followed the recommendations by Van de Viver and Leung (1997) to look for universal patterns in cultures where large differences exist as well as to investigate cultural differences in countries that share a great deal of cultural values, traditions, and historical parallels, such as India and Bangladesh. Furthermore, while effects of self-regulation, need frustration, and their interaction have been thoroughly scrutinized in research projects in Western cultures, psychological research in India has mainly focused on the interplay between personal goals and social expectations (Mines, 1988; Sinha & Tripathi, 1994; Savani, Markus, Naidu, Kumar, Berlia, 2010; Tripathi & Cervone, 2008). India and Bangladesh are neighboring countries and share many cultural aspects including languages spoken. Nevertheless, the countries differ in relevant
socioeconomic (e.g., Human Development Index; HDI) and other dimensions relevant for cross-cultural psychology (e.g., individualism-collectivism and power distance dimensions; for an overview see Hofstede & Hofstede, 2006).  

![Conceptual model of moderated mediation with cultural context (Germany vs. India vs. Bangladesh) moderating the direct (adverse) effect of state orientation (i.e., low action orientation) on well-being and the indirect effect through need frustration.](image)

**Figure 5.** Conceptual model of moderated mediation with cultural context (Germany vs. India vs. Bangladesh) moderating the direct (adverse) effect of state orientation (i.e., low action orientation) on well-being and the indirect effect through need frustration.

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The HDI represents an index that integrates statistical data about life expectancy, education, and the Gross national income (GNI) in order to rank nations according their state of development of these socioeconomic factors. According to the Development Record 2012, Germany ranks among the “very high Human Development” countries (HDI rank 5), India can be classified into the “Medium Human Development” countries (HDI rank 134), and Bangladesh into “Low Human Development” countries (HDI rank 146). The three countries also differ in psychological dimension such as Hofstede’s classical dimensions of Individualism and Power Distance (both ranging from 0 to 100): Germany scores higher on individualism (67) than India (48) and Bangladesh (20). In contrast, Bangladesh scores slightly higher (80) than India (77) in the degree to which hierarchy and power differences are tolerated and considered normal in society whereas Germany scores much lower in power distance (35). Although the HDI (e.g. Cahill, 2005) and Hofstede’s cultural dimensions have been repeatedly critized (e.g., Oyserman, Coon, & Kemmelmeier, 2002; Sinha & Tripathi, 1994; Schwartz, 1990; 1994) the indices give a glimpse of the cultural breadth of our sample.
3. Method

3.1. Participants and Procedure

Data were collected at the University of Trier (Germany), the Indian Institute of Management in Bangalore (India), and the University of Dhaka (Bangladesh). The samples consisted of undergraduate and graduate students of psychology. Altogether, 419 participants completed the questionnaires measuring state versus action orientation, need frustration, and well-being. Afterwards, they answered questions regarding demographic information. As a precondition to take part in the survey, students had to be born in and raised in the country they studied in: 104 students (70 female, 67.3%) were born and raised in Germany, 112 (44 female, 39.3%) in India, and 203 (95 female, 46.8%) in Bangladesh. In total, participants’ age ranged from 17 to 46 (M = 23.44; SD = 3.64). In return for their participation, participants either received course credit or a small monetary compensation.

3.2. Materials

3.2.1. Action Orientation after Failure (AOF)

The Action Control Scale (ACS; Kuhl, 1994) was applied to measure state and action orientation. In the present study, the failure-related dimension of action orientation (AOF) was relevant because it captures the ability to downregulate negative affect. It consists of 12 items. As an example item is: “When several things go wrong on the same day (a) I just keep on going as though nothing had happened, or (b) I usually don't know how to deal with it.” Participants were asked to select which option does more apply to their typical reaction. Whereas option “a” represents an action-oriented response, option “b” represents a state-oriented response. The number of action-oriented responses was summed up so that the total score could range from 0 to 12, with lower scores indicating lower levels of action orientation (i.e. state orientation) and higher scores indicating higher levels of action orientation. In the present sample, the internal consistency (Cronbach’s alpha) of the AOF scale was $\alpha = .74$ (Germany), $\alpha = .69$ (India), and $\alpha = .67$ (Bangladesh).
3.2.2. Need Frustration

The Motive Enactment Test (MET, Kuhl & Henseler, 2004) was applied to measure the frustration of basic social needs for relatedness/affiliation (e.g., “I feel paralyzed when faced with rejection”), achievement (e.g., “It really bothers me when I perform poorly at work”), and power motives (e.g., “I often feel inadequate around authoritative people”) with four items each. Participants were asked to rate how much these statements applied for them on a 4-point scale (1 = “not at all”; 4 = “in full”). Need frustration was calculated as the sum across the twelve items so that the total score could range from 12 to 48. Although the items touch on different semantic contents, they showed high internal consistencies in the three samples with $\alpha = .85$ (Germany), $\alpha = .84$ (India), and $\alpha = .65$ (Bangladesh).

3.2.3. Well-being

The WHO-Five Well-Being Index (WHO, 1998) was applied to measure subjective well-being. The Index comprises five items (During the last two weeks: “I have felt cheerful and in good spirits”; “I have felt calm and relaxed”; “I have felt active and vigorous”; “I woke up feeling fresh and rested”; “my daily life has been filled with things that interest me”). Participants were asked to rate their well-being over the last two weeks on a 6-point scale (1 = “at no time”; 6 = “all of the time”). The ratings of every participant were summed up to calculate a single measure of well-being that could range from 5 to 30. In the present sample, internal consistencies was $\alpha = .84$ (Germany), $\alpha = .86$ (India), and $\alpha = .76$ (Bangladesh).

3.3. Results
3.3.1. Descriptives

To test for significant differences in the strength of our main study variables between the three cultural samples, we conducted a multivariate analysis of variance (MANOVA) with culture as an independent variable and AOF, need frustration, well-being, and age as dependent variables. As listed in Table 8, the Indian sample scored significantly higher in AOF and well-being than the German and Bangladeshi samples and the Bangladeshi sample was significantly younger than the German and Indian samples. However, the three samples did not significantly differ with regard to need frustration.
Table 8

Descriptive Statistics of Main Study Variables for the Three Cultural Groups

<table>
<thead>
<tr>
<th>Variable</th>
<th>Germany</th>
<th>India</th>
<th>Bangladesh</th>
<th>$F$ (2, 416)</th>
<th>$\eta^2$</th>
</tr>
</thead>
<tbody>
<tr>
<td>AOF</td>
<td>$5.29_a$ (2.94)</td>
<td>$6.46_b$ (2.77)</td>
<td>$5.20_a$ (2.67)</td>
<td>8.23***</td>
<td>.01</td>
</tr>
<tr>
<td>Need Frustration</td>
<td>25.5 (6.37)</td>
<td>27.17 (6.63)</td>
<td>26.04 (4.92)</td>
<td>2.40</td>
<td>&lt; .01</td>
</tr>
<tr>
<td>Well-being</td>
<td>14.29$_a$ (4.83)</td>
<td>16.24$_b$ (4.97)</td>
<td>14.46$_a$ (4.34)</td>
<td>6.51**</td>
<td>&lt; .01</td>
</tr>
<tr>
<td>Age</td>
<td>24.63$_a$ (5.28)</td>
<td>23.80$_a$ (4.04)</td>
<td>22.64$_b$ (1.65)</td>
<td>11.72</td>
<td>&lt; .01</td>
</tr>
</tbody>
</table>

Note. Theoretically, scores can range for AOF from 0 to 12, for need frustration from 12 to 48, and for well-being from 5 to 30.

$^{a,b}$ Means in the same row that do not share subscripts differ at $p < .05$ in post hoc (Scheffe) tests.

* $p < .05$     ** $p < .01$     *** $p < .001$

3.3.2. Correlations

The correlations between the main study variables are listed in Table 9. AOF was negatively correlated with well-being in the German and Bangladeshi samples but not in the Indian sample. The finding may be due to ceiling effects in AOF and well-being in the Indian sample. However, in all three samples, AOF was associated with significantly lower need frustration. Similarly, in all three samples, need frustration was associated with significantly lower well-being.
Table 9

Correlations in the Total (upper half: above the diagonal), German (upper half: below the diagonal), Indian (lower half: above the diagonal), and Bangladeshi (lower half: below the diagonal) Samples

<table>
<thead>
<tr>
<th></th>
<th>(1)</th>
<th>(2)</th>
<th>(3)</th>
<th>(4)</th>
<th>(5)</th>
</tr>
</thead>
<tbody>
<tr>
<td>(1) AOF</td>
<td><strong>-.33</strong></td>
<td><strong>-.20</strong></td>
<td><strong>.14</strong></td>
<td><strong>.24</strong></td>
<td></td>
</tr>
<tr>
<td>(2) Need Frustration</td>
<td><strong>-.49</strong></td>
<td><strong>-.22</strong></td>
<td><strong>.09</strong></td>
<td><strong>.10</strong></td>
<td></td>
</tr>
<tr>
<td>(3) Well-being</td>
<td><strong>.28</strong></td>
<td><strong>-.35</strong></td>
<td><strong>.06</strong></td>
<td><strong>.02</strong></td>
<td></td>
</tr>
<tr>
<td>(4) Age</td>
<td>.16</td>
<td>.02</td>
<td>.12</td>
<td>.04</td>
<td></td>
</tr>
<tr>
<td>(5) Gender&lt;sup&gt;1&lt;/sup&gt;</td>
<td><strong>.27</strong></td>
<td><strong>-.24</strong></td>
<td><strong>.02</strong></td>
<td><strong>.20</strong></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>(1)</th>
<th>(2)</th>
<th>(3)</th>
<th>(4)</th>
</tr>
</thead>
<tbody>
<tr>
<td>(1) AOF</td>
<td><strong>-.35</strong></td>
<td>.10</td>
<td><strong>.19</strong></td>
<td>.04</td>
</tr>
<tr>
<td>(2) Need Frustration</td>
<td><strong>-.33</strong></td>
<td><strong>-.29</strong></td>
<td><strong>.20</strong></td>
<td><strong>.09</strong></td>
</tr>
<tr>
<td>(3) Well-being</td>
<td>.24</td>
<td>.13</td>
<td>.08</td>
<td>.02</td>
</tr>
<tr>
<td>(4) Age</td>
<td>.04</td>
<td>.03</td>
<td>-.02</td>
<td>-.07</td>
</tr>
<tr>
<td>(5) Gender&lt;sup&gt;1&lt;/sup&gt;</td>
<td><strong>.30</strong></td>
<td><strong>-.03</strong></td>
<td><strong>-.06</strong></td>
<td><strong>.11</strong></td>
</tr>
</tbody>
</table>

<sup>1</sup> female = 1; male = 2.

* * p < .05    ** p < .01    *** p < .001
3.3.3. Moderated Mediation

In our investigation, the focus of interest was not on differences in score levels between the cultural samples, but more on a structural level. Therefore, we computed a moderated mediation model with all variables $z$-standardized within each cultural group. To test if need frustration mediates the relationship between AOF and well-being in the different cultural samples, we conducted a moderated mediation analysis with 5,000 bootstrap resamples using the SPSS macro (Model 10) described by Hayes (2012). Using this procedure, we computed a point estimate and a 95 % confidence interval (CI) for the moderated mediation effect. Consistent with Abelson and Prentice (1997), we used C1 (Indian and Bangladeshi samples = -1, German sample = 2) and C2 (Bangladeshi sample = -1, German sample = 0, Indian sample = 1) as planned contrasts to test whether the direct and indirect effects of AOF on well-being were moderated by culture.

In the mediator variable model (see left side of Table 10), there was a significant main effect of AOF indicating that higher state orientation (i.e., lower AOF) was associated with higher need frustration. In addition, the C1 x AOF interaction showed that the relationship between state orientation and need frustration was stronger in the German sample ($\beta = .47, t = -8.44, p < .001$) than in the Indian and Bangladeshi samples ($\beta = -.25, t = -3.73, p < .001$). Figure 6 depicts the C1 x AOF interaction. Altogether, the model accounted for approximately 14% of variance in need frustration, $R^2 = .14, F(5,413) = 12.98, p < .001$.

In the dependent variable model (see right side of Table 10), there was a marginal effect of AOF indicating that higher state orientation (i.e., lower AOF) was associated with lower well-being. More important, there was a main effect of the mediator need frustration indicating that higher need frustration was associated with lower well-being. Neither the C1 x AOF nor the C2 x AOF interaction yielded a significant effect. There were no culture-specific direct effects of state orientation on well-being. The model accounted for approximately 6% of variance in well-being, $R^2 = .06, F(6,412) = 4.66, p < .001$.

The significance of the indirect effect was verified across all levels of the cultural contrast C1 and C2 with bootstrapped errors and 95% confidence intervals (CIs). Consistent with expectations, the indirect (adverse) effect of state orientation on well-being through need frustration was significant in the German sample as well as in the Eastern (Indian and Bangladeshi) samples (because the limits of the 95% confidence interval did not include zero). In addition, there was an indirect effect of the C1 x AOF interaction on well-being indicating that the path from state orientation through need frustration to ill-being is
significantly stronger in the German sample than in the Indian and Bangladeshi samples. Note that in all (Western and Eastern) samples, there was a significant association between AOF and well-being through need frustration. Thus, cultural differences between the Western and Eastern samples concern differences in the strength but not in the structure or direction of the relationships.

![Figure 6. Need frustration as a function of self-regulation and cultural context. The German sample was compared to the Indian and Bangladeshi samples. State (vs. action) orientation indicates low (vs. high) self-regulation abilities.](image)
Table 10 Summary of Moderated Mediation with Cultural Context Moderating the Direct Effect of Action Orientation (Predictor) and the Indirect Effect through Need Frustration (Mediator) on Well-being (Outcome)

<table>
<thead>
<tr>
<th></th>
<th>Mediator Variable Model (DV = Need Frustration)</th>
<th>Dependent Variable Model (DV = Well-being)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$B$</td>
<td>$SE$</td>
</tr>
<tr>
<td><strong>Constant</strong></td>
<td>.00</td>
<td>.05</td>
</tr>
<tr>
<td>Need Frustration (NF)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>AOF</td>
<td>-.38</td>
<td>.05</td>
</tr>
<tr>
<td>C1</td>
<td>.00</td>
<td>.04</td>
</tr>
<tr>
<td>C2</td>
<td>.00</td>
<td>.05</td>
</tr>
<tr>
<td>AOF x C1</td>
<td>-.09</td>
<td>.04</td>
</tr>
<tr>
<td>AOF x C2</td>
<td>-.05</td>
<td>.06</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Conditiona Direct Effect(s) of AOF</th>
<th>$B$</th>
<th>$SE$</th>
<th>$t$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bangladesh (C1 = -1, C2 = -1)</td>
<td>.09</td>
<td>.07</td>
<td>1.29</td>
</tr>
<tr>
<td>India (C1 = -1, C2 = 1)</td>
<td>.04</td>
<td>.09</td>
<td>.38</td>
</tr>
<tr>
<td>Germany (C1 = 2, C2 = 0)</td>
<td>.18</td>
<td>.10</td>
<td>1.78</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Conditional Indirect Effect(s) of AOF via NF</th>
<th>$b$</th>
<th>$SE$</th>
<th>Boot LLCI</th>
<th>Boot ULCI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bangladesh (C1 = -1, C2 = -1)</td>
<td>.05</td>
<td>.02</td>
<td>.01</td>
<td>.10</td>
</tr>
<tr>
<td>India (C1 = -1, C2 = 1)</td>
<td>.07</td>
<td>.03</td>
<td>.03</td>
<td>.13</td>
</tr>
<tr>
<td>Germany (C1 = 2, C2 = 0)</td>
<td>.11</td>
<td>.03</td>
<td>.05</td>
<td>.18</td>
</tr>
</tbody>
</table>

$C1$ (Bangladesh = -1, India = -1, Germany = 2); $C2$ (Bangladesh = -1, India = 1, Germany = 2);
LLCI (ULCI) = Lower (Upper) Limit of Confidence Interval

* $p < .05$    ** $p < .01$    *** $p < .001$
4. Discussion

The present study aimed at investigating universal and culture-specific effects of self-regulation on need frustration and well-being in three cultural contexts. Consistent with our universality assumption, we identified an indirect path that was valid across cultural boundaries: Frustration in satisfying basic social needs (for relatedness/affiliation, achievement, and power) mediated - at least partially - the relationship between state orientation and reduced well-being in all sample groups. Our result replicates findings from cross-cultural comparisons that highlight the universal benefits of satisfying personal needs (Chirkov, Ryan, Kim, & Kaplan, 2003; Chirkov et al., 2011; Mines, 1988; Hofer et al., 2010; Sheldon et al., 2004). However, it extends previous findings by identifying emotional self-regulation as an important antecedent of need satisfaction across cultures.

Consistent with our specificity assumption, the moderated mediation model also revealed cultural differences in the degree to which state orientation was related to need frustration. In the German sample, state orientation was more strongly associated with need frustration than in the Indian and Bangladeshi samples. This result is in line with the reasoning that adverse effects of state orientation decrease the more close relationships are emphasized (Chatterjee, Baumann, & Koole, under review / Chapter 3; Chatterjee et al., 2013 / Chapter 2; Koole & Fockenberg, 2011; Koole et al., 2005; Kuhl & Keller, 2008; Puterman et al., 2010). In this sense, the weaker relationship between state orientation and need frustration in the Indian and Bangladeshi samples compared to the German sample could be due to differences in the degree relatedness is valued as a core cultural concept within the three countries.

To our knowledge, our study is the first to investigate the effects of state orientation outside of Western, independently oriented cultures. Thus, our study substantially contributes to a better understanding of universal and culture-specific effects of state orientation. First, our culture-specific effect shows that in (Eastern) cultural contexts that are classically known to attach more importance to relatedness, state orientation is less disadvantageous than in independent (Western) countries. Second, our universal effect shows that state orientation can still impinge on well-being by interfering with the satisfaction of basic needs. To summarize, state orientation is a disposition that cross-culturally entails risks for psychological well-being. Learning more about the workings of state orientation in different cultural contexts is relevant to discover potent buffers as well as to learn more about universal mechanisms underlying self-regulation (Aldao, 2013).
5. Limitations and Future Perspectives

As this is the first approach to cross-culturally investigate whether need frustration mediates the relationship between self-regulation and well-being, we had to take some limitations into account that will have to be resolved in future research. First, our study is exclusively based on correlative, cross-sectional data. Hence, other directions of relationships cannot be ruled out. State orientation represents a stable disposition. Nevertheless, it is possible that in some cases repeated or permanent frustration of personal needs induces (rather than follows from) state orientation. Longitudinal research might contribute to uncovering causal relationships between individual differences in self-regulation, need frustration, and well-being.

Second, state- and action-oriented persons do not differ in their ability to access integrated self-representation and satisfy basic needs under undemanding and relaxing conditions (Baumann et al., 2005; Baumann & Kuhl, 2003; Chatterjee et al., 2013; Jostmann & Koole, 2006; Koole & Jostmann, 2004). Consequently, state orientation is only maladaptive in the face of stress. Momentary stress could act as an intermediary mechanism that moderates the occurrence of need frustration. Therefore, it would be informative to measure stressful life circumstances or experimentally induce stress in future studies.

Third, in the present investigation, we included only student samples. Whereas students probably have higher independent orientations, ethnic minorities and lower income groups are likely to have stronger interdependent orientations (Greenfield et al., 2003; Kagitcibasi, 2005, Hofstede & Hofstede, 2006). Especially, in India and Bangladesh, there are large differences in wealth and education levels between various groups of the population. This fact complicates the attempt to capture the complete spectrum of reality of lives.

Finally, the classification into individualistic/independent versus collectivist/interdependent cultures has been repeatedly and heavily criticized as vague and not being able to mirror the large differences within individualistic and collectivistic countries (e.g., Greenfield et al., 2003; Harb & Smith, 2008; Oyserman et al., 2002; Schwartz & Bardi, 2001; Sinha & Tripathi, 1994). Adding to this, a person can have independent as well as interdependent self-conceptions that are retrieved as a function of personal preference, situational characteristics, or group membership (e.g., Li, 2002; Oyserman & Lee, 2008; Oyserman, Sorensen, Reber, & Chen, 2009). Furthermore, there is also evidence for a pan-cultural hierarchy concerning personal values (Schwartz & Bardy; 2001) that points to the
high relevance of relatedness for every society in order to maintain social functioning. Thus, future studies will have to unravel the exact factor underlying our “cultural” effects.

6. Concluding Remarks

Whereas the negative consequences of state orientation have been thoroughly investigated within Western countries, this study represents the first approach to investigate effects of state orientation on well-being through need frustration among samples with different cultural backgrounds. Our findings show that, across the three different samples, state orientation enhances the risk that “you don’t get what you need” and by this way reduces well-being in everyday life. In addition, our findings show that in (cultural) contexts emphasizing relatedness, adverse effects of state orientation are buffered.
1. Overview

The previous chapters discussed and investigated individual differences in the ability to self-regulate adverse emotions across situations. A particular focus was thereby given to the dispositional inability to exert volitional control over emotions described as state orientation. Put differently, state orientation represents an imbalance of self-regulation processes that are involved in successful self-regulation (Kuhl & Kazén, 2003). In contrast to state orientation, action orientation describes high self-regulation capabilities. Thus, individual differences regarding action versus state orientation might most obviously emerge in the face of (moderate) stressful experiences. Under these conditions, action-oriented individuals are able to draw on integrated self-representations stored in extension memory which can be conceived as a personal resource to cope with situational challenges. State-orientated individuals, in comparison, often fail to access such implicit self-representation when they feel stressed. However, as outlined before, state orientation is a common psychological condition even in Western cultures: Presumably around 50% of the Western non-clinical population display increased tendencies of state orientation (Koole, Kuhl, Jostmann, & Vohs, 2005). In the light of these considerations, learning more about the factors that reduce negative effects of state orientation is important.

Literature on self-regulation has suggested that state-orientated individuals are highly susceptible to other people’s influences – even without physical presence (Baumann, Kaschel, & Kuhl, 2005; Koole & Jostmann, 2004; Koole & Fockenberg, 2011). Social pressure, disrespect, and repeated or harsh criticism can reinforce state-oriented tendencies (Baumann & Kuhl, 2003; Kazén, Baumann, & Kuhl, 2003; Koole & Jostmann, 2004). On the other hand, positive interpersonal experiences and closeness to appreciative and caring others can represent an effective way to bridge deficits in emotion regulation abilities (Nolen-Hoeksema & Davis, 1999; Puterman, Delongis, & Pomaki, 2010). A growing body of literature proposes that self-regulation – and state orientation in particular – should be considered in social context (Aldao, 2013; Koole et al., 2005; Kuhl & Keller, 2008). Positive effects of actual experienced social support (Nolen-Hoeksema & Davis, 1999; Puterman et al., 2010; Lepore, Silver, Wortman, & Wayment, 1996) and the visualizing of close relationships (Baumann et al., 2005; Jostmann & Koole, 2006; Koole & Jostmann, 2004; Koole & Fockenberg, 2011) have been scrutinized extensively. But despite the importance attached to relatedness with close others, the interaction between self-regulation abilities (i.e.
action versus state orientation) and feelings of relatedness on psychological functioning has been neglected by research, so far.

The present research intended to contribute to a better understanding of the role of relatedness for low self-regulation abilities. It aimed at answering the following questions: (1) Does relatedness buffer negative effects of state orientation under stress in independent cultures? (2) Does a generally high evaluation of relatedness increase the chance that situational cues of relatedness are perceived as supportive among state-oriented individuals? And, in a second step, expanding research to a cross-cultural field: (3) Is state orientation less disadvantageous for well-being in interdependent than in independent cultures?, and, finally, (4) Can state orientation indirectly affect well-being across cultures because it is associated with less satisfaction of basic social needs that, in turn, are linked to reduced subjective well-being? The present chapter will provide a general summary of the empirical studies presented in the last chapters and discuss their contribution to research by taking into consideration their innovative strength, their limitations and implications for various psychological domains. To avoid as much reiteration as possible, not all aspects that have already been addressed in the respective discussions of each chapter will be raised again. Instead, the focus here is to provide a general overview and discussion of the present research.

2. Contributions to the Body of Psychological Knowledge

2.1. Relatedness reduces Adverse Effects of State Orientation on Well-being under Stress

The first Chapter provided a theoretical basis for explaining why state-oriented individuals often do not get to the point at which a solution-orientated and a self-confrontational way of coping might restore the ability to act (that is by the agency of the self). Empirical investigations have underpinned the negative effects of state orientation under stress. For instance, under stressful conditions state-oriented individuals drop in performance (Jostmann & Koole, 2006), lose contact to their intuition (Baumann & Kuhl, 2002), and tend to introject external expectations (Baumann & Kuhl, 2003; Kuhl & Kazén, 1994). At the same time they run a high risk of experiencing high levels of self-alienation that is rooted in a deep feeling that the present action is not congruent with their personal preferences (Kuhl & Beckmann, 1994). Positive social contexts are able to decrease such
stress-related phenomena. While the beneficial role of actual and imagined supportive contexts has been examined before, Chapter 2 represents the first empirical approach to demonstrate the stress-protecting potential of relatedness. Most importantly, the two studies reported in Chapter 2 highlight that the importance of relatedness might find its expression in different ways (personal values of benevolence and priming for similarities between self and a close friend), can vary by duration (stable values vs. short-lived priming effects), scope (content vs. accessibility of self-cognitions) and two different self-regulatory outcomes (subjective well-being and affective response to an experimentally induced stressor). In summary, these studies can be considered as the first empirical support of the key role of integrated social contexts as a protective factor for state-oriented individuals.

2.2. Feeling Close to Others as a Hidden Benefit of State Orientation

While personal values guide behavior across situations, pro-social values are directed towards positive relationships to close others and are aggregated in the value orientation described as ‘benevolence’. Mikulincer et al. (2003a) conceive benevolences as internal representations of supportive socialization experiences. The importance of feeling and thinking interconnected with close others also increases the responsiveness to the situational activation (priming) of relatedness/interdependence (Pöhlmann & Hannover, 2006). In Chapter 3 the interaction between benevolence and induced orientations that either matched (priming for similarities) or mismatched (priming for differences) the chronic value orientation towards benevolence were examined. Both studies in Chapter 3 could demonstrate that the more state-oriented participants valued benevolence the more they benefited from priming for similarities. In contrast, action-oriented individuals were emotionally less dependent on valuing and/or priming social support probably because they were able to regulate their emotions by themselves. This finding is well in line with the reasoning of PSI theory and previous investigations that emphasize the intuitive self-confrontational mode of action-oriented emotion regulation (Kuhl, 2001; Koole & Jostmann, 2004; Koole, Jostmann, & Baumann, 2012). The empirical work in Chapter 3 represents a first approach to study conjoint effects of relatedness and its situational priming on self-regulatory outcomes.

Indirectly Chapter 3 also points to a neglected line of research on negative effects of action orientation. Action-oriented individuals characteristically try to cope with obstacles without external help and therefore seldom show weakness or ask for help. These
characteristics bring along the downside of their high self-regulation abilities. Because action-oriented individuals seldom express when they feel helpless, they run the risk of not requesting and accepting help from others when they need it. Additionally, research was relative inattentive to the question of psychological well-being among action-oriented individuals when conditions are not stressful. Is it possible that action-oriented individuals need stressful conditions to tap on their self? Under relaxed conditions, when it is not important to protect own interests, needs, and personal desires, action-oriented individuals might have increased difficulties to distance themselves from others’ wishes and expectations. To describe this tendency, Baumann (1999) drew a parallel between action-oriented individuals and extraversion in terms of Jung (1971): According to Jung, extraversion can be described as the opportunistic adjustment to currently in vogue opinions. In other words, it might be possible that action-oriented individuals need challenges to resist conformity and establish self-congruence and well-being. This reasoning is well in line with the results of the second study reported in Chapter 3 in which thinking of similarities represented some sort of challenge for action-oriented participants who did not value relatedness and possibly prompted them to activate their full self-regulatory potential to the effect that they feel highly secure.

Taken together, Chapters 2 and 3 shed considerable light on the initial problem presented in the introductory section. Additionally, as tested in Chapter 5, the results of the present studies suggest that state orientation might be less disadvantageously in contexts that attach high importance on strong relationships and interconnectedness with others.

2.3. Effects of State Orientation in Germany, India, and Bangladesh

As elaborated in Chapters 4 and 5, cross-cultural research has contrasted cultural contexts that differently support relatedness with close others. It is reasonable to assume that cultural influences on relatedness might interact with state orientation, but, so far, no published study has empirically examined individual differences in action versus state orientation in non-Western cultures.

Chapter 5 introduced a first empirical approach to study cultural differences and similarities of action versus state orientation in Western and Eastern cultures simultaneously. The results reported in Chapter 5 showed that cultural differences exist in the degree to which state orientation was related to need frustration. The weaker relationship between state orientation and need frustration in the Indian and Bangladeshi samples compared to the
German sample could be due to differences in the degree relatedness is valued as a core cultural concept within the three countries. This result integrates the findings of Chapter 2 and 3 into a cross-cultural frame by showing that adverse effects of state orientation decreased the more close relationships were emphasized.

However, in Chapters 4 and 5, it was hypothesized that due to their poor self-regulation abilities state-oriented individuals should have more difficulties in satisfying personal needs, and therefore experience lower levels of well-being in everyday life, across cultures. Referring to the negative affect modulation assumption postulated by PSI theory (Chapter 1), state orientation should favor the activation of the object recognition system while, at the same time, impeding the access to extension memory and personal needs. This assumption is also supported by empirical evidence from studies in Western and Eastern cultures on rumination (i.e., an indicator of state orientation) which was associated with the same modes of information processing in independent (Western, individualistic) and in traditionally interdependent (Eastern, collectivistic) cultures (Kuhl, 2001; Kuhl & Baumann, 2000; Lo, Ho, & Holland, 2010). In line with this thinking, Chapter 5 illustrated that the frustration of basic social needs (for relatedness/affiliation, achievement, and power) mediated – at least partially – the relationship between state orientation and reduced well-being in all sample groups. Thus, even under the consideration of culture-specific and socialization-related influences, the present work provides first empirical evidence that state orientation can be conceived as a disposition that entails risks for psychological well-being probably in all cultures.
3. Limitations of the Present Research and a Critical Discussion of the Central Constructs

The research of individual differences in self-regulation within social contexts is in many aspects a still unexplored field. Therefore, the present work had to take several limitations into account of which the most important have already been addressed in the respective discussions of each chapter. Beyond the already discussed limitations (e.g. the exclusive focus on student samples), limitations had to be made in regard to the form of measurement of the constructs action versus state orientation, relatedness, and their conjoint effects. The most important aspects are discussed in the following.

3.1. Action versus State Orientation

Every measurement is limited. Thus, the decision for one instrument to measure a specific construct confines the investigation to the limitations of this instrument. This also applies to the measurement of the construct action versus state orientation with the Action Control Scale (ACS; Kuhl, 1994). Over the last 20 years, the ACS has been proven as a reliable and valid measurement across studies. Most importantly, the ACS has many advantages including its dichotomous response format that reduces the temptation to answer the items based on rational and analytic thinking (Kuhl, 1994; Kuhl & Kazén, 2003). However, the ACS cannot cover every aspect of action and state orientation. First of all, the ACS remains susceptible to effects of social desirability. Taking into account that most participants of the present investigations were psychology undergraduates, it cannot be excluded that some had a vague idea of what the ACS is intended to measure. It is also possible that other (uninformed) participants might have answered in terms of social desirability. Additionally, some action-oriented response options provided in the ACS-90 (used in all studies here), do not clearly distinguish between an action-oriented response and the repression of negative emotions by escaping into positive affect. In a more recent version of the ACS, answers to items that could have disguised such distra
cctive, repressive or actionist tendencies, include a third response alternative (Kuhl, 2010). An example item for this new version is, “When I have put all my effort into doing a really good job on something and the whole thing doesn't work out (a) I don't have too much difficulty starting something else, (b) I have trouble doing anything else at all, or (c) I'm looking for something new to get engaged in, so discontent cannot arise.” In this example, option “a” reflects the action-
oriented response alternative, option “b” reflects the state-oriented response alternative, and option “c” a repressive way to avoid the confrontation and coping with negative affect. However, up to date, there is no equivalent alternative measure that could capture individual differences in action versus state orientation as precise as the ACS.

Beyond the limitations of the ACS, the separation between demand-related action versus state orientation (AOD vs. SOD) and threat-related action versus state orientation (AOF vs. SOF) is not as straightforward in reality as it is in theory. Frequently, identical situational stimuli trigger negative affect and reduce positive affect. Accordingly, the downregulation of negative affect often goes hand in hand with the upregulation of positive affect. For this reason, demand-related action versus state orientation (AOD vs. SOD) and threat-related action versus state orientation (AOF vs. SOF) are often correlated (Koole et al., 2005). In everyday life, this renders a clear distinction between both difficult.

Finally, referring to cross-cultural comparisons in action versus state orientation questions the comparability – i.e. the pan-cultural validity – of the construct action versus state orientation. Van de Vijver & Leung (1997; see also van de Vijver, 2011) distinguish between (1) construct bias that occurs when the construct intended to measure is not identical across cultural groups, (2) method bias that is related to the administration of a test, and (3) item bias that refers to differential item functioning or, in other words, questions whether the meaning of an item is stable across cultures. These three major types of bias relate to different levels of equivalence (Van de Vijver, 2011).

First, the construct action orientation represents the condensation of complex, concurrent biological and psychological processes. As such, state orientation can be conceived as a lack or an imbalance of self-regulation processes (Kuhl & Kazén, 2003). But it remains an open question whether the negative affect modulation assumption of a facilitated access to the implicit self as a mechanism to downregulate negative affect can be easily generalized to non-Western cultures. Second, the internal consistency (Cronbach's alpha) of the AOF scale ranged from acceptable to good in the empirical studies presented here. Nonetheless, especially in regard to Chapter 5, a more fine grained examination of the ACS would be recommendable for future cross-cultural investigations. To mention an example at the item level, the item “If I'm stuck in traffic and miss an important appointment” might affect members of different cultures differently depending on the understanding of time (i.e., polychronic vs. monochronic time) or the importance of
punctuality within a specific culture. Culture sensitive measures are still unusual in the domain of emotion-regulation research, but are already common in motivation research (e.g., Hofer, Chasiotis, & Campos, 2006; Tripathi & Cervone, 2008). Finally, concerning possible administration biases, it remains unsolved whether Indian and Bangladeshi participants were as acquainted with filling in (online) questionnaires as German participants were. The concept of psychological questionnaires is rather new in these countries compared to Germany.

3.2. Relatedness

In addition to action versus state orientation, relatedness represents the second central construct in the present research. However, up to no w, many questions on relatedness are not answered in detail: Do different methods of operationalizing relatedness measure the same facets of relatedness? How aware are people about their feeling of relatedness towards important others? Do they always explicitly construe the self as independent or interdependent/related with others or are there implicit aspects in feeling related, too? And finally, does the notion of relatedness include the same conceptions, feelings, and cognitive processes across cultural groups? All questions have been tackled throughout this work. Hence, in the following, I will discuss the most important aspects from a meta-perspective.

The distinction between conscious and unconscious aspects of the self in relation with others is connected to theoretical considerations about conscious (explicit) versus unconscious (implicit) processes associated with the self in general (Chapter 1). Independent and interdependent self-construals might reflect explicit, conscious and self-assigned attributes about the own identity in relationship to one’s social world. Yet, implicit parts of the self in its relation to others might be rather expressed in styles of thinking and behavior. In cross-cultural research, most researchers have tried to avoid the discussion about the consciousness of culturally bound self-orientations (Harb & Smith, 2008). However, drawing on definitions of culture and theoretical assumptions about culture-specific socialization experiences, it is conceivable that unconscious cultural norms might interact and affect the conscious construal of the self (Geertz, 975; Markus & Kitayama, 1991; Hofstede, 1997; Hofstede & Hofstede, 2006). For instance, Hofstede (1997) introduced the notion software of the mind to describe a pattern of thinking, feeling, and behaving that is adopted during socialization within a specific cultural context and of which members of the same culture are not necessarily aware of. Similarly, Schwartz and Bardi (2001, p.280)
argued that “value transmission, acquisition, and internalization occur as individuals adapt to the everyday customs, practices, norms, and scripts they encounter”. Finally, research on culture shock highlights that people become aware of their cultural norms, when they are faced with other cultural conceptions than their own (Ward, Bochner, & Furnham, 2001). But, up to date, it remains unsolved how much people can really become aware of their own cultural dispositions.

Chapter 4 delineated the variation of socialization experiences due to culture specific parenting theories. An independent style of thinking is often promoted by the socialization within an independent (individualistic) cultural context, whereas an interdependent orientation is promoted by interdependent (collectivistic) cultural contexts. As addressed in the first chapter, a focus on independent aspects of the self supports analytic, context-independent and abstract thinking, whereas, the activation of interdependent aspects of the self, foster a holistic, context-dependent mode of thinking. Based on culture-specific socialization histories and their influence on preferences for different information processing, Kuhl and Keller (2008) reasoned that the nature of relatedness might differ in independent (individualistic) and interdependent (collectivistic) cultures. Thus, feeling related and thinking of oneself as interdependent in Western cultures might rather be described as an integration of close others’ feelings, wishes and plans. Accordingly, within independent (individualistic) cultures, an emphasize of diachronic interaction (characterized by delayed responses of caretakers to expressions by the child) of parents might promote the combination of analytical thinking in which oneself is conceived as different from the other and the ability to extend and integrate the other’s perspective and needs. On the other hand, the combination of analytic processing with a rather synchronic parenting style (characterized by synchronized caretaker-child behavior) might prevent that others are presented as separate from oneself. In extreme cases, this combination might even result in pathological personality traits, such as a narcissistic personality. In comparison, relatedness in Eastern cultures can be rather described as an interpersonal fusion (Kuhl, 2012; Kuhl & Keller, 2008); albeit it is not associated with the same pathological traits as in Western cultures. Kuhl (2012) proposed that dynamic differences exist between independent and interdependent cultures in the integration of isolated experiences into the implicit self-system. People in all cultures strive for integration. But, while members of independent

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7 Kuhl (2012) referred in his talk to Hegel’s dialectic of thesis, antithesis, and synthesis (1807) in order to overcome opposing views in analytical either-or-thinking towards an integrative view.
cultures are more inclined to *delayed integration*, members of interdependent cultures might strive for *instant integration* of opposing experiences. Future research will have to disentangle effects of cognitive processing, socialization experiences, and their conjoint impact on the development of different expressions of relatedness.

### 3.3. Self-Regulation and Relatedness

Research over the last 30 years has increasingly turned attention to the link between varying degrees of relatedness and motivational directions (Brewer & Gardner, 1996; Lee, Aaker & Gardner, 2000; Kühnen & Hannover, 2010). Conceiving oneself as separate and independent from others has been associated with promotion goals that support the regulation of behavior towards positive outcomes and serve one’s own interests (promotion focus). In contrast, relatedness and interdependence with others has been associated with prevention of negative outcomes and the concern for other people’s interests (prevention focus). Different regulatory foci have also been associated with specific processing styles (Friedman & Förster, 2001; Förster, 2012; Förster & Higgins, 2005). More precisely, prevention focus has been found to be linked to local processing, whereas promotion focus seems to be supported by global, holistic processing. Consequently, because of its link to prevention goals, relatedness should foster local processing. Conversely, feelings of separateness and independence should support global, creative and holistic processing due to the importance of promotion goals.

Kühnen and Hannover (2010) argued that this assumption conflicts with the idea of analytic, context-independent and abstract thinking associated with an independent cultural self-orientation, and, on the other hand, a holistic, context-dependent mode of thinking, when interdependence and relatedness are paramount. To resolve these seemingly conflicting findings, they speculated that stress might play a crucial role in explaining the interaction between regulatory focus, processing style, and relatedness (versus separation). Accordingly, when separation and independence are important to a person, stress might elicit the need to protect own goals and wishes. This might be accompanied by a shift from global to local processing. In comparison, a person that feels (chronically) closely related to important others might under stressful conditions broaden his/her focus to include expectations, interests and the help from their social context. To date, this speculation has not been scrutinized and goes beyond the present research. Future research will have to turn more attention to the interactions between individual differences in self-regulation,
regulatory focus, relatedness and the influence of stress on cognitive operations and contents and their influence on well-being within specific social contexts.

Finally, with regard to cross-cultural comparison the inclusion of religion and spirituality will be important for future studies on self-regulation. Religious and spiritual practices do not only support emotional well-being, but might foster implicit self-regulation abilities and, by this means, promote the development towards action orientation (Koole, McCulough, Kuhl & Roelosma, 2010). For instance, cross-cultural studies show that religiosity is linked to the way people deal with thoughts on their death (Alvarado, Templer, Bresler, & Thompson-Dobson, 1995; Parsuram & Sharma, 1992; Wink, 2006). In these studies, religiosity and the belief in afterlife predicted decreases in death anxiety. Moreover, the more afterlife was propagated by a religion the lower were the levels in death anxiety among members of these religions (Parsuram & Sharma, 1992). Despite these differences, many religious traditions have in common that they include some meditative practices as a constituent element (McCullough & Willoughby, 2009). Additionally, during the last decades, stress-reducing techniques, like Mindfulness-Based Stress Reduction (MBSR; Kabat-Zinn, 2013), that are influenced by Eastern thinking enjoy growing popularity in Western cultures and make alternative methods of stress-reduction available. A growing body of research shows that meditation directly intervenes with functions of extension memory and its interconnection with the autonomic nervous system (Cahn & Polich, 2006).

Like many different religious positions, most modern stress-reducing techniques do also emphasize the affectionate caring for oneself and others. Transferred to the present research, it cannot be excluded that religious and spiritual orientations or an emphasis on mindfulness might have interacted with the measure of self-regulation abilities and relatedness. Most empirical studies suggest, however, that religiosity and mindfulness gain in importance with age (e.g. Duff & Hung, 1995). Thus, religiosity and mindfulness might have been less important in the present student samples. Nevertheless, it is vital for future research to take such orientations into account because they might not only interact with well-being, but directly tap on self-regulation abilities and relatedness.

4. Implications and Outlook

Western independent-oriented cultures tend to emphasize the uniqueness and personal autonomy of every individual. The conceptions and expectations associated with this notion
boost the importance of action-orientated abilities. Symptoms that are related to state orientation, such as rumination, preoccupation, and hesitation, are often devaluated by society, and in many instances so are individuals who struggle with regulating their emotions (Diefendorff, Hall, Lord, & Strean, 2000; Swann, Wenzlaff, Krull, & Pelham, 1992). This applies in particular to state orientation, as it can only fully be understood within a social context. Social environments are involved in the development of state orientation and they may profit from its effects (e.g., in terms of conformity of the group members), but, they might also be involved in reducing the negative effects of state orientation. The present work shows that state-oriented individuals carry protective factors against adverse conditions within themselves. This knowledge has implications that reach beyond the mere research interest and is best illustrated in its implementation in professional practice.

4.1. Relatedness reduces Negative Effects of Stress and increases Security among State-Oriented Individuals

Chapters 2 and 3 have demonstrated that state-oriented individuals benefit from relatedness, because it reduces negative effects of stressful experiences (Chapter 2) and increases feelings of security (Chapter 3). Especially, the first study in Chapter 2 highlights the importance for state-oriented individuals valuing relatedness to seek out environments that match their need for strong ties with others. Thus, contexts and situations that increase feelings of relatedness can be conceived as a protective niche that diminishes the negative effects of state orientation. For example, working contexts that satisfy the need of relatedness might encourage state-oriented persons to bring high levels of performance. As such, state-oriented individuals might gain from teamwork and, the other way round, teams might profit from state-oriented individuals accuracy and careful considerations. Haschke and Kuhl (1995) provided a first evidence for this assumption by showing that aircraft crews in which a state-oriented co-pilot assisted an action-oriented pilot were more effective than teams that consisted of only action- or state-oriented (co)pilots.

Furthermore, the results of the present investigation have also therapeutic implications. The second study of Chapter 2 showed that under stress, thinking of similarities with a close person helps state-oriented individuals to downregulate their negative emotions. In addition, both studies in Chapter 3 demonstrated that chronically attaching high importance to relatedness facilitates that the situational activation (priming) of similarities with others enhances feelings of security. Transferred to a therapeutic context, the activation of the
psychological presence of supporting and appreciative social contexts might represent an important resource in treating psychological symptoms related to state orientation and to strengthen patients in gaining emotion-regulation abilities. In their search ‘what works in therapy?’ Hubble, Duncan, and Miller (1999), for instance, proposed that across therapeutic approaches and irrespective of the therapist, 30% of the variance that contributed to subjective improvement among clients was based on relationship factors, such as empathy, acceptance, and the encouragement to take hazards. In comparison, placebo, hope, positive expectations regarding the therapy, or specific therapeutic techniques only constituted 15% in their survey. Only extra-therapeutic factors explained more variance (40%) – whereby it must be taken into account that the social environment and support coming from it are part of these factors.

A different approach would be the explicit use of relatedness within a therapeutic setting: When relatedness is central to a patient, the extension from a person-centered approach to a systemic point of view might path the way for more alternative coping strategies. In other words, the shift from feeling separated from others to the experience of relatedness and interdependence might represent a route for state-oriented individuals to cope with their self-regulation deficits. By learning to respond flexibly to changing social contexts and to adjust the feeling of relatedness depending on the demands of varying situational contexts, state-oriented individuals might gain confidence in coping with stressful experience and free themselves from being susceptible to effects of adverse emotional states.

Such processes can also evolve outside a therapeutic setting. The “Michaelangelo Phenomenon”, for example, describes the phenomenon that emotionally intertwined individuals influence and ‘sculpt’ each other and support a person (over time) to live up to their ideal-self (Rusbult, Kumashiro, Kubacka, & Finkel, 2009). In the long run, positive social experiences in which a person feels accepted and understood along with his/her inner needs, might increase the integration of relatedness. By this way, similar to social support, relatedness might put state-oriented individuals into a position to act.

### 4.2. State Orientation in Cross-Cultural Comparison

Research on action and state orientation has mainly focused on Western cultures. Chapter 5 represents a first cultural comparison of the effects of state orientation on well-

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8 The phenomenon refers to the ideas of the artist Michelangelo Buonarroti who thought of his sculptors as being concealed in the block of marble and just having to be carved out by the artist
being among samples in Germany, India, and Bangladesh. Eastern cultures, like India and Bangladesh, attach more importance on interpersonal relationships, but less on self-regulation. The results in Chapter 5 showed that in interdependent (Eastern) cultures, state orientation was associated with less impairment in well-being than in independent (Western) cultures. Nonetheless, across all samples, state orientation was associated with less satisfaction of basic social needs and, in turn, reduced subjective well-being. What can be learned from these findings?

Above all, the results of Chapter 5 can be understood as a caution not to underestimate the role of self-regulation in interdependent cultures. Even when relatedness is valued as a cultural conception, state orientation can impinge on well-being. This might be even more the case when social hierarchical structures imbue many spheres of life and prevent the satisfaction of personal needs (for a deeper discussion on hierarchical structures in independent vs. interdependent cultures, see Triandis & Gelfand, 1998). As a result, state-oriented members in these cultures might experience similar conflicts between social expectations and personal goals as members from independent cultures (Chirkov, Ryan, & Sheldon, 2011; Mines, 1988; Sheldon et al., 2004). This idea is in contrast to the long held view that autonomy and personal strivings are devaluated in all interdependent cultures (e.g., Iyengar & Lepper, 1999). Regarding Indian society, Mines (1988) was one of the first Western researchers to challenge the view that Indians subordinate their goals to the Indian hierarchical system. Based on 23 life histories, he illustrated that with age, the wish for autonomy and the resistance to externally imposed goals grew stronger. 25 years after Miles’ studies, societal changes in India grow faster than ever and go hand in hand with young people’s adoption of a Western lifestyle and ideals. This might be true for many other emerging countries, too. Therefore, Chapter 5 reflects the Zeitgeist of an ever faster globalizing world and its effects on psychological variables.

However, in line with cross-cultural research on emotion regulation (e.g., Butler, Lee, & Gross, 2007; Grossmann & Kross, 2010; Matsumoto et al., 2008), Chapter 5 confirms that there are indeed cultural differences in emotion regulation. Theoretical derivations drawn from self-regulation research and cross-cultural psychology suggested that state orientation might be less harmful for well-being in interdependent than in independent cultures (Koole et al., 2005; Kuhl & Keller, 2008). The study presented in Chapter 5 was designed as a first empirical underpinning for this assumption. As expected, the results showed that impairing effects of state orientation on well-being is more easily compensated for in cultural contexts.
emphasizing relatedness. Together with the implications drawn from Chapter 2 and 3, Chapter 5 highlights once more that state-oriented individuals might prosper from a shift in cultural orientations towards relatedness and interdependence. Socialization and cultural imperatives might profoundly shape what (contents) and how (processing) members of specific cultures preferably think and feel, and how they regulate and express their emotions. The promoted analytic processing style in Western cultures is reflected in the high emphasis given on planful actions, self-discipline, and the tendency to judge behavior on the basis of personal traits but not on its interaction with situational circumstances. A strong bias to independence might therefore lead to a restricted focus and the risk of ignoring integrative perspectives. Yet, people within a given culture vary in their need for relatedness as they do in their ability to self-regulate negative emotions and stress. Learning more about the impact of relatedness opens up a niche for those who do not get along so well with the Western accentuation on uniqueness and psychological separation from others.

In a similar fashion, Kuhl and Keller (2008) argued that the notion “independent” as used in cross-cultural literature describes a reduction of the Western culture. They argue that this oversimplification is deeply rooted in European philosophy (starting with a strong emphasis of analytic thinking within Greek philosophy) and its developments, such as the social transformation triggered by reformation and the influences of the Enlightenment. Kuhl and Keller (2008) contrasted this view to the tradition of diachronic dialecticism as another integral part of the European tradition (i.e. strongly represented in the Jewish-Christian tradition). Diachronic dialecticism refers to the self-confrontational coping and the integration of unpleasant experiences rather than avoiding or repressing them. In terms of PSI theory, this way of self-confrontational coping describes the reduction of negative affect that dissolves the antagonism between object recognition and extension memory in such a way that isolated experiences can be integrated in congruent representations of own needs and goals. Relatedness might represent an indirect route to challenge the reductionist view on independent cultures. Especially, when people are not ready yet for integrating negative experiences into their implicit self-system, feeling related to close others might represent a method of tapping into the holistic functioning of extension memory. This route might be to some extent uncoupled from the capacity of self-dependent emotion-regulation. It might not represent a direct way to self-development, but it might lay down an important basis for a diachronic dialecticism between object recognition system and extension memory, and hence represents a first step towards action orientation.
References


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Summary

Every day people are exposed to a wide variety of emotion-eliciting stimuli. Especially negative emotional stimuli such as increased stress levels, personal failure or setbacks can undermine well-being in the short and the long run. The construct state versus action orientation describes individual differences in the ability to self-regulate emotions. Action orientation after failure describes people’s ability to effortlessly (and intuitively) downregulate negative emotions, disengage from dysfunctional ruminations, and retain the capability to act even when faced with obstacles. By contrast, state orientation after failure describes the inability to exert volitional control over aversive affective states. State-oriented individuals’ tendency to get stuck in negative affective states has been linked to a wide range of psychological impairments, such as increased tendency to rumination, mismatches between explicit goals and implicit needs, decreased levels of well-being, and the development of psychosomatic symptoms (Baumann, Kaschel, & Kuhl, 2005; Baumann & Kuhl, 2003; Baumann & Quirin, 2006; Kuhl & Beckmann, 1994).

More than 30 years of research on state and action orientation have demonstrated the downside of low self-regulation competence (e.g., Kuhl, 1981, 2001, 2011). However, given that as much as 50% of the normal, non-clinical population in Western countries may suffer from emotional self-regulation deficits, state orientation can be considered as a common psychological condition (Koole, Kuhl, Jostmann, & Vohs, 2005). Moreover, the limited malleability of both state orientation and stressful life events, underscore the importance to examine the factors that can provide a buffer against the negative effects of their co-occurrence.

In recent years, the interaction between contextual factors and self-regulation has received increasing attention. In particular, positive social connections and relatedness (i.e., the feeling of being inseparably connected to close others) emerge as the most promising candidates to reduce the interfering effects of state orientation on well-being (Koole et al., 2005; Kuhl & Keller, 2008). The impact of experienced support and the visualization of supportive and relaxing contexts have been investigated thoroughly. So far, however, the role of relatedness has only been discussed at a theoretical level.

The present thesis sets out to empirically test the theoretical assumptions about the impact of relatedness on self-regulation abilities. The dissertation draws on current paradigms in social cognition and cross-cultural personality research, to assesses cultural contexts at the individual level in differences between members of various cultures in their
concern for relatedness to close others. Within this wide field of research, the present thesis aims at answering - more specifically - the following questions: (1) Does relatedness buffer negative effects of state orientation under stress? (2) Does a generally high evaluation of relatedness increase the chance that situational cues of relatedness are perceived as supportive among state-oriented individuals? Further, expanding the field of research to a cross-cultural field: (3) Is state orientation less disadvantageous for well-being in interdependent than in independent cultures? And, finally, (4) can state orientation indirectly affect well-being across cultures because it is associated with less satisfaction of basic social needs that, in turn, are linked to reduced subjective well-being? To address these questions, the present thesis presents five studies that are based on effects of natural and experimentally induced variations in relatedness and its relationship to self-regulation, stress, and well-being.

In Chapter 1, I provide a brief introduction to dispositional differences in self-regulation (i.e. action versus state orientation), relatedness and the current state of research on their interaction in. In Chapter 2, I present two studies addressing the question whether relatedness buffers negative effects of state orientation under stressful conditions. In each of the presented studies, this question was approached differently. The first study in Chapter 2 provides a correlational analysis of the interaction between state orientation, pro-social value orientation (expressed by personal values comprised as benevolence) as a sign of relatedness, and stressful life circumstances on well-being. The results of this study show that – compared to state-oriented participants that devaluated pro-social orientations – state-oriented participants who gave high importance to pro-social values, felt less impaired in their subjective well-being even when they reported that life circumstances were stressful. In the second study in Chapter 2, relatedness and stress were experimentally manipulated. Here, the interaction between state orientation and the two manipulated variables on changes in negative mood were measured. Taken together, the results of both studies in Chapter 2 confirm the hypothesis that under stressful conditions state-oriented individuals profit from contexts that foster relatedness.

There are individual differences in the degree people value and need socially supportive contexts (i.e. relatedness) for their personal well-being. Therefore, it is likely that not all state-oriented individuals perceive relatedness to be helpful in emotion regulation to the same extent. Based on this reasoning, I address the effects of self-regulation, values, and situational context conjointly in Chapter 3. The idea we wanted to test was whether 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 value relatedness as an essential principle in their lives. The two studies presented in Chapter 3 approach the question whether a generally high evaluation of relatedness among state-oriented individuals might increase the openness to perceive situational cues of relatedness as supportive. In both studies a high pro-social value orientation as a sign of relatedness (like in Chapter 2 expressed by personal values comprised as benevolence) favored that state-oriented participants felt more secure after they had thought of similarities towards a close person, whereas they felt less secure after they had thought of differences. This increase in security among state-oriented participants with high pro-social value orientation was observed, when the other person was present (Chapter 3/Study2) as well as when participants only thought of a person important to them (Chapter 3/Study1).

A growing body of cross-cultural literature suggests that there are cultural differences in the degree relatedness is valued as a core cultural conception and in the degree self-regulatory abilities (i.e., action versus state orientation) are important for subjective well-being. In particular, some authors have proposed that in Eastern (interdependent) cultures, a higher tendency towards state orientation will be found – albeit without the impairments observed in Western (independent) cultures (Kuhl & Keller, 2008). To date, however, no published research has investigated these assumptions. In Chapter 4, I provide a short theoretical introduction to cultural developmental pathways of self-regulation and its effects in adulthood within different cultural settings. In Chapter 5, I present a first approach to investigate cultural similarities and differences in the effects of state orientation on well-being. Central to this chapter is the question whether state orientation might be less disadvantageous for well-being in Eastern than in Western cultures. In Western cultures, the link between state orientation increased frustration of basic social needs (for relatedness/affiliation, achievement, and power) and the development of psychosomatic symptoms is well established. In a similar vein, previous research in Eastern cultures has suggested that a restriction of personal needs might impair well-being across cultural boundaries. Therefore, it is conceivable that state orientation might indirectly affect well-being across cultures because it is associated with less satisfaction of basic social needs that, in turn, are linked to reduced subjective well-being. In the study presented in Chapter 5, the frustration of basic social needs mediated – at least partially – the relationship between state orientation and reduced well-being in samples from one Western (German) and two Eastern (Indian and Bangladeshi) countries. At the same time, the study revealed cultural differences in the degree to which state orientation was related to need frustration. In the German
sample, state orientation was more strongly associated with need frustration than in the Indian and Bangladeshi samples. This result is in line with the reasoning that adverse effects of state orientation decrease when state-oriented people recognize value of close relationships.

In the closing chapter, Chapter 6, I summarize the results of all the empirical studies in this theses and put them in broader perspective. In so doing, I critically discuss the contribution of knowledge to the latest state of research and the central constructs action versus state orientation and relatedness in their cross-cultural significance and their culture-specific variations. Finally, I discuss the implications of the present research for working contexts, therapy and interpersonal interactions in everyday life.
Verbondenheid als hulpbron bij toestandoriëntatie

Samenvatting

Mensen worden dagelijks geconfronteerd met allerlei situaties die emoties oproepen. Vooral negatieve emoties, veroorzaakt door stress, persoonlijk falen, of tegenslag kunnen het welzijn van mensen ondermijnen, zowel op de korte als lange termijn. Het begrip actie - vs. toestandoriëntatie verwijst naar individuele verschillen in hoe goed mensen zelfstandig hun emoties kunnen reguleren. Actie-georiënteerde personen zijn in staat om moeiteloos (en intuitief) hun negatieve emoties te reguleren, te stoppen met piekeren, en blijven in staat om te handelen, zelfs wanneer ze geconfronteerd worden met obstakels. Toestand-georiënteerde personen daarentegen zijn minder goed in staat om vrijwillige controle over aversieve emoties uit te oefenen. De neiging van toestandgeoriënteerde individuen om vast te komen zitten in negatief affectieve staat gaat vaak samen met allerhande psychologische problemen, zoals piekeren, een lage overeenstemming tussen expliciete doelen en impliciete behoeften, lagere niveaus van welbevinden, en het ontwikkelen van psychosomatische symptomen (Baumann, Kaschel, & Kuhl, 2005; Baumann & Kuhl, 2003; Baumann & Quirin, 2006; Kuhl & Beckmann, 1994).

Meer dan 30 jaar onderzoek naar actie- en toestand-oriëntatie hebben de nadelen van toestand-oriëntatie duidelijk aangetoond (e.g., Kuhl, 1981, 2001, 2011). Toestand-oriëntatie is een veelvoorkomende psychologische dispositie, die wellicht karakteristiek is voor zo’n 50% van de normale, non-klinische populatie in Westerse landen (Koole, Kuhl, Jostmann, & Vohs, 2005). Mensen hebben zelf weinig invloed op hun dispositie voor actie- of toestandoriëntatie. Daarnaast is het onmogelijk om alle stressvolle levensgebeurtenissen uit de weg gaan. Daarom is het belangrijk om na te gaan welke factoren misschien een buffer kunnen vormen tegen de negatieve effecten van toestand-oriëntatie.

Recentelijk is er meer aandacht gekomen voor de interactie tussen context factoren en individuele verschillen in zelfregulatie. Met name positieve sociale relaties en verbondenheid (het gevoel onafscheidelijk verbonden te zijn met anderen) zijn veelbelovende kandidaten voor het verminderen van de negatieve effecten van toestandoriëntatie op welzijn (Koole et al., 2005; Kuhl & Keller, 2008). De invloed van waargenomen steun en de visualisatie van ondersteunende en ontspannende contexten zijn eerder onderzocht. Echter, tot op heden is de rol van sociale verbondenheid alleen nog maar theoretisch besproken.
Dit proefschrift heeft als doel om de theoretische aannames over de impact van verbondenheid op zelfregulatie vaardigheden empirisch te toetsen aan de hand van actuele paradigma’s uit de sociaal cognitief- en cross-cultureel persoonlijkheid-onderzoek. Dit laatste onderzoek richt zich op culturele contexten op het individuele niveau tussen leden van verschillende culturen en de mate waarin ze verbondenheid met nabijte anderen belangrijk vinden. In dit breed onderzoeksveld poogt dit proefschrift specifiek de volgende vragen te beantwoorden: (1) Vormt verbondenheid een buffer tegen de negatieve effecten van toestandsoëintatie in een stress situatie? (2) Vergroot het meer waarde hechten aan verbondenheid de kans dat situationele cues van verbondenheid ondersteunend werken bij toestandsoëintenteerde personen? Voorts, het onderzoeksveld uitbreidend naar een cross-cultureel perspectief: (3) Is toestandsoëintatie minder nadelig voor welzijn in culturen met meer onderlinge afhankelijkheid dan in culturen met meer onafhankelijkheid? En tot slot, (4) kan toestandsoëintatie welzijn over culturen heen voorspellen, omdat het gerelateerd is aan minder voldoening van fundamentele sociale behoeften die op hun beurt weer gerelateerd zijn aan minder welzijn? In dit proefschrift presenteert ik vijf onderzoeken die gebaseerd zijn op effecten van natuurlijke en experimenteel geïnduceerde variaties in verbondenheid en de relatie met zelfregulatie, stress, en welzijn.

In Hoofdstuk 1 geeft ik een korte inleiding op dispositionele verschillen in zelfregulatie (d.w.z. actie- versus toestandsoriëntatie), verbondenheid, en de huidige staat van onderzoek naar de interactie tussen beide. In Hoofdstuk 2 presenteert ik twee onderzoeken die ingaan op de vraag of verbondenheid kan werken als een buffer tegen negatieve effecten van toestandsoëintatie onder stressvolle omstandigheden. De twee onderzoeken benaderen de vraag op verschillende manieren. Het eerste onderzoek in Hoofdstuk 2 presenteert een correlatie analyse van de interactie tussen toestandsoëintatie, pro-sociale waarden (uitgedrukt in persoonlijke waarden van behulpzaamheid) als teken van verbondenheid, en stressvolle levensomstandigheden op welzijn. De resultaten van dit onderzoek laten zien dat toestandsgesorieenteerde die veel (in plaats van weinig) belang hechten aan pro sociale waarden relatief meer subjectief welzijn rapporteerden, zelfs wanneer ze stressvolle levensgebeurtenissen meemaakten. In het tweede onderzoek in Hoofdstuk 2 werden verbondenheid en stress experimenteel gemanipuleerd. Hier werd de invloed van de interactie tussen toestandsoëintatie en de twee gemanipuleerde variabelen op de verandering van stemming gemeten. De resultaten van de onderzoeken in Hoofdstuk 2 bevestigen de hypothese dat onder stressvolle omstandigheden, toestandsgesorienteerde individuen profiteren van een omgeving die verbondenheid bevordert.
Samenvatting

Er zijn individuele verschillen in de mate waarin mensen sociale ondersteuning (verbondenheid) waarderen en nodig hebben voor hun persoonlijke welzijn. Daarom ligt het voor de hand dat niet alle toestand-georiënteerde individuen verbondenheid in dezelfde mate als nuttig ervaren voor het reguleren van hun emoties. Voortbordurend op deze redenering worden in Hoofdstuk 3 de effecten van zelfregulatie, waarden en situationele context tegelijkertijd onderzocht, omdat mensen die sociale steun het meest nodig hebben (toestandsgeoriënteerden) wellicht niet in staat zijn om signalen die wijzen op sociale ondersteuning (bijvoorbeeld overeenkomsten met een nabije ander) waar te nemen of te gebruiken. In beide onderzoeken waren pro-sociale waarden (opnieuw geoperationaliseerd als behulpzaamheid) een voordeel voor toestand-georiënteerde deelnemers. Zij voelden zich veiliger nadat ze gedacht hadden aan overeenkomsten met een nabije persoon, terwijl ze zich minder veilig voelden als ze nagedacht hadden over verschillen. Deze toename van veiligheid onder toestandsgeoriënteerde deelnemers met hoge pro-sociale waarden trad op wanneer de andere persoon fysiek aanwezig was (onderzoek 2 van Hoofdstuk 3), maar ook wanneer de deelnemer alleen maar nadacht over de persoon die belangrijk voor ze was (onderzoek 1 van Hoofdstuk 3).

Er is toenemend bewijs uit cross-cultureel onderzoek dat er culturele verschillen zijn in de mate waarin verbondenheid belangrijk wordt gevonden, en de mate waarin zelfregulerende vaardigheden (actie versus toestandoriëntatie) belangrijk zijn voor subjectief welzijn. Sommige auteurs stellen dat er met name in Oosterse (‘interdependent’) culturen een sterkere neiging tot toestandoriëntatie optreedt, maar dat dit niet samengaat met de nadelen die worden waargenomen in Westerse (‘independent’) culturen (Kuhl & Keller, 2008). Deze aanname is echter tot op heden nog niet empirisch onderzocht. In Hoofdstuk 4 geef ik een korte theoretische inleiding op culturele ontwikkelingstrajecten van zelf-regulatie en de gevolgen hiervan voor volwassenen binnen verschillende culturele settings. Vervolgens presenteer ik in Hoofdstuk 5 een eerste aanzet om te onderzoeken wat de culturele overeenkomsten en verschillen zijn in de effecten van de toestand-oriëntatie op welzijn. Centraal staat de vraag of toestand-oriëntatie minder nadelig zou kunnen zijn voor het welzijn in Oosterse culturen dan in Westerse culturen.

In Westerse culturen is de relatie tussen toestandoriëntatie, gebrek aan bevrediging van psychologische behoeften (verbondenheid/affiliatie, prestatie, en macht) en het ontstaan van psychosomatische symptomen reeds overtuigend aangetoond. Dit laatste verband treedt ook op in Oosterse culturen. Het is daarom denkbaar dat toestandsoriëntatie indirect het welzijn beïnvloedt over culturen heen via een gereduceerde behoeftebevrediging. In het onderzoek in
Hoofdstuk 5 werd inderdaad gevonden dat gebrek aan behoeftebevrediging - in ieder geval deels - de relatie tussen toestandoriëntatie en verminderd welzijn kon verklaren in steekproeven van een Westers (Duitsland) en twee Oosterse (India en Bangladesh) landen. Tegelijkertijd liet het onderzoek culturele verschillen zien in de mate waarin toestandoriëntatie gerelateerd was aan de frustratie van behoeften. In de Duitse steekproef was toestandoriëntatie sterker geassocieerd met gebrek aan behoeftebevrediging dan in de Indiase en Bangladeshi steekproef. Deze bevinding ondersteunt de redenering dat de negatieve gevolgen van toestandoriëntatie afnemen in omgevingen die sociale verbondenheid benadrukken.

In het afsluitende Hoofdstuk 6 worden de resultaten van alle onderzoeken samengevat en besproken vanuit een breder theoretisch perspectief. Hier wordt ook de bijdrage van dit werk aan de onderzoeksliteratuur besproken en worden de constructen actie- en toestandoriëntatie en verbondenheid kritisch besproken met betrekking tot hun cross-culturele belang en hun cultuur specifieke variaties. Tot slot worden de implicaties van het huidige onderzoek besproken voor professionele settings, therapie en interpersoonlijke interacties in het dagelijks leven.
Soziale Verbundenheit als Ressource bei Lageorientierung

Zusammenfassung


sozialer Verbundenheit ausrichtet, dass lageorientierte Probanden, nachdem sie an Gemeinsamkeiten mit einer nahestehenden Person gedachten hatten, sich ihrer selbst sicherer fühlten, während dies nicht der Fall war, wenn sie an Unterschiede gedacht hatten. Die Zunahme an Sicherheit bei hoher prosozialer Wertorientierung und Priming von Ähnlichkeiten zeigte sich sowohl, wenn die Person, an die die Probanden dachten, tatsächlich anwesend war (Studie 2, Kapitel 3) als auch dann, wenn Probanden nur an die nahestehende Person dachten (Studie 1, Kapitel 3).

in der Vermittlung zwischen Lageorientierung und Beeinträchtigung des subjektiven Wohlbefindens ein.

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