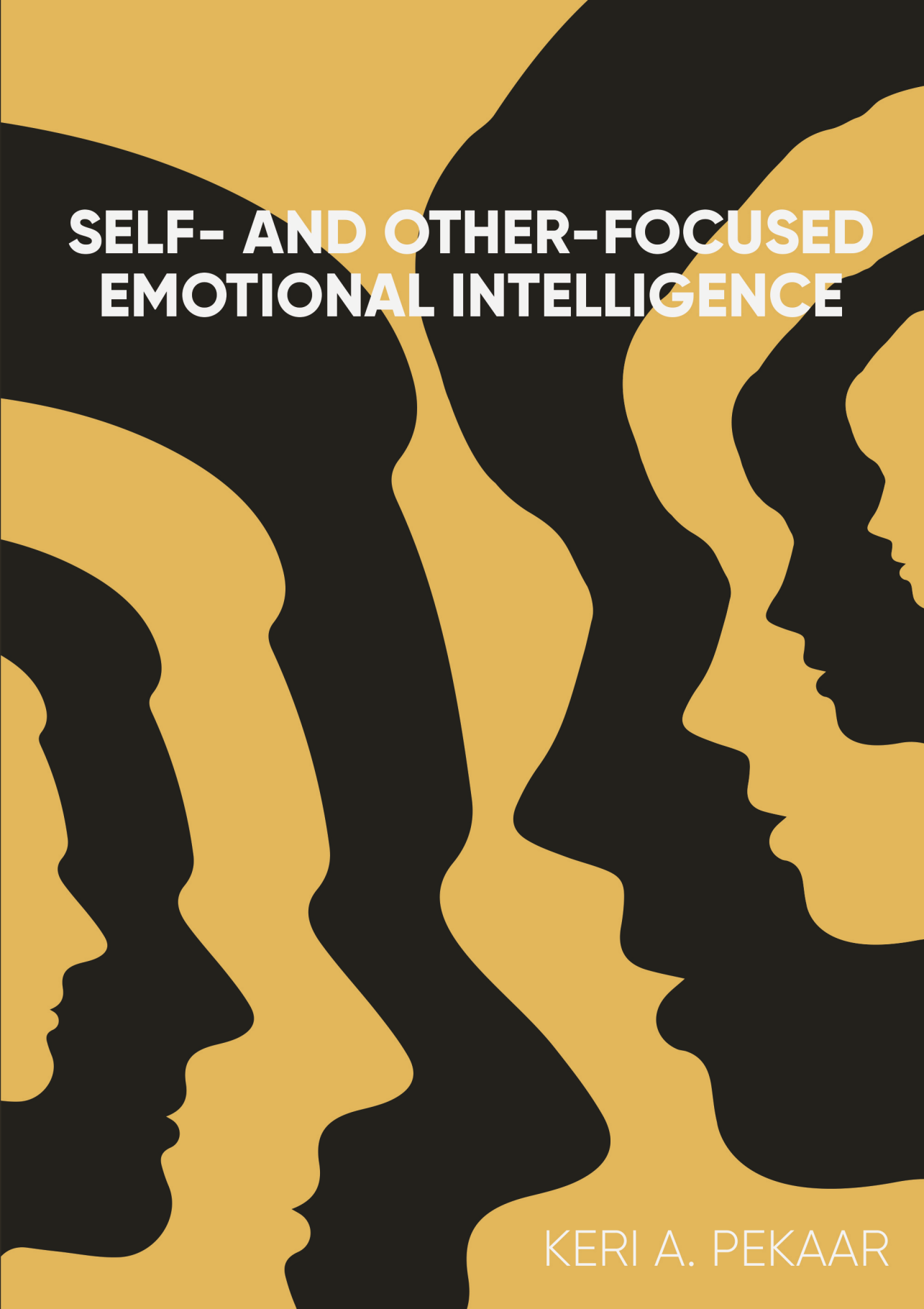
SELF- AND OTHER-FOCUSED EMOTIONAL INTELLIGENCE



KERI A. PEKAAR

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Keri A. Pekaar

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Promotoren:
Prof.dr. A.B. Bakker
Prof.dr. D. van der Linden
Prof.dr. M.Ph. Born

Overige leden:
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Voor mijn ouders

Het vogeltje vliegt,
op eigen kracht.
En er staan overal bomen, om eventjes op uit te rusten.

(vrij naar: Hans Pekaar)

Contents

Chapter 1
General Introduction

Everyday life is colored by emotional experiences. Emotions may arise during our daily routines, when interacting with others, or when thinking about important moments or issues. Emotions also play an important role in our organizational life (Ashkanasy & Dorris, 2017). In fact, working with emotions has become an essential aspect of many occupations, which can be quite demanding (Ashforth & Humphrey, 1995) and may relate to a high prevalence of stress and burnout in our society. Hence, the way individuals deal with emotions may have a vital influence on their lives. People's effectiveness in dealing with emotions is conceptualized as *emotional intelligence* (EI), which can generally be described as the knowledge and/or abilities to perceive, understand, and manage emotions of the self and others (Mayer & Salovey, 1997; Petrides, 2011; Zeidner, Roberts, & Matthews, 2008). Ever since its introduction in the 1990's, EI has been put forward as a relevant factor that contributes to success in several life domains. Individuals with high levels of EI have more satisfying social contacts (Lopes et al., 2004; Schutte et al., 2001), are happier and healthier (Martins, Ramalho, & Morin, 2010; Schutte, Malouff, Thorsteinsson, Bhullar, & Rooke, 2007), and they perform better at work (Joseph & Newman, 2010; O'Boyle, Humphrey, Pollack, Hawver, & Story, 2011). It is therefore that the interest in EI stemming from both the public and scientific community has blossomed over the last decades. This popularity may be illustrated by the presence of the best-seller *Emotional Intelligence* (Goleman, 1995) in the top 25 most influential business management books of all time (Sachs, 2011), and the appearance of over 700 peer-reviewed entries on EI in the Web of Science database per year.

The predominant focus of the EI literature has been on individual differences in EI and the consequences of such differences in various life domains. Researchers and practitioners have developed questionnaires and performance-based tests to rank individuals according to their level of EI (Bar-On, 2004; Mayer, Salovey, Caruso, & Sitarenios, 2003; Petrides, 2009). Consequently, these instruments have been used for selection purposes (Zeidner, Matthews, & Roberts, 2004) or to predict valued outcomes such as job performance (O'Boyle et al., 2011) and health and well-being (Martins et al., 2010; Mikolajczak et al., 2015). Although the meta-analytic associations with these outcomes are consistently positive, effect sizes are relatively modest and range between $r = .15$ and $r = .25$ for job performance (Joseph & Newman, 2010; O'Boyle et al., 2011), and between $r = .17$ and $r = .34$ for health indicators (Martins et al., 2010). Furthermore, the strength of these effects seems to be dependent on the specific context in which they are examined, suggesting that there are circumstances (e.g., high emotional labor jobs or the mental health domain, Joseph & Newman, 2010; Martins et al., 2010) under which EI is more important. The research tradition as described above is further characterized by an on-going debate on how to conceptualize and measure EI – see below for a more extensive discussion on this topic (Siegling, Saklofske, & Petrides, 2015; Zeidner et al., 2008).

To better explain *why* EI positively affects major life outcomes, scholars have recently started to shift their attention from individual differences in EI more towards the behavioral mechanisms that underlie the positive effects of EI (Joseph & Newman, 2010; Mestre, MacCann, Guil, & Roberts, 2016; Peňa-Sarrionandia, Mikolajczak, & Gross, 2015; Ybarra, Kross, & Sanchez-Burks, 2014). This shift in attention has resulted in several important

insights, including increased understanding of *when* and *how* EI is used in individuals' lives (Matthews, Zeidner, & Roberts, 2017; Peňa-Sarrionandia et al., 2015; Szczygiel & Mikolajczak, 2017). To illustrate, high-EI individuals have been found to modify their emotions as early as possible during emotional situations. The emotion regulation strategies they use to cope with emotional situations range from seeking social support to changing the way they think about a situation. Because high-EI individuals alter their emotions rather early on, they have lower needs to suppress emotional symptoms (e.g., a nervous voice) or to dampen negative emotions with alcohol, drugs, or aggression (Peňa-Sarrionandia et al., 2015). It is important to note that this line of research relies on participants from western cultures in which reappraisal is deemed a more effective emotion regulation strategy than suppression (Matsumoto, Yoo, & Nakagawa, 2008), hence the use of EI in other cultures may differ.

Besides these valuable insights, research on the underlying processes of EI has also raised new questions. For instance, what triggers EI responding? Are there days or moments in which individuals are more prone to enact EI, and does enacted EI lead to direct well-being or (job) performance benefits? Another important question is how exactly EI is used in interpersonal situations. During a social interaction, individuals are exposed to the emotions of their interaction partner along with the emotions they experience themselves. Does EI influence one's response to both sources of emotions? Are these self- and other-focused emotional processes similar, do they affect similar outcome domains, and how do they interact? With these questions in mind, the studies in this dissertation aim to increase our understanding of the role EI plays within individuals' everyday life, with a specific focus on organizational life.

In the remainder of this introductory chapter, I will first briefly discuss past research on EI. Subsequently I will draw attention to four specific challenges that the research tradition on EI faces that may hinder scholars to examine real-life manifestations of EI. Subsequently, I will discuss how I address these issues by suggesting new perspectives and research methods that may move EI theory forward. This will result in the formulation of four specific research-guiding questions that will be addressed in four empirical chapters, and integrated in one theoretical chapter. Following the research-guiding questions, I will provide an overview of how the different chapters in this dissertation answer each question.

Current Research on Emotional Intelligence

There is a broad distinction in the EI literature between so-called ability EI and trait EI (Siegling et al., 2015). Ability EI is conceptualized as a set of interrelated abilities and is considered somewhat similar to cognitive abilities, yet applied to a different domain, namely emotions. The most influential ability EI model is the Four-Branch Model of EI (Mayer & Salovey, 1997) in which emotional abilities are ordered from basic emotional abilities to more complex emotional abilities, namely: (1) emotion perception and expression, (2) emotional facilitation of thinking, (3) emotion understanding, and

(4) emotion regulation. Ability EI is most often measured using performance-based tests, which is also comparable to the way cognitive abilities are examined.

Trait EI, on the other hand, is conceptualized as a set of emotion-related traits or tendencies that can best be measured using self-reported questionnaires, which is more comparable to the personality research tradition (Siegling et al., 2015). The overlap between ability EI and trait EI measures is typically low, with correlations ranging between r = .20 and r = .30 (Brannick et al., 2009; Petrides, 2011), which may be the result of methodological or conceptual differences, or both. Consequently, some scholars argue that ability EI and trait EI are two substantially different constructs, whereas others argue that ability EI and trait EI capture different aspects of one underlying general phenomenon (Brannick et al., 2009). Fact is that the trait EI and ability EI tradition have developed rather independently, and that the literature containing trait EI measures is several times larger than the literature containing ability EI measures.

The popularity of EI in science and practice has been accompanied with considerable criticism on the construct. One point of critique is that EI shares substantial overlap with personality and cognitive intelligence, and that it fails to predict useful outcomes controlling for these well-established individual difference factors (Antonakis, Ashkanasy, & Dasborough, 2009). This claim has been supported by meta-analytic data showing that EI overlaps strongly with the Big Five (with correlations ranging between r = .28 and r = .85, van der Linden et al., 2017), and that EI exhibits only small to moderate incremental validity over personality and cognitive intelligence when predicting job performance (O'Boyle et al., 2011). However, the shared variance of EI with personality should not be a reason to abandon EI altogether. In fact, their overlap may be meaningful in itself. That is, scholars have argued that both concepts can be seen as indicators of a broad social effectiveness factor, which means that incremental validity analyses of EI and personality are largely redundant because controlling for either EI or personality would take much of the true variance of either concept away (van der Linden et al., 2017).

The overlap between EI and cognitive intelligence, typically ranging between r = .05 and r = .45 (Ciarrochi, Chan, & Caputi, 2000; Schulte, Ree, & Carretta, 2004), in the prediction of criteria has been approached differently. That is, scholars have examined whether the effects of EI and cognitive intelligence may be compensatory instead of complementary in the prediction of criteria. Specifically, this research showed that EI predicts job performance for individuals with low cognitive intelligence but not for individuals with high cognitive intelligence (Côté & Miners, 2006). The idea is that employees with low cognitive intelligence generally have a lower job performance because they lack important knowledge (i.e., facts, rules, procedures) that is relevant to the core of a job (Motowidlo, Borman, & Schmit, 1997). Hence, these employees may benefit most from EI because they have much room to improve. Consequently, these employees are able to reach equally high job performance levels by relying more on their emotional skills than on their cognitive skills for example by seeking social support or by detecting valuable emotional cues (Côté & Miners, 2006). In conclusion, the overlap between EI, personality, and cognitive intelligence may in fact have a substantial meaning and is more complex than critics have claimed.

A second point of critique on EI concerns its relatively low predictive validities for important outcomes such as job performance and academic performance (Antonakis et al., 2009). These relationships are indeed much smaller than those with cognitive intelligence, which is known as the single best predictor of (work) success (with predictive validities ranging between r = .51 and r = .62; Salgado et al., 2003). However, this difference may in fact be logical as job and academic performance tend to be more *cognitive* in nature. Social situations, by contrast, are usually more *emotional* in nature and it is therefore that the amount of variance that EI predicts strongly increases in interpersonal contexts (Joseph & Newman, 2010). Moreover, comparing the predictive validity of EI to cognitive intelligence may be a little unfair as no other psychological predictor has proven to be as strong as cognitive intelligence. In addition, the perhaps most important argument EI scholars have used to counteract this critique is that emotions play an important and vital role in many aspects of individuals' daily lives (Antonakis et al., 2009; Ashkanasy & Daus, 2005). Decisions, behavior, and social relationships are to a great extent influenced by emotions (Kahneman, 2011; Weiss & Cropanzano, 1996). Hence, studying a construct that describes how people deal with emotions (i.e., EI) is important because it may directly or indirectly affect how individuals feel, think, and behave (cf. Antonakis et al., 2009; Ashkanasy & Daus, 2005).

The Purpose of This Dissertation

The current dissertation sets out to contribute to the development of EI theory in order to encourage researchers to continue studying this exciting and potentially useful construct. The overarching aim is to enrich the current literature by suggesting a more short-term and interpersonal conception of EI that may be useful to understand how it affects everyday life. Such a perspective may do justice to the dynamic experience of emotion (Hareli & Rafaeli, 2008) which lies at the core of EI. Furthermore, the examination of individuals' emotional responses within specific (interpersonal) situations may help to shift the current outcome-oriented research tradition in this field toward a more process-oriented conception of EI (cf. Peňa-Sarrionandia et al., 2015). Focusing on the basic processes that generate better health and performance outcomes for high-EI individuals may shed light on what these people *do* when they are confronted with emotions. This knowledge may be useful to better understand real-time (organizational) behavior.

In order to achieve this goal, the current dissertation addresses four challenges that the EI research tradition encounters by zooming in on individuals' emotional responses at specific moments in time. With these challenges in mind, I will develop and formulate four research-guiding questions in the following sections. These questions aim to advance our understanding of the actual manifestation of EI, and summarize the specific purposes of this dissertation.

The Enactment of Emotional Intelligence

EI researchers often use cross-sectional research designs including one-time surveys or assessments to measure individuals' general potential for displaying EI. This method allows for understanding how stable individual differences in EI are associated with broad outcome measures such as health and job performance. However, this method cannot reveal the actual enactment of EI within a given day or week, which may be important to reveal the underlying processes of EI (cf. Peňa-Sarrionandia et al., 2015). That is, in order to study *why* and *how* EI affects health and performance-related outcomes, researchers may need to take a different perspective on the construct and/or need to use different research methods. One way to do this is to examine whether individuals actually display EI in a given situation, to which I will refer to as "the enactment of EI". The enactment of EI may follow the dynamic experience of emotions in daily life. Emotions arise, merge, and fade over time (Beal, Weiss, Barros, & MacDermid, 2005; Frijda, 1993; Weiss & Cropanzano, 1996), which may suggest that people are most likely to enact their EI during intense emotional episodes. In addition, the enactment of EI may be dependent on individuals' general potential for displaying EI, but also on more proximal factors such as one's level of energy, one's motivation, or one's team role at a specific moment in time (Elfenbein, 2016). Thus, the enactment of EI may fluctuate from day to day, or even from situation to situation, which may be reflected in how individuals feel and perform. The repetitive enactment of EI could be the key to longer-term health and job performance benefits.

The current dissertation examines the antecedents and consequences of fluctuations in the enactment of EI. I study these fluctuations using modern methodologies such as event sampling and diary methods. This approach allows investigating the construct closer to actual (work) situations than previous research has done. Furthermore, the actual enactment of EI is more *behavioral* than an individual's general potential for displaying EI. This may be useful to understand when EI is triggered, how it intervenes with other processes, and what direct consequences it has. Together, these advantages may contribute to a better understanding of the psychological and behavioral processes that are responsible for the positive effects of EI.

> *Research question 1: Does EI have its effects through behavioral enactment, and are fluctuations in the enactment of EI meaningful predictors of well-being and performance outcomes?*

To answer this question, **Chapter 2** reports two event sampling studies in which "person-level" EI measures (capturing individuals' general potential for displaying EI) and "enacted" EI measures (capturing whether individuals actually display EI in a given situation) are related to indicators of job performance. Using samples of divorce lawyers and sales persons, these studies investigate whether the enactment of EI actually fluctuates from event to event (i.e., consults with clients or sales conversations) and whether these fluctuations are directly associated with job performance outcomes. In order to further explore the enactment of EI, **Chapter 5** places the episodic enactment of EI at the heart of a

new theoretical model. More specifically, the episodic process model that I present in this chapter describes how situational cues may trigger the enactment of EI (i.e., emotion processing), how this emotion processing unfolds, and what proximal and distal influence it may have on individuals' well-being, social relationships, and (job) performance. **Chapter 6** builds on **Chapter 5** by empirically testing this theoretical process model with a weekly diary study that investigates the weekly enactment of EI among trainees in the social work sector. Specifically, it is examined whether the trainees use more emotion management strategies in weeks when they appraise more emotions of their self and others, and whether this is associated with trainees' weekly (supervisor-rated) performance evaluations and energy levels.

Self- and Other-Focused Emotional Intelligence

Another goal of the research in this dissertation is to add to insight in the nature of EI by going beyond testing global (i.e., total) EI scores (cf. Petrides et al., 2016). Global EI unites the knowledge and/or ability to perceive, understand, and regulate emotions from the self and others together. As such, global EI can be considered a proxy of individuals' general efficacy to deal with emotions, and constitutes a useful concept to predict broad outcomes like social effectiveness (van der Linden et al., 2017). However, global EI scores may not capture whether individuals are primarily effective in dealing with their own emotions or whether they are primarily effective in dealing with the emotions of others (or both). Own and other-emotions are conceptually different because one's own emotions have a direct influence on one's thoughts, physical sensations, and behaviors (Frijda, 1988). By contrast, emotions experienced by others may have a more diffuse influence on the self through social contact with others (Hareli & Rafaeli, 2008). Following this reasoning, modifying one's own emotional response will directly influence one's own mood state, whereas modifying the emotional response of another person may in the first place influence the mood state of this other person. This may also imply that the enactment of EI to modify one's own emotions has different consequences than the enactment of EI to modify the emotions of others. These potentially different processes and consequences may be masked by the reliance on global EI scores in research.

In order to better understand and capture the enactment of EI, I aim to overcome the aforementioned limitation. Specifically, I explore whether explicitly targeting self- and other-emotions may refine the conceptualization of EI. The distinction in self- versus other-focused EI may contribute to theory development about the psychological processes that are associated with the use of EI, and increase the predictive validity of the construct for criteria such as health, relationship quality, and job performance.

Research question 2: Can EI be meaningfully distinguished in self-focused EI and other-focused EI, and are these forms associated with different (a) psychological processes and (b) outcomes?

In an effort to distinguish self- from other-focused EI, the aforementioned diary studies in **Chapter 2** examine whether EI dimensions that target own emotions play a differential role in the prediction of job performance than EI dimensions that target others' emotions. These studies include objective indicators of job performance (e.g., the number of donators recruited for charity) and subjective indicators of job performance (e.g., self-rated customer contact satisfaction). **Chapter 3** reports a series of eight studies in which I develop and validate a new EI instrument, the Rotterdam Emotional Intelligence Scale (REIS). One asset of the REIS is that it explicitly makes the distinction between self- and other-focused EI. To explore whereas the distinction between self- and other-focused EI is meaningful, the nomological network of the REIS is examined, as well as its concurrent, discriminant, and predictive validity. In doing so, emphasis is placed on the differential role of self- versus other-focused EI dimensions in predicting different type of subjective and other-rated outcomes such as interview performance, (perceived) stress, work engagement, and leadership behaviors. **Chapter 4** builds on **Chapter 3** by examining the role of self- versus other-focused EI during task performance and the experience of stress in a lab study. In this study a sample of secretaries is exposed to emotionally laden work-related phone calls (i.e., emotional job demands). One important contribution of this chapter is that it not only includes subjective measures of stress but that it also incorporates secretaries' physical response to emotional (job) demands. Finally, **Chapter 5** and **Chapter 6** examine whether self- and other-focused EI are reflective of different psychological processes (e.g., social-information processing or coping) that consequently contribute to different outcome domains (i.e., job performance versus well-being). **Chapter 5** introduces a theoretical process model that describes how individuals deal with their own and others' emotions during emotional episodes, and **Chapter 6** presents an empirical test of this model among trainees who follow an internship in the social work sector.

The Interplay Between (Self- and Other-Focused) Emotional Intelligence Dimensions

The different models and measurements that are used in the EI literature all include various specific EI dimensions such as (self- or other-focused) emotion perception, emotion understanding, and emotion regulation (Siegling et al., 2015). This implies that there may occur interactive effects during the enactments of various specific EI dimensions. To illustrate, a large-scale meta-analysis on the EI-job performance link showed a step-wise process in which the perception of emotions positively affects job performance through the understanding and subsequent regulation of emotions (Joseph & Newman, 2010). When emotion perception, emotion understanding, and emotion regulation were high, employees reached better performance levels. Such knowledge is valuable because it reveals a potential causal mechanism that may explain *how* EI contributes to job performance. Unfortunately, such interactive effects are usually hidden by the traditional reliance on global EI scores in the literature (Petrides et al., 2016). Drawing from the distinction in self- and other-focused

EI that I make in this dissertation, interactions between EI dimensions may occur at two levels. The first level is the intrapersonal level in which the appraisal of one's own emotions interacts with the regulation of one's own emotions (cf. Joseph & Newman, 2010). The second level is the interpersonal level in which emotion processing of one's own emotions (e.g., self-focused emotion appraisal and regulation) interacts with the emotion processing of others' emotions (e.g., other-focused emotion appraisal and regulation).

The current dissertation addresses the interplay between EI dimensions because mixed enactments of multiple specific EI dimensions may approach real-life emotional functioning better than the enactment of a global EI construct (Petrides et al., 2016). A first reason to examine this interplay is that individuals tend to possess and use a unique mixture of EI dimensions (Elfenbein, 2016; Petrides et al., 2016). A second reason is that social situations may demand the enactments of different EI dimensions (i.e., self- *and* other-focused EI dimensions) than non-social situations (i.e., only self-focused EI dimensions). The studies in the current dissertation explore whether and how the enactments of specific EI dimensions interact and consequently how these interactions affect well-being and job performance outcomes. In doing so, I distinguish between interacting EI dimensions at the intrapersonal level and interacting EI dimensions at the interpersonal level.

Interactions between the enactments of self- and other-focused EI dimensions have barely been addressed. One illustrative study found that individuals who were highly perceptive of the negative emotions of others but weak regulators of their own emotions were most vulnerable to the spill-over of others' negative mood (Papousek, Freudenthaler, & Schulter, 2008). Following this, the current dissertation argues that interactions between the enactments of self- and other-focused EI dimensions are relevant and informative because they may have facilitating or hindering effects on each other. Specifically, processing the emotions of others may be more effective when one's own emotions have been processed first. Conversely, when individuals divide their processing resources (i.e., energy, attention) over their own and others' emotions at the same time, they may be less effective. These dynamics may ultimately influence the effectiveness of one's emotional response, and, hence, affect well-being and job performance criteria.

Research question 3: Do self- and other-focused EI dimensions interact, and are these interactions informative for predictions of well-being and performance outcomes?

Chapter 2 investigates various interactions between self- and other-focused EI dimensions and relates these interactions to the performance of divorce lawyers and sales persons. Importantly, these interactions are examined at the "enacted" level (i.e., Does an employee use a specific mix of EI dimensions during a specific situation?) and at the "person-level" (i.e., Does an employee possess a specific mix of EI dimensions?). In **Chapter 5,** I delve deeper into these interactions by arguing that the interplay between EI dimensions may have facilitating and conflicting effects. These facilitating and conflicting effects are outlined and placed within the aforementioned broader theoretical process model of

episodic EI. Using a sample of trainees in the social work sector in **Chapter 6**, I examine whether interactions between the weekly enactments of specific EI dimensions can predict whether the trainees display social job crafting behaviors to boost their performance evaluations and energy levels.

Toward a Process Model of Emotional Intelligence

As the literature on the behavioral processes that underlie the consequences of EI is in its infancy, our understanding of the antecedents, the actual processing of emotions, and the short-term costs and benefits of displaying EI is limited. The few studies that have examined EI processes did not develop a unique EI process model but relied heavily on existing process models used in other domains of the affective sciences such as emotion appraisal theories or more general emotion regulation theories (Mestre et al., 2016; Peňa-Sarrionandia et al., 2015). These endeavors have yielded more in-depth knowledge on the emotion appraisal and emotion regulation phases of EI (i.e., the actual processing of emotions). Concerning the antecedents, literature showing that the effects of EI are stronger in emotionally demanding contexts (Joseph & Newman, 2010; Mikolajkzak et al., 2015) suggests that there need to be some social or emotional input to foster effective EI responding. Yet, this literature has not explicitly framed emotional input as an antecedent of the enactment of EI. The direct outcomes of using EI have been examined by a handful of experimental studies that placed participants in emotionally demanding situations (e.g., Bechtoldt & Schneider, 2016; Mikolajczak, Roy, Luminet, Fillée, & de Timary, 2007; Nozaki, 2015). These studies suggest that although EI responding generally boosts one's performance, it can at the same time be physiologically costly. Drawing from these research lines, I consider it timely to integrate the knowledge on the different phases of the EI process into one overarching process model.

To facilitate scholars to conduct more systematic research on the behavioral and psychological processes underlying EI, this dissertation aims to create a theoretical framework on the antecedents and outcomes of EI, as well as the mechanisms connecting them. Such a framework is needed to understand *why* EI matters for social, health, and occupational outcomes. The time unit that is put central in this theoretical process model is the emotional episode, which is a short period of time (i.e., a couple of minutes) that starts when an event elicits an emotion and ends when this emotion is processed. Such a "micro-level" perspective connects well with the flow of individuals' emotional life (Beal et al., 2005; Weiss & Cropanzano, 1996), and may be useful to disentangle basic emotional processes. Another important aspect that is integrated in the process model is the social impact of emotions (Hareli & Rafaeli, 2008). Emotions are often expressed in interaction with others, for example as a means to communicate or to influence others (Butler, 2011; Cialdini, 1984; Hareli & Rafaeli, 2008). Because EI plays a major role in interpersonal situations (Joseph & Newman, 2010; Lopes et al., 2004; Schutte et al., 2001), it is likely that the emotions of both the self and the other play a role in the EI process.

Research question 4: How does the episodic process of EI unfold over time?

In order to answer this question, I develop and introduce an episodic process model of the enactment and consequences of EI in **Chapter 5**. This process model integrates the first three research-guiding questions by capturing the enactments of self- and other-focused EI, and their potential interplay. The model starts with a situational cue that elicits emotions in the self and in others. The next phase of the model specifies how these emotions are processed, and, in addition, how these self- and other-focused EI processes may interact. The final phase of the model describes proximal outcomes of emotion processing (i.e., episodic performance), and explains how these proximal outcomes may shape more distal outcomes such as relationship quality and job performance. Although this broad theoretical model is not meant to be tested in one comprehensive study, **Chapter 6** investigates a substantial part of it**.** In this chapter, I examine whether the appraisal of own and others' emotions in a health care setting (i.e., social work) triggers the use of self- and other-focused emotion management strategies, and whether these strategies influence each other. In addition, I examine their effects on energy levels and supervisor-rated active learning evaluations.

General Discussion

The results of the studies described in Chapters 2 to 6 are discussed in **Chapter 7**. In this final chapter, the main findings of each chapter are summarized and discussed in light of the presented research-guiding questions. Consequently, I elaborate on the theoretical implications of the studies and integrate them with insights stemming from related research fields. In addition, I discuss some methodological considerations for addressing the premises in the proposed process model of EI. Moreover, I consider the limitations of the studies and share suggestions and thoughts for future research directions. I end this final chapter with several practical implications for managers and employees, as well as a general conclusion.

Chapter 2
Emotional Intelligence and Job Performance: The Role of Enactment and Focus on Others' Emotions

This chapter has been published as:

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This chapter has been awarded with the Best Paper Award at the 2015 conference of the Dutch Association of Work & Organizational Psychology (WAOP), 27 November 2015.

Abstract

The emotional intelligence (EI)-job performance link was examined focusing on the interplay between self- and other-focused EI dimensions. Two diary studies were conducted among divorce lawyers and salespersons. We adopted a two-level perspective including individual differences in EI (person-level EI) and within-person fluctuations in the usage of EI (enacted EI). It was hypothesized that a focus on others' emotions predicts job performance in social jobs. Multilevel analyses showed that others-emotion appraisal contributed more to subjective (Study 1 and 2) and objective (Study 2) job performance than other EI dimensions. This link was more apparent in person-level EI in Study 1 and in enacted EI in Study 2. Furthermore, EI dimensions interacted with regard to job performance, such that appraising the emotions of one person was more effective than appraising the emotions of two persons (other and self), and appraising others' emotions was more effective when one's own emotions were also used or regulated.

Introduction

The introduction of emotional intelligence (EI) – the capacity or knowledge to effectively deal with emotions – gave rise to high expectations about its ability to predict job performance. This initial enthusiasm was tempered by the relatively modest meta-analytic correlations that were found, ranging between .15 and .25 (Joseph & Newman, 2010; O'Boyle, Humphrey, Pollack, Hawver, & Story, 2011). In the present research, we take a closer look at the EI-job performance link and address two limitations of conventional procedures in EI research. One is that most previous studies have combined the different dimensions of EI into an overall EI score to predict job performance. Yet, this common practice may mask the unique effects of specific EI dimensions. The second limitation is that EI is usually measured at a single point in time. Although this method allows the assessment of an individual's potential to use EI, it does not reveal the situations in which one tends to apply EI (Elfenbein, 2016). In fact, this traditional approach cannot reveal *direct* associations between the way people deal with emotions during particular work episodes and their job performance during those episodes. Therefore, the present research highlights the potential value of distinguishing EI dimensions in the prediction of job performance, and studies this link "in vivo".

The definition of EI is a subject of debate. Some scholars have even argued for abandoning its label and rather refer to emotional competencies (Brasseur, Grégoire, Bourdu, & Mikolajczak, 2013; Cherniss, 2010; Jordan, Dasborough, Daus, & Ashkanasy, 2010). In the current research, however, we follow the main literature in this field and conceptualize EI as knowledge about emotional processes, and the tendency or ability to use this knowledge to regulate social and emotional behavior (Petrides, 2011; Salovey & Mayer, 1990; Zeidner, Roberts, & Matthews, 2008). We base our theorizing on the Four-Branch Model of Mayer and Salovey (1997), in which EI is defined as "the ability to (1) perceive and express emotion, (2) assimilate emotion in thought, (3) understand and reason with emotion, and (4) regulate emotion in the self and others" (Mayer, Salovey, & Caruso, 2000, p. 396). These dimensions can be hierarchically structured and the highest-order dimension emotion regulation seems to play a vital role in the work setting (Joseph & Newman, 2010). Instead of focusing on which type of EI dimension is predictive of job performance, the current research examines whether the target person of EI dimensions matters. Specifically, during social interactions, EI dimensions can be directed at the self or at others (Salovey & Mayer, 1990). It is likely that other-focused EI dimensions contribute more to job performance than self-focused EI dimensions in jobs where other people form "the core" of the work. For example, an important task for salespersons is convincing other people. As another example, for counselors, an important task is to react to other people. A strong focus on one's own emotions in such jobs may even backfire if it would distract attention and demand resources that cannot be used to focus on the emotions of others. Therefore, exploring the possible differential effects of self- versus other-focused EI dimensions is important, whereas only using overall EI scores may mask such effects.

The present research makes a number of theoretical contributions. First, it examines whether the distinction between self- and other-focused EI dimensions clarifies the relatively modest link between EI and job performance. Although the self-other distinction in EI has been mentioned in the literature (Salovey & Mayer, 1990), it has only sparsely been studied in a systematic way. Second, combinations of self- and other-focused EI dimensions are examined to see whether using them simultaneously is more effective than using them in isolation. Third, the choice for a diary approach enabled us to distinguish between people's general potential for displaying EI (person-level EI) and whether they actually display EI in a given situation (enacted EI). Person-level EI is usually measured with a one-time survey measuring one's general level of EI. Enacted EI can very well be measured with diary surveys across several occasions. The distinction between person-level and enacted EI suggests that the actual usage of EI is not only dependent on people's potential for EI, but also on other factors such as motivation, group processes, or task demands at that specific moment in time (Elfenbein, 2016). Thus, studying the enacted level (i.e., "state-level") of EI allowed to test whether fluctuations in the actual manifestation of EI dimensions are reflected in fluctuations in job performance. Overall, this approach examines the EI-performance link closer to the work situation than prior research and therefore contributes to the understanding of EI in a way that could not be extrapolated from existing work.

Theoretical Background

Emotional Intelligence and Job Performance

Previous efforts to define and measure EI have led to three streams of research. These streams consider EI as a trait or as a set of abilities (Zeidner et al., 2008). The streams are (1) ability EI based on the four branches of Mayer and Salovey (1997), (2) self-reported ability EI based on the Four-Branch Model, and (3) self-reported trait EI that goes beyond the Four-Branch Model (Ashkanasy & Daus, 2005). These streams reflect an ongoing debate on the nature of EI and its overlap with cognitive abilities and/or personality traits. Specifically, trait EI mainly tends to share variance with personality, whereas ability EI mainly covaries with cognitive abilities. Related to the EI streams is the question whether EI is best measured with ability tests or with (self-reported) questionnaires (O'Boyle et al., 2011). As the three types of measures belonging to each stream only correlate weakly, they may reflect different aspects of the same general construct (Petrides, 2011).

In relation to job performance, meta-analytic data showed that ability EI tests display the smallest (corrected) correlation (r = .24), followed by self-reported trait EI measures (r = .28) and self-reported ability EI measures (r = .30). Moreover, self-reported EI measures (vs. ability tests) showed more incremental validity in predicting job performance over cognitive intelligence and personality measures (O'Boyle et al., 2011). In the present study, EI is conceptualized based on the Four-Branch Model (Mayer & Salovey, 1997) and measured with a self-reported measure. Besides its stronger correlation with job performance and its

substantial incremental validity over cognitive intelligence and personality measures (O'Boyle et al., 2011), a self-reported ability measure is also better suited for diary studies than an ability test.

All of the aforementioned meta-analyses have used an overall EI measure and found moderate associations with job performance. These meta-analyses also revealed that one of the moderators in the EI-job performance relation was the level of interpersonal contact in a job. The EI-performance association was stronger in jobs with a high level of interpersonal contact such as in sales or counseling jobs (Joseph & Newman, 2010).

Self- and Other-Focused Emotional Intelligence Dimensions

We suggest that the distinction in EI dimensions in terms of being self- or other-focused is important. For example, when a salesperson is confronted with an angry customer he or she may focus on the emotions of the customer (e.g., calming down the customer), but may also focus on his/her own emotional reaction (e.g., remaining calm). This distinction is incorporated in Davies, Stankov, and Roberts' (1998) conceptualization of EI in which they consider emotion appraisal a composite of emotion perception and emotion understanding as divided into a self-emotion appraisal component and an others-emotion appraisal component. The accompanying self-reported measure, the Wong and Law Emotional Intelligence Scale (WLEIS), empirically distinguished these components, indicating that people can differ in EI dimensions focused on the self or on others (Wong & Law, 2002).

Both self- and other-focused EI dimensions can contribute to job performance, particularly when it involves other people. However, those dimensions may not necessarily contribute to job performance *to the same extent*. For example, if one wants to achieve a specific social goal, such as mediating a conflict or selling a product, then focusing on others' emotions may be particularly useful because this allows one to influence their behavior or mood states. In contrast, while dealing with others, being focused on one's own emotions may be less effective in influencing others, and may even become counterproductive when too much attention is directed to the self.

As most well-known EI instruments do not explicitly distinguish between self- and other-focused EI, the question whether the target person of EI dimensions matters in the prediction of job performance has not been answered yet. In the Mayer-Salovey-Caruso Emotional Intelligence Test, the scores on subtasks that focus on others' emotions (the faces task and the emotion-relationship task) are combined with scores on subtasks that focus on the emotions of the self into one overall score (Mayer, Salovey, Caruso, & Sitarenios, 2003). Similarly, in the Trait Emotional Intelligence Questionnaire, facets that focus on others' emotions (e.g., the social awareness facet and the empathy facet) are combined with facets that focus on emotions of the self into one overall score (Petrides, 2009). Nevertheless, studies examining the EI-job performance link with the WLEIS support the idea that mainly other-focused EI dimensions are relevant. Although these studies also used overall EI scores to predict performance, their correlation tables showed that, of all four EI dimensions, others-emotion appraisal indeed contributed most to job performance among salespersons

(Wisker & Poulis, 2014), laboratory assistants (Law, Wong, Huang, & Li, 2008), and civil servants (Wong & Law, 2002). Furthermore, a recent study showed that leaders' others-emotion appraisal was positively associated with employees' satisfaction with the leader (Liu, Zhang, & Liu, 2017). Building on these findings, we further examined the role of other-focused EI dimensions in comparison to self-focused EI dimensions in social jobs.

Hypothesis 1: Compared to EI dimensions that focus on the emotions of the self, EI dimensions that focus on the emotions of others have stronger positive associations with job performance in social jobs.

Combinations of Emotional Intelligence Dimensions

EI dimensions are generally not used in isolation but simultaneously (Elfenbein, 2016; Joseph & Newman, 2010). A relevant question therefore is whether they are effectively used in combination. For example, emotion appraisal can simultaneously be directed towards the self and others. In such a situation, the same EI dimension is allocated over multiple target persons. From a conventional EI perspective, a person who is able to do both is seen as more emotionally skilled than a person who can appraise the emotions of just one person (other or self). Consequently, the more emotionally skilled person should perform better. An alternative view is that appraising emotions may require cognitive resources such as attention. This would imply that any resources allocated to one process (e.g., appraising one's own emotions) might occur at the expense of resources invested in another process (e.g., appraising others' emotions; Beal, Weiss, Barros, & MacDermid, 2005). A simultaneous focus on the emotions of others and the self might be costly in terms of attentional or energetic resources, which may diminish performance (Beal, Trougakos, Weiss, & Green, 2006; Grandey, 2000). In line with these two lines of reasoning, we introduced two competing hypotheses. The first one is in accordance with the first notion of overall efficiency. The second hypothesis follows the latter, limited resource, notion:

Hypothesis 2a: Appraising the emotions of two persons (other and self) has a stronger positive association with job performance in social jobs than appraising the emotions of just one person (other or self).

Hypothesis 2b: Appraising the emotions of two persons (other and self) has a weaker positive association with job performance in social jobs than appraising the emotions of just one person (other or self).

A second possibility is that different *types* of EI dimensions are combined in interacting with people. This implies that, instead of directing the same EI dimension to two or more persons simultaneously, one simultaneously uses two different types of EI dimensions (e.g., emotion appraisal and emotion regulation). A recent review by Elfenbein (2016) showed that most jobs require the combination of different types of EI dimensions. For example, a

negotiator in police crisis management needs a high level of other-focused emotion recognition together with high levels of self-focused emotion regulation and emotion understanding (Elfenbein, 2016). This illustrates that in interpersonal jobs, the effects of other-focused EI dimensions on job performance can be amplified by different types of (self-focused) EI dimensions. Consequently, we aimed to disentangle this phenomenon systematically by examining combinations of others-emotion appraisal with different types of (self-focused) EI dimensions.

It seems plausible that for employees working with people, others-emotion appraisal contributes more to job performance when one's own emotions are used or in control. Self-focused emotion use and emotion regulation may facilitate one's focus and motivation (Liu, Prati, Perrewe, & Ferris, 2008) while appraising others' emotions. To illustrate, service employees need to invest self-regulatory effort in order to deal effectively with the emotions of their customers (Webb, Schweiger Gallo, Miles, Gollwitzer, & Sheeran, 2012). Accordingly, we hypothesized that using and regulating one's own emotions boosts the positive effect of appraising others' emotions on job performance in social jobs.

Hypothesis 3a: Appraising the emotions of others has a stronger positive association with job performance in social jobs when one's own emotions are also used (vs. when one's own emotions are not used).

Hypothesis 3b: Appraising the emotions of others has a stronger positive association with job performance in social jobs when one's own emotions are also regulated (vs. when one's own emotions are not regulated).

The Present Research: Two Studies

The current research examined the contributions of self- and other-focused EI dimensions in predicting job performance in a sample of divorce lawyers (Study 1) and in a sample of salespersons (Study 2). We extended the traditional approach of using a one-time measure of EI that captures people's general level (person-level) of EI by using multiple diary measures of the actual enactment of EI. This approach is valid for our research question since traits or abilities can fluctuate over time depending on contextual factors that trigger their expression (Elfenbein, 2016; Fleeson, 2001; Tett & Guterman, 2000). People scoring high on a certain trait or ability are expected to display an increased propensity of daily behaviors that are associated with that trait or ability. These enacted traits or abilities are likely to directly affect variables such as mood states and job performance (Wilt, Noftle, Fleeson, & Spain, 2012). However, traits or abilities need relevant situations to be expressed (Fleeson, 2001). For example, extraverted individuals do not always behave socially, enthusiastically, and assertively; they do so only in situations that allow for extraversion such as a party or a meeting. In non-social situations, extraversion will (or can) not be expressed (Fleeson, 2001; Oerlemans & Bakker, 2014; Tett & Guterman, 2000).

With regard to EI, it is expected that EI dimensions are enacted when the context allows for it. In turn, these enacted EI dimensions are likely to directly affect job performance. Emphasizing the role of context is not new in the EI literature. Jordan and colleagues (2010) explicitly call for a consideration of context because it may determine whether EI has positive effects or not. To illustrate, emotional demands may evoke effective emotion regulation strategies among high-EI employees because they are sensitive for the needs of such demands (Brotheridge, 2006). Moreover, meta-analytic findings showed that under such conditions, EI contributes most to job performance (Joseph & Newman, 2010). We build on these studies by incorporating the context in the measurement of EI using enacted EI dimensions (i.e., EI dimensions "in-use"). For example, others-emotion appraisal may be enacted when employees sell products, but may not be enacted when working on administrative tasks. In the first activity, enacted EI may contribute to job performance, whereas in the latter activity it will not.

The enactment of EI dimensions may also fluctuate, depending on contextual factors such as fatigue and motivation of the employee. Therefore, even high-EI employees may encounter situations in which they do not fully enact their EI. In turn, these fluctuations are likely to affect job performance. To capture the fluctuating usage of EI in the work setting, we used survey data and diary measures to test our hypotheses. The survey data reflect the way people generally deal with emotions (person-level EI), whereas the diary measures reflect the way people perform and deal with emotions in actual work situations (enacted EI). This approach may reveal the relationship between EI and job performance more clearly than cross-sectional studies do.

Study 1

Method

Participants and Procedure

Participants were recruited by an invitation in newsletters sent by the Dutch Professional Association of Divorce Lawyers and Mediators to their members. Participants were first asked to complete an online person-level questionnaire assessing EI and demographics. Subsequently, they received a link to a diary survey to be filled out online after a consult with clients. The diary had to be filled out immediately after a consult to avoid distorted memories. In order to gain sufficient variance in the diary measurements, participants were asked to complete three diary surveys. In total, 68 divorce lawyers completed the person-level questionnaire and at least one diary survey, resulting in 187 study occasions. Specifically, 57 divorce lawyers completed three diary surveys or more, three divorce lawyers completed two diary surveys, and eight divorce lawyers completed one diary survey. As multilevel analyses were used to test the hypotheses, we could account for the difference

in the number of observations because single-case observations are excluded in the estimation of within-person fluctuations (Hox, 2002).

Participants were asked to fill out a diary survey on three random consults. Although all these consults aimed to solve a (marital) conflict, the content and composition of the consults varied. Some consults involved conversations with individuals whereas other consults involved conversations with couples or families. Most diary surveys were filled out within a period of two weeks. The mean age of participants was 45.5 (*SD* = 9.4) years, and 94.1% were female. On average, the divorce lawyers had 17.1 years of work experience and worked 37.4 hours per week. The majority of our participants possessed an advanced degree (98.5%).

Measures

Person-level questionnaire

Person-level EI was measured with the WLEIS (Wong & Law, 2002), consisting of four subscales with four items each: self-emotion appraisal, others-emotion appraisal, emotion use, and emotion regulation. Importantly, apart from the subscale others-emotion appraisal, all subscales are oriented towards emotions of the self. Example items are: "I really understand what I feel" (self-emotion appraisal), "I am a good observer of others' emotions" (others-emotion appraisal), "I always tell myself I am a competent person" (emotion use), and "I have good control of my own emotions" (emotion regulation). Questions were answered on a 5-point Likert scale (1 = *totally disagree*, 5 = *totally agree*). Alpha coefficients were .68, .75, .65, and .86, for self-emotion appraisal, others-emotion appraisal, emotion use, and emotion regulation, respectively.

Diary survey

As is customary in diary studies, the scales measuring enacted EI and subjective job performance were adapted versions of existing scales (Heller, Komar, & Lee, 2007). Specifically, we adjusted the number of items and adapted the time frame to which the items referred, so that the diary assessments took limited time to fill out, and referred to the respective consults (Ohly, Sonnentag, Niessen, & Zapf, 2010).

Table 1 Means, standard deviations, ICC's, and intercorrelations of the study variables in Study 1

		M	*SD*	ICC	1	2	3	4	5	6	7	8	9
1	SEA	3.98	0.49										
2	OEA	4.04	0.52		.20								
3	UOE	3.80	0.60		.20	.03							
4	ROE	3.61	0.73		.37**	.10	.49***						
5	Enacted SEA	5.81	0.93	.53	.17	.16	.15	.02		.06*	-.07	.01	.20**
6	Enacted OEA	5.85	0.77	.70	.20	.38**	-.07	-.06	.38**		.02	.10	.16*
7	Enacted UOE	4.43	1.29	.74	.10	.13	.26*	.15	.19	.01		-.17*	-.16*
8	Enacted ROE	6.03	0.88	.67	.13	.28*	-.05	.24*	.27*	.21	.19		.26***
9	Subjective job performance	5.95	0.64	.55	-.03	.39**	.08	-.13	.39**	.30*	.21	.48***	

Notes. SEA = self-emotion appraisal; OEA = others-emotion appraisal; UOE = emotion use; ROE = emotion regulation. Correlations below the diagonal are person-level correlations aggregated over three consults (N = 68). Correlations above the diagonal are within-person correlations (N = 187). Means and standard deviations are person-level means. $^{*}p < .05$. $^{**}p < .01$. $^{***}p < .001$.

Enacted emotional intelligence. Enacted emotional intelligence was measured with eight items from the WLEIS. Each EI dimension was measured with two items that referred to the respective consult. For example: "During this consult, I had a good understanding of my own emotions" (1 = *totally disagree*, 7 = *totally agree*). The selection of two out of the four original items was based on their content validity. Average Spearman-Brown coefficient values over three consults were .86, .87, .88, and .95, for self-emotion appraisal, others-emotion appraisal, emotion use, and emotion regulation, respectively.

Subjective job performance. Subjective job performance was assessed with a 7-item in-role performance measure (Williams & Anderson, 1991) including "During this consult, I adequately completed assigned duties" (1 = *totally disagree*, 7 = *totally agree*). The average alpha coefficient over three consults was .76.

Statistical Analysis

Analyses were conducted using Mplus to account for the multilevel structure of the data. Maximum likelihood estimation was used to deal with missings (Peugh & Enders, 2004). The first level consisted of consults (N = 187), which were nested in persons at the second level (N = 68). Prior to the analyses, the ICC values were calculated, which showed that 26-47% of the variance in enacted EI and subjective job performance could be explained by within-person fluctuations (Table 1). Consequently, all hypotheses were tested with either enacted or person-level predictors. Predictor variables at the enacted level were centered to

the respective individual means and predictor variables at the person-level were centered to the sample mean (Ohly et al., 2010). Enacted predictors thus explain the effect of *fluctuations* in the enactment of EI dimensions controlled for the stable component of these dimensions, whereas person-level predictors explain the effect of individual differences in EI dimensions.

The substantive focus of hypotheses 2a-3b is on combined EI dimensions. Therefore, we tested the improvement of each interaction model (model 2) over the main effects model (model 1) by computing the difference of the respective log-likelihood statistic -2*log and submitting this to a chi squared (χ^2) test. Interactions were further explored using simple slope analyses for multilevel models (Preacher, Curran, & Bauer, 2006).

Results

Table 1 reports the means, standard deviations, ICC's, and correlations between all study variables. Person-level and enacted EI dimensions correlated between $r = .17$ and .38.

Results of the multilevel analyses are reported in Table 2. Hypothesis 1 stated that of all EI dimensions, others-emotion appraisal (other-focused EI) has the strongest positive association with subjective job performance. At the person-level, others-emotion appraisal was indeed positively and significantly associated with subjective job performance ($\gamma = .504$, $p < .001$), whereas the other EI dimensions were not. At the enacted level, none of the EI dimensions were significantly related to subjective job performance, meaning that fluctuations in the enactment of EI dimensions did not explain subjective job performance beyond the stable use of these dimensions. Therefore, hypothesis 1 was partially supported.

To test hypotheses 2a-3b, three two-way interaction terms (between others-emotion appraisal and the remaining self-focused EI dimensions) were added to our models. Hypotheses 2a and 2b were competing hypotheses on the combination of self- and others-emotion appraisal, and hypotheses 3a and 3b were concerned with the combination of others-emotion appraisal with self-focused emotion use and emotion regulation, respectively. At the person-level, the interaction between others-emotion appraisal and self-emotion appraisal was significant ($\gamma = -1.278$, $p < .001$). Simple slope analyses revealed that a tendency to appraise the emotions of one person (other or self) was effective (estimate = 2.29, $p < .001$), whereas a tendency to appraise the emotions of two persons (other and self) was less effective (estimate = -1.03, $p = .017$; Figure 1). This finding supported hypothesis 2b and suggests that individuals who generally appraise emotions of themselves and others experience a trade-off in the effectiveness of these EI dimensions in terms of subjective job performance.

Table 2 Multilevel estimates of emotional intelligence dimensions on subjective job performance in Study 1

	Person-level				Enacted level			
	Model 1		Model 2		Model 1		Model 2	
	Estimate	*SE*	Estimate	*SE*	Estimate	*SE*	Estimate	*SE*
Constant	5.94***	0.07	5.99***	0.07	5.94***	0.08	5.94***	0.08
SEA	-0.12	0.14	0.03	0.13	0.13	0.09	0.11	0.07
OEA	0.50***	0.13	0.63***	0.14	0.09	0.07	0.09	0.07
UOE	0.17	0.13	0.18	0.15	-0.04	0.03	-0.04	0.03
ROE	-0.21	0.11	-0.28*	0.11	0.15	0.08	0.15*	0.08
OEA × SEA			-1.28***	0.34			0.18	0.13
OEA × UOE			0.06	0.34			0.08	0.07
OEA × ROE			0.39**	0.15			0.01	0.06
-2 * log	390.772		382.090		389.024		386.014	
Δ -2 * log			8.682*				3.010	
df	4		3		4		3	

Notes. SEA = self-emotion appraisal; OEA = others-emotion appraisal; UOE = emotion use; ROE = emotion regulation.
*$p < .05$. **$p < .01$. ***$p < .001$.

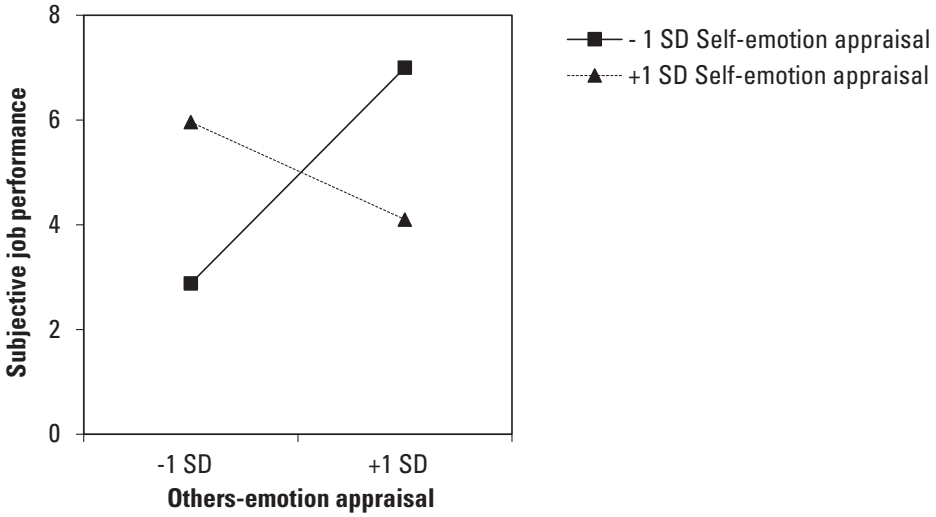

FIGURE 1: Two-way interaction effect between others-emotion appraisal and self-emotion appraisal on subjective job performance in Study 1. -1 SD = one standard deviation below the mean. +1 SD = one standard deviation above the mean.

The interaction between person-level others-emotion appraisal and emotion use was not significant ($\gamma = .055$), yielding no support for hypothesis 3a, which stated that appraising the emotions of others has a stronger positive association with subjective job performance when one's own emotions are also used (vs. when one's own emotions are not used). Hypothesis 3b stated that appraising the emotions of others has a stronger positive association with subjective job performance when one's own emotions are also regulated (vs. when one's own emotions are not regulated). We found an interaction between person-level others-emotion appraisal and emotion regulation ($\gamma = .386$, $p = .008$). Simple slope analyses revealed a pattern showing that only divorce lawyers who tend to regulate themselves without a tendency to appraise the emotions of others perform worse (estimate = 1.05, $p < .001$). In contrast to the hypothesis, the tendency to regulate one's own emotions had no effect on divorce lawyers who generally appraise the emotions of others (estimate = 0.19, $p = .186$; Figure 2). At the enacted level, the inclusion of the three two-way interaction terms did not explain additional variance in subjective job performance (Δ -2*log (3) = 3.01, $p = .390$), and none of the interactions were significant.

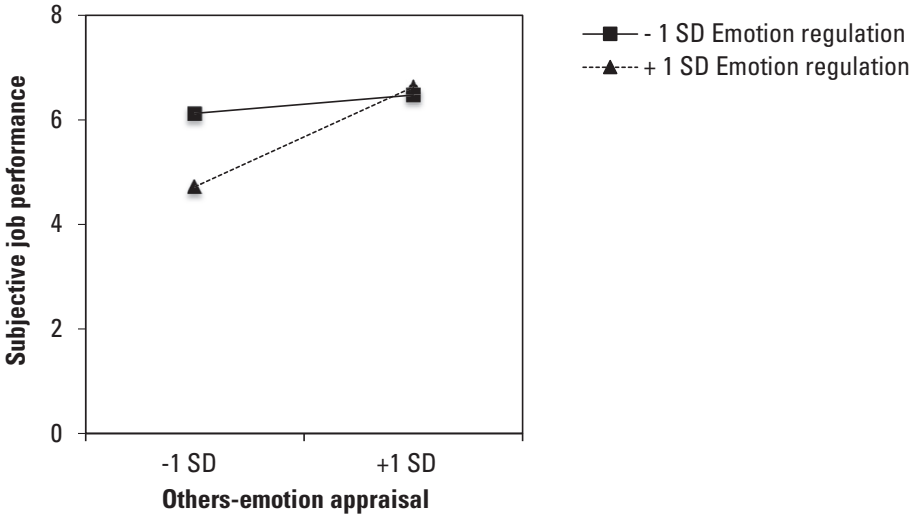

FIGURE 2: Two-way interaction effect between others-emotion appraisal and emotion regulation on subjective job performance in Study 1. -1 SD = one standard deviation below the mean. +1 SD = one standard deviation above the mean.

Discussion

The main result of Study 1 was that divorce lawyers who generally appraise the emotions of others seem to perform better than divorce lawyers who lack this tendency. This finding is in accordance with correlations between others-emotion appraisal and job performance reported in former studies (Law et al., 2008; Liu et al., 2017; Wisker & Poulis, 2014). Noteworthy, this effect occurred only at the person-level and not at the enacted level. A possible explanation may be that the subjective job performance measures required the global evaluation of some clear job performance goal, whereas the enacted EI measures referred to the emotions of one specific client. As most consults involved multiple clients (i.e., multiple sources of emotions), it could have been unclear on which client the divorce lawyer had to report in the diaries. Hence, the subjective job performance and enacted EI measures might have captured different performance- and emotion episodes, which, in turn, could have blurred the associations.

Study 1 also tested the influence of combined EI dimensions. We found that a tendency to appraise the emotions of one person (other or self) is effective whereas a tendency to appraise the emotions of two persons simultaneously (other and self) is less effective in terms of subjective job performance. These results are in line with the idea that an allocation of one competency over multiple tasks diminishes performance (Beal et al., 2005). Furthermore, regulating one's own emotions only contributed to subjective job performance when combined with others-emotion appraisal. This finding relates to Elfenbein's notion (2016) that certain combinations of EI dimensions are more effective than others.

Although these results are informative, one limitation is the common source (self-reports) of the predictor and outcome measures, which might have led to an overestimation of relationships (Podsakoff & Todor, 1985). However, there are several reasons to assume that this limitation did not compromise our conclusions. First, scholars have argued that self-reports in socially desirable variables, such as EI and subjective job performance, may artificially enhance main effects. However, there is no such reason to expect this process to bias interaction effects (van Yperen & Janssen, 2002). Second, we found that most of the relationships were non-significant, which is at odds with the notion of a common-method bias. Another limitation of the self-reported criterion that we used in this study is that it may have resulted in restriction of range, diminishing overall effect sizes.

Therefore, we decided that our conclusions would be more strongly supported if these findings could be generalized to other job settings with additional objective performance criteria. In Study 2, we therefore tested our hypotheses in a sample of salespersons. In sales, job performance mostly is established in a one-time customer contact in which a salesperson has to peak. Such performance can be classified as maximum performance (i.e., performing to one's best effort), which differs from the more typical performance (i.e., performance over an extended period of time) measured in Study 1 (Sackett, Zedek, & Fogli, 1988). As different factors seem to contribute to these two types of job performance (Sackett et al., 1988), we consider it likely that enacted EI, which is measured "in the moment", has more influence on this momentary peak-performance than on a typical consult that is part of a longer trajectory with clients.

Study 2

Method

Participants and Procedure

Participants were salespersons employed at a face-to-face sales company selling subscriptions for charity organizations. To recruit participants, invitation emails were sent to all employees. These emails included a link to an online person-level questionnaire assessing EI and demographics. Employees received diary surveys from their managers and were asked to fill them out directly after their last customer contact. Participation was on voluntary basis. Similar to Study 1, our aim was to retrieve at least three diary surveys of the participants. In total, 61 salespersons completed the person-level questionnaire and at least one diary survey, resulting in 141 study occasions. Specifically, 19 salespersons completed three diary surveys or more, 17 salespersons completed two diary surveys, and 25 salespersons completed one diary survey. The mean age of participants was 19.1 (SD = 2.1) years, and 62.3% were male. On average, they had 5.7 months of work experience in their

Table 3 Means, standard deviations, ICC's, and intercorrelations of the study variables in Study 2

		M	*SD*	ICC	1	2	3	4	5	6	7	8	9	10	11
1	SEA	3.98	0.58												
2	OEA	3.97	0.45		.26*										
3	UOE	3.99	0.52		.38**	.25*									
4	ROE	3.75	0.66		.10	.05	.25								
5	Enacted SEA	5.54	0.93	.60	.20	.17	.37**	.08		.26**	.30***	.33***	.38***	.01	.42***
6	Enacted OEA	5.52	0.88	.66	.17	.25*	.21	.03	.28*		.37***	.34***	.48***	.22**	.47***
7	Enacted UOE	6.02	0.86	.79	.13	.19	.42***	.14	.55***	.16		.24**	.36***	.03	.36***
8	Enacted ROE	6.05	0.88	.49	-.06	.19	.31*	.27*	.51***	.16	.46***		.26**	.14	.24**
9	Objective sales success	0.47	0.41	.48	-.02	.26*	.04	.18	.14	.18	.14	.09		.32***	.54***
10	Objective performance	3.04	2.30	.57	.19	.28*	.05	.05	.04	.19	.01	.02	.34**		.17*
11	Customer contact satisfaction	5.34	1.08	.89	.02	.23	.10	.04	.42***	.11	.54***	.38**	.47***	.15	

Notes. SEA = self-emotion appraisal; OEA = others-emotion appraisal; UOE = emotion use; ROE = emotion regulation. Correlations below the diagonal are person-level correlations aggregated over three customer contacts ($N = 61$). Correlations above the diagonal are within-person correlations ($N = 141$). Means and standard deviations are person-level means.

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

current job. Besides their job, the majority attended higher education (70.5%) whereas the remaining participants attended secondary education.

Measures

Person-level questionnaire

Emotional intelligence. Similar to Study 1, the WLEIS was used to assess person-level EI. Alpha coefficients were .79, .78, .65, and .79, for self-emotion appraisal, others-emotion appraisal, emotion use, and emotion regulation, respectively.

Diary survey

In the diary survey, the enacted EI measure was presented first, followed by the measure of customer contact satisfaction, objective sales success, and objective performance. When filling out the diary surveys, participants were instructed to focus on their most recent customer contact to minimize retrospective biases.

Enacted emotional intelligence was measured with the same items used in Study 1, which were adapted to the sales context (e.g., "During my last customer contact, I really understood what I felt"). Average Spearman-Brown coefficient values over three customer contacts were .79, .73, .87, and .87, for self-emotion appraisal, others-emotion appraisal, emotion use, and emotion regulation, respectively.

Customer contact satisfaction. As a subjective indicator of job performance, participants were asked the following question: "Irrespective of the objective result, how well did your contact with your last customer go?" (1 = *very bad*, 7 = *very good*).

Objective sales success. To measure objective sales success, participants indicated whether they had sold a subscription (*Yes*/*No*) during the contact for which they had filled out their diary survey.

Objective performance was measured by the total amount of subscriptions that participants sold on the days they participated in the study. Later, we checked whether the reported amounts were the same as the amounts in the administrative system of the company. Consequently, in four occasions we aligned the reported amounts with the data from the administrative system prior to the analyses.

Statistical Analysis

The strategy of analysis employed in Study 2 was identical to the strategy used in Study 1. The ICC values indicated that 11-51% of variance in the enacted level variables could be explained by within-person fluctuations (Table 3). Furthermore, the hypotheses on objective sales success were tested with multilevel logistic regression analyses to account for the binary response format of this variable.

Results

Table 3 reports the means, standard deviations, ICC's, and correlations of all study variables. Person-level and enacted EI dimensions correlated between r = .20 and .42.

Results of the multilevel regression analyses are reported in Tables 4 and 5. As expected, at the person-level, only others-emotion appraisal was positively and significantly related to objective performance (γ = 1.593, p = .023), and to objective sales success (OR = 4.08). Apparently, salespersons who generally appraise the emotions of others have a better chance to sell a subscription, and sell more subscriptions on a day. At the enacted level, others-emotion appraisal showed the strongest positive association with objective performance (γ = 0.730, p = .045), objective sales success (OR = 4.75), and customer contact satisfaction (γ = 0.514, p = .002). This indicates that interactions in which salespersons appraised the emotions of their customers more, were directly accompanied with an increase on all performance indicators.

Together, these results confirm hypothesis 1. Multilevel regression analyses further revealed that an increased appraisal of emotions of the self while interacting with customers led to more objective sales success (OR = 2.72), and more customer contact satisfaction (γ = 0.471, p = .020).

To test hypotheses 2a to 3b, three two-way interaction terms were added to our models. At the person-level, this inclusion did not explain additional variance in objective performance (Δ -2*log (3) = 1.70, p = .636), objective sales success (Δ -2*log (3) = 1.83, p = .609), or customer contact satisfaction (Δ -2*log (3) = 2.02, p = .568). At the enacted level, the interaction between self-emotion appraisal and others-emotion appraisal on customer contact satisfaction was significant (γ = -0.429, p = .001). Simple slope analyses showed that when salespersons appraised their own emotions less, they profited most from appraising the emotions of their customers (estimate = 0.77, p < .001; Figure 3). In contrast, when salespersons appraised their own emotions more, the extent to which they simultaneously appraised the emotions of their customers did not further enhance their customer contact satisfaction (estimate = -0.03, p = .914). This finding confirms hypothesis 2b and suggests that either appraising the emotions of others or the self during contact with customers increases customer contact satisfaction.

Table 4 Multilevel estimates of emotional intelligence dimensions on objective performance and customer contact satisfaction in Study 2

	Objective performance								Customer contact satisfaction							
	Person-level				Enacted level				Person-level				Enacted level			
	Model 1		Model 2		Model 1		Model 2		Model 1		Model 2		Model 1		Model 2	
	Estimate	*SE*	Estimate	*SE*	Estimate	*SE*	Estimate	*SE*	Estimate	*SE*	Estimate	*SE*	Estimate	*SE*	Estimate	*SE*
Constant	3.17***	0.32	3.01***	0.38	3.18***	0.33	3.00***	0.33	5.39***	0.12	5.42***	0.12	5.37***	0.12	5.37***	0.12
SEA	0.75	0.50	0.72	0.52	-0.30	0.48	-0.30	0.45	-0.03	0.21	-0.08	0.23	0.47*	0.20	0.55*	0.23
OEA	1.59*	0.70	1.47*	0.69	0.73*	0.36	0.51	0.29	0.47	0.36	0.51	0.38	0.51**	0.16	0.37**	0.14
UOE	-0.50	0.67	-0.53	0.66	-0.15	0.68	0.20	0.45	0.13	0.25	0.15	0.25	0.21	0.17	0.30*	0.13
ROE	-0.04	0.39	0.15	0.43	0.29	0.51	0.25	0.54	0.01	0.14	-0.15	0.20	-0.04	0.17	-0.05	0.16
OEA × SEA			0.01	0.94			-0.89	0.55			0.44	0.62			-0.43**	0.13
OEA × UOE			2.40	1.44			2.43*	1.09			-0.54	0.73			0.47**	0.14
OEA × ROE			-1.05	0.83			0.53	0.87			0.59	0.42			-0.31	0.18
-2 * log	663.994		662.290		664.994		644.338		450.494		448.472		426.712		420.382	
Δ -2 * log			1.704				20.656**				2.022				6.330†	
df	4		3		4		3		4		3		4		3	

Notes. SEA = self-emotion appraisal; OEA = others-emotion appraisal; UOE = emotion use; ROE = emotion regulation.
†$p < .10$. *$p < .05$. **$p < .01$. ***$p < .001$.

Table 5 Odds ratios (ORs) and 95% CI's of objective sales success by emotional intelligence dimensions in Study 2

	Person-level				Enacted level			
	Model 1		Model 2		Model 1		Model 2	
	OR	95% CI	OR	95% CI	OR	95% CI	OR	95% CI
Constant	1.04	[0.63-1.69]	0.97	[0.57-1.65]	1.10	[0.57-2.11]	1.25	[0.62-2.53]
SE A	0.76	[0.27-2.15]	0.86	[0.31-2.34]	2.72	[1.03-7.20]	3.44	[1.06-11.15]
OEA	4.08	[1.34-12.39]	4.57	[1.51-13.86]	4.75	[1.86-12.10]	4.42	[1.73-11.32]
UOE	0.88	[0.23-3.38]	0.84	[0.22-3.19]	1.49	[0.50-4.42]	2.05	[0.71-5.91]
ROE	1.46	[0.88-2.44]	1.62	[0.70-3.71]	1.09	[0.51-2.32]	1.12	[0.52-2.43]
OEA × SEA			1.69	[0.19-17.92]			0.64	[0.29-1.42]
OEA × UOE			0.16	[0.01-4.51]			9.79	[1.45-65.95]
OEA × ROE			0.67	[0.13-3.51]			0.55	[0.11-2.73]
-2 * log	190.740		188.914		170.912		162.576	
Δ -2 * log			1.826				8.336*	
df	4		3		4		3	

Notes. SEA = self-emotion appraisal; OEA = others-emotion appraisal; UOE = emotion use; ROE = emotion regulation.
*$p < .05$.

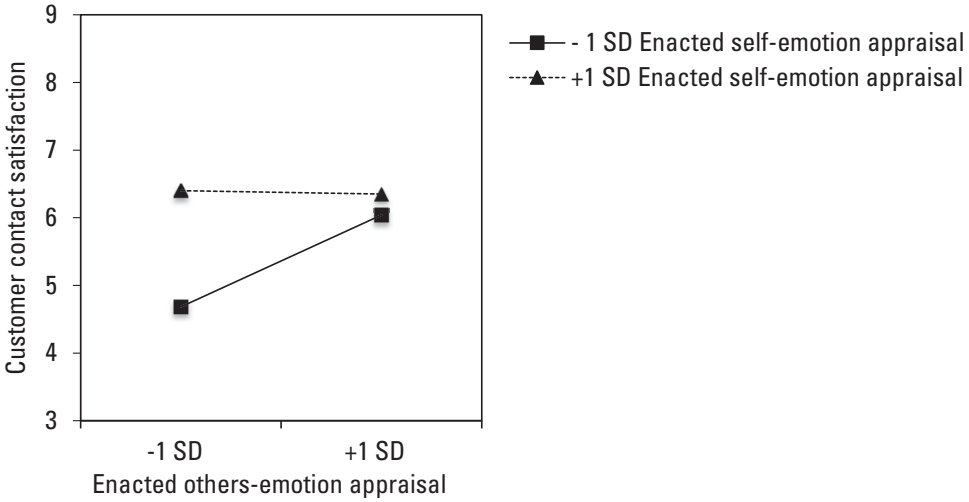

FIGURE 3: Two-way interaction effect between enacted others-emotion appraisal and enacted self-emotion appraisal on customer contact satisfaction in Study 2. -1 SD = one standard deviation below the mean. +1 SD = one standard deviation above the mean.

The hypothesized interaction between enacted others-emotion appraisal and emotion use (*Hypothesis 3a*) was found for all outcome variables ($\gamma = 2.430$, $p = .026$; OR = 9.79; $\gamma = 0.472$, $p = .001$ for objective performance, objective sales success, and customer contact satisfaction, respectively). Simple slope analyses showed that when salespersons used their own emotions more, they profited most from simultaneously appraising the emotions of their customers in terms of customer contact satisfaction (estimate = 0.80, $p < .001$). However, when salespersons used their own emotions less, they did not profit from simultaneously appraising the emotions of their customers in terms of customer contact satisfaction (estimate = -0.03, $p = .875$; Figure 4). Likewise, when salespersons used their own emotions more, they profited most from simultaneously appraising the emotions of their customers in terms of objective performance (estimate = 2.60, $p < .001$), and objective sales success (estimate = 3.45, $p < .001$). However, when salespersons used their own emotions less, the extent to which they appraised the emotions of their customers was even negatively associated with objective performance (estimate = -1.58, $p < .001$), and objective sales success (estimate = -0.48, $p = .049$). Taken together, these results suggest that appraising the emotions of customers only contributes to job performance when salespersons simultaneously use their own emotions. As the interaction between enacted others-emotion appraisal and emotion regulation was not significant for any of the outcome variables, hypothesis 3b received no support.

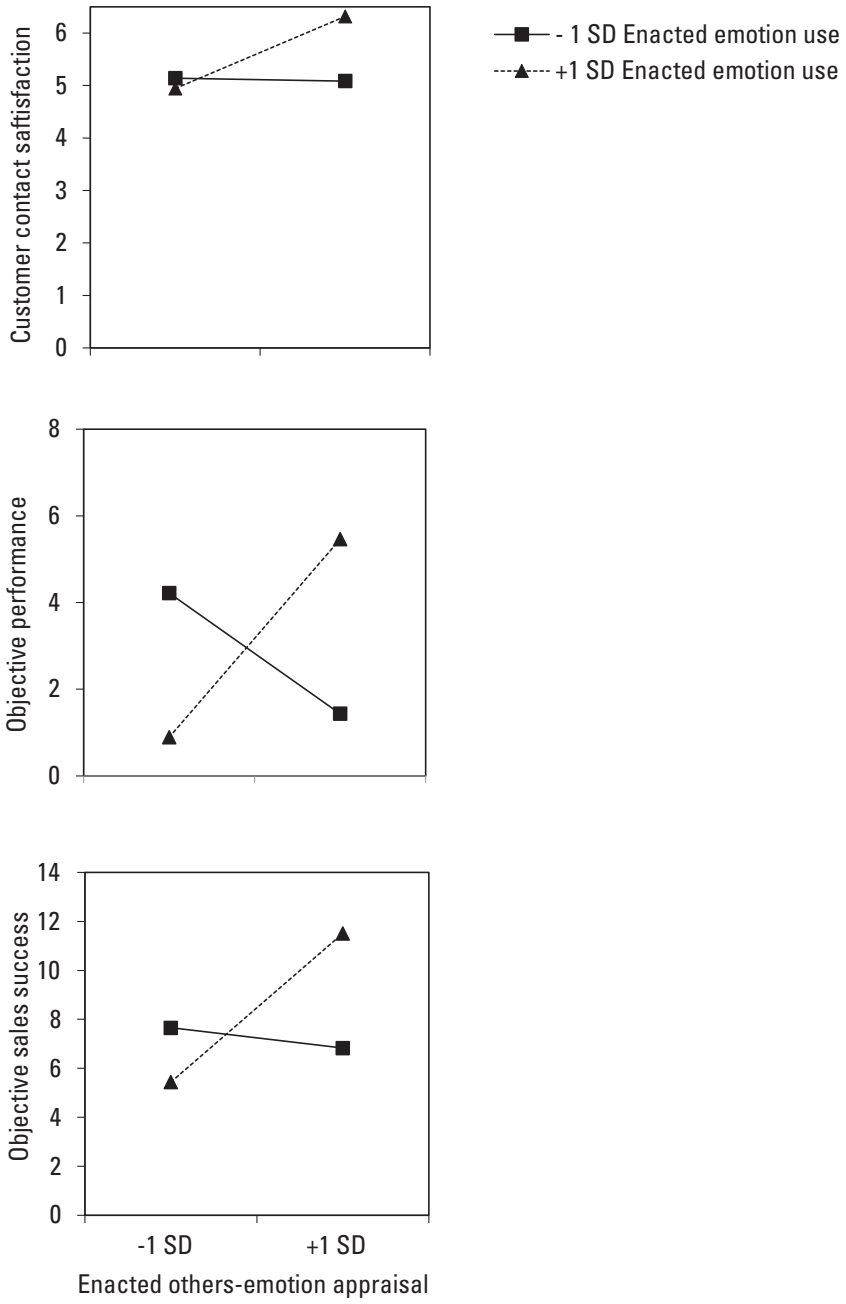

FIGURE 4: Two-way interaction effects between enacted others-emotion appraisal and enacted emotion use on customer contact satisfaction, objective performance, and objective sales success (displayed in logits) in Study 2. -1 SD = one standard deviation below the mean. +1 SD = one standard deviation above the mean.

In this study, the percentage of males was noticeably higher than in Study 1 (62.3% versus 5.9%, respectively). To better compare the results of the studies, we conducted parallel analyses in which we controlled for gender in Study 2. This resulted in a pattern that did not differ substantially from the observed pattern without control variables (results of these analyses can be received upon request). Thus, it seems unlikely that a different gender ratio was responsible for any differences in results between the two studies.

Discussion

The aim of Study 2 was to examine whether the results of Study 1 could be generalized to a different job context using additional (objective) performance criteria. At the person-level, Study 2 replicated that individuals who generally appraise others' emotions were more effective in terms of subjective and objective job performance criteria. Furthermore, fluctuations in the enactment of this specific EI dimension were predictive of fluctuations in all job performance outcomes. Together, these results confirmed the hypothesized role of (fluctuations in) others-emotion appraisal in job performance.

In contrast to Study 1, combined effects of EI dimensions were found at the enacted level but not at the person-level. Specifically, self-focused emotion use amplified the positive effect of others-emotion appraisal on job performance. This pattern was consistent across all outcome measures and supports the combined effect of different EI dimensions on job performance (Elfenbein, 2016). This finding adds to the literature since very few studies have tested combinations of EI dimensions and their effects on job performance explicitly.

The results also suggest that when salespersons appraised the emotions of their customers more, they did not profit from simultaneously appraising their own emotions. They only profited from appraising their own emotions when they did not put much attention to the appraisal of other's emotions. This finding suggests that salespersons perceive their own job performance as being more positive when their contact with customers included an appraisal of either self-related or customer-related emotions.

General Discussion

The present paper highlights the potential role of other-focused EI in jobs where employees work with other people, as was the case for the divorce lawyers and salespersons who participated in our studies. Within these interpersonal contexts, individual differences in other-focused EI dimensions contributed most to job performance. Furthermore, fluctuations in the enactment of other-focused EI dimensions also directly affected job performance outcomes.

Theoretical Implications

The theoretical contributions of the present studies are threefold. First, approaching the predictive value of EI in terms of the person (the other or the self) on which these dimensions are focused is relatively new in EI research (see also Brasseur et al., 2013; Liu et al., 2017). Although previous research has shown the beneficial effects of EI for performance in jobs with a high level of interpersonal contact (Joseph & Newman, 2010; Wong & Law, 2002), we are unaware of any studies that have explicitly taken into account whether EI is directed to the self or to others. Thus, our research contributes to the literature by showing that a distinction between self- and other-focused EI is relevant for the prediction of job performance.

A second contribution is the explicit examination of the effects of combined EI dimensions. Although most studies acknowledge that EI is composed of various dimensions, there are very few studies that have actually tested whether and how these dimensions may interact (see Elfenbein, 2016). As the cascading model of EI implies that only few people possess a high level of all EI dimensions (Joseph & Newman, 2010), a mixed pattern of EI dimensions best resembles reality for most people. It is therefore surprising that testing combined effects of EI dimensions is not common practice yet. For example, Study 1 showed that divorce lawyers with a high level of others-emotion appraisal and a high level of self-emotion appraisal experienced a trade-off of these dimensions: Their colleagues who score high on either one of these dimensions performed significantly better. Furthermore, Study 2 showed that only salespersons who used their emotions profited from simultaneously appraising the emotions of their customers. Thus, the simultaneous enactment of different EI dimensions altered their unique effects. The above-described patterns provide useful information about the actual manifestation of EI. Therefore, one central message of this paper is that combined effects of EI dimensions should be further explored.

Third, the present research contributes to the research field by using a diary design to study enacted EI. This approach has several advantages over cross-sectional studies. Most importantly, the diary measures made it possible to capture within-person fluctuations in the enactment of EI dimensions. As the findings of both studies indicated, approximately 30-50% of the variance in enacted EI dimensions could be attributed to these fluctuations. Furthermore, the moderate correlations between the enacted and person-level predictors showed that a high general level of a certain EI dimension is not necessarily reflected in a continuous manifestation of this EI dimension. This suggest that the enactment of EI dimensions indeed varies over situations and validates the diary design of our studies. Specifically, Study 2 showed that the use of EI dimensions differed from customer contact to customer contact, and, consequently, had a differential effect on job performance across these contacts.

A methodological strength of the current paper is that we studied the role of enacted EI in two different job contexts. Enacted EI related positively to the objective job performance of the sales persons (Study 2), but not to the subjective performance of the divorce lawyers (Study 1), suggesting that the value of enacted EI may be dependent on context. The contexts

differed in terms of task-completion (Study 1 ongoing vs. Study 2 immediate), type of relationship with the other person (Study 1 long-term vs. Study 2 short-term), and type of performance (Study 1 typical vs. Study 2 maximum; Sackett et al., 1988). Hence, the present results may suggest that enacted EI is better suited to predict immediate, short-term, peak performances (i.e., sales) instead of general performance evaluations (i.e., the effect of a consult). Also, participants' educational level, job tenure, and number of repeated diary measurements may have affected the predictive validity of enacted EI. Hence, we encourage future research to examine the conditions under which enacted EI most probably is a useful predictor.

The presence and (partial) predictive value of fluctuations in the enactment of EI dimensions in our studies call for a more elaborate discussion on the *meaning* of these fluctuations. As person-level EI dimensions refer to individual differences in the way people generally deal with emotions, enacted EI dimensions refer to the extent to which people deal with emotions in a given occasion. These fluctuations do not discard the role of person-level EI dimensions, but rather complement them by providing information on the actual manifestation of these dimensions. An intriguing question is whether the same antecedents affect both levels of EI dimensions. It is conceivable that daily levels of energy or motivation and emotional job demands affect (fluctuations in) the enactment of EI dimensions during performance episodes. However, such contextual variables will not influence person-level EI dimensions. Future research might consider delving deeper in the difference between the person-level and enacted role of EI dimensions as it might enrich our current understanding of EI.

Limitations and Future Research Ideas

The present study is not without limitations. First, we did not include cognitive intelligence or personality measures in our models. Therefore, we could not show that other-focused EI dimensions provided incremental validity beyond these well-known predictors of job performance. On the other hand, meta-analytic data convincingly showed that self-reported ability measures of EI, such as the WLEIS, indeed predict job performance over and above cognitive intelligence and personality measures (O'Boyle et al., 2011). Second, the reliability for the emotion use dimension fell just below the recommended cut-off value of .70 in both studies. However, the psychometric quality of the WLEIS (Wong & Law, 2002) and the significant relations that were found with this respective dimension, suggest that the relatively low reliability found did not have a major impact on the present findings.

Third, we measured (enacted) EI using the WLEIS because it allowed us to differentiate self- from other-focused EI dimensions. Although this instrument is a validated and widely used measure, its self-report format might have resulted in inflated EI scores due to a social desirability bias (Ciarrochi, Chan, Caputi, & Roberts, 2001). Specifically, as EI is a socially desirable characteristic, our participants might have responded more positively to the items than they should have if answering truthfully. If this is the case, this bias could have only affected the person-level models because these models investigate between-person

processes. Enacted level models investigate within-person processes. As socially desirable answering can be considered a stable tendency (Crowne & Marlowe, 1960), we consider it unlikely that fluctuations in an EI dimension from participants' own baselines (i.e., enacted EI) are caused by fluctuations in social desirability. Nonetheless, the conclusions would have been more robust if an ability EI test was included which differentiates self- from other-focused EI.

A related point is the fact that the WLEIS includes only one other-focused EI scale, namely the others-emotion appraisal scale. The lack of different other-focused EI scales in the WLEIS prevented us from examining whether a simultaneous appraisal and regulation of the emotions of others would increase job performance. Instead, we could only examine combined effects of appraising the emotions of others while regulating or using emotions of the self. Thus, future research should consider developing instruments that include multiple other-focused EI scales to examine combined effects of EI dimensions more thoroughly. Furthermore, it might also be interesting to examine combined effects of more than two EI dimensions. Although the current studies explicitly focused on the interplay between others-emotion appraisal and different self-focused EI dimensions, it is feasible that all EI dimensions are connected. The examination of different combinations of EI dimensions may lead to a new line of research in the EI literature.

Another interesting path to follow is to investigate the effects of other-focused EI dimensions on employee wellbeing. Although the appraisal of others' emotions may help in reaching job performance goals, there may be a negative effect of knowing what others feel for one's own wellbeing. Research on emotion contagion has shown that too much attention to negative emotions of other people may have negative consequences for employees themselves (Bakker, Schaufeli, Sixma, & Bosveld, 2001). Related to this point, there is an ongoing debate on the "curse of emotion" (Antonakis, Ashkanasy, & Dasborough, 2009; Jordan et al., 2010), a phenomenon in which leaders' sensitivity to their followers' emotions hinders them to provide corrective feedback or to take disciplinary action when necessary. This suggests that other-focused EI dimensions have costs and benefits in terms of job performance and employee wellbeing. Disentangling these effects would advance our understanding of other-focused EI dimensions.

Practically, these findings imply that it could be worthwhile for a company to take the distinction between self- and other-focused EI into account when selecting employees. Furthermore, current employees could be encouraged to enact their other-focused EI dimensions more during their work because this enactment may directly influence job performance outcomes. To raise awareness of the direct effects of the appraisal of others' emotions, companies could implement specialized training programs in which both self- and other-focused EI are trained (e.g., Clarke, 2010).

Conclusion

The present research introduces three promising approaches in EI research. The person (other or self) to whom EI dimensions are directed seems relevant for the prediction of job performance and might also impact the prediction of other criteria. Furthermore, studying fluctuations in the enactment of EI is a promising avenue that could lead to greater clarity on the role of context. Finally, the examination of the effects of combined EI dimensions on job performance may correspond better to the dynamics of emotional processes. It is our hope that these new approaches may move the field towards a better understanding of EI.

Chapter 3
Self- and Other-Focused Emotional Intelligence: Development and Validation of the Rotterdam Emotional Intelligence Scale (REIS)

This chapter has been published as:

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Abstract

The present study aimed to develop an instrument to measure emotional intelligence (EI). This novel scale distinguishes between four factors, namely, self- and other-focused emotion appraisal and emotion regulation. In Study 1, the Rotterdam Emotional Intelligence Scale (REIS) was developed and examined with respect to its factorial structure and reliability (N = 383). In Study 2, the factorial structure of the REIS was validated in two new samples (N = 2728 and N = 590). Study 3 examined convergent and discriminant validity by comparing the REIS dimensions with other EI instruments, cognitive intelligence, and personality (N = 108 and N = 105). The criterion validity of the REIS was examined in Study 4 (N = 73, N = 95, and N = 103). The results indicate that the REIS follows a four-factorial structure and can be reliably measured with 28 items. The REIS was strongly correlated with other self-reported EI instruments and weakly to moderately correlated with an ability EI test, cognitive intelligence, and personality. Moreover, self-focused emotion regulation was negatively associated with tutors' perceived stress, whereas other-focused emotion regulation was positively associated with tutors' work engagement, jobseekers' other-rated interview performance, and leaders' transformational leadership style.

Introduction

Scientific interest in the role of emotional intelligence (EI) in different life domains is flourishing (Joseph & Newman, 2010; Martins, Ramalho, & Morin, 2010). EI can be broadly defined as the knowledge and/or competencies to effectively deal with emotions to regulate social and emotional behaviors (Petrides, 2011; Salovey & Mayer, 1990; Zeidner, Roberts, & Matthews, 2008). In previous studies, EI has been associated with both intrapersonal (i.e., health) and interpersonal (i.e., being social) benefits. Specifically, EI was positively associated with mental and physical health, work performance, and the quality of social interactions (Joseph & Newman, 2010; Lopes et al., 2004; Martins et al., 2010). As the field is moving forward, researchers are becoming interested in the processes that underlie the positive effects of EI (e.g., Lievens & Chan, 2010). Accordingly, an important question is whether dealing with one's own emotions or the emotions of other individuals are of equal importance for the prediction of criteria (Brasseur, Grégoire, Bourdu, & Mikolajczak, 2013; Zeidner et al., 2008). We propose that both EI dimensions (i.e., dealing with one's own emotions and dealing with others' emotions) may have a positive impact; however, this impact may occur in different life domains. To illustrate, effectively dealing with the emotions of the self presumably plays a major role in staying (mentally and physically) healthy, whereas effectively dealing with the emotions of others may be more important to facilitate smooth social interactions. As the positive effects of EI may thus reflect different processes, it may be relevant to differentiate self- from other-focused EI.

The rise of EI to a prominent research topic has stimulated the development of various EI instruments. Although there has been substantial debate on the format of these instruments (i.e., ability tests or self-reported questionnaires; Roberts, Matthews, & Zeidner, 2010), to date, the question of whether they should involve both self- and other-focused EI dimensions has received relatively little attention. Accordingly, most EI instruments do not explicitly distinguish self- from other-focused EI. Therefore, it remains largely unclear which EI dimension contributes to which criterion. We consider this a limitation in the field because self-focused EI dimensions may not always reconcile with their other-focused counterparts (Niven, Totterdel, Stride, & Holman, 2011) and may have differential effects. In the related, yet somewhat separate, research field of emotion regulation, the distinction between dealing with one's own emotions or the emotions of others is well acknowledged. Instruments have been developed that measure both self and other-focused emotion regulation (e.g., Emotion Regulation of Others and Self Scale; Niven et al., 2011) or one of these factors (e.g., Managing the Emotions of Others Scale; Austin & O'Donnell, 2013). By combining these measures with EI measures, scholars have attempted to balance the focus on the ways individuals deal with self- and other-emotions (Austin, Saklofske, Smith, & Tohver, 2014). In a first attempt to develop an instrument that distinguishes self- from other-focused EI, the Profile of Emotional Competence (PEC) was developed (Brasseur et al., 2013). Although the theoretical approach of the PEC is promising, its distinction in ten highly correlated facets did not enable a meaningful differentiation between self- and other-focused EI. Thus, as the facets of the PEC are relatively narrow and

fine-grained, it remains difficult to disentangle which facet is responsible for a specific effect. We therefore argue for a more parsimonious alternative. Consequently, the major aim of the current paper is to develop and validate a short and simple scale to explicitly measure self- and other-focused EI. We believe that this type of scale is vital in unraveling the processes that underlie EI.

Theoretical Background

Although the EI literature is abundant, there is no consensus regarding the definition and measurement of the construct. Efforts continue to refine the models and measurements of EI (Keefer, 2015). The two major and overarching perspectives are the ability- and trait-positions of EI (Siegling, Saklofske, & Petrides, 2015). The ability-position defines EI as a set of emotion-related abilities akin to cognitive abilities (Salovey & Mayer, 1990; Zeidner et al., 2008). By contrast, the trait-position defines EI as a set of emotion-related traits more akin to personality (Petrides, Pita, & Kokkinaki, 2007). At the core of the debate between these two positions lies the way in which EI is measured, i.e., with an ability test similar to the way cognitive intelligence is measured or a self-reported instrument that resembles the way personality is measured. The current research follows this latter tradition by constructing a self-reported instrument to examine self- and other-focused EI. Self-reported EI instruments appear more straightforward for a construct that addresses subjective emotional experiences than ability EI tests (Siegling et al., 2015). Furthermore, self-reported EI instruments have demonstrated superior explanatory power over cognitive intelligence and personality in predicting criteria such as job performance (O'Boyle, Humphrey, Pollack, Hawver, & Story, 2011).

Self- and Other-Focused Emotional Intelligence

The introduction of EI in the scientific literature was partially based on the work of Gardner (1983), who differentiated the concept of intelligence in multiple dimensions. Specifically, Gardner proposed that the emotional aspect of intelligence consists of two dimensions: intrapersonal and interpersonal intelligence. Accordingly, Salovey and Mayer (1990) distinguished emotion appraisal in the self from emotion appraisal in others, as well as emotion regulation in the self from emotion regulation in others. However, in their Four-Branch Model, they revised this previous definition and added the components of emotion use and emotion understanding to their conceptualization. Although this resulted in a richer pallet of EI dimensions, the distinction between self- and other-focused EI dimensions was pushed into the background because "each branch applied to emotions internally and in others" (Mayer & Salovey, 1997, p. 10). The Four-Branch Model became an influential model in the literature, and whether one's capacity to deal with one's own emotions can be considered to be similar to one's capacity to deal with the emotions of others is still a conceptual issue (Brasseur et al., 2013; Zeidner et al., 2008). Furthermore, merging self- and other-focused EI dimensions may mask their unique effects. In an

attempt to address these theoretical issues, we argue to reinstate the explicit and meaningful distinction between self- and other-focused EI.

To illustrate, some individuals are more competent in the regulation of their own emotions than in the regulation of the emotions of others (Niven et al., 2011). This finding implies that when the source of emotions is not specified in EI instruments, incorrect conclusions may be drawn. Furthermore, self- and other-focused EI dimensions may not always reconcile. Psychotherapists who are overly involved with their clients' emotions are at risk for burnout because they may take their clients' difficulties home (Lee, Lim, Yang, & Lee, 2011). Thus, competence in other-focused EI may, in some contexts, mean being incompetent in self-focused EI and vice versa. Based on the above mentioned reasons, positive associations of EI with health criteria (Martins et al., 2010) may be reflective of self-focused EI because this directly addresses one's own mood state. By contrast, the positive associations of EI with social criteria (Joseph & Newman, 2010; Lopes et al., 2004) may be more reflective of other-focused EI because this directly addresses the mood state of other individuals.

Emotion Appraisal and Emotion Regulation

As we aim for a short and practical instrument to reliably differentiate between emotional processes, EI will be captured by two main dimensions that are theoretically relevant and consistently appear in every conceptual model of EI, namely, emotion appraisal and emotion regulation (e.g., Davies, Stankov, & Roberts, 1998; Mayer & Salovey, 1997; Petrides et al., 2007). We argue that emotion appraisal and regulation play crucial roles in the way individuals deal with emotions. In the first part of the process, emotion appraisal may draw one's attention to the emotion without altering its impact. In the second part of the process, the emotion is regulated to facilitate mood or social interaction. Thus, one could infer that emotion appraisal functions as a precondition for emotion regulation (cf. Joseph & Newman, 2010); however, emotion appraisal does not always have to result in emotion regulation. Based on an individual's capacity, motivation, and the context, different reactions might follow.

EI models and instruments vary considerably in the precise composition of the EI dimensions included (Siegling et al., 2015). However, the different interpretations of the construct complement rather than contradict each other (Ciarrochi, Chan, & Caputi, 2000). Moreover, the distinction between emotion appraisal and emotion regulation maps well onto the distinction between emotion generation and emotion regulation in the basic emotion regulation literature (Gross, Sheppes, & Urry, 2011), which suggests that it might function as an appealing framework for conceptualizing the process of dealing with emotions.

The Present Studies

The aim of the present studies was to develop and validate a self-reported EI instrument that captures emotion appraisal and emotion regulation. When combining these EI

dimensions with a focus on either the self or the other, four dimensions emerged. We suggest that this simple yet intuitive distinction can help gain additional insights into emotional processes. Although several validated instruments that distinguish self- from other-focused EI dimensions have previously been developed, these tests have their limitations. They lack an explicit other-focused emotion regulation dimension (Wong and Law Emotional Intelligence Scale (WLEIS): Wong & Law, 2002) or their items and subscales can empirically and statistically only be differentiated in two defendable factors (PEC; Brasseur et al., 2013). In developing a scale that is balanced in its focus on self- and other-emotions and that comprises the two main dimensions of EI, we aim to facilitate empirical research on the working mechanisms that underlie the manifestation of EI.

Study 1: Scale Development and Factorial Structure

In Study 1, the factorial validity of a new scale was examined to measure self- and other-focused EI: the Rotterdam Emotional Intelligence Scale (REIS). In line with its theoretical background, the hypothesis was that the REIS follows a four-factorial structure that consists of self-focused emotion appraisal, other-focused emotion appraisal, self-focused emotion regulation, and other-focused emotion regulation (*Hypothesis 1)*.

Method

Procedure and Participants

Data were obtained using a convenience sample of Dutch employees who were invited to participate in the study. Emails were sent via social media and professional network sites. The emails included a link to the online questionnaire with the newly developed EI items. For their participation, employees could win a cinema voucher.

Three hundred eighty-three employees participated in the study, including 129 males (33.7%). The mean age was 39.84 (*SD* = 13.96) years, and the majority had finished higher vocational education (44.1%) or held an advanced degree (46.5%). Most participants worked in education (21.7%), healthcare (18.5%), the research and development industry (9.7%), the marketing and communication sector (9.4%), or business management (9.4%). On average, the participants worked 34.32 (*SD* = 11.05) hours per week, and 53.0% worked fulltime (>36 hours a week).

Construction of the REIS

Together with two PhD students who study emotion-related topics, the authors constructed a pool of 63 candidate items to capture the four proposed dimensions. The contributors were

provided with general definitions of the EI dimensions, and they were asked to come up with understandable, concrete, self-referent, neutral, and unambiguous items to measure them (Angleitner, John, & Löhr, 1986). Specifically, the definitions used in the construction of the emotion appraisal dimensions of the WLEIS (Davies et al., 1998; Wong & Law, 2002) were used for the emotion appraisal dimensions of the REIS:

- *Self-focused emotion appraisal:* The extent to which individuals perceive and understand their own emotions.
- *Other-focused emotion appraisal:* The extent to which individuals perceive and understand other individuals' emotions.

To construct items for the self- and other-focused emotion regulation dimensions, definitions were formulated that could involve both affect-improving and affect-worsening strategies depending on an individual's regulatory goal (cf. Niven et al., 2011). We intentionally avoided the inclusion of the direction of emotion or the motivation that underlies emotion regulation efforts because it has been shown that EI may facilitate social and antisocial behavior depending on individuals' interests (Côté, DeCelles, McCarthy, van Kleef, & Hideg, 2011). Thus, the definitions emphasized that emotions are regulated to attain (social) behavioral goals (Petrides, 2011; Salovey & Mayer, 1990; Zeidner et al., 2008):

- *Self-focused emotion regulation:* The extent to which individuals regulate their own emotions to reach a goal.
- *Other-focused emotion regulation:* The extent to which individuals regulate other individuals' emotions to reach a goal.

The total item pool was initially reviewed in terms of the clarity and fit with the proposed dimensions. All authors and collaborating experts indicated the ten candidate items that were most reflective of each dimension. Following a comparison of these ratings and extensive discussions between the authors, 27 items were excluded. The excluded items were ambiguous, too similar to the other items, or referred to specific emotions (vs. no specific emotions). Specifically, to avoid biased responses caused by individual differences in emotional responsivity to specific emotions (Gray, 1987), we decided to delete items that referred to specific emotions. We subsequently examined whether the 36 retained candidate items followed the four proposed dimensions. To this end, the participants were instructed to indicate the extent to which they agreed with each item on a five-point Likert scale that ranged from 1 (*totally disagree*) to 5 (*totally agree*).

Table 1 Items, means, standard deviations, internal consistencies, and factor loadings of the REIS in Study 1 (*N* = 383)

	Item wording	*M*	*SD*	α	Factor			
					1	2	3	4
	Self-focused emotion appraisal			.82				
1	I always know how I feel.	3.51	0.93		.74			
2	I can distinguish my own emotions well.	3.71	0.75		.68			
3	I am aware of my own emotions.	3.97	0.62		.67			
4	I understand why I feel the way I feel.	3.71	0.72		.60			
5	I know which emotions I experience.	4.10	0.70		.58			
6	Mostly, I am able to explain exactly how I feel.	3.55	0.89		.57			
7	I can judge well if events touch me emotionally.	3.87	0.74		.47			
	Other-focused emotion appraisal			.85				
8	I am aware of the emotions of the people around me.	3.90	0.62			.75		
9	I know which feelings others experience.	3.55	0.73			.70		
10	When I look at other people, I can see how they feel.	3.66	0.64			.70		
11	I can empathize with the people around me.	4.04	0.66			.64		
12	I understand why other people feel the way they feel.	3.63	0.80			.61		
13	I can distinguish well between other people's emotions.	3.84	0.70			.61		
14	I can judge well if events touch others emotionally.	3.66	0.64			.47		
	Self-focused emotion regulation			.80				
15	I am in control of my own emotions.	3.36	0.86				.73	
16	I can suppress my emotions easily.	3.03	1.00				.73	
17	I do not let my emotions take over.	3.47	0.92				.72	
18	I only show my emotions when it is appropriate.	3.26	1.00				.68	
19	Even when I am angry, I can stay calm.	3.39	0.98				.54	
20	If I want to, I put on my poker face.	3.24	1.10				.50	
21	I adjust my emotions when necessary.	3.54	0.82				.33	

Table 1 Items, means, standard deviations, internal consistencies, and factor loadings of the REIS in Study 1 (*N* = 383)

	Item wording	*M*	*SD*	α	Factor			
					1	2	3	4
	Other-focused emotion regulation			.82				
22	I can make someone else feel differently.	3.48	0.69					.82
23	I can alter another person's emotional state.	3.25	0.70					.80
24	I can boost or temper the emotions of others.	3.64	0.68					.60
25	I have great influence on how others feel.	3.03	0.78					.58
26	I know what to do to improve people's mood.	3.64	0.63					.56
27	I know how to influence people.	3.73	0.72					.42
28	I am able to calm others down.	3.93	0.53					.37

Notes. Factor loadings >.32 are shown. Items were translated in English.

Results

To explore the factorial structure of the REIS, factor analysis (maximum likelihood) with oblique rotation in SPSS was used. As a criterion, factors with eigenvalues >1 were retained. When a factor included fewer than three items, this factor (and its items) was deleted (cf. Costello & Osborne, 2005). Within the extracted factors, items that loaded at least .32 on the intended factor were retained (Tabachnick & Fidell, 2001). We thus excluded items that had cross loadings greater than .32 or that did not load at least .32 on a factor. Following these criteria, we deleted four items in a first factor analysis and an additional four items in a second and third factor analysis, until all criteria were met. This iterative process resulted in 28 items loading on four factors that were identical to the hypothesized dimensions in hypothesis 1 (Table 1).

The four factors, which consisted of seven items each, explained a cumulative 43.3% of the variance in the data. Specifically, the first factor consisted of other-focused emotion appraisal (Eigenvalue = 6.53) and explained 21.3% of the variance. The second factor, self-focused emotion regulation (Eigenvalue = 2.93), explained 8.7%. The third factor, other-focused emotion regulation (Eigenvalue = 2.89), explained 8.3%. The fourth and final factor, self-focused emotion appraisal (Eigenvalue = 1.93), explained an additional 5.0% of the variance. The internal consistencies (alphas) of all dimensions were satisfactory (Table 1), and the intercorrelations ranged between $r = .19$ and $r = .45$ (Table 2).

Table 2 Means, standard deviations, internal consistencies (between brackets), and correlations of the REIS dimensions in Studies 1 and 2

		Study	*M*	*SD*	1	2	3	4	5
1	SFEA	1	3.77	0.54	(.82)				
		2a	3.89	0.59	(.81)				
		2b	3.75	0.68	(.84)				
2	OFEA	1	3.76	0.50	.45***	(.85)			
		2a	3.94	0.56	.50***	(.86)			
		2b	3.96	0.58	.48***	(.86)			
3	SFER	1	3.33	0.65	.19***	.21***	(.80)		
		2a	3.41	0.68	.21***	.15***	(.79)		
		2b	3.52	0.68	.14***	.10*	(.79)		
4	OFER	1	3.53	0.47	.23***	.37***	.20***	(.82)	
		2a	3.74	0.52	.38***	.54***	.27***	(.84)	
		2b	3.71	0.55	.37***	.58***	.21***	(.84)	
5	Total REIS score	1	3.60	0.36	.69***	.73***	.66***	.63***	(.86)
		2a	3.74	0.41	.73***	.75***	.62***	.74***	(.88)
		2b	3.74	0.43	.73***	.76***	.55***	.75***	(.88)

Notes. Study 2a refers to Sample 1: $N = 2728$; Study 2b refers to sample 2: $N = 590$. SFEA = self-focused emotion appraisal; OFEA = other-focused emotion appraisal; SFER = self-focused emotion regulation; OFER = other-focused emotion regulation.
*$p < .05$. **$p < .01$. ***$p < .001$.

Discussion

This first study provided initial support for the four proposed dimensions of the REIS. Good reliabilities and weak to moderate inter-correlations between the subscales were identified, which suggest that the subscales appear to reliably capture different EI dimensions. To examine whether the proposed structure of the REIS is independent of the sample used, the subsequent step was to cross-validate the findings.

Study 2: Cross-Validation

The aim of Study 2 was to examine the four-factorial structure of the REIS in new samples using confirmatory factor analysis. A four-factor model, including a higher order EI factor, was predicted to fit the data best compared with alternative models (*Hypothesis 2*). More specifically, this hierarchical four-factor model was tested against a hierarchical three-factor model that is comparable to the WLEIS (Wong & Law, 2002). That is, a higher order EI factor that is distinguished in self- and other-focused emotion appraisal and a general emotion regulation factor. In addition, a hierarchical two-factor model with a higher order EI factor and two lower order factors that represented self- and other-focused EI was tested. Alternatively, we examined a hierarchical two-factor model with a higher order EI factor and two lower order factors that represented emotion appraisal and emotion regulation. Moreover, we determined how the data fit to a one-factor model in which all items loaded on one general EI factor. Finally, we examined the robustness of the REIS across employees and students, gender, and age groups using invariance tests.

Method

Procedure and Participants

The samples of Study 2 were convenience samples that consisted of Dutch employees (Sample 1) and students (Sample 2). To recruit participants, a link to the online questionnaire was distributed via a popular scientific website (i.e., Quest) that provides personality and other intellectual tests. Participation was voluntary, and participants received immediate feedback on their score. Participants without a job or younger than 18 were excluded.

Sample 1 included 2728 employees, including 900 males (33.0%). The mean age was 36.60 (*SD* = 12.36) years. Most participants had completed vocational education (31.5%), higher vocational education (40.1%), or held an advanced degree (19.6%). All types of professions were represented in the sample, with a majority working in healthcare (29.8%), education (11.4%), marketing and communication (11.1%), and the industrial sector (8.3%). In total, 36.1% of the participants worked fulltime (>36 hours per week), whereas the majority worked between 17 and 36 hours per week (52.4%). With the exception of a larger proportion of women, Sample 1 is comparable to the general Dutch working population (Centraal Bureau voor de Statistiek, 2016). Sample 2 consisted of 590 students, including 191 males (32.4%). The mean age was 21.43 (*SD* = 3.70) years. Most participants were attending higher vocational education (30.0%) or pursuing their Bachelor's degree (28.8%).

Measures

Self- and other-focused emotional intelligence was measured with the 28 REIS items.

Results

Confirmatory Factor Analysis

Table 2 presents the means, standard deviations, internal consistencies (alphas), and correlations of the REIS dimensions in both samples. Confirmatory factor analysis was used to determine whether a hierarchical four-factor solution fitted the total data set best compared with alternative models (*Hypothesis 2*) using AMOS. The fit of the proposed models was assessed with five indices: the comparative fit index (CFI), the Tucker-Lewis index (TLI), the incremental fit index (IFI), the root mean squared error of approximation (RMSEA), and the standardized root mean squared residual (SRMR). The fit indices were interpreted using Hu and Bentler's (1999) suggested values, which should be close to .95 for CFI, TLI, and IFI, close to .06 for RMSEA, or close to .08 for SRMR.

The results of the confirmatory factor analysis are reported in Table 3. The CFI, TLI, and IFI indices of the hierarchical four-factor model were all .91 and the RMSEA and SRMR were small (.05), which indicates that this model showed an acceptable fit to the data. All items significantly loaded on their proposed latent factors (coefficients ranged between .48 and .77, all *p*'s > .001). Supporting hypothesis 2, the fit of the proposed hierarchical four-factor model to the data was significantly and substantially better compared with a hierarchical three-factor model ($\Delta\chi^2$ = 4373.93, Δdf = 1, p < .001), a hierarchical two-factor model with two lower order factors that represented emotion appraisal and emotion regulation ($\Delta\chi^2$ = 7639.67, Δdf = 3, p < .001), and a one-factor model ($\Delta\chi^2$ = 10842.42, Δdf = 4, p < .001). Furthermore, the analyses showed that fitting the data to the alternative hierarchical two-factor model with a general EI factor and two lower order factors that represented self- or other-focused items produced several Heywood cases as a result of negative variances, which indicates the inappropriateness of this alternative. Figure 1 displays the hierarchical four-factor model.

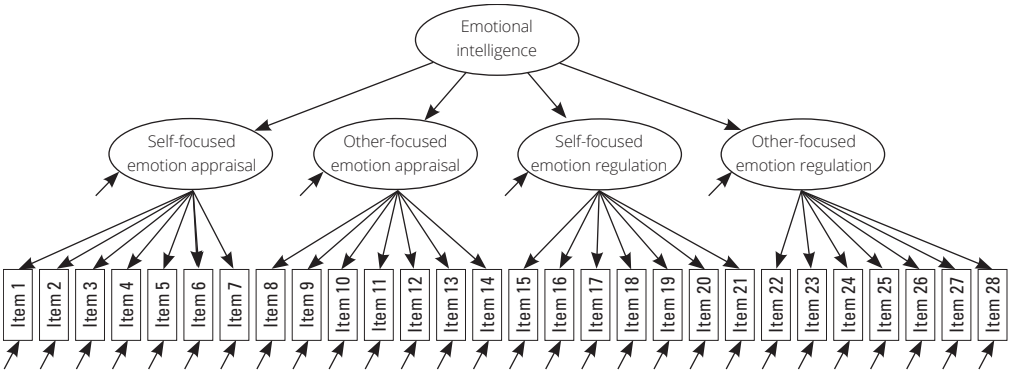

FIGURE 1: Hierarchical four-factor model used in the confirmatory factor analysis of Study 2.

Table 3 Confirmatory factor analysis and invariance tests of the REIS in Study 2 (*N* = 3318)

Model	χ^2	*df*	CFI	TLI	IFI	RMSEA	SRMR
Four-factor model	3178.68	346	0.91	0.91	0.91	0.05	0.05
Three-factor model	7552.61	347	0.78	0.76	0.78	0.08	0.08
Two-factor model (self-focused - other-focused)[a]							
Two-factor model (emotion appraisal - emotion regulation)	10818.35	349	0.68	0.65	0.68	0.10	0.09
One-factor model	14021.10	350	0.58	0.55	0.58	0.11	0.11
Invariance tests among students (*N* = 590) and employees (*N* = 2728)							
Model 1 (four-factor model - unconstrained)	3620.02	692	0.91	0.91	0.91	0.04	0.06
Model 2 (four-factor model - factor loadings constrained)	3644.70	716	0.91	0.91	0.91	0.04	0.06
Invariance tests among men (*N* = 1091) and women (*N* = 2227)							
Model 3 (four-factor model - unconstrained)	3443.48	692	0.91	0.91	0.91	0.04	0.06
Model 4 (four-factor model - factor loadings constrained)	3478.21	716	0.91	0.91	0.91	0.03	0.06
Invariance tests among young (*N* = 1121), middle-aged (*N* =1200) and older (*N* = 984) adults							
Model 5 (four-factor model - unconstrained)	4240.49	1098	0.90	0.90	0.90	0.03	0.06
Model 6 (four-factor model - factor loadings constrained)	4278.16	1122	0.90	0.90	0.90	0.03	0.06

Notes. CFI = comparative fit index; TLI = Tucker-Lewis index; IFI = incremental fit index; RMSEA = root mean squared error of the mean; SRMR = standardized root mean squared residual.

[a] As a result of several Heywood cases, this model did not lead to a permissible solution.

Invariance Tests

The invariance of the REIS across employees and students was tested using a multi-group analysis in AMOS (Byrne, 2004). Specifically, we initially ran a model (Model 1 in Table 3) in which all parameters were simultaneously estimated without cross-group constraints. We subsequently ran a model in which we constrained the factor loadings (Model 2) and compared the fit with the unconstrained model. This comparison produced a non-significant chi-square difference test value ($\Delta\chi^2$ = 24.68, Δdf = 24, p = .423), which implied that the factor loadings were invariant across the samples.

A similar procedure was performed to test for invariance across men and women. The student and employee samples were initially merged and subsequently split in terms of gender. We then compared the fit of a model without equality constraints (Model 3) with the fit of a model in which we constrained the factor loadings (Model 4). This comparison produced a non-significant chi-square difference test value ($\Delta\chi^2$ = 34.73, Δdf = 24, p = .073), which implied that the factor loadings were invariant across gender groups.

Finally, we tested for invariance across different age groups. The total data (N = 3318) were split into three age groups (18-25 years; 26-40 years; and >40 years). We subsequently compared the fit of a model without equality constraints (Model 5) with the fit of a model in which we constrained the factor loadings to be equal across the age groups (Model 6). This comparison yielded a significant chi-square difference test value ($\Delta\chi^2$ = 37.67, Δdf = 24, p = .037), which implied that the factor loadings slightly differed between the age groups. Inspection of these loadings indicated that the factor loadings in the younger age group were relatively lower than those in the older age groups. Despite these differences, the model fit values of this constrained model were acceptable.

Discussion

The results of Study 2 indicated that the proposed hierarchical four-factorial structure showed a substantially better fit to the data than alternative structures in two new samples. Furthermore, the invariance tests indicated that the factor loadings of the REIS were invariant across employees, students, and gender groups, which implies that these different groups respond to the items in the same way. The invariance test for age indicated that the factor loadings in the younger age group were relatively lower than in the older age groups (however, they were acceptable in terms of model fit). This finding might be related to the phenomenon that some EI facets become more crystallized among older adults (Doerwald, Scheibe, Zacher, & van Yperen, 2016). Together, the results of Study 2 established the measurement properties of the new scale. Consequently, a logical next step was to further examine the convergent and discriminant validity of the REIS.

Study 3: Convergent and Discriminant Validity

Study 3 examined the convergent and discriminant validity of the REIS by relating its dimensions to other EI instruments, cognitive intelligence, and personality measures. To examine convergent validity in a first sample (Study 3a), two different self-reported EI questionnaires were used: the WLEIS (Wong & Law, 2002) and the TEIQue (Petrides, 2009). We expected that the total score of the REIS is strongly and positively correlated with the total scores of the WLEIS and the TEIQue (*Hypothesis 3*). In addition, it was predicted that three of the four REIS dimensions relate strongly and positively to three comparable WLEIS dimensions. Specifically, the hypothesis was that self-focused emotion appraisal, other-focused emotion appraisal, and self-focused emotion regulation exhibit strong positive correlations with self-emotion appraisal, other-emotion appraisal, and regulation of emotions of the WLEIS, respectively (*Hypothesis 4*). The newly included REIS dimension other-focused emotion regulation was not expected to show a strong relationship with a specific WLEIS dimension. For the TEIQue, there were no specific expectations regarding the dimensional level because the REIS and TEIQue are composed of different EI dimensions.

To examine discriminant validity, the REIS dimensions were related to cognitive intelligence and personality measures. Previous research has indicated that ability EI tests tend to correlate particularly with cognitive intelligence, whereas self-reported EI questionnaires tend to correlate with personality measures (O'Boyle et al., 2011; van der Linden et al., 2017). As the REIS is a self-reported questionnaire, its dimensions were hypothesized to correlate weakly or non-significantly with cognitive intelligence (*Hypothesis 5*) and weakly with personality measures (*Hypothesis 6).*

In a second sample (Study 3b), we included an ability test of EI (MSCEIT; Mayer, Salovey, & Caruso, 2002) and another self-reported EI questionnaire (PEC; Brasseur et al., 2013). Self-reported EI questionnaires and ability EI tests tend to correlate weakly to moderately (Joseph & Newman, 2010; Petrides, 2011). Therefore, we expected that the total score of the REIS is weakly to moderately positively correlated with the total score of the MSCEIT (*Hypothesis 7).* We had no specific expectations regarding the dimensional level because the REIS dimensions are differentiated in terms of self- versus other-emotions in contrast to the MSCEIT branches. Regarding the PEC, we expected the total score of the REIS to exhibit a strong and positive correlation with the total score of the PEC (*Hypothesis 8).* Furthermore, we expected that the self-focused REIS dimensions exhibit a stronger correlation with the intrapersonal PEC factor than the interpersonal PEC factor, and the other-focused REIS dimensions exhibit a stronger correlation with the interpersonal PEC factor than the intrapersonal PEC factor (*Hypothesis 9).*

TABLE 4 **Means, standard deviations, internal consistencies (between brackets), and correlations of the REIS dimensions and indicators of convergent validity in Study 3a (*N*=108)**

		M	*SD*	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
	REIS																	
1	Self-focused emotion appraisal	3.83	0.58	(.90)														
2	Other-focused emotion appraisal	3.90	0.49	.19	(.87)													
3	Self-focused emotion regulation	3.66	0.58	.24*	-.00	(.72)												
4	Other-focused emotion regulation	3.63	0.59	.31**	.45***	.22*	(.89)											
5	Total REIS score	3.76	0.37	.68***	.59***	.58***	.76***	(.87)										
	WLEIS																	
6	Self-emotion appraisal	3.80	0.68	.77***	.08	.15	.26**	.50***	(.83)									
7	Others-emotion appraisal	3.90	0.59	.15	.69***	-.11	.31**	.37***	.13	(.72)								
8	Use of emotions	3.66	0.65	.12	.11	.21*	.10	.21*	.27**	-.01	(.74)							
9	Regulation of emotions	3.65	0.77	.42***	.16	.59***	.15	.51***	.35***	.09	.28**	(.81)						
10	Total WLEIS score	3.75	0.43	.60***	.39***	.37***	.32**	.64***	.71***	.44***	.61***	.73***	(.79)					
	TEIQue																	
11	Wellbeing	5.56	0.81	.22*	.04	.06	.14	.18	.36***	.07	.46***	.27**	.47***	(.75)				
12	Self-control	4.76	0.92	.59***	.09	.42***	.28**	.54***	.55***	-.04	.32**	.57***	.59***	.43***	(.70)			
13	Emotionality	5.30	0.74	.59***	.23*	.06	.29**	.45***	.57***	.26**	.18	.28**	.51***	.29**	.45***	(.63)		
14	Sociability	5.14	0.82	.40***	.25**	.15	.57***	.53***	.30**	.15	.25**	.25*	.38***	.31**	.43***	.32**	(.68)	
15	Total TEIQue score	5.19	0.59	.61***	.19*	.27**	.41***	.58***	.61***	.14	.49***	.49***	.70***	.70***	.80***	.71***	.66***	(.85)

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

Study 3a

Method

Procedure and participants

One hundred eight Dutch university students participated in the study in exchange for course credits. Forty students were male (37.0%). The participants were instructed to complete the EI instruments and a personality questionnaire and were subsequently given 10 minutes to solve as many items as possible of a well-established IQ-test (subsequently described). The mean age of the participants was 21.93 (*SD* = 2.87) years. The majority of the participants studied psychology (63.9%) or economics (13.9%). In addition to their studies, most participants (69.4%) had a part-time job.

Measures

REIS. Self- and other-focused EI was measured with the 28 REIS items.

WLEIS was included as another self-reported EI instrument (Wong & Law, 2002). This 16-item scale measures self-emotion appraisal, others-emotion appraisal, use of emotions, and regulation of emotions. A sample item is "I am a self-motivated person" (1 = *totally disagree*, 5 = *totally agree*).

TEIQue was used as another self-reported EI instrument. We administered the 30-item TEIQue-SF (Petrides, 2009), which measures emotionality, sociability, self-control, and wellbeing. A sample item is "Others admire me for being relaxed" (1 = *totally disagree*, 7 = *totally agree*).

Personality was measured with a 21-item Dutch version of the Big Five Inventory (Denissen, Geenen, van Aken, Gosling, & Potter, 2008), which measure openness (α = .75), conscientiousness (α = .70), extraversion (α = .78), agreeableness (α = .56), and neuroticism (α = .57). A sample item is "I am someone who is depressed" (1 = *strongly disagree*, 5 = *strongly agree*). Because the internal consistencies of agreeableness and neuroticism fell below the recommended cut-off value of .70, we identified the items that caused this problem. Deletion of the items "I am someone who is generally trusting" (agreeableness; new α = .65) and "I am someone who is relaxed, handles stress well" (neuroticism; new α = .80) considerably increased the respective internal consistencies. In the analyses, we thus used the original subscales (4 items each) and the subscales without the problematic items (3 items each; Table 5).

Cognitive intelligence was measured using Raven's Advanced Progressive Matrices (RPM; Raven, 1962). The complete RPM consists of 48 multiple-choice questions of abstract reasoning.

Results

Table 4 presents the means, standard deviations, internal consistencies (alphas), and correlations of the REIS, WLEIS, and TEIQue dimensions. Confirming hypothesis 3, the results showed that the total score of the REIS was strongly and positively correlated with the total score of the WLEIS (r = .64, p < .001) and the total score of the TEIQue (r = .58, p < .001). On the dimensional level, the results showed that self-focused emotion appraisal, other-focused emotion appraisal, and self-focused emotion regulation were strongly and positively correlated with self-emotion appraisal (r = .77, p < .001), other-emotion appraisal (r = .69, p < .001), and regulation of emotions (r = .59, p < .001) of the WLEIS, respectively. These predicted correlations were significantly larger than the correlations of the respective REIS dimensions with the other WLEIS or TEIQue dimensions (all Z's > 2.32, all p's < .05). Together, these results supported hypothesis 4.

Table 5 presents the correlations of the REIS dimensions with personality and cognitive intelligence. It was predicted that the REIS dimensions would correlate weakly or non-significantly with cognitive intelligence (*Hypothesis 5*). The results confirmed that only self-focused emotion regulation was moderately correlated with cognitive intelligence (r = .21, p = .034), whereas the other dimensions and the total REIS score were unrelated to cognitive intelligence. Furthermore, the REIS was predicted to weakly correlate with the Big Five personality factors (*Hypothesis 6*). The results indicated that conscientiousness (which ranged between r = .22 and r = .33) and neuroticism (which ranged between r = −.31 and r = −.36) showed moderate correlations with several REIS dimensions. However, the majority of the correlations between the REIS and the Big Five personality factors were non-significant, which supports hypothesis 6.

Table 5 Correlations of the REIS dimensions with indicators of discriminant validity in Study 3a (*N* = 108)

	O	C	E	A	(A)	N	(N)	IQ
Self-focused emotion appraisal	-.17	.28**	.10	.15	12	-.35***	-.39***	-.09
Other-focused emotion appraisal	.14	-.00	.11	-.03	-.06	-.12	-.06	-.05
Self-focused emotion regulation	.21*	.32**	-.07	-.10	.01	-.13	-.17	.21*
Other-focused emotion regulation	.12	.22*	.32**	-.11	-.12	-.31**	-.24*	.15
Total REIS score	.11	.33**	.18	-.03	-.02	-.36***	-.34***	.09

Notes. O = openness; C = conscientiousness; E = extraversion; A = agreeableness; N = neuroticism; IQ = cognitive intelligence. Correlations in the grey columns are based on the subscales agreeableness and neuroticism without the problematic items.
*p < .05. **p < .01. ***p < .001.

Study 3b

Method

Procedure and participants

One hundred five Dutch psychology students participated for course credits. The mean age was 19.98 (*SD* = 2.28) years, and 9.5% of the participants were male. The participants were instructed to complete the MSCEIT before they were presented with the REIS and the PEC in a randomized order.

Measures

REIS. Self- and other-focused EI was measured with the 28 REIS items.

Ability emotional intelligence was measured with the Dutch 141-item MSCEIT (Mayer et al., 2002). The MSCEIT is an ability EI test designed to measure the branches perceiving emotions, facilitating thought, understanding emotions, and managing emotions using emotional problems (often in the scenario format) or tasks in which emotions are central.

PEC was used as another self-reported EI instrument (Brasseur et al., 2013). The 50-item PEC consists of ten facets (i.e., identification, expression, comprehension, regulation, and utilization of self- and other-emotions) that load on two factors: intrapersonal emotional competence and interpersonal emotional competence. A sample item is "When I am sad, I often don't know why" (1 = *strongly disagree*, 5 = *strongly agree*).

Results

Table 6 presents the means, standard deviations, internal consistencies, and correlations of the REIS, MSCEIT, and PEC. Noteworthy, although we used the recommended Spearman Brown corrected split-half approach of equivalent forms to estimate the internal consistency of the MSCEIT (Mayer, Salovey, & Caruso, 2012), three of the four branches had a relatively low reliability. Confirming hypothesis 7, the results showed that the total score of the REIS was weakly and positively correlated with the total score of the MSCEIT (r = .19, p = .049). In particular, other-focused emotion appraisal was associated with two MSCEIT branches (i.e., perceiving emotions and using emotions).

Table 6 Means, standard deviations, internal consistencies (between brackets), and correlations of the REIS dimensions and indicators of convergent validity in Study 3b (*N* = 105)

	M	*SD*	1	2	3	4	5	6	7	8	9	10	11	12	13
REIS															
1 Self-focused emotion appraisal	3.57	0.61	(.83)												
2 Other-focused emotion appraisal	3.93	0.38	.34***	(.76)											
3 Self-focused emotion regulation	3.36	0.65	.31**	.11	(.75)										
4 Other-focused emotion regulation	3.55	0.50	.10	.33**	.17	(.80)									
5 Total REIS score	3.61	0.35	.71***	.59 ***	.69 ***	.57 ***	(.83)								
MSCEIT															
6 Perceiving emotions	96.73	13.65	.16	.26**	.12	.11	.23*	(.89)[a]							
7 Facilitating thought	98.52	12.94	.04	.33**	-.02	.07	.13	.64***	(.66)[a]						
8 Understanding emotions	95.58	8.66	-.03	.17	-.04	.01	.02	.31**	.31**	(.49)[a]					
9 Managing emotions	94.85	7.77	.13	.16	-.05	.03	.09	.44***	.48***	.24*	(.58)[a]				
10 Total MSCEIT score	95.88	11.35	.13	.33**	.03	.08	.19*	.86***	.82***	.56***	.69***	(.89)[a]			
PEC															
11 Intrapersonal emotional competence	3.42	0.50	.80***	.29**	.33**	.09	.61***	.11	-.00	-.01	.14	.11	(.87)		
12 Interpersonal emotional competence	3.79	0.36	.32**	.56***	.20*	.65***	.62***	.35***	.24*	.14	.30**	.36***	.38***	(.83)	
13 Total PEC score	3.60	0.36	.71***	.48***	.33**	.38***	.73***	.25**	.12	.06	.25*	.26**	.89***	.76***	(.89)

Notes. [a] The internal consistencies of the MSCEIT branches are corrected Spearman-Brown split-half estimates of equivalent forms.
*$p < .05$. **$p < .01$. ***$p < .001$.

Supporting hypothesis 8, the total score of the REIS was strongly and positively correlated with the total score of the PEC (r = .73, p < .001). At the dimensional level, self-focused emotion appraisal was more strongly associated with the intrapersonal PEC factor than the interpersonal PEC factor (r = .80, p < .001, Z = 6.03, p < .001). Self-focused emotion regulation was moderately and positively associated with the intrapersonal PEC factor (r =.33, p < .001); however, this correlation did not differ from its correlation with the interpersonal PEC factor (Z = 1.22, *ns*). The other-focused REIS dimensions were strongly and positively associated with the interpersonal PEC factor (r = .56, p < .001 and r = .65, p < .001 for emotion appraisal and emotion regulation, respectively). These correlations were stronger than their correlation with the intrapersonal PEC factor (Z's > 2.79, p's < .01). These results partially supported hypothesis 9.

Discussion Studies 3a and 3b

The first goal of Study 3 was to examine the convergent validity of the REIS. We determined that the total score of the REIS was strongly and positively associated with the total scores of three other self-reported EI questionnaires and weakly and positively associated with the total score of an ability EI test. The convergence with scores on other EI instruments is in accordance with the overlap of EI measures as discussed in the literature (Joseph & Newman, 2010; Petrides, 2011). Furthermore, the individual REIS dimensions were strongly and positively correlated with their designated WLEIS and PEC dimensions (i.e., self- or other-emotions). These findings suggest that the REIS shows adequate convergent validity.

The second goal of Study 3 was to examine the discriminant validity of the REIS. The results confirmed that the total REIS score and three of its four dimensions were unrelated to cognitive intelligence. Furthermore, the majority of the correlations between the REIS dimensions and the Big Five personality factors were non-significant, which confirms their discriminating value. Moreover, the personality factors that moderately correlated with the REIS (conscientiousness and neuroticism) tend to correlate similarly with other self-reported EI instruments (Law, Wong & Song, 2004). Thus, it may be concluded that the REIS shows adequate discriminant validity.

Study 4: Criterion Validity

The aim of the final study was to examine the relation of the REIS dimensions with criteria that are expected to be the result of self- and other-focused EI. Following the reasoning that the appraisal of an emotion will mainly draw attention to the presence of an emotion, whereas the regulation of an emotion will change its impact, we expected that mainly self- and other-focused *emotion regulation* are associated with external criteria. This idea is in accordance with Joseph and Newman's meta-analysis (2010), in which emotion regulation was considered key to EI's association with job performance. In the present study, we aimed

to contribute to their understanding by explicitly investigating the differential criterion validity of self- and other-focused emotion regulation using both health- and work-related criteria.

For this purpose, we initially investigated the work experience of a sample of tutors (i.e., university teachers who guide small groups of students) in Study 4a. It was predicted that tutors' self-focused emotion regulation is negatively associated with their perceived stress (*Hypothesis 10)*, as effectively dealing with one's own emotions reduces stress within the work context (Jordan, Ashkanasy, & Härtel, 2002). Furthermore, other-focused emotion regulation was predicted to be associated with tutors' work engagement based on findings in which the allocation of personal resources (such as other-focused emotion regulation) when needed boosts work engagement (Xanthopoulou, Bakker, & Fischbach, 2013). To illustrate, in the job of a tutor, other-focused emotion regulation may be demanded to effectively guide students through their learning process. Consequently, we hypothesized that tutors with a high level of other-focused emotion regulation become work engaged from using this quality (*Hypothesis 11).*

In addition, we investigated the interview performance of a sample of jobseekers during a selection interview at an employment agency in Study 4b. In this context, jobseekers are expected to present themselves positively to convince the employment agent that they are suitable candidates for the available vacancies. Therefore, it was hypothesized that their other-focused emotion regulation determines their interview performance, as rated by the employment agent (*Hypothesis 12).*

Finally, we examined a sample of leaders to determine whether their leadership style and their leadership effectiveness are associated with their EI. A meta-analysis has shown that high-EI leaders are inclined to employ a leadership style in which followers are encouraged to learn and achieve, as well as to develop themselves individually (Harms & Credé, 2010). This so-called transformational leadership style (Bass, 1985) had a corrected meta-analytic correlation of $\rho = .56$ (based on same-source data). The corrected meta-analytic correlation with transactional leadership, a style characterized by a focus on rewards and mistakes, was substantially lower. Furthermore, EI was positively associated with leadership effectiveness (Harms & Credé, 2010). We expected that mainly other-focused emotion regulation is important in the EI-leadership association. Leaders who can adequately manage the emotions of their followers will translate this knowledge or ability into a leadership style that involves encouragement or emotional support. In turn, this practice will increase their effectiveness as a leader. Thus, we hypothesized that mainly other-focused emotion regulation is positively associated with transformational leadership (*Hypothesis 13)* and leadership effectiveness (*Hypothesis 14*).

Study 4a

Method

Procedure and participants

Seventy-three tutors, including 18 males (24.7%), voluntarily participated in the study. The mean age was 28.87 (*SD* = 6.60) years. Fifty-three tutors were employed at the Law institute, and 20 tutors were employed at the Psychology institute of a Dutch university. On average, tutors had 16.78 (*SD* = 14.02) months of work experience and worked for approximately 20.43 (*SD* = 5.85) hours per week as a tutor. A majority of the participants (64.4%) combined their work as a tutor with another part-time job. The tutors were instructed to complete an online questionnaire that assessed EI, perceived stress, and work engagement.

Measures

Self- and other-focused emotional intelligence was measured with the 28 REIS items.

Perceived stress was measured with 13 items of the subscales fatigue, worries, and tension of the Perceived Stress Questionnaire (Levenstein et al., 1993). We adjusted the timeframe of the items so that they were reflective of the previous months. A sample item is "During the past months, I felt tired" (1 = *never*, 7 = *always*).

Work engagement was measured with the 9-item Utrecht Work Engagement Scale (Schaufeli, Bakker, & Salanova, 2006). We adjusted the timeframe of the items so that they were reflective of the previous months. A sample item is "During the past months, I was enthusiastic about my job" (1 = *never*, 7 = *always*).

Results

Table 7 presents the means, standard deviations, internal consistencies (alphas), and correlations between the study variables. Confirming hypothesis 10, the correlations showed that self-focused emotion regulation was the only REIS dimension that exhibited a significant and negative correlation with perceived stress ($r = -.42$, $p < .001$). Other-focused emotion regulation was the only REIS dimension that showed a significant and positive correlation with work engagement ($r = .49$, $p < .001$). Thus, hypothesis 11 was supported.

Study 4b

Method

Procedure and participants

Ninety-five Dutch jobseekers, including 42 males (44.2%), participated in the study. The mean age was 31.06 (*SD* = 8.42) years, and most participants had finished vocational

education (44.2%) or higher vocational education (31.6%). The participants completed an EI questionnaire prior to engaging in a selection interview at an employment agency. After this one-hour interview, the respective employment agent assessed the jobseekers' interview performance.

Measures

Self- and other-focused emotional intelligence was measured with the 28 REIS items.

Other-rated interview performance was measured with three items constructed to assess interview performance within a selection interview. Specifically, the employment agent was instructed to rate the extent to which the jobseeker was a good presenter of oneself / collegiate / easy to employ at a company with a school mark (1-10).

Results

Table 7 presents the means, standard deviations, internal consistencies (alphas), and correlations between the study variables. Confirming hypothesis 12, the correlations indicated that other-focused emotion regulation was the only REIS dimension that showed a significant and positive correlation with other-rated interview performance (r = .23, p = .027).

Study 4c

Method

Procedure and participants

A convenience sample of 103 leaders, including 49 males (47.6%), voluntarily participated in the study. The mean age was 42.93 (*SD* = 12.21) years, and the majority had completed higher vocational education (36.9%) or held an advanced degree (52.4%). The leaders worked in different sectors, including healthcare (22.3%), education (21.7%), sales (11.7%), and HRM (11.7%). On average, the leaders had 34 (*SD* = 113) followers and 7.89 (*SD* = 6.94) years of leadership experience.

Measures

Self- and other-focused emotional intelligence was measured with the 28 REIS items.

Transactional leadership was measured with the 9-item Dutch translation (Stuart, 2005) of the Multifactor Leadership Questionnaire (MLQ; Bass & Avolio, 1990). A sample item is "I direct attention toward failures to meet standards" (1 = *never*, 5 = *always*).

Transformational leadership was measured with the 15-item Dutch MLQ (Bass & Avolio, 1990; Stuart, 2005). A sample item is "I display a sense of power and confidence" (1 = *never*, 5 = *always*).

Leadership effectiveness was measured with the 4-item effectiveness subscale of the MLQ (Bass & Avolio, 1990). A sample item is "I lead a group that is effective" (1 = *never*, 5 = *always).*

Results

Table 7 presents the means, standard deviations, internal consistencies (alphas), and correlations between the study variables. Confirming hypothesis 13, the only REIS dimension that showed a significant and positive correlation with transformational leadership was other-focused emotion regulation (r = .33, p < .001). In addition, the results indicated that none of the REIS dimensions were associated with transactional leadership or leadership effectiveness. Despite the lack of a direct effect of EI on leadership effectiveness, an exploratory mediation analysis using the bootstrapping method (MacKinnon, Lockwood, & Williams, 2004) indicated that other-focused emotion regulation was *indirectly* related to leadership effectiveness through transformational leadership (indirect effect = 0.265, 95% CI = 0.104 to 0.534).

Discussion Studies 4a, 4b, and 4c

In Study 4, the associations of the REIS dimensions with different work-related outcomes were examined. In general, the results suggest that emotion regulation (vs. emotion appraisal) is responsible for the lion share of EI's associations with health- and work-related criteria, which is in accordance with previous findings in the literature (Joseph & Newman, 2010). Furthermore, self-focused emotion regulation appears important to maintain well-being, whereas other-focused emotion regulation appears important to perform well during a selection interview and engage in transformational leadership. This pattern of findings confirms the proposed differential roles of self- and other-focused EI dimensions.

Study 4a showed that perceived stress and work engagement had moderate correlations with the total REIS score (r = -.34 and r = .29, respectively) and strong correlations with self- or other-focused emotion regulation (r = -.42 and r = .49, respectively). These results not only suggest that self- and other-focused emotion regulation predict different types of criteria but that total EI scores may partially mask these effects. In addition, the association of other-focused emotion regulation with interview performance in Study 4b not only replicated the role of other-focused emotion regulation for effective functioning in the work place but also strengthened this previous finding using a more objective (i.e., other-rated) criterion.

Table 7 Means, standard deviations, internal consistencies (between brackets), and correlations of the REIS dimensions and indicators of criterion validity in Studies 4a (*N* = 73), 4b (*N* = 95), and 4c (*N* =103)

		Study	*M*	*SD*	1	2	3	4	5	6	7	8	9	10	11
1	SFEA	4a	3.87	0.48	(.83)										
		4b	3.99	0.42	(.79)										
		4c	3.84	0.43	(.76)										
2	OFEA	4a	3.74	0.52	.49***	(.85)									
		4b	3.78	0.45	.47***	(.84)									
		4c	3.85	0.46	.28**	(.85)									
3	SFER	4a	3.65	0.62	.25*	.18	(.85)								
		4b	3.72	0.50	.26*	.47***	(.74)								
		4c	3.54	0.53	.18	.19	(.72)								
4	OFER	4a	3.63	0.50	.24*	.37**	.14	(.83)							
		4b	3.51	0.51	.34**	.47***	.44***	(.82)							
		4c	3.76	0.40	.32**	.56***	.14	(.72)							
5	Total REIS score	4a	3.72	0.36	.71***	.74***	.63***	.63***	(.87)						
		4b	3.75	0.35	.67***	.80***	.74***	.77***	(.89)						
		4c	3.75	0.30	.64***	.74***	.61***	.71***	(.84)						
6	Perceived stress	4a	2.76	0.85	-.19	-.19	-.42***	-.08	-.34**	(.91)					
7	Work engagement	4a	4.78	0.92	.16	.18	-.01	.49 ***	.29 *	-.35 **	(.90)				
8	Interview performance	4b	7.20	1.37	.13	.08	.03	.23*	.16			(.89)			
9	Transactional leadership	4c	2.55	0.61	.05	-.12	.01	.12	.02				(.74)		
10	Transformational leadership	4c	3.74	0.46	.14	.19	-.05	.33**	.20*				.30**	(.84)	
11	Leadership effectiveness	4c	3.90	0.48	.17	.06	.16	.10	.18				.24*	.62***	(.65)

Notes. SFEA = self-focused emotion appraisal; OFEA = other-focused emotion regulation; SFER = self-focused emotion regulation; OFER = other-focused emotion regulation.
*$p < .05$. **$p < .01$. ***$p < .001$.

Interestingly, self-focused emotion regulation was not associated with interview performance. Although we expected other-focused emotion regulation to play a more important role than self-focused emotion regulation, it appears counterintuitive that the effective regulation of feelings of stress does not contribute to the evaluation of an interviewer. The current findings suggest that self-focused emotion regulation may not be noticed or valued by the interviewer, which may be because a level of nervousness is typical in this type of setting. Study 4c indicated that other-focused emotion regulation was positively associated with a transformational leadership style but not with a transactional leadership style. Transformational leadership, in turn, was positively associated with leadership effectiveness, which suggests that other-focused emotion regulation may contribute to leadership performance (cf. Harms & Credé, 2010).

General Discussion

The present paper introduced a new self-reported instrument to measure self- and other-focused EI. The REIS comprises four conceptually distinct EI dimensions: self-focused emotion appraisal, self-focused emotion regulation, other-focused emotion appraisal, and other-focused emotion regulation. These EI dimensions have been shown to be reliable and factorially distinct across eight different samples. The convergent and discriminant validity of the REIS was established by showing its strong associations with other self-reported EI instruments and its weak to moderate associations with an ability EI test, cognitive intelligence, and personality measures. Finally, the criterion validity of the REIS was demonstrated by a negative association of self-focused emotion regulation with tutors' perceived stress and positive associations of other-focused emotion regulation with tutors' work engagement, jobseekers' other-rated interview performance, and leaders' transformational leadership style.

This novel scale contributes to the literature in two main ways. First, the REIS is among the first EI instruments that systematically capture self- and other-focused EI (cf. Brasseur et al., 2013); it thus provides a wider scope of EI dimensions than most existing measures. In particular, the inclusion of other-focused emotion regulation fills a gap in the conventional EI instruments. Among the most currently well-known EI instruments, only the full-length TEIQue has a unique subscale that covers other-focused emotion regulation (Petrides, 2009). Our data show that this specific dimension was the only REIS dimension that could predict job performance related outcomes, such as leadership and interview performance. This predictive value suggests that other-focused emotion regulation is a valid and important aspect of EI.

Second, the divide in EI's key dimensions, emotion appraisal and emotion regulation, in the REIS enables a reliable differentiation in two conceptually distinct EI dimensions. Specifically, the emotion appraisal and emotion regulation dimensions showed only moderate inter-correlations across eight samples, which suggest their ability to capture

different emotional processes. For example, the current data showed that (self-focused) emotion appraisal is negatively associated with neuroticism, whereas (self-focused) emotion regulation decreased employees' perceived stress in real work situations. These findings may indicate that different EI dimensions play a role in social or work-related constructs. In turn, these associations may thus be reflective of different steps in the process of dealing with emotions.

Limitations

The present studies are not without limitations. First, we choose to develop a self-reported instrument of self- and other-focused EI and not an ability test. Self-reported measures of EI have been criticized in the literature (e.g., Mayer & Salovey, 1997; Roberts et al., 2010) because of the potential influence of a social desirability bias. On the positive side, self-reported EI instruments have demonstrated good incremental validity over cognitive intelligence and personality compared with ability EI tests (O'Boyle et al., 2011). Moreover, compared with ability tests, self-reported instruments can be more easily employed in field studies. A second limitation is the use of cross-sectional data, which prevents us from making causal inferences. Nevertheless, in the present studies, we did not aim to establish causal relationships between self- and other-focused EI and other constructs; we aimed to develop a reliable scale to measure these factors and examine how they are associated with theoretically related constructs. A third limitation may be the generic format of the REIS items. This limitation was based on literature that indicates specific emotions may trigger extreme responses among certain respondents (Gray, 1987), as well as a practical inability to include all types of emotions proportionally in a short scale. Finally, the relatively small samples of Studies 3 and 4 may limit the generalizability of the specific identified relations. Future research using larger samples must examine whether the associations with specific outcomes can be replicated.

Practical Implications and Conclusion

By developing a reliable scale to measure self- and other-focused EI, we would like to encourage researchers to delve deeper into the processes that underlie the manifestation of EI. Many studies have previously shown that EI is positively associated with performance and health. However, few studies have examined these outcomes in tandem or zoomed in on the role of specific EI dimensions in the processes that underlie these associations. A certain combination (i.e., a balance) of self- and other-focused EI dimensions may work best to remain a healthy and effective employee. The REIS could be used to answer these important questions.

Practically, the REIS could be used to construct an individual's profile of EI dimensions for selection purposes. For example, several popular intelligence measures (e.g., Wechsler, 2008) deliver unique score profiles to diagnose or select respondents. In the usage of these profiles, a critical yet often overlooked precondition is the reliability of the difference scores

between the dimensions (Drenth & Sijtsma, 1990). In the current studies, these reliabilities were satisfactory (e.g., ranging between .70 and .75 in Study 1), which can be considered a strength for the differential prediction of EI dimensions that we aimed to capture.

To conclude, the current studies have resulted in a novel and psychometrically sound instrument to measure self- and other-focused EI, which may be used in future research to build on our current understanding of EI. Hopefully, the REIS will facilitate the undertaking of further empirical research regarding the role of EI in various domains. This research is necessary to understand the specific effects of emotional processes on the lives of individuals

Chapter 4
The Consequences of Self- and Other-Focused Emotional Intelligence: Not All Sunshine and Roses

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Abstract

Emotional intelligence (EI) contributes to good performance and well-being in jobs that involve frequent interpersonal contact. However, as EI is composed of self- and other-focused dimensions, it remains unclear which dimensions are responsible for better performance and well-being. We hypothesized that other-focused EI dimensions in particular relate to task performance, whereas self-focused EI dimensions relate to employees' subjective stress and physiological responses to emotional job demands. We asked Dutch secretaries (N = 110) to professionally respond to five emotionally demanding work-related phone calls. The secretaries' skin conductance levels were recorded during the calls, and the secretaries had to indicate their stress levels after each call. Two independent raters coded the secretaries' effectiveness and the number of emotion regulation attempts during the phone calls. The results showed that other-focused emotion regulation was positively related to only one of the task performance indicators during three phone calls. In line with the hypotheses, self-focused emotion appraisal was negatively related to the secretaries' subjective stress levels after all the phone calls. Self-focused emotion regulation was positively related to the secretaries' skin conductance levels during all but one of the phone calls. This outcome suggests that self-focused EI dimensions decrease the subjective experience of stress but are accompanied by physiological costs, while other-focused emotion regulation may be positively but weakly related to task performance in emotionally demanding contexts.

Introduction

Employees in jobs that involve frequent interpersonal contact are inevitably confronted with the emotions of others. Managing the emotions of others is often an essential component of such jobs. These jobs also require employees to deal with their own emotions in order to remain motivated, healthy, and effective (Grandey, 2000). One likely factor that could influence employees' performance in such situations is emotional intelligence (EI). EI can broadly be defined as the ability or knowledge to perceive and understand emotional processes and to regulate them effectively (Petrides, 2011; Salovey & Mayer, 1990; Zeidner, Roberts, & Matthews, 2008). Although scholars have disagreed on the theoretical model and measurement of EI (Zeidner et al., 2008), there is clear meta-analytic evidence that, irrespective of the model or measurement, global EI levels are relevant to job performance and well-being (Martins, Ramalho, & Morin, 2010; O'Boyle, Humphrey, Pollack, Hawver, & Story, 2011). Nevertheless, the role of specific EI dimensions in these links has remained relatively unexplored. The current paper addresses the distinction between other-focused and self-focused EI dimensions.

Other-focused EI dimensions are characterized by the aim of directly altering other people's psychological states, which may be effective when trying to influence their behavior or mood states. This notion is grounded in theories on social competence (Rose-Krasnor, 1997) and social-information processing (Crick & Dodge, 1994; Lemerise & Arsenio, 2000) that devote an important role to emotional skills directed at others. Other-focused EI dimensions might play a role in different stages during the process of interacting with others. In the first stage, encoding social cues seems crucial to choosing the most appropriate regulatory strategy in social situations. In a later stage, one's actual enactment of the chosen regulatory strategy is vital for success (Lemerise & Arsenio, 2000). Accordingly, other-focused EI has been associated with prosocial behavior (Nozaki, 2015), interview performance, and leadership outcomes (Pekaar, Bakker, van der Linden, & Born, 2018). Building on this reasoning and initial evidence, in the present study, we further address the unique role of other-focused EI dimensions.

Self-focused EI dimensions are directed at one's own mood state, which may contribute to well-being when engaging in emotionally demanding (job) tasks. This notion can be related to theories on stress, coping, and emotion regulation (Grandey & Melloy, 2017; Jordan, Ashkanasy, & Härtel, 2002; Lazarus & Folkman, 1984). The Transactional Model of Stress predicts that individuals experience stress when they appraise the environment as important but too demanding for their coping resources (Lazarus, 1966; Lazarus & Folkman, 1984, 1987). As high-EI individuals tend to possess superior emotion appraisal and coping skills, their experience of stress from emotionally demanding events is reduced (Zeidner, Matthews, & Robers, 2009). Relatedly, emotional labor theory states that emotion regulation at work is associated with more job strain but not for high-EI employees who tend to choose the most effective emotion regulation strategies to deal with their own emotions (Grandey & Melloy, 2017). Self-focused EI dimensions might play a role in such processes because they influence one's emotional response to stressors and the way in which these emotions are

managed (Jordan et al., 2002). In line with this notion, EI is indeed positively related to one's own mood state (Mikolajczak et al., 2015; Schutte, Malouff, Thorsteinsson, Bhullar, & Rooke, 2007), mental and physical health (Martins et al., 2010), and occupational well-being (Zeidner et al., 2009). However, research has not yet addressed whether particularly self-focused EI dimensions may underlie these effects.

Moreover, EI has been only sparsely studied using physiological assessments of mood states (Matthews, Zeidner, & Roberts, 2017). Previous studies that have done so found mixed results (Bechtoldt & Schneider, 2016; Mikolajczak, Roy, Luminet, Fillée, & de Timary, 2007). On the one hand, emotion regulation is associated with short-term physiological costs that may be replenished when regulation is successful (Grandey & Melloy, 2017). Accordingly, one would expect EI to be positively associated with physiological arousal (e.g., skin conductance). On the other hand, high-EI employees also tend to be more effective in emotion regulation (Grandey & Melloy, 2017; Zeidner et al., 2009), implying that they need less effort and would show lower physiological arousal. Subsequently, it remains unclear whether emotion regulation in high-EI individuals is associated with lower or higher physiological arousal. Empirical support for both ideas exists. EI has been associated with *lower* cortisol levels, blood pressure, and heart rate after exposure to a stressor (Laborde, Brüll, Weber, & Anders, 2011; Mikolajczak et al., 2007), suggesting that EI may buffer physiological arousal. However, EI has also been associated with *higher* cortisol levels and electroencephalogram signals during intense emotional episodes, indicating increased mental arousal (Bechtoldt & Schneider, 2016; Tolegenova, Kustubayeva, & Matthews, 2014). The current study aims to clarify these inconsistencies by gathering physiological and self-reported data and examining specific EI dimensions.

The main purpose and contribution of this study is to elucidate the differential contributions of self- and other-focused EI dimensions to task performance and mood states during a simulated emotionally demanding job task. Accordingly, we aim to integrate insights from social competence and social-information processing theories (Lemerise & Arsenio, 2000; Rose-Krasnor, 1997) with theories regarding stress, coping, and emotion regulation (Grandey & Melloy, 2017; Jordan et al., 2002; Lazarus & Folkman, 1984). As a second contribution, the inclusion of physiological (skin conductance) data may extend the current limited understanding of the association between EI and physiological responses to emotional demands (Matthews et al., 2017). Finally, the simulated job setting enabled us to closely examine the role of EI in different types of emotional demands - a road that has only sporadically been travelled in the EI literature (cf. Gooty, Gavin, Ashkanasy, & Thomas, 2014; Nozaki, 2015).

Theoretical Background

Emotional Intelligence

There are different models of EI. The ability-EI model reflects one of the major perspectives and conceptualizes EI as a set of abilities to accurately perceive and express emotions, to

use emotions in one's thinking, to understand emotions, and to consciously regulate emotions (Mayer & Salovey, 1997). Another widely used model is the trait EI model. Trait EI is defined as a constellation of emotional perceptions at the lower levels of personality hierarchies (Petrides, Pita, & Kokkinaki, 2007). The EI measures used in conjunction with these models have been classified by Ashkanasy and Daus (2005) into three different "streams". Ability EI has been usually measured with performance-based tests (Stream 1 measures); however, under some circumstances, it has been more feasible to use self-reported questionnaires, such as the one used in the present study (Stream 2 measures). Trait EI has been mainly measured with self-reported questionnaires (Stream 3 measures). An important limitation in the literature is that most conventional EI instruments have not systematically distinguished self- from other-focused EI dimensions. Recently, however, scholars have emphasized the relevance of separating self- from other-focused EI by showing that individuals can differ in them and that they can lead to different outcomes (Brasseur, Grégoire, Bourdu, & Mikolajczak, 2013; Mikolajczak et al., 2015; Troth, Lawrence, Jordan, & Ashkanasy, 2018). The current study builds on these previous endeavors by further unravelling which psychological processes underlie the enactment of EI.

There have been substantial debates on the best measurement method for EI (self-reports versus performance tests), its conceptual nature (ability versus trait), and its utility (practice versus science; Antonakis, Ashkanasy, & Dashborough, 2009; Zeidner et al., 2008). Some scholars have even argued for abandoning EI because it would be inadequately defined, be scientifically invalid, and shares too much variance regarding personality or cognitive abilities (Antonakis et al., 2009; Locke, 2005). However, there is also a large body of research showing that EI is indeed relevant for work criteria (O'Boyle et al., 2011). We, among other scholars, consider such debates to be part of a healthy scientific process and see merit in examining how EI affects work life (Antonakis et al., 2009; Ashkanasy & Daus, 2005). Emotions play an important role in organizations because they influence decisions, behavior, and attitudes (Kahneman, 2011; Weiss & Cropanzano, 1996). Hence, studying how individuals deal with their own and others' emotions may improve our understanding of organizational behavior.

Performance

High-EI individuals tend to be socially effective (van der Linden et al., 2017) and perform better in social jobs (Joseph & Newman, 2010). We argue that mainly other-focused EI dimensions may underlie this association. To illustrate this notion, social competence theory (Rose-Krasnor, 1997) explains that socially effective individuals excel in interactions because these individuals fulfil their own needs while maintaining positive relationships with others. The emotional skills that facilitate this social success include perspective-taking, empathy, and communication, which are all focused on the emotions of others (Rubin, Bukowski, & Parker, 1998). In addition, social information processing theory explains how processing social cues influences behavior (Crick & Dodge, 1994). Emotional skills qualify this information processing at different stages (Lemerise & Arsenio, 2000). In

the stage of encoding social cues, the capacity to read others' affective states is of particular importance (Saarni, 1999). In the stage of responding to social cues, individuals' capacity to choose and employ the best interpersonal emotion regulatory strategy is crucial for social success (Lemerise & Arsenio, 2000). Drawing from these psychological processes, we hypothesized that other-focused EI dimensions in particular are positively associated with task performance in an emotionally demanding job task (*Hypothesis 1*).

However, the positive association between global EI and job performance in emotionally demanding jobs has also been explained by the high emotion regulation demands of interpersonal contact in which EI plays a role (Grandey, 2000; Joseph & Newman, 2010; Wong & Law, 2002). Yet, in line with the aforementioned theories on social behavior, we expected that not only the regulation aspect of EI is important but also the way in which individuals handle the emotions of *others* in particular facilitates performance. In most emotionally demanding jobs, an important factor is the service given to others (Grandey, 2000). Vital to this service is that one takes individual differences and preferences into account. For example, some customers are best approached with humor, whereas others might require a more neutral style. Such social flexibility is what high-EI individuals excel at (Salovey & Mayer, 1990), and this flexibility may be achieved by their other-focused EI. Initial evidence showed that other-focused EI (versus self-focused EI) contributed to the number of donators recruited for charity (Brasseur et al., 2013), to the performance of divorce lawyers (Pekaar, van der Linden, Bakker, & Born, 2017a) and to relationship quality (Little, Kluemper, Nelson, & Gooty, 2011; Niven, Holman, & Totterdell, 2012). Building on this notion, we examined the effects of specific other-focused EI dimensions on task performance in a simulated emotion-related job task.

Subjective Stress

The Transactional Model of Stress (Lazarus & Folkman, 1984) states that individuals experience stress when they perceive a situation to be personally relevant but do not feel equipped to deal with it. This appraisal process consists of two stages. First, individuals make a primary appraisal regarding the extent to which a stressor may threaten their goal-attainment and well-being. This primary appraisal elicits an affective reaction. Next, a secondary appraisal is made regarding the capacity to cope with the stressor. The primary and secondary appraisals determine whether a stressor may be perceived as more of a threat or a challenge. This evaluation further influences the affective reaction (e.g., stress) and coping. Logically, when a stressor is perceived as a threat (versus a challenge), it elicits more stress. The model is transactional because it describes a dynamic interplay between perceived capacities and the environment.

We argue that self-focused EI may qualify the primary and secondary appraisal stages. Self-focused EI may influence the primary appraisal because it helps individuals to react emotionally only to stressors that are deemed important (Ashkanasy, Ashton-James, & Jordan, 2003). Hence, the affective response of high self-focused EI individuals will be more accurate. Self-focused EI may also influence the secondary appraisal because it helps one to

understand which coping strategies are most effective and to successfully implement them (Ashkanasay et al., 2003; Jordan et al., 2002). Consequently, we hypothesized that self-focused EI dimensions in particular are negatively associated with the experience of subjective stress in response to emotional work-related stressors (*Hypothesis 2*).

Meta analyses, including many studies with stress-related outcomes, have confirmed that EI is positively associated with psychological and physiological health (Martins et al., 2010; Schutte et al., 2007). Studies have also found that EI may directly buffer against job stress (Weng et al., 2011; Zeidner et al., 2009). Importantly, most previous research on this topic has used only global EI scores. Thus, it remains unclear whether self- or other-focused EI is more strongly related to (subjective) stress. The indirect support for the hypothesized role of self-focused EI has suggested that self-focused EI was most predictive of objective mental health indicators (Mikolajczak et al., 2015), which can be assumed to include stress-related symptoms. We aim to extend this knowledge by explicitly examining the role of self-focused EI dimensions for employees' subjective stress response to emotional work-related stressors.

Physiological Arousal

Emotional labor theory (Grandey & Melloy, 2017) assumes that emotion regulation at work is accompanied by short-term physiological costs. However, it is unclear what role EI plays in this process. There are two relevant possibilities: the first is that physiological measures of arousal mirror the commonly reported negative relation between EI and (subjective) stress. Low-EI individuals may be less effective in dealing with their own emotions, resulting in prolonged physiological arousal to emotional demands (Mikolajczak et al., 2007). In this sense, physiological arousal would be reflective of appraising stressors as threatening to one's well-being (Lazarus, 1991). Supporting this view, EI has been associated with lower cortisol levels, lower blood pressure responses, and lower increases in the low frequency/high frequency heart rate ratio (i.e., a biological indicator of mental stress; Laborde et al., 2011; Mikolajczak et al., 2007; Salovey, Stroud, Woolery, & Epel, 2002) in response to stressors.

A second possibility, however, is that effectively dealing with one's own emotions may cost one effort, which would manifest as higher physiological arousal. From this perspective, arousal would be reflective of appraising stressors as challenges that offer opportunities (Lazarus, 1991). This view has been supported by EI's positive relationship with electroencephalogram patterns that signal mental effort in emotion regulation during exposure to a stressor (Tolegenova et al., 2014). More generally, engaging in emotion regulation strategies has arousal-related physiological effects, including enhanced heart rate, increased skin conductance, and heightened finger temperature (Egloff, Schmukle, Burns, & Schwerdtfeger, 2006; Giuliani, McRae, & Gross, 2008; Ohira et al., 2006). Moreover, emotion regulation may be costlier for high-EI individuals because they are more sensitive to emotions (Bechtoldt & Schneider, 2016; Fiori & Ortony, 2016), possibly resulting in an increased need to manage their emotions. Research has shown that when participants were

asked to present themselves favorably (which obviously requires control over one's own emotions), emotion recognition actually predicted higher cortisol reactivity (Bechtoldt & Scheider, 2016).

Drawing from the two foregoing lines of reasoning, we presented two competing hypotheses: the first is that self-focused EI dimensions are associated with reduced physiological responses to emotional work stressors because the effective appraisal and/or regulation of emotion may diminish its negative effects (*Hypothesis 3a*). Alternatively, self-focused EI dimensions enhance physiological responses to emotional work stressors because effectively engaging in emotion appraisal and/or regulation is an effortful process (*Hypothesis 3b*). To test these contrasting hypotheses, skin conductance measures were included. Skin conductance is a physiological indicator that is often used to assess emotional arousal (Egloff et al., 2006; Ohira et al., 2006). Skin conductance captures fluctuations in the electrical properties of the skin caused by secretions from sweat glands (Benedek & Kaernbach, 2010), as controlled by the sympathetic nervous system (Boucsein, 1992). An increased skin conductance level is indicative of physiological activity and has been linked to emotional processing (Egloff et al., 2006) and emotional arousal (Bernat, Cadwallader, Seo, Vizueta, & Patrick, 2011; Boucsein, 1992).

The Present Study

We tested the hypotheses in a sample of secretaries who were exposed to a series of work-related phone calls that all had a relevant emotional component requiring some regulatory effort. For example, they received calls from fictitious colleagues or customers who experienced a specific emotion caused by a work-related problem. As EI entails the knowledge and/or ability to effectively deal with emotions in general (Petrides, 2011; Salovey & Mayer, 1990; Zeidner et al., 2008), we assumed that high-EI secretaries could more effectively deal with any discrete emotion. A useful framework to distinguish emotions is the Circumplex Model of Affect (Russel, 1980), which organizes emotions along a valence- and arousal-dimension. The phones calls used in this study included emotions that stem from the three quadrants of the circumplex model that require interpersonal emotion regulation efforts, namely, anger and worry (high-arousing negative emotions), sadness (low-arousing negative emotion), and enthusiasm and elatedness (high-arousing positive emotions). The quadrant representing positive low-arousing emotions (e.g., calmness) was not applicable because these types of emotions already tend to be effective at work (Hu & Kaplan, 2015).

The secretaries had to respond adequately to the emotional phone calls while their skin conductance level and subjective stress experience were measured. This interpersonal emotion regulation task provided qualitative vocal data that could be coded to determine task performance (Cheung & Gardner, 2015). We intentionally chose to sample secretaries because of their regular exposure to comparable emotionally demanding job tasks. The various and unpredictable interpersonal interactions that secretaries encounter demand the capacity to manage the emotions of others but may also be stressful for themselves. Hence,

the occurrence of both self- and other-focused emotional demands in a secretary's job offers a unique setting to study the role of self- and other-focused EI dimensions in the work environment.

Method

Participants

A sample of 112 Dutch secretaries participated. After filling out the initial questionnaire and receiving further instructions on the procedure, two secretaries indicated that they did not want to continue with the study. Therefore, our final sample consisted of 110 participants with a mean age of 37.77 (*SD* = 15.12) years. All but one of the secretaries were female, which can be considered representative of this occupational group (Centraal Bureau voor de Statistiek, 2014). The majority of our sample had completed vocational education (33.6%) or higher vocational education (24.5%). On average, the participants had 13.32 (*SD* = 12.27) years of work experience as a secretary and worked 29.54 (*SD* = 10.36) hours per week. The secretaries were employed at various companies ranging from large industrial companies to small law firms.

Procedure

We tested the participants in mobile labs that were installed at a conference for secretaries (*n* = 19), a secretary school (*n* = 29), or a secretarial agency (*n* = 24). The remaining participants were tested in the lab of a Dutch university. We used convenience sampling to recruit participants. That is, we invited secretaries via personal contact at the locations of the mobile labs, or we sent them invitations via email to visit the university lab. In return for their participation, the secretaries received personal feedback on their performance in the task. Upon arrival in the (mobile) lab, we informed the participants about the general purpose of the study ("Social situations at work") and asked them to read and sign an informed consent form. Next, we attached two adhesive electrodes to their fingers for the skin conductance recordings. These two electrodes were first filled with a high impedance electrolyte paste and then placed on the second phalanxes of the index and middle finger of the participants' non-dominant hand. We asked the participants to remain as quiet as possible so that no movements would interfere with the physiological measurements.

Next, the participants were seated, and we asked them to fill out an initial questionnaire assessing demographics, EI, and their current level of stress (baseline subjective stress). After this initial questionnaire, we instructed the participants regarding the phone call procedure and equipped them with a headset. Specifically, each participant had to listen to five incoming phone calls that each involved an emotional caller asking the secretary a work-related question. The first phone call (worry) was a trial call for the participants to

become familiar with the procedure. The four subsequent phone calls (anger, sadness, enthusiasm, and elatedness) were presented in random order and could only be listened to once. We instructed the participants to respond naturally to the callers while their vocal responses were being recorded. We told them that the calls were simulations of actual work scenarios so that they did not expect "real" conversations or feedback on their responses. After each phone call, the participants had to indicate their current level of (subjective) stress. During this procedure, the lab assistant, who was situated in a corner of the (mobile) lab, manually placed a start and an end marker for each phone call in the skin conductance data on the recording device to enable the analysis of specific time intervals.

Stimuli

The phone calls captured five different emotion-related scenarios (i.e., worry, anger, sadness, enthusiasm, and elatedness) that were expressed in the work context of a secretary and pre-recorded by semi-professional actors. Drawing from the Circumplex Model of Affect (Russell, 1980), we chose five emotions that differed in valence and arousal. The included emotions originated from the three quadrants of the circumplex model that are likely to demand emotion regulation efforts within the current work setting because they are either too negative or too arousing to facilitate smooth and effective interactions. Furthermore, we selected discrete emotions that we could credibly manipulate (i.e., sadness rather than boredom) and that were feasible to express in the work context of a secretary (Wichroski, 1994). To ensure the ecological validity of the phone calls, we constructed the scenarios in collaboration with two professional secretaries. Each phone call lasted approximately 30 seconds. The general content of each emotional call involved: 1) *Worry*, in which a colleague is stressed about a relevant financial mistake that has been made with a customer and therefore asks the secretary for help; 2) *Anger,* in which a supervisor complains in a very hard tone about a mistake the secretary has caused and expects the secretary to find a solution; 3) *Sadness,* in which a colleague expresses great sadness about her dismissal and asks the secretary for support; 4) *Enthusiasm*, in which a potential collaborator talks enthusiastically about a project he has planned and requests an immediate meeting with the secretary's manager; and 5) *Elatedness,* in which a colleague talks in an informal way about a conference in London she took part in and asks the secretary for an informal reaction regarding this conference. See Appendix A for the scripts of the phone calls.

To select the most suitable voice for each scenario, a pre-test with three actors playing all the scenarios (one male and two females) was conducted. Four researchers working on emotion-related topics rated the credibility and the extent to which all the candidate phone calls provided room for interpersonal emotion regulation efforts on seven-point scales (1 = *totally disagree*, 7 = *totally agree*). The results showed that there were no significant differences in credibility (all F's < 2.27, all p's > .05) or in the extent to which the phone calls provided room for interpersonal emotion regulation efforts (all F's < 2.00, all p's > .05) between the actors for each scenario. Furthermore, ratings on both measures for all the

candidate phone calls fell in the upper range of the scales ($M > 4.00$), suggesting sufficient credibility and sufficient room for interpersonal emotion regulation efforts in the stimuli. As all the candidate phone calls thus seemed suitable for use in the study, we ultimately chose those phone calls that, according to the authors, best captured the core of each scenario.

Measures

Emotional Intelligence

We measured EI with the 28-item Rotterdam Emotional Intelligence Scale (REIS; Pekaar et al., 2018). The REIS is a self-reported EI instrument based on the ability EI model and can, therefore, be classified as a Stream 2 measure of EI (Ashkanasy & Daus, 2005). The REIS consists of the dimensions of self-focused emotion appraisal ($\alpha = .84$), self-focused emotion regulation ($\alpha = .80$), other-focused emotion appraisal ($\alpha = .81$), and other-focused emotion regulation ($\alpha = .79$). We asked the participants to indicate the extent to which they agreed with the items on a five-point scale ranging from 1 (*totally disagree*) to 5 (*totally agree*). Example items are "I can distinguish my own emotions well" (self-focused emotion appraisal), "I do not let my emotions take over" (self-focused emotion regulation), "I know which feelings others experience" (other-focused emotion appraisal), and "I am able to calm others down" (other-focused emotion regulation). We used the REIS in the present study because it is one of the few EI questionnaires that allow us to assess self- and other-focused EI dimensions separately.

Task Performance

We measured task performance by two indicators that were derived from the secretaries' vocal responses to the phone calls. The indicators that we used were the effectiveness of the vocal response in regulating the emotions of the caller and the number of emotion regulation attempts made in the vocal response.

Effectiveness

A pair of independent raters indicated the overall effectiveness of the secretaries in regulating the emotions of the caller in each scenario using a five-point scale ranging from 1 (*not at all effective)* to 5 *(very effective)*. This procedure was based on Cheung and Gardner (2015). Although the latter authors did not provide a behavioral observation protocol for coding this indicator, we provided the raters in the present study with a self-developed protocol. Specifically, this protocol stated that vocal responses that included neither practical nor emotional support should be rated as not at all effective. Vocal responses with practical advice were somewhat effective, and vocal responses with emotional support were more effective. The protocol described very effective vocal responses as providing practical *and* emotional support to the caller and included examples for these ratings per scenario. To

illustrate, the protocol considered "offering to talk about the caller's dismissal and to help her find a new job" a very effective answer in response to the sad caller, as it included both emotional and practical support. As another example, the protocol considered "promises to work harder to satisfy the angry supervisor" a somewhat effective answer to the angry caller because it included only practical support and neglected the emotional state of the caller and the secretary. In addition, the protocol stated that the vocal tones that the secretaries used could qualify the content of their vocal responses, with a calm and understanding tone making the content more effective than a brusque and impatient tone. Two raters scored a random 20% of the vocal responses (n = 105 phone calls), resulting in an intra-class correlation coefficient of .96. Because of this high inter-rater reliability, one rater scored the remaining responses, and this rater's scores were used in the analyses.

Number of emotion regulation attempts

A second pair of raters independently scored the number of attempts that participants made to regulate the emotions of the caller in a random 20% of the vocal responses (n = 105). Accordingly, we followed a similar procedure as reported by Cheung and Gardner (2015), counting attempts that involved emotion-focused support, problem-focused support, cognitive reappraisal, distraction, and attempts at aiming to reduce physiological arousal. Next, we computed the total number of emotion regulation attempts for each phone call. As the inter-rater reliability was high (intra-class correlation coefficient of .94), one rater scored the remainder of the responses, and this rater's scores were used in the analyses.

Subjective Stress

We measured subjective stress at baseline and after each phone call by asking the participants to move a slider from 0 to 100 to indicate the extent to which they felt tense. The slider had no anchors but the extreme ends were labelled with "*not at all*" and "*very much*". To validate the use of this measure, we also administered the 4-item tension subscale of the Perceived Stress Questionnaire (PSQ; Levenstein et al., 1993) at baseline (α = .73) and after the angry phone call (α = .78). A sample item of this scale is "I feel frustrated" (1 = *totally disagree*, 7 = *totally agree*). Given the high correlation between the slider and the PSQ at both moments (r = .73 and r = .77, p's < .001, respectively), we considered it appropriate to rely on the slider as a proxy for participants' subjective stress.

Skin Conductance

We recorded skin conductance continuously during the entire duration of the study using a Biopac MP150 with a GSR100C module. To obtain a baseline measurement, we used a time interval of 30 seconds that started two minutes after the participants began to fill out the initial questionnaire. We chose this interval because it provided the participants some time to physiologically adjust to their bodily position and the lab setting. For the five phone calls, we obtained time intervals starting two seconds after the start marker of a phone call and ending at the end marker of a phone call, resulting in time intervals ranging from 23 to 35 seconds (depending on the specific phone call they were exposed to; see Appendix A). We chose this procedure to avoid the unintentional measurement of physiological reactions to the hand movements of the participant by clicking on the start button of the sound clip. The skin conductance data were retrieved with the constant voltage technique of 0.5 V across the electrodes (Fowles et al., 1981). As we were interested in skin conductance levels with time constants of more than six seconds, tonic level control was not needed (Edelberg, 1967). Using the Biopac Acknowledge software, we calculated the average of the amplitude of the signal for the respective time intervals and exported this information to SPSS for further analysis (see also Egloff et al., 2006; Min et al., 2002; Ohira et al., 2006).

Data Analysis

To test the hypotheses, we conducted hierarchical multiple regressions in which we first entered all relevant control variables, followed by the EI score. We performed the analyses with either one of the EI dimensions or the global EI score (for a similar procedure, see Bechtoldt & Schneider, 2016). A proportion of our sample (26.4%) consisted of secretaries in training that had a lower educational level than the remainder of our participants; therefore, we controlled for this variance in our analyses. Furthermore, effectively responding to emotionally demanding phone calls at work may come with experience (Brotheridge & Lee, 2002), so we also controlled for work experience. In the analyses examining the link between EI and subjective stress or skin conductance, we controlled for baseline subjective stress and baseline skin conductance level, respectively. This procedure has explicitly been suggested for EI research on stress because it cancels out the tendency of high-EI individuals to be in a better mood at the start of a lab study (Keefer, Parker, & Saklofske, 2009).

Due to a technical error, the vocal responses of seven participants were not recorded. Therefore, the sample size for the task performance indicators was 103. We retrieved skin conductance data from a subsample of 69 participants because three secretaries were not in good physical condition, and the remaining 38 were tested without a Biopac recording device available.

Table 1 Means and standard deviations for all outcome variables involved in each phone call

	Type of phone call						
Outcome	Baseline	Worry	Anger	Sadness	Enthusiasm	Elatedness	
	M (SD)	*M (SD)*	*M (SD)*	*M (SD)*	*M (SD)*	*M (SD)*	*F*
Effectiveness[a]		2.85 (0.90)	3.17 (0.80)	3.23 (0.79)	2.84 (0.97)	2.85 (0.97)	8.68***
Number of emotion regulation attempts[b]		4.83 (2.76)	5.53 (2.49)	5.81 (2.64)	4.75 (2.07)	3.81 (1.99)	28.54***
Subjective stress[c]	30.48 (25.68)	33.81 (26.60)	34.51 (26.10)	29.90 (24.10)	25.58 (21.53)	26.10 (22.25)	7.02***
Skin conductance level (μS)[d]	5.16 (2.98)	8.45 (4.46)	9.58 (4.74)	9.43 (4.46)	9.55 (4.59)	9.48 (4.55)	37.60***

Notes. $n = 103$ for effectiveness and the number of emotion regulation attempts; $n = 110$ for subjective stress; $n = 69$ for skin conductance level.
All pair-wise comparisons were tested using the Bonferroni procedure ($p < .05$).
*** $p < .001$.
[a] The mean for the angry call was significantly higher than the means for all the other calls, except for the sad call. The mean of the sad call was significantly higher than the means for all the other calls, except for the angry and elated calls.
[b] The means for the angry and sad calls were significantly higher than the means for all the other calls. The mean for the elated call was significantly lower than the means for all the other calls.
[c] The means for the angry and sad calls were significantly higher than the means for the enthusiastic and elated calls.
[d] The means for the baseline and worried calls were significantly lower than the means for all the other calls.

Results

Table 1 displays the means and standard deviations for all outcome variables regarding each phone call. Before testing the hypotheses, we checked whether the secretaries responded in the same way to the different phone calls. A repeated measures ANOVA with pair-wise comparisons (using the Bonferroni procedure to correct for multiple comparisons) revealed that the secretaries were more effective and used more emotion regulation attempts in their vocal responses to the sad and angry callers than they did to the other callers. Furthermore, the secretaries' subjective stress after the negative emotional phone calls (i.e., anger and sadness) was higher than that after the positive emotional phone calls (i.e., enthusiasm and elatedness). In addition, the secretaries' skin conductance levels during the baseline and worried calls were significantly lower than those during the other calls. These exploratory results suggest that the different phone calls (involving distinct emotions) generally evoked typical responses (see Table 1).

Task Performance

The first hypothesis was that mainly other-focused EI dimensions are positively associated with indicators of task performance. We tested this hypothesis for the two task performance indicators of effectiveness and number of emotion regulation attempts.

Effectiveness

Table 2 displays the results of the regression analyses on the effectiveness ratings of the vocal responses. The results showed that other-focused emotion regulation was positively associated with the effectiveness of the vocal responses for the worried phone call ($\beta = .25$, 95% CI = [.07, .46], $t = 2.70$, $p = .008$, $f^2 = .077$) but not for any of the other calls. Moreover, none of the other EI dimensions showed significant relations to the effectiveness with which the emotions of the callers in the phone calls were handled.

Number of Emotion Regulation Attempts

Table 3 displays the results of the regression analyses on the number of emotion regulation attempts used in the vocal responses. The results showed a positive and significant association between other-focused emotion regulation and the number of emotion regulation attempts used in the vocal responses for the phone calls involving positive emotions, namely, enthusiasm ($\beta = .20$, 95% CI = [.00, .42], $t = 2.02$, $p = .046$, $f2 = .043$) and elatedness ($\beta = .22$, 95% CI = [.02, .45], $t = 2.19$, $p = .031$, $f2 = .051$). For the other (negative emotional) phone calls, none of the EI dimensions showed a significant relation with the number of emotion regulation attempts that secretaries used in their vocal responses. Altogether, the results concerning the link between other-focused EI and task performance were mixed and did not clearly support our hypothesis.

Table 2 Regression of effectiveness on emotional intelligence

		Self-focused emotion appraisal			Self-focused emotion regulation			Other-focused emotion appraisal			Other-focused emotion regulation			Global EI score		
Type of phone call	Predictor	β	*t*		β	*t*		β	*t*		β	*t*		β	*t*	
Worry	EI dimension	.14	1.47		-.02	-0.17		.06	0.59		.25**	2.70		.14	1.50	
	ΔR^2			.02			.00			.00			.06**			.02
	F (*df* = 3, 95)			6.26**			5.43**			5.55**			8.27***			6.29**
Anger	EI dimension	.04	0.42		-.17	-1.74		.08	0.84		.11	1.06		.00	0.02	
	ΔR^2			.00			.03			.01			.01			.00
	F (*df* = 3, 96)			3.21*			4.26**			3.41*			3.56*			3.15*
Sadness	EI dimension	.18	1.85		-.16	-1.70		.07	0.75		.13	1.38		.06	0.64	
	ΔR^2			.03			.03			.01			.02			.00
	F (*df* = 3, 96)			5.03**			4.83**			3.97*			4.47**			3.91*
Enthusiasm	EI dimension	.09	0.95		-.13	-1.34		.04	0.44		.02	0.22		-.00	-0.01	
	ΔR^2			.01			.02			.00			.00			.00
	F (*df* = 3, 94)			4.43**			4.76**			4.17**			4.11**			4.09**
Elatedness	EI dimension	-.04	-0.41		-.08	-0.76		.02	0.16		-.09	-0.82		-.07	-0.70	
	ΔR^2			.00			.01			.00			.01			.01
	F (*df* = 3, 93)			0.57			0.70			0.52			0.74			0.68

Notes. Control variables (educational level and work experience) entered in Step 1 were identical across all the models for each type of phone call, with $\Delta R^2 = .15$, $F(2, 96) = 8.21$ for worry, $\Delta R^2 = .09$, $F(2, 97) = 4.77$ for anger, $\Delta R^2 = .11$, $F(2, 97) = 5.70$ for sadness, $\Delta R^2 = .12$, $F(2, 95) = 6.20$ for enthusiasm, and $\Delta R^2 = .02$, $F(2, 94) = 0.77$ (*ns*) for elatedness. Except for the models for elatedness, all *p*'s < .05.

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

Table 3 Regression of the number of emotion regulation attempts on emotional intelligence

		Self-focused emotion appraisal			Self-focused emotion regulation			Other-focused emotion appraisal			Other-focused emotion regulation			Global EI score		
Type of phone call	Predictor	β	*t*		β	*t*		β	*t*		β	*t*		β	*t*	
Worry	EI dimension	.18	1.89		.17	1.73		.02	0.22		.15	1.53		.19*	2.04	
	ΔR^2			.03			.03			.00			.02			.04*
	F (*df* = 3, 95)			5.24**			5.04**			3.93*			4.79**			5.47**
Anger	EI dimension	-.02	-0.17		.02	0.23		.04	0.39		.07	0.66		.04	0.38	
	ΔR^2			.00			.00			.00			.00			.00
	F (*df* = 3, 96)			2.72*			2.72*			2.76*			2.86*			2.76*
Sadness	EI dimension	.03	0.26		-.01	-0.07		-.01	-0.09		.12	1.22		.04	0.42	
	ΔR^2			.00			.00			.00			.01			.00
	F (*df* = 3, 96)			2.28			2.25			2.25			2.78*			2.31
Enthusiasm	EI dimension	-.01	-0.09		-.09	-0.89		.07	0.73		.20*	2.02		.04	0.42	
	ΔR^2			.00			.01			.01			.04*			.00
	F (*df* = 3, 94)			2.23			2.50			2.41			3.68*			2.29
Elatedness	EI dimension	.07	0.70		-.08	-0.78		.06	0.55		.22*	2.19		.08	0.77	
	ΔR^2			.01			.01			.00			.05*			.01
	F (*df* = 3, 93)			1.20			1.24			1.13			2.68*			1.23

Notes. Control variables (educational level and work experience) entered in Step 1 were identical across all the models for each type of phone call, with $\Delta R^2 = .11$, $F(2, 96) = 5.93$ for worry, $\Delta R^2 = .08$, $F(2, 97) = 4.10$ for anger, $\Delta R^2 = .07$, $F(2, 97) = 3.41$ for sadness, $\Delta R^2 = .07$, $F(2, 95) = 3.37$ for enthusiasm, and $\Delta R^2 = .03$, $F(2, 94) = 1.56$ (*ns*) for elatedness. Except for the models for elatedness, all *p*'s < .05.

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

Subjective Stress

The second hypothesis was that mainly self-focused EI dimensions are negatively associated with subjective stress in response to an emotional work-related stressor. Table 4 displays the results of the regression analyses. As expected, self-focused emotion appraisal was negatively related to subjective stress after all the calls. Furthermore, including this EI dimension in the models led to a significant increase in explained variance beyond the control variables (including baseline subjective stress). Regression weights were consistent for worry (β = -.16, 95% CI = [-.32, -.00], t = -1.99, p = .049, $f2$ = .040), anger (β = -.20, 95% CI = [-.33, -.06], t = -2.84, p = .005, $f2$ = .080), sadness (β = -.18, 95% CI = [-.33, -.03], t = -2.33, p = .022, $f2$ = .054), enthusiasm (β = -.20, 95% CI = [-.34, -.05], t = -2.62, p = .010, $f2$ = .070), and elatedness (β = -.21, 95% CI = [-.36, -.05], t = -2.58, p = .011, $f2$ = .068). The magnitude of these effects was small (Cohen, 1992). Self-focused emotion regulation was not associated with subjective stress after any of the calls. Hence, hypothesis 2 was partially supported.

Skin Conductance

The third hypothesis was that mainly self-focused EI dimensions are associated with participants' skin conductance levels during the phone calls in either a negative (*Hypothesis 3a*) or a positive (*Hypothesis 3b*) way. Table 5 displays the results of the regression analyses. Confirming hypothesis 3b, the results showed that self-focused emotion regulation was positively associated with secretaries' skin conductance levels during all but one of the phone calls. Adding this EI dimension to the models led to a significant increase in explained variance beyond the control variables (including baseline skin conductance level). Regression weights were of similar size for anger (β = .19, 95% CI =[.05, .31], t = 2.73, p = .008, $f2$ = .118), sadness (β = .18, 95% CI = [.05, .30], t = 2.74, p = .008, $f2$ = .119), enthusiasm (β = .16, 95% CI = [.02, .28], t = 2.27, p = .027, $f2$ = .082), and elatedness (β = .20, 95% CI = [.06, .31], t = 2.93, p = .005, $f2$ = .137). The size of these effects was small (Cohen, 1992). Self-focused emotion appraisal was not associated with the secretaries' skin conductance levels after any of the calls. Thus, hypothesis 3b was partially supported.

Discussion

The present findings suggest that different EI dimensions can play a differential and critical role in the prediction of task performance, stress, and physiological arousal during an interpersonal emotion regulation task. Although the specific hypotheses motivating this investigation were not clearly supported by the collected data, the pattern of results that emerged is intriguing and worth communicating. That is, we found mixed results on the link between other-focused EI and task performance. However, the role of self-focused EI in relation to subjective stress and physiological arousal was more evident. That is, self-focused emotion appraisal was associated with lower levels of secretaries' subjective stress

Table 4 Regression of subjective stress on emotional intelligence

		Self-focused emotion appraisal		Self-focused emotion regulation		Other-focused emotion appraisal		Other-focused emotion regulation		Global EI score	
Type of phone call	Predictor	β	*t*	β	*t*	β	*t*	β	*t*	β	*t*
Worry	EI dimension	-.16*	-1.99	-.07	-0.86	-.10	-1.27	-.03	-0.34	-.14	-1.66
	ΔR^2	.03*		.01		.01		.00		.02	
	F (*df* = 4, 100)	14.46***		13.23***		13.56***		13.00***		13.99***	
Anger	EI dimension	-.20**	-2.84	-.12	-1.59	-.04	-0.62	-.06	-0.83	-.16*	-2.24
	ΔR^2	.04**		.01		.00		.00		.02*	
	F (*df* = 4, 101)	28.00***		25.29***		24.24***		24.39***		26.51***	
Sadness	EI dimension	-.18*	-2.33	-.06	-0.71	-.09	-1.11	-.10	-1.22	-.15	-1.94
	ΔR^2	.03*		.00		.01		.01		.02	
	F (*df* = 4, 100)	18.05***		16.03***		16.33**		16.44***		17.37***	
Enthusiasm	EI dimension	-.20*	-2.62	-.00	-0.02	-.04	-0.51	-.07	-0.88	-.11	-1.43
	ΔR^2	.04*		.00		.00		.01		.01	
	F (*df* = 4, 98)	20.35***		17.42***		17.53***		17.75***		18.29***	
Elatedness	EI dimension	-.21*	-2.58	-.03	-0.35	-.08	-1.01	-.04	-0.53	-.13	-1.62
	ΔR^2	.04*		.00		.01		.00		.02	
	F (*df* = 4, 98)	15.61***		13.11***		13.46***		13.17***		14.07***	

Notes. Control variables (educational level, work experience, and baseline subjective stress) entered in Step 1 were identical across all the models for each type of phone call, with ΔR^2 = .34, *F*(3, 101) = 17.44 for worry, ΔR^2 = .49, *F*(3, 102) = 32.39 for anger, ΔR^2 = .39, *F*(3, 101) = 21.32 for sadness, ΔR^2 = .42, *F*(3, 99) = 23.46 for enthusiasm, and ΔR^2 = .35, *F*(3, 99) = 17.60 for elatedness. All *p*'s < .001.
* *p* < .05. ** *p* < .01. *** *p* < .001.

Table 5 Regression of skin conductance level on emotional intelligence

		Self-focused emotion appraisal		Self-focused emotion regulation		Other-focused emotion appraisal		Other-focused emotion regulation		Global EI score	
Type of phone call	Predictor	β	*t*	β	*t*	β	*t*	β	*t*	β	*t*
Worry	EI dimension	.02	0.40	.11	1.93	.04	0.59	.08	1.41	.09	1.58
	ΔR^2	.00		.01		.00		.01		.01	
	F (*df* = 4, 60)	56.17***		60.40***		56.38***		58.33***		58.94***	
Anger	EI dimension	.06	0.81	.19**	2.73	.08	1.10	.08	1.07	.15*	2.18
	ΔR^2	.00		.03**		.01		.01		.02*	
	F (*df* = 4, 63)	36.17***		41.71***		36.62***		36.57***		39.52***	
Sadness	EI dimension	.03	0.37	.18**	2.74	.04	0.64	.12	1.71	.14*	2.03
	ΔR^2	.00		.03**		.00		.01		.02*	
	F (*df* = 4, 63)	37.40***		43.58***		37.62***		39.75***		40.75***	
Enthusiasm	EI dimension	.05	0.69	.16*	2.27	.05	0.70	.09	1.24	.13	1.85
	ΔR^2	.00		.02*		.00		.01		.02	
	F (*df* = 4, 63)	39.95***		40.84***		36.97***		37.84***		39.40***	
Elatedness	EI dimension	.01	0.13	.20**	2.93	.02	0.21	.05	0.71	.11	1.55
	ΔR^2	.00		.04**		.00		.00		.01	
	F (*df* = 4, 63)	37.01***		44.20***		37.04***		37.42***		39.02***	

Notes. Control variables (educational level, work experience, and baseline skin conductance level) entered in Step 1 were identical across all the models for each type of phone call, with $\Delta R^2 = .79$, $F(3, 61) = 75.88$ for worry, $\Delta R^2 = .69$, $F(3, 64) = 48.27$ for anger, $\Delta R^2 = .70$, $F(3, 64) = 50.50$ for sadness, $\Delta R^2 = .70$, $F(3, 64) = 49.52$ for enthusiasm, and $\Delta R^2 = .70$, $F(3, 64) = 50.12$ for elatedness. All *p*'s < .001.

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

after an emotionally demanding task, whereas self-focused emotion regulation was associated with higher skin conductance levels during this task. These findings suggest that performing and feeling well at work may be associated with different psychological processes.

Only other-focused emotion regulation was related to one of the task performance indicators for three phone calls (*Hypothesis 1)*, whereas the other EI dimensions did not relate to task performance. The finding that only other-focused emotion regulation has relevance for task performance is in accordance with the substantial role of emotion regulation in emotional labor jobs (Grandey, 2000; Joseph & Newman, 2010). In fact, these findings suggest that, in jobs with social components, effective employees are particularly able to manage the emotions of *others*, and this outcome can be explained by the contribution of other-focused EI dimensions to social competence and social-information processing (Lemerise & Arsenio, 2000; Rose-Krasnor, 1997*)*. The findings suggest that this role is most prominent in the regulatory phase of dealing with others' emotions, and this outcome is also in line with Joseph and Newman's (2010) cascading model of EI dimensions. As such, our findings may help to unravel which psychological process underlies the link between EI and (job) performance. Previous studies solely investigating other-focused emotion regulation have demonstrated that choosing appropriate strategies to manage others' emotions results in better social interactions (Little et al., 2012; Niven et al., 2012). By examining a work context in which social interactions largely determine the job (i.e., emotional labor jobs) with an EI instrument involving self- *and* other-focused dimensions, we could connect these studies with the EI literature.

Importantly, we found only partial support for the abovementioned line of reasoning, implying that other psychological processes may (also) have played a role. Therefore, we encourage future EI researchers to delve deeper into the mechanisms that may influence employees' interpersonal emotion regulation proficiency at work, as this is a critical skill in many occupations. A recent review suggested multiple approaches to investigate this topic, ranging from a purely extrinsic approach, in which the researcher examines only how employees regulate others' emotions, to a dynamic co-regulation of emotion approach, in which the researcher examines how the interpersonal emotion regulation attempts of employees affect the regulation of their own emotions and vice versa (Troth et al., 2018). In addition, our post hoc explanations may be helpful when developing new study designs to examine the underlying processes. For example, the only scenarios in which other-focused emotion regulation was associated with the number of emotion regulation attempts that participants made were the positive emotional scenarios (i.e., enthusiasm and elatedness). The callers in these specific scenarios expressed their positive emotions in quite extreme ways that seem to violate norms for reasonable behavior at work. We speculate that high-EI secretaries perceived these violations and accordingly made more attempts to regulate the callers' emotions, whereas lower-EI secretaries may have perceived the callers' emotions simply as positive and did not see a need to regulate them.

In addition, we found no associations regarding EI with the vocal responses to the angry and sad phone calls. A possible explanation for this unexpected finding is that the emotions

displayed in these calls were too straightforward in their demands for interpersonal emotion regulation. Specifically, the callers of these respective phone calls were either crying or yelling; therefore, the secretaries could not ignore the callers' emotions and simply had to manage these emotions in some way, which might have resulted in the absence of individual differences. This speculation is in accordance with the dual route to empathic reactions stemming from empathy theory (Engen & Singer, 2013; Singer & Lamm, 2009). According to this theory, there is a stimulus-response perception-based route that follows when clear sensory information regarding the emotional state of others is available, and there is an abstract inferential route that follows when such information is not available and the emotional state of others has to be determined by contextual cues. Importantly, the first route is a relatively "easy" and more automatic process (Decety & Lamm, 2006), whereas the latter route may require more emotional competence. Indeed, a recent laboratory study manipulated the emotional expression of an ostracized target person and found that when the target expressed sadness (i.e., sensory information), individual differences in EI had no effect on the emotion regulation attempts that participants made. However, when the target expressed a neutral affect (i.e., no sensory information), EI increased these attempts (Nozaki, 2015). Given that our angry and sad phone calls provided far more sensory information regarding the emotional state of the caller than the other calls, we consider it likely that the angry and sad phone calls triggered the use of the stimulus-response perception-based route; this notion would explain the lack of findings in the vocal responses for these calls.

The EI dimension that was negatively associated with subjective stress in response to an emotional work-related stressor was self-focused emotion appraisal (*Hypothesis 2)*. This finding supports theories explaining how a focus on the emotions of the self may prevent an employee from becoming too stressed while facing emotional job demands (Grandey & Melloy, 2017; Jordan et al., 2002). Thus, in line with previous studies showing that particularly self-focused EI dimensions prevent people from experiencing negative health-related outcomes (Mikolajczak et al., 2015), we showed that self-focused emotion appraisal prevents secretaries from the subjective experience of stress when confronted with emotion-related phone calls at work. Interestingly, we found that self-focused emotion appraisal (versus self-focused emotion regulation) reduced the participants' subjective experience of stress in response to the phone calls. Ashkanasy and colleagues (2003) argued that (self-focused) EI dimensions may reduce one's experience of stress from work-related stressors in various phases of responding to a stressor. For example, emotion appraisal may increase the accuracy of the primary appraisal process, whereas emotion regulation may contribute to the efficacy of the coping process. Our findings provide support for an important role regarding self-focused emotion appraisal, which presumably affects the appraisal of the stressor (i.e., primary appraisal, Lazarus & Folkman, 1987). A possible explanation could be that in some circumstances, the appraisal of an experienced emotion leads to the acceptance of this emotion, which may be calming in itself. Several emotion appraisal theorists have stressed that whether an emotion is perceived as controllable or not - or can be attributed to a certain situation or not - determines whether this emotion

becomes a significant stressor (Ellsworth & Scherer, 2003). In this light, it could be that secretaries scoring high on self-focused emotion appraisal attributed their negative emotions during the study to the lab setting they were in, causing them experience less subjective stress.

Regarding the physiological response to emotional demands, we found that being confronted with emotional phone calls actually increased the skin conductance level of secretaries scoring high on self-focused emotion regulation (*Hypothesis 3b*). In accordance with Bechtoldt and Schneider (2016), who found that EI is associated with increased cortisol levels during a stressful social task, these findings suggest that having a high level of EI can be physiologically costly. Whether the physiological costs of EI are caused by an increased sensitivity towards others' negative emotions (Bechtoldt & Schneider, 2016; Fiori & Ortony, 2016) or by the actual engagement in (self-focused) emotion regulation behaviors (Bernat et al., 2011; Egloff et al., 2006; Giuliani et al., 2008) is something future research should examine. We can only speculate that the secretaries with high levels of self-focused emotion regulation in the present study engaged more in self-regulatory processes while they were listening to the phone calls, resulting in increased skin conductance levels. The status of skin conductance level as an indicator of emotional effort (Egloff et al., 2006) validates this assumption. However, as we did not measure the extent to which the secretaries actually engaged in self-regulatory behaviors *during* the task, this notion remains speculative.

When relating this physiological finding to the literature on stress, increased bodily activation in response to a stressor for high-EI individuals may be somewhat counterintuitive (Martins et al., 2010; Schutte et al., 2007). It can, however, be argued that physiological arousal prepares the body to adapt to changing circumstances, which makes this aroused state adaptive rather than maladaptive (Bechtoldt & Schneider, 2016; Kompier, 2005; Linden, Earle, Gerin, & Christenfeld, 1997). From this point of view, physiological arousal reflects "activation" and may be related to appraising stressors as challenges or opportunities for mastery or gain (Lazarus, 1991). Alternatively, causality could be reversed in the sense that people who are highly physiologically reactive to evocative social stimuli learn to more frequently attempt to control their atypically elevated responses. Irrespective of the mechanisms underlying these findings, they may contribute to a growing body of research suggesting that there are circumstances in which EI can also be a vulnerability (Bechtoldt & Schneider, 2016; Mikolajczak et al., 2015).

Finally, there was a notable discrepancy between the effects of self-focused EI dimensions on subjective stress and skin conductance in the present study. Although this discrepancy has already been pointed out in the literature (Laborde et al., 2011; Mikolajczak et al., 2007; Salovey et al., 2002), it has been attributed to the assessment of EI, with positive effects for self-reported EI instruments and negative effects for performance-based EI instruments (Bechtoldt & Schneider, 2016). As the present study established the contradictory effects on stress and physiological arousal using the same self-reported EI instrument, the assessment of EI may not be the only factor that determines whether EI has positive or negative effects on such criteria. Rather, the timing of the measurement may be vital. In the present study, the physiological measures were retrieved during an emotionally

demanding task, whereas the subjective experience of stress was indicated afterwards. It could be that the usage of EI is physiologically costly but that these costs result in a decreased subjective experience of stress. This confounding factor is not unique to the present study because physiological measures are typically retrieved during emotion regulation or appraisal (Bechtoldt & Schneider, 2016; Bernat et al., 2011; Egloff et al., 2006; Giuliani et al., 2008), whereas self-reported stress measures are typically retrieved in retrospect (Martins et al., 2010). To address this issue, future studies could adopt ecological momentary assessment methods (including physiological measurements) that prompt participants for responses to retrieve both indicators simultaneously.

From a theoretical point of view, however, the different associations of (self-focused) EI with subjective stress and skin conductance may point to the differences between psychological stress and physiological stress. Psychological stress can be defined as an unfavorable person-environment relationship with a personal meaning for an individual (Lazarus, 1993) and is often measured using self-reported questionnaires because they give access to individuals' personal interpretations of their environment (Kompier, 2005). Physiologically, stress has been defined as a universal and non-specific bodily reaction of an organism in adaptation to environmental stressors (Selye, 1956/1976). Physiological stress markers include increased cortisol, heart rate, and skin conductance levels but need to be interpreted with caution as they may also play a role in other bodily functions (Kompier, 2005). The clear overlap between psychological and physiological stress is the organic interplay with the environment, whereas a prominent difference is the psychological meaning regarding what is perceived as threatening or challenging for an individual (Lazarus, 1993). In light of our contrasting findings, we can only speculate that our subjective stress measure primarily captured whether the secretaries perceived the phone calls as threatening for their goal attainment or well-being, whereas the skin conductance measure primarily captured how their bodies adapted to the emotional task they had to perform (irrespective the personal meaning they gave to it).

Limitations

In interpreting the present findings, four limitations should be taken into account. First, although we developed the tasks to closely mirror the real world, the lab setting of the study may have somewhat diminished its ecological validity. For example, the secretaries did not receive any vocal feedback from the callers on their responses. Conversely, this lab setting allowed for the standardization of the procedure for all participants. Related to this point is the fact that the study did not allow us to measure real job performance and real occupational well-being. Instead, we measured task performance and subjective stress, which we believe resembled the constructs quite closely. In fact, several participants indicated that the simulated work task to which they were exposed was an accurate reflection of what they normally do during their work. Second, the present study examined a specific occupational group, which may diminish the generalizability of the findings.

Future studies may seek to examine the consequences of self- and other-focused EI among employees working in other (emotional labor) jobs, such as those in health care or sales.

A third limitation may be the lack of filler tasks between the different phone calls. Although there was a time lag of approximately five minutes between the different phone calls, and the order of the stimuli was randomized, this procedure may not have prevented the spillover of subjective stress or skin conductance levels from one phone call to the next (the subjective stress measures had a shared variance ranging between 31–74%, and the skin conductance levels between 69–96%). However, while this procedure may have limited the within-person comparisons between the different phone calls, it does not discard the role of individual differences in responding to the phone calls, being the major focus of the current study. A final limitation may be the use of a self-reported EI instrument in the present study, possibly inducing a social desirability bias (Roberts, Matthews, & Zeidner, 2010). Despite this potential bias, we found associations between (self-reported) EI and relatively objective criteria such as skin conductance and other-rated task performance. These findings suggest that social desirability was not the sole underlying factor explaining these effects. Nevertheless, we encourage future studies to examine the psychological processes and consequences of self- versus other-focused EI using a performance-based EI instrument.

Conclusion

The current study contributes to the understanding of the differential role of self- and other-focused EI dimensions in the work domain. Especially in jobs with significant social elements such as those of teachers, psychotherapists, or secretaries such as in the present study, a focus on the emotions of the self is essential to avoid the experience of strain. However, such a focus may be accompanied by some physiological costs. Furthermore, being able to manage the emotions of others may under some circumstances enhance aspects of task performance. Therefore, a distinction between self- and other-focused dimensions of EI may be a promising avenue for future EI research, as it may reveal different psychological processes. Elucidating these processes may move emotion theories or interventions forward.

Appendix A. Scripts of the different phone calls used in the study

Worry 35 seconds Male voice	"Hello, this is Wim speaking from the finance department. I am calling you because something just went completely wrong. I just realized that there is a huge mistake in the final invoice that I sent to one of our most important customers last week. I can't properly turn this around anymore, man. What now? It's a very important customer that took us so long to recruit. And it's not just any small mistake… We're talking about thousands of euros. Oh my god, I'm going to get into so much trouble for this. Can you help me out?"
Anger 38 seconds Female voice	"Yes hello this is Carla. Listen, I came by your office this morning to get Mr. Pieters' documents, and I just realized that you gave me the wrong documents again. I'm starting to wonder whether you might need a hearing aid or something. This is now the third time that you have given me a wrong document! Look, I understand if you make a mistake once, but this is just so unprofessional and sloppy to me. It makes me look like a fool to the client! If you continue working like this, we'll have to reconsider your position. I need to talk to Mr. Pieters now, how are you going to solve this?"
Sadness 27 seconds Female voice	"Hello, this is Sophie. I am calling you because I had my performance evaluation at work this morning. But it did not go well at all… [crying] … They fired me! I feel so terrible! I really enjoy my job here, and I really need the salary to care for my two children… [crying] … Oh it really hit me hard… [crying] … Isn't there anything you can do for me?"
Enthusiasm 27 seconds Male voice	"Good afternoon, madam. Is this the secretarial office? Yes, you're speaking with the Van Dijk firm. Listen, I came up with a totally great new concept! My company and yours, we're going to collaborate and it's going to be a success! What do you think? Can I come by now? I need to speak with the CEO and the manager right now. I am convinced that they will love my plan. I can be there in one hour; the taxi is already here. What do you think?"
Elatedness 33 seconds Female voice	"Hey, how are you? I met your manager last week at a conference in London and I thought I would call to catch up with her. But now you answered the phone, and you don't know me at all of course… But hey, that doesn't matter! What a lovely lady your manager is. We really had a nice time there; we went shopping and had some nice dinners and drinks. Those conferences… you can't even really call it working anymore. Everything is paid for. Oh my god, and those guys from London… Do you know what happened with that one guy? She must have told you… Please, tell me?!"

Chapter 5
An Episodic Process Model of Emotional Intelligence

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Abstract

This theoretical paper introduces an episodic process model of the manifestation and consequences of emotional intelligence (EI). The first phase of the model consists of situational cues that elicit interdependent emotions in the self and others. The next phase specifies differential and interacting effects of EI dimensions when processing these emotions. In addition, the model includes dispositional and contextual factors that may qualify this process. It is described what proximal consequences the manifestation of EI has, and how the repetitive processing of emotions may influence important life outcomes such as health, social relationships, and job performance. The episodic process model allows addressing the interplay between EI dimensions, as well as costs and benefits of EI over time.

Introduction

Emotional experiences are an inseparable part of individuals' daily and organizational life. Emotions such as pride, anger, and shame influence experiences. They guide behavior, prioritize goals, and they communicate our mood states to others (Frijda, 1986). It is therefore not surprising that emotions influence both the self and the other when individuals are interacting. That is, emotions can be expressed towards others, they can elicit emotions in others, or they can be reactions to the emotions of others (Fisher & van Kleef, 2010). During social interactions, individuals thus not only need to appraise and regulate their own emotions; they also need to keep track of the emotions of their interaction partner to facilitate the interaction and achieve what they want. Some individuals are better at this than others, and part of these individual differences is reflected in emotional intelligence (EI).

EI can generally be described as the ability or knowledge to perceive, understand, and manage emotions (Mayer & Salovey, 1997; Petrides, 2011; Zeidner, Roberts, & Matthews, 2008). High-EI individuals tend to deal with emotions in such a way that their reactions are socially effective which may help them to reach their goals. For example, the emotions that a sports coach expresses during a race may motivate and enable an athlete to reach new performance levels. The manifestation of EI may even influence important life outcomes. To illustrate, EI is positively associated with health (Martins, Ramalho, & Morin, 2010), a satisfying social life (Lopes et al., 2004; Schutte et al., 2001), and job performance (Joseph & Newman, 2010; O'Boyle, Humphrey, Pollack, Hawver, & Story, 2011).

Although research has shown that EI is an important determinant of social behavior, virtually nothing is known about the processes that are responsible for its effects (cf. Côté, 2014; Peña-Sarrionandia, Mikolajczak, & Gross, 2015). EI is typically examined at the global level using cross-sectional research designs or longitudinal designs with long time lags. Such approaches, however, discard the situational factors that may trigger the use of EI (Ybarra, Kross, & Sanchez-Burks, 2014), the interpersonal influence of emotions (Hareli & Rafaeli, 2008), as well as the temporal aspects of EI (Roe, 2008). Consequently, it remains unknown *when* EI is activated, *how* the emotions of one individual influence the emotional responses of another individual, and *what* the proximal and distal consequences are of dealing with one's own versus others' emotions.

In the present paper, we develop a theoretical framework that can serve as a starting point for the empirical investigation of such questions. We introduce an episodic process model describing how the emergence of emotions in the self and others activates various EI dimensions, how one's own and others' emotions are subsequently processed, and what consequences this processing has over time. Importantly, the focal person in our model is the self. However, we also include the expressed emotions of others as a significant element in the model, as self- and others' emotions have a mutual influence on each other in interpersonal situations and because people typically interact with others (Butler, 2011; Hareli & Rafaeli, 2008). Accordingly, our model incorporates the following core components: (1) situational cues that elicit (interdependent) emotions in the self and the other, (2)

differential and interacting effects of EI dimensions when processing these emotions, and (3) dispositional and contextual factors that may qualify this process. In addition, the model describes proximal consequences of processing emotions and more distal consequences of repeatedly processing emotions. We propose that integrating these understudied aspects in a process model of EI may be crucial to better understand how it affects our daily lives.

The central time frame in the model is the emotional episode. An emotional episode starts when a situational cue (i.e., an event or emotional expression of another person) elicits emotions in the self and/or the other and it ends when these emotions have been processed. In other words, the current model captures a "snapshot" of individuals' daily emotional life. In this sense, the model's time frame is comparable to affective events theory (Weiss & Cropanzano, 1996) and the performance episodes model (Beal, Weiss, Barros, & MacDermid, 2005), as these theories use cues or regulatory goals to divide time in meaningful units. This episodic perspective is applicable to EI because it connects well with the dynamic nature of emotional experiences (Beal et al., 2005; Frijda, 1993; Weiss & Cropanzano, 1996). That is, an emotion comes and goes, or it may evolve in a different type of emotion. Furthermore, focusing on emotional episodes allows to examine the manifestation of EI within time periods with a recognizable start and end which may be helpful to reveal its underlying processes. This episodic perspective can also describe how the outcomes of one emotional episode may influence the next emotional episode (Barker, 1963; Weiss & Cropanzano, 1996), and eventually shape life outcomes.

The process-based approach in the model maps well onto conceptual and methodological developments in social science that enable studying psychological processes "in vivo" (Kahneman, Krueger, Schkade, Schwarz, & Stone, 2004; Oerlemans & Bakker, 2013; Reis & Gable, 2000). Advanced recording and statistical techniques enable the assessment of fluctuations in emotions and behaviors, and may help to disentangle how EI responding unfolds when people are exposed to emotions. Hence, we aim to contribute to a shift in EI research from traditional one-time survey methods to more process-based approaches that allow for a distinction in causes, mechanisms, and consequences. Such approaches have already become influential in the fields of stress (Lazarus & Folkman, 1984), emotion regulation (Gross, 1998, 2015), emotional labor (Grandey, 2000; Grandey & Melloy, 2017), and even personality (Kazén & Quirin, 2018), and have resulted in inspiring and creative research agendas. We consider it timely for the EI literature to start following these developments, as the ways in which EI is now typically studied may not do full justice to the dynamic nature of emotions.

Emotional Intelligence

The literature on EI can roughly be divided in two main approaches that differ in their conceptualization and measurement of EI (Siegling, Saklofske, & Petrides, 2015). The ability-approach is largely based on the Four-Branch Model of EI (Mayer & Salovey, 1997). In this model, EI is conceptualized as a set of interrelated emotional abilities organized in four branches. The branches consist of (1) the ability to perceive emotions, (2) the ability to use emotions to facilitate thinking, (3) the ability to understand emotions, and (4) the ability to

manage emotions to reach (interpersonal) goals. Characteristic of this approach is its measurement with performance-based EI tests which is comparable to the way cognitive abilities are measured. In contrast, the trait-approach conceptualizes EI as a set of emotion-related traits and uses self-reported instruments to measure EI. This approach is more similar to research conducted in the personality field. Correlations between EI measures following the ability- versus trait-approach are low to moderate (Brannick et al., 2009; Petrides, 2011) which either confirms their theoretical difference or reflects methodological variance.

Despite the unique strengths and weaknesses of each approach, a relevant limitation in both approaches is their strong reliance on "traditional" methodologies to examine EI. That is, scholars typically use global EI scores that mask the unique role of self-focused EI (dealing with emotions of the self) versus other-focused EI (dealing with the emotions of others). However, recent research suggests that self-focused EI is particularly relevant to remain healthy, whereas other-focused EI contributes particularly to social and performance outcomes (Brasseur, Grégoire, Bourdu, & Mikolajczak, 2013; Mikolajczak et al., 2015; Pekaar, Bakker, van der Linden, & Born, 2018). It is therefore likely that the manifestation of EI involves a dual process. On the one hand individuals appraise and regulate their own emotions, and on the other hand they appraise and regulate the emotions of others. A further limitation of using global EI scores is that they do not clearly reveal the different steps involved in processing an emotion. Yet, in real life, an emotion needs to be appraised first before it can be regulated (Joseph & Newman, 2010). In fact, research has shown that the final step in emotion processing, emotion regulation, is crucial to influence outcomes such as job performance (Joseph & Newman, 2010). Hence, global EI scores are no optimal indicators to predict whether and how the process of dealing with emotions actually unfolds.

In order to capture this stepwise and dual process, the model that we propose in the current paper includes four distinct EI dimensions, namely self-focused emotion appraisal and emotion regulation, and other-focused emotion appraisal and emotion regulation. These four EI dimensions emphasize the aforementioned distinction between self- and other-focused EI that we find relevant as this distinction may reflect different psychological processes related to health or social effectiveness (Brasseur et al., 2013; Pekaar et al., 2018). The included EI dimensions also differ in their level of complexity of emotion processing. Specifically, emotion appraisal is considered the most basic level of emotion processing, whereas emotion regulation is the most complex level (Joseph & Newman, 2010; Mayer & Salovey, 1997). Hence, our distinction may be useful to formulate clear predictions regarding the ways individuals will respond to emotions.

In the following sections, we will introduce our episodic process model of EI. In this model, self- and other-emotions, different EI dimensions, and dispositional and contextual factors interact to allow a more real-life examination of EI than the contemporary EI literature has offered. An important asset of the current model is that emotion processing is placed at the episodic level. This episodic perspective allows to explain the actual manifestation of EI, a process that is not only confined to those who excel in emotional skills or knowledge (high levels of EI), but that people in general go through when they are confronted with emotions.

The Episodic Process Model of Emotional Intelligence

The model introduced in this paper starts with a situational cue eliciting emotions in the self and/or in others. The nature of this situational cue may differ widely and can range from an angry outburst of a friend eliciting feelings of stress or fear, to the smell of a specific perfume that makes one nostalgic and yields slight feelings of sadness. These emotions, in turn, activate EI-related processes in order to deal with the experienced emotions (cf. Grandey & Melloy, 2017; Gross, 1998). Importantly, this emotion processing phase involves a dynamic interplay between different EI dimensions. For example, the effectiveness of regulating one's own emotions may affect the effectiveness of appraising and regulating others' emotions. The processing of emotion is further qualified by dispositional and contextual factors such as motivation, emotion type, and the relationship between the self and the other. Furthermore, it is specified how this process may spiral over time and influence proximal (i.e., episodic performance) and distal outcomes such as health and overall job performance. In the following sections, we will elaborate on the main components as depicted in our model (see Figure 1).

Situational Cues

The proposed model starts with a situational cue that elicits emotions. This situational cue can either be an external or internal event eliciting emotions (labelled "Event" in Figure 1), or it can be the emotional expression of another person. In both scenarios, the key is that there needs to be input that generates emotions in the self and/or the other to activate an individuals' emotion processing. For example, smelling a specific perfume may produce feelings of nostalgia that need to be regulated to not interfere with (work) tasks, or, witnessing a friend's grief may produce feelings of pity in the self (Hareli & Rafaeli, 2008). The prominent place of the situational cues in our model emphasizes that the enactment of EI depends on them.

Emphasizing the role of context in the manifestation of EI is in itself not new (Côté, 2014; Jordan, Dasborough, Daus, & Ashkanasy, 2010; Ybarra et al., 2014). Previous research already suggested that the context may determine what consequences EI has (Joseph & Newman, 2010). However, approaching situational cues as *the initiator* of EI responding is new. We draw from two psychological principles that address how context and behavior interact to explain this mechanism. First, the Health Belief Model (Rosenstock, 1974) posits that a stimulus, a "cue-to-action", is necessary to trigger (health-promoting) behavior. Although an individual can be equipped with the energy and ability to act (healthily), a cue is needed to set this process in motion. A similar principle is proposed by Trait Activation Theory (Tett & Guterman, 2000), which states that traits are only enacted in situations in which there is the opportunity for trait expression. The notion of situational cues activating behavior has been used by emotion researchers as well. Both the emotion regulation

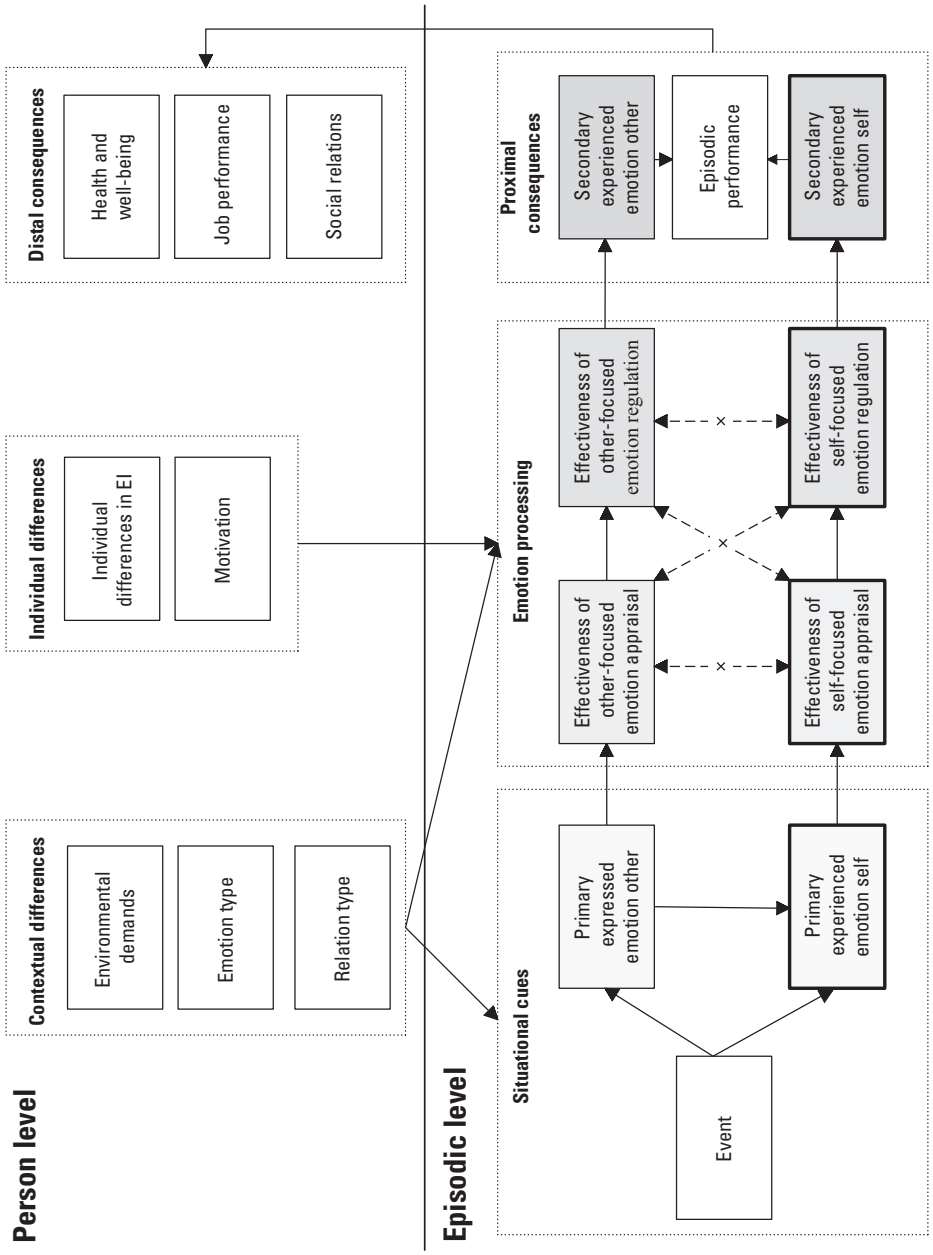

FIGURE 1: The episodic process model of emotional intelligence. The process consists of different phases; the situational cue phase, the emotion processing phase, and proximal consequences that may develop into distal consequences. The upper pathway symbolizes the process of dealing with others' emotions and the lower pathway depicted in bold symbolizes the process of dealing with one's own emotions. During the emotion processing phase, specific EI dimensions interact which is depicted with the dashed arrows. The contextual and individual differences that are displayed above the episodic process incorporate moderating factors that may influence the process.

literature (Gross, 1998) and the emotional labor literature (Grandey, 2000; Grandey & Melloy, 2017) have proposed that regulatory efforts start with a relevant emotional event. Likewise, we argue that the principle of situational cues may well apply to the manifestation of EI as it could explain why EI matters in some, but not all, situations (Ybarra et al., 2014).

Our model distinguishes two scenarios. In the first scenario, there is only the individual, not interacting with another individual. This scenario is shown in the lower pathway depicted in bold in Figure 1. In this scenario, the situational cue may consist of any stimulus that is (potentially) important for this individual such as a thought, a bodily state, or a thunder storm. It is relevant to note that it is not the stimulus in itself that evokes emotions, but rather the meaning that the individual assigns to it (Frijda, 1988). When the individual is alone, the emotion processing solely focuses on emotions of the self. Most contemporary emotion theories, including EI, have taken such an intrapersonal perspective which has yielded valuable insights in how individuals emotionally respond to a stimulus. However, this perspective may not be applicable to individuals in interpersonal situations because such situations comprise emotions of the self *and* others. Remarkably, these interpersonal situations tend to be the type of situations in which EI is most relevant (Joseph & Newman, 2010; Lopes et al., 2004).

The second scenario of the model is a situation in which an individual is interacting with another individual. In this social interaction, the emotions expressed by the other individual may function as a situational cue that elicits emotions in the self. Hence, there are two emotions; emotions of the self and emotions of the other (see the see the upper and lower pathways in Figure 1 pathways in Figure 1). This scenario is put central in our approach because EI involves the knowledge or ability to effectively deal with one's own *and* others' emotions (Mayer & Salovey, 1997; Petrides, 2011; Zeidner et al., 2008). Furthermore, as humans are social by nature, emotions most frequently originate from interpersonal contexts (Butler, 2011; Hareli & Rafaeli, 2008). That is, individuals adapt or respond emotionally to the emotions of others through processes as emotion contagion (Hatfield, Caciappo, & Rapson, 1994) or emotional interpretation (Hareli & Rafaeli, 2008). Such interpersonal emotion dynamics can occur automatically or intentionally. Hence, we consider the inclusion of self- and other-emotions crucial in a process model of EI as both sources of emotions may activate different EI dimensions.

To recapitulate, situational cues such as internal or external events that are salient for the self or the expressed emotions of other people seem to be conditional factors to initiate emotion processing. Without such cues EI may not be enacted.

Emotion Processing

The next phase of the model includes the emotion processing, which is important to adapt to situational demands and has been associated with higher well-being and social effectiveness (Gross & John, 2003; van der Linden et al., 2017). In fact, research showed that people who do not effectively process and flexibly align their emotions with their goals and context tend to suffer from psychological maladjustment (Kuppens, Allen, & Sheeber, 2010).

Moreover, a lack of emotion processing in interpersonal situations creates a risk to become trapped in maladaptive emotional patterns that may escalate and ruin the quality of social relationships (Snyder, Stoolmiller, Wilson, & Yamamoto, 2003). Hence, self- and other-focused emotion processing is vital to meet situational demands and to smoothen social interactions.

During social interactions, various specific EI dimensions may be activated. One contribution of the current model is its emphasis on interactive effects that may occur when various specific EI dimensions are used. To illustrate, consider the situation in which a cranky manager frustrates an employee. In this case, a first step for the employee is to appraise his own frustration, but in order to quickly reduce these negative emotions, subsequent regulatory actions are required such as counting to ten or reappraising the situation. Moreover, in order to effectively communicate with the manager, it may be helpful to down regulate the emotions of the manager first. This example shows how the appraisal and regulation of self- and other-emotions can be simultaneously or sequentially activated, and can influence each other. Accordingly, we propose that, during an emotional episode, various combinations of EI dimensions may evolve, which, in turn influences the effectiveness of one's response.

Those combinations may occur at two levels: (1) The intrapersonal level, in which engaging in emotion appraisal and emotion regulation affect each other, and (2) the interpersonal level, where the processing of one's own emotions interacts with the processing of others' emotions. In the following sections, we first focus on the intrapersonal interplay between EI dimensions before elaborating on the interpersonal interplay between EI dimensions.

The Intrapersonal Interplay Between Emotional Intelligence Dimensions

The interplay between EI dimensions at the intrapersonal level is based on the Modal Model of Emotion (Gross & Thompson, 2007) positing that processing emotions is a stepwise process in which emotion regulation is the ultimate step through which emotions are modified. Consequently, it is mainly this regulation that may influence outcomes (George, 1991). Previous meta-analytic studies confirmed that the effect of emotion perception on job performance is mediated by emotion regulation (Joseph & Newman, 2010). However, this stepwise process also implies that when the final step is missing, for instance when emotions are only appraised but not regulated, the subsequent response may be less adaptive. A typical example would be a person who is very able to recognize emotions, yet does not have the ability to adequately regulate these emotions. Hence, we propose that emotion processing is more effective when emotion appraisal is followed by emotion regulation.

The Interpersonal Interplay Between Emotional Intelligence Dimensions

Another aspect of the model that goes beyond previous research is that it emphasizes conflicting or facilitating effects of processing one's own and others' emotions. One facilitating effect is that processing the emotions of others may be more effective when

one's own emotions have already been regulated. In such a situation, having finished the step of regulating one's own emotions is assumed to free energetic and processing resources that can be used to focus on the emotions of the other. This proposition is consistent with lay person's beliefs that "You first need to help yourself before you can help the other". Accordingly, previous research showed that employees who had effectively processed their own emotions were better able to process the emotions of their customers and sold more products (Pekaar, van der Linden, Bakker, & Born, 2017a).

On the other hand, the interplay between emotion processing of the self and others can also be conflicting: When the energetic and processing resources that are invested in one type of emotion (e.g., regulating others' emotions) occur at the expense of resources that would be required for other type of emotion (e.g., appraising one's own emotions). This has been illustrated in a diary study in which employees' emotional exhaustion that resulted from witnessing unpleasant interactions between coworkers was affected by the extent to which they controlled their own emotions (Totterdell, Hershcovis, Niven, Reich, & Stride, 2012). The unique combination of appraising others' emotions and controlling their own emotions made witnesses more emotionally exhausted. Another study found that lawyers who tended to manage the emotions of both themselves and their clients performed worse than lawyers who tended to manage the emotions of either themselves or their clients (Pekaar et al., 2017a). Following this, we propose that during emotional episodes in which individuals have limited energetic and processing resources, the handling of others' emotions may diminish their effectiveness in dealing with their own emotions and vice versa.

To summarize, emotion processing appears to be a stepwise process that starts with the appraisal of an emotion and ultimately ends with its regulation. Emotion processing may simultaneously occur at the intrapersonal and the interpersonal level. This processing may be facilitating or conflicting depending on individuals' allocation of their energetic and processing resources.

Consequences of Emotion Processing

The episodic process model of EI does not only emphasize how emotions of the self and others are processed but also includes the outcomes of emotion processing. The extent to which one succeeds or fails in appraising and regulating one's own and other's emotions is assumed to have proximal (episodic) consequences, and more distal consequences. In the following sections we start with addressing the proximal consequences from three different angles. First, we will explain how the quality of the emotion processing steps contributes to direct episodic performance. Next, we will elaborate on possible affective spill-overs to next emotional episodes. And third, we will describe how proximal consequences may, over time, develop into distal consequences. The subsequent sections will address the distal consequences in more detail.

Proximal Consequences

Episodic performance

The processing of emotions has immediate consequences for the self and others involved. It is assumed that after the emotion processing phase, the self and the other would often experience different emotions than at the beginning of this phase (i.e., less or more intense or even a different type of emotion). In the model in Figure 1, these modified emotions are labelled "Secondary emotions". The idea is that the secondary emotions help to achieve one's short-term goals (Côté, Miners, & Moon, 2006; Mayer & Salovey, 1997), for example selling a product or having a nice conversation with someone. The achievement of these short-term goals is named "Episodic performance" in the model. The specific content of this episodic performance depends on individual preferences and desires, and is usually embedded in the (social) context. Examples are being polite to a customer, manipulating others, or being able to concentrate on a difficult task. These examples imply that episodic performance does not necessarily have to be pro-social, but can also include pro-self or so-called "darker" elements (Côté, DeCelles, McCarthy, van Kleef, & Hideg, 2011).

Previous research has suggested that processing other-emotions is particularly relevant for interpersonal episodic performance, for example when one wants to change the behaviors of others. To illustrate, a negotiation study showed that high-EI individuals induced higher negotiation satisfaction in their negotiation partners by inducing a positive mood in their partners (Mueller & Curhan, 2006). Furthermore, sales persons who appraised the emotions of their customers sold more products (Pekaar et al., 2017a). In contrast, processing self-emotions is considered particularly relevant for intrapersonal episodic performance because it directly changes one's own mood state which could contribute to remaining happy and healthy. For example, self-focused emotion processing may help to decrease (work-related) stress (Jordan, Ashkanasy, & Härtel, 2002). Research showed that academic teachers who were good regulators of their own emotions experienced less stress during their work than teachers who were less effective regulators (Pekaar et al., 2018).

Spill-over effects

One asset of the current model is the incorporation of spill-over effects, which means that the emotions one experiences at the end of an emotional episode may influence following emotional episodes. Consequently, they may influence the subsequent interaction with the person involved (Hareli & Rafaeli, 2008), or even a next interaction with another person (Bakker & Demerouti, 2013). The incorporation of spill-over effects in the model draws attention to a parameter that has not received much attention in the EI literature yet, namely the role of *time*. This parameter seems of particular importance for the episodic manifestation of EI as it responds to the dynamic experience of emotion (Mesquita & Boiger, 2014). Recently, this dynamic nature of emotions has gained a more prominent place in emotion research as scientists have started to acknowledge that time constitutes a vital aspect of emotional phenomena (Kuppens & Verduyn, 2017). Hence, feedback loops and spirals over time now are a relevant element of the emotion regulation (Gross, 2015) and the emotional labor literature (Grandey & Melloy, 2017). The spill-over effects in our model

follow this trend as they allow describing how one's emotional response to specific situational cues may have a significant impact on one's emotional functioning over time.

One of the ways the spill-over effects work is via episodic performance. Episodic performance may elicit positive emotions that can transfer to the subsequent emotional episode. To illustrate, a diary study showed that police officers who regulated their emotional display during their shift, reached more work goals, which, in turn, enhanced their work engagement at the end of the shift (van Gelderen, Bakker, Konijn, & Binnewies, 2014). A related study found that employees who regulated their emotional display during social interactions were more successful in achieving their goals in these interactions, which predicted their well-being after these interactions (Wong, Tschan, & Semmer, 2017). Moreover, this latter study showed that the physical and energetic costs that were associated with the regulatory efforts were replenished when individuals achieved their goals (Wong et al., 2017). Hence, the proximal outcomes of emotion processing reach beyond one emotional episode and can extend into the next one. Understanding and acknowledging these phenomena in psychological research may help to describe real-life emotional experiences better.

Distal Consequences

The final phase of the model includes the distal consequences of emotion processing. The idea is that the increased probability of achieving short-term (episodic or daily) goals will accumulate in enhanced performance in several major life domains that have been linked to EI in previous research, namely health and well-being (Martins et al., 2010), social relationships (Lopes et al., 2004; Schutte et al., 2001), and job performance (Joseph & Newman, 2010, O'Boyle et al., 2011). In the sections below we will elaborate on how effectively going through emotional episodes will translate into long-term positive outcomes in these areas. In Figure 1, this influence is depicted with the upwards arrow between the "Proximal consequences" on the episodic level to the "Distal consequences" on the person level.

Health and well-being

We propose that there may be three pathways by which episodic emotion processing influences health and well-being (Matthews, Zeidner, & Roberts, 2017). The first runs through the ability to regulate one's own emotions in an adaptive and positive way with direct health benefits (DeSteno, Gross, & Kunzansky, 2013; Friedman & Kern, 2014). A second pathway is interpersonal in nature and constitutes social support from others (Matthews et al., 2017). Individuals who process the emotions of others in a socially effective way are more likely to receive positive emotional feedback from their interaction partners, which may contribute to a feeling of being understood and supported (Zeidner, Matthews, & Shemesh, 2016). The third pathway is that repeated successful processing of emotions during emotional episodes leads to a more frequent achievement of one's smaller and larger life goals (Wong et al., 2017). This may enhance overall feelings of efficacy and confidence and a general sense of accomplishment.

Relationships

Being generally successful in dealing with emotions, on average, tends to favor the quality of social contact (Lopes et al., 2004; Schutte et al., 2001). Proposed mechanisms are the capacity of high-EI individuals to enhance positive emotions in the self and in others when interacting, and their capacity to process self- and other-emotions in ways that limit tension and conflict (Lopes et al., 2004). If this is done repeatedly, it may contribute to long-term relationship quality.

Job performance

A similar line of reasoning goes for EI's positive association with job performance. As this association appears to be predominantly apparent in jobs in which employees frequently interact with others (Joseph & Newman, 2010), it is likely that it stems from the adaptive and positive ways in which high-EI employees deal with emotions during such interactions (Joseph & Newman, 2010; Tsai, Chen, & Liu, 2007) leading to episodic performance outcomes. This point is particularly salient in the link between EI and leadership performance. EI is related to leadership performance via a transformational leadership style which is characterized by inspiring, motivational, and emotional behaviors of the leader towards his/her followers (Hur, van den Berg, & Wilderom, 2011). Furthermore, a repetitive achievement of one's (work) goals (i.e., accumulating episodic performance) during emotional episodes may logically also contribute to long-term job performance outcomes.

To sum up, emotion processing has proximal and distal consequences. The proximal consequences of emotion processing can be seen as episodic performance, which is the achievement of (interpersonal) goals. As daily life consists of an ongoing stream of emotional episodes, emotion processing could be seen as a continuous process in which the immediate consequences of one emotional episode spill over to the next emotional episode. Over time, the repetitive achievement of proximal (interpersonal) goals by adequately dealing with emotions may accumulate to affect more distal outcomes such as health and well-being, social relationships, and job performance.

Process Moderators

Thus far, we have focused on the linear process between situational cues, emotion processing, and its proximal and distal consequences, yet it may be clear that this is a simplified process. As stated by Côté (2014), dispositional and contextual factors need to be considered to fully understand the workings of EI. Hence, for a more comprehensive and accurate representation of the real-life manifestation of EI, individual and contextual differences are included as moderators of the process.

Individual Differences

The existing EI literature suggests a range of individual differences that may influence the process between emotional events and their outcomes. Those individual differences include

cognitive intelligence (Côté & Miners, 2006), personality (van der Linden et al., 2017), gender (Fischer, Kret, & Broekens, 2018), and age (Doerwald, Scheibe, Zacher, & van Yperen, 2016). In the following, we will list a few related concepts that received less research attention and that may be especially important for the *episodic process* of EI.

Individual differences in emotional intelligence

One asset of the current model is that it specifies the steps involved in the episodic enactment of EI. An implicit assumption is that these steps describe how people generally deal with self- and other-emotions during emotional episodes. However, the literature on individual differences in EI suggests that not every individual tends to be equally successful in dealing with emotional episodes. That is, compared to low-EI individuals, high-EI individuals are more likely to adequately process the emotions that emerge in a particular situation. In our model, the moderating role of individual differences in EI on dealing with emotions raises new research opportunities. For example, are high-EI individuals more successful in all phases of the process? Do they excel in other-focused emotion processing, self-focused emotion processing, or both? A meta-analysis showed that high-EI individuals tend to adapt their emotional response to a situation as soon as they can. When confronted with a negative emotional cue, they use all their resources to modify the situation. Besides, they tend to seek social support, and manage the way they perceive a situation in order to change their feelings about it. As such, high-EI individuals do not have to use maladaptive response modulation strategies like aggression or expressive suppression, because they already modified their emotional experience early on in the emotional episode (Peña-Sarrionandia et al., 2015). This suggests that individual differences in EI play a significant role in the first phases of the current model, and thus seem to moderate the steps between situational cues and the outcomes of the emotional episode. We encourage future research to further examine how high- versus low-EI individuals process emotions in interpersonal situations.

Motivation

Another relevant individual difference factor is motivation. Motivation may be a key aspect in the process because it fluctuates from day to day and it determines *if* people engage in emotional processing and *for what reasons* they do so. Regarding the first, only individuals who are motivated to use their emotional skills and knowledge profit from its favorable consequences (Ybarra et al., 2014). Research showed that EI only contributed to academic performance among motivated students and not among non-motivated students (Rode et al., 2007). One's motivation may also influence what sort of goal(s) individuals want to achieve and thus what purpose emotion processing serves. For example, a waiter may act friendly to receive a higher tip, whereas a friend may act friendly because he genuinely likes you. Côté and colleagues (2011) showed that emotion regulation knowledge can facilitate both prosocial and self-serving goals depending on participants' motivation. In light of the current process, one could for example study whether motivation is needed throughout all the phases of the model. It could be that the appraisal of emotions following a situational cue is rather independent of one's motivational state, whereas the active regulation of

emotions demands high motivation. Another interesting possibility is that one's motivation could also influence whose emotions an individual will process first (self- or other-emotions), which may ultimately affect the effectiveness of this individuals' response.

Contextual Differences

The situational cues in the current model emphasize the importance of an individual's context for emotion processing. Namely, the context produces cues that elicit emotions in the self and/or in others that need to be managed. We did not yet elaborate on the *nature* of these situational cues; however, there may be substantial contextual differences that influence whether and how individuals process emotions. A first important contextual factor for the enactment of EI consists of environmental demands. Research already suggested EI to be related to emotional labor demands (Joseph & Newman, 2010), stressful situations (Dong, Seo, & Bortol, 2014), and cultural values (Côté, 2014). Other potential contextual differences that might impact the episodic process of EI may be the type of emotions people are exposed to and their relationship with the other person involved.

Emotion types

Emotions exist in various flavors that differ in valence and intensity. Each discrete emotion prioritizes specific goals and has its own specific action tendency (Frijda, 1986; Roseman, Wiest, & Swartz, 1994). For instance, fear is associated with the urge to run away from the fear-evoking situation and anger motivates to confront the source of anger (Zeelenberg, Nelissen, Breugelmans, & Pieters, 2008). Because different emotions activate different goals and actions, they may also be processed in different ways. Intense negative emotions such as fear and anger typically provide the greatest call for emotion regulation (Barret, Gross, Christensen, & Benvenuto, 2001), because they signal potential threats (Quigley & Feldman Barret, 1999). In contrast, positive emotions such as pride, love, or gratitude may have less emotion regulation demands because they signal that the situation is going well. Surprisingly, emotion type has not received much attention in the EI field and emotions are typically approached in a generic way. However, considering emotion types may be quite meaningful because different emotions may lead to different regulatory behaviors. Indeed, a diary study among policemen showed that the positive relation between EI and effective coping strategies was dependent on emotion type. Guilt evoked the strongest urge for emotion-focused coping whereas pride did not evoke coping at all (Gooty, Gavin, Ashkanasy, & Thomas, 2014).

Relationship types

One relevant interpersonal contextual factor in the model is one's relation to the other person. The nature, length, and intimacy of this relationship may influence whether and how an individual engages in interpersonal emotion processing (Niven, 2017). For example, research has suggested that people who have more power than their interaction partner are less attuned to others' emotions because they are relatively independent of the other (Anderson, Keltner, & John, 2003). In fact, being responsive to others' emotions

communicates respect, appreciation, and a concern for the well-being of the other (Bersheid & Reis, 1998). Therefore, it may not be surprising that partners in intimate relationships tend to use highly adaptive emotion regulation strategies to manage the feelings of the other (Debrot, Schoebi, Perrez, & Horn, 2013). In more strategic social interactions, it is mainly the length of the relationship between individuals that influences the value that is placed on others' emotional experience (Curhan, Elfenbein, & Eisenkraft, 2010).

To summarize, our episodic process model points to several contextual and individual factors that deserve attention when examining the manifestation of EI. Beyond typical individual differences such as cognitive intelligence and personality, we explained how motivational processes and individual differences in EI seem conceptually important at the episodic level as they may explain whether and how EI is used. Context-wise, we believe that considering proximal features of the situational cue (i.e., Which emotion does it elicit, and by whom?) may help to better understand people's daily emotional functioning

Discussion

Previous research has often adopted a relatively static perspective on EI by solely focusing on individual differences and its consequences in different life domains (cf. Côté, 2014; Peňa-Sarrionandia et al., 2015). As the EI research field is maturing, scholars have become more interested in the mechanisms that underlie the manifestation of EI which has resulted in an emphasis on the role of context, motivation, and other potential moderators that influence the use of EI (Côté & Miners, 2006; Jordan et al., 2010; Ybarra et al., 2014). However, an integrated theoretical model that helps to unravel the EI process over time has, thus far, been lacking. We sought to develop such a theoretical framework that can be used as a starting point to address questions such as "What kind of inter- and intrapersonal processes underlie the manifestation of EI?" "How do the different EI dimensions interact and what unique consequences do they have?" and "How does EI interact with other individual factors?" (cf. Matthews et al., 2017; Petrides et al., 2016). It is our aim that the current framework may function as a blueprint for further empirical investigation of these questions.

Contributions and Limitations

Our process model may advance the EI literature in several ways. First, it provides a more complete view of what actually happens when individuals are confronted with emotions. By incorporating the trigger, the response, and the consequences of emotion processing, we emphasized that the manifestation of EI functions as part of an emotional process that can be activated, intervened, or be built upon. This process-based approach does justice to the dynamic nature of emotions and to the complex ways in which people tend to respond to them. Moreover, it may provide researchers and practitioners opportunities to intervene in the different phases of using EI.

As a second contribution, we proposed that the context (i.e., situational cues) *initiates* the enactment of EI. Hence, the context may activate different EI dimensions and determine whether they will be effective, which may explain at least part of the mixed findings in the field (Joseph & Newman, 2010). This perspective responds to recent "calls-to-context" in the EI literature (Côté, 2014; Jordan et al., 2010; Ybarra et al., 2014) and may inspire researchers to integrate the stimuli that activate emotion processing into their research models. Another novel aspect of the current model is that we incorporated individuals' motivation and individual differences in EI in the process-based examination of EI. Previous studies have already shown that the usage of EI is no isolated process but it interacts with other abilities and beliefs (Côté & Miners, 2006; Côté et al., 2011; Rode et al., 2007). The inclusion of these individual differences makes our approach more applicable to the actual ways different people deal with emotions in their day-to-day routines.

Third, our approach is unique in the sense that it explicitly emphasizes whether individuals are dealing with their own emotions or with the emotions of others, and that the accompanying consequences are also distinguished in intra- and interpersonal terms. Self- and other-focused EI dimensions may be conceptually different and predictive of different kinds of criteria (Pekaar et al., 2017a; Salovey & Mayer, 1990). Hence, a distinction in self- and other-focused processing seems relevant to better understand the underlying mechanisms of EI. Relatedly, our model also looks at combinations of EI dimensions. Research has suggested that not all individuals use all their EI dimensions to the same extent, but that a unique mixture of EI dimensions better resembles reality (Elfenbein, 2016). This specific interplay, in turn, further improves predictions of emotional responding (Papousek, Freudenthaler, & Schulter, 2008; Pekaar et al., 2017a). The current approach incorporates these dynamics to encourage researchers to move beyond the global EI level (cf. Petrides et al., 2016).

Finally, our model includes time, which is an often-overlooked factor in psychological research (Roe, 2008). Incorporating time allows to distinguish proximal consequences of emotional responding from distal consequences. For example, a manager who displays anger to get his followers to work harder may succeed in the short run because the followers would not dare to disobey. However, this practice may at the same time demotivate and alienate the followers from their work causing them to deliver lower quality work and/or to start looking for another job. In other words, using emotions to achieve short-term goals may not necessarily guarantee long-term goal achievement. Hence, it is important to consider time in models on EI as processing emotions is no isolated act but is often part of one's longer-term goals (Grandey & Melloy, 2017; Wong et al., 2017). In fact, research has suggested that high-EI responding can be characterized by adaptive actions that also take one's own and others' well-being and long-term consequences into account (Peňa-Sarrionandia et al., 2015).

Regarding the limitations, the focus on the four specific EI dimensions in our model may represent an incomplete capture of the EI construct (Brasseur et al., 2013; Mayer & Salovey, 1997; Wong & Law, 2002). This simplification, however, does not aim to discard any other EI sub-dimension that might play a role in between the initial appraisal of an emotion and its

regulation. We acknowledge that, on an even more detailed time scale, in-between appraisal and regulation several other micro processes of emotion regulation may be involved (e.g., emotion facilitation, emotion understanding). However, we believe that elaborating on those in the model would lack parsimony and would not further clarify the point we aim to make, namely that the interplay between (self- and other-focused) EI dimensions influences the effectiveness of EI responding. Nevertheless, we encourage broader inquiries of the interplay between EI dimensions than the ones we explicitly capture in our model because it may represent the EI process in even more detail.

Relation to Other Models of Emotional Behavior

Our episodic process-based approach may be new to the EI literature, but it clearly draws from insights of other emotion research such as conducted in the area of emotional labor (Grandey, 2000) and emotion regulation (Gross, 1998). Research in both domains has been largely inspired by models that consider stimulus, responses, and dispositional variables as important factors in the way people deal with emotions. Recently, these models have been updated to emphasize the dynamic nature and timely development of these behaviors (Grandey & Melloy, 2017; Gross, 2015) which corresponds well with the current conceptualization of the enactment of EI. However, our approach is different from the aforementioned ones in the sense that it incorporates a broader scope of emotional abilities. The inclusion of emotion appraisal, for example, allows to better understand what happens when an individual appraises a negative emotion but is not able to regulate it. Furthermore, we also include emotional abilities that are focused at the emotions of others. This addition may be a better representation of the social nature that emotional processing often has in daily life (Niven, 2016). A final difference is that our model does not solely describe work-related emotional processes (Grandey, 2000; Grandey & Melloy, 2017) or personal emotional processes (Gross, 1998, 2015), but may be applicable more generally. Nevertheless, the aforementioned research domains have proven to be fruitful in explaining emotional functioning, and our model aims to connect the EI literature to these domains and to advance the current understanding of EI likewise.

Conclusion

The episodic process model of EI introduced in this paper provides a new theoretical perspective that describes which steps are required for the manifestation of EI and what the consequences of such behavior are. The model is not meant to be tested in one comprehensive study, but may rather function as a challenging agenda to move research into EI forward. We believe that incorporating the role of time, context, and individual and contextual moderators that influence the enactment of EI is a promising avenue that may capture the lively nature of emotional processes better than classic and static EI models.

Chapter 6
Managing Own and Others' Emotions: A Weekly Diary Study on the Enactment of Emotional Intelligence

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Abstract

The present study tests a process model of emotional intelligence (EI) which distinguishes how individuals deal with their own and others' emotions during work – from week to week. Using dynamic EI theory, we hypothesize that the appraisal of self-emotions versus other-emotions elicits different emotion management strategies, respectively proactively seeking social job resources (job crafting) or self- or other-focused emotion regulation. These strategies, in turn, are expected to affect one's level of energy and active learning behavior. In addition, we predict that self-focused emotion regulation qualifies these self- and other-focused EI processes. Multilevel path analyses of 638 weekly diaries filled out by 226 trainees revealed that weekly appraisal of others' emotions was positively related to weekly active learning, through (a) other-focused emotion regulation and (b) crafting social job resources. Further, weekly appraisal of trainees' own emotions was positively related to their weekly level of energy, through (a) self-focused emotion regulation and (b) crafting social job resources. Consistent with the proposed model, the appraisal of own emotions only fostered job crafting when trainees regulated their emotions. These findings contribute to the literature by showing the enactment of EI during weekly working life.

Introduction

When working as a social worker, psychotherapist, or physician, one core element of the job is to help clients or patients to deal with negative emotions. In fact, the extent to which caring professionals are able to achieve this may partly determine the effectiveness of the treatment they provide (Elliott, Bohart, Watson, & Greenberg, 2011; Markowitz & Milrod, 2011; Neumann et al., 2009). For example, research showed that the level of empathy a physician displays protects patients from depressive symptoms and has a positive influence on patients' quality of life (Neumann et al., 2007). However, caring professionals are not always immune to the emotional impact that these tasks may have on their own well-being. There is a long-standing notion in the literature that daily exposure to patients' (mostly negative) emotions may elicit health care worker fatigue and stress, or even lead to job burnout or traumatization (Pearlman & Mac Ian, 1995; Shepherd & Hodgkinson, 1990). Moreover, caring professionals who cannot cope with this negative emotional impact are at risk to experience compassion fatigue, a state of reduced emotional care for others (Figley, 2002; Sabo, 2006). Hence, in order to work energetically and effectively in caring professions, employees need to adequately deal with the emotions of others *and* with their own emotions (Le, Impett, Lemay Jr, Muise, & Tskhay, 2018).

Emotional intelligence (EI) has been indicated to be one of the key factors in doing successful people work (Joseph & Newman, 2010; Lewis, Neville, & Ashkanasy, 2017). EI can broadly be described as the knowledge or ability to effectively process emotions of the self and others in order to regulate social and emotional behavior (Petrides, 2011; Salovey & Mayer, 1990; Zeidner, Roberts, & Matthews, 2008). The emotions that a caring professional perceives or experiences during work may activate the use of EI, which, in turn, may benefit patient care and employee well-being (e.g., energy level). Prior research has shown that EI is positively associated with performance and employee well-being in caring professions. To illustrate, health-care professionals high in EI have better relationships with their patients (Weng, 2008; Weng et al., 2011), and achieve higher clinical performance levels (Codier, Kooker, & Shoultz, 2008). They report lower levels of job stress (Karimi, Leggat, Donohue, Farrell, & Couper, 2013), suffer less from compassion fatigue (Zeidner, Hadar, Matthews, & Roberts, 2013), and are more engaged in their work (Zhu, Liu, Guo, Zhao, & Lou, 2015). Moreover, the positive effects of EI are already apparent in medical school. A recent review of the literature has concluded that EI buffers the experience of stress, promotes effective communication, and improves nursing performance among nurses in training (Lewis et al., 2017). We propose that this involves a dual process: (a) dealing with the emotions of the self (i.e., self-emotions), and (b) dealing with the emotions of others (i.e., other-emotions). However, research examining this phenomenon has primarily adopted cross-sectional research designs or longitudinal designs with long time lags using global EI scores. Such research designs cannot reveal the "dual processes" of dealing with own and others' emotions that caring professionals need to engage in on a weekly basis. Moreover, such research designs cannot show how these self- and other-focused EI processes might

interact with each other and how they may relate to different types of employee behaviors and outcomes.

The present study aims to disclose how individuals use EI to deal with own and others' emotions at work by means of a weekly diary design. Such a design allows focusing on individuals' enactment of EI during a regular workweek and to relate this to the extent to which they engage in active learning and to their level of energy. Instead of examining global EI, the focus of this study thus is on the use of various specific EI facets that may run parallel or that may complement each other when interacting with others. The present study contributes to the existing literature in at least three ways. First, by conducting a weekly diary study, we aim to shed light on the actual usage of EI during individuals' weekly working life. This will help to understand what the enactment of EI looks like and what direct consequences it has on employees' workweeks. Second, disentangling how employees deal with their own versus others' emotions provides insight into two important emotion-related processes that individuals perform during social contact (i.e., the enactments of self-focused EI and other-focused EI). This differentiation may help to unravel the behavioral mechanisms and consequences that are associated with the exposure to own or others' emotions at work. Third, by examining how self- and other-focused EI processes interact it may be possible to disentangle under which conditions caring professionals are likely to function best, or conversely, under which conditions they are vulnerable to the potential negative emotional impact of working with others' emotions.

The current sample of social workers in training enables investigating these research questions among individuals who will still respond in an authentic and naturalistic manner to the emotions they are exposed to during work. Specifically, due to their limited work experience, the trainees are not yet used to highly adaptive coping mechanisms (Thomas & Otis, 2010), they do not suffer from reduced reactivity to others' emotions (Decety, Yang, & Cheng, 2010), and they are not self-selected out of their profession because of lacking the required emotional skills for the job (Wilk, Desmarais, & Sackett, 1995). Hence, the consequences of working with emotions may be more pronounced among trainees than among experienced caring professionals, which may facilitate conceptual clarity of the emotion-related processes involved.

Theoretical Background

Emotional Intelligence

The construct of EI has been introduced a few decades ago (e.g., Goleman, 1995; Payne, 1985; Salovey & Mayer, 1990). Ever since, researchers have used EI as a relevant factor to distinguish individuals in terms of their emotional knowledge or skills. This research tradition has developed against the background of an on-going debate on the conceptualization and measurement of EI (Zeidner et al., 2008). Specifically, the field broadly uses two different conceptualizations of EI, namely ability EI and trait EI (Siegling,

Saklofske, & Petrides, 2015). Ability EI is often defined as a set of interrelated abilities that can best be measured using performance-based tests, the way in which cognitive intelligence is also measured. The Four-Branch Model of ability EI can be considered the most influential model in this field. This model describes EI as (1) the ability to perceive emotion, (2) the ability to use emotion to facilitate thinking, (3) the ability to understand emotion, and (4) the ability to regulate emotion (Mayer & Salovey, 1997). Trait EI, on the other hand, is defined as a set of emotion-related traits or tendencies that can best be measured using self-reported questionnaires. This conceptualization and measurement is more in line with personality constructs. The theoretical and methodological differences between ability EI and trait EI can be illustrated by the relatively low correlations between measures capturing both types of EI, which typically range between .20 and .30 (Brannick et al., 2009; Petrides, 2011).

The predominant focus of the EI literature has been on individual differences and the consequences of such differences in various life domains (Peña-Sarrionandia, Mikolajczak, & Gross, 2015). Several meta-analyses have shown that EI has weak to moderate positive associations with outcomes such as job performance (Joseph & Newman, 2010; O'Boyle, Humphrey, Pollack, Hawver, & Story, 2011), health (Martins, Ramalho, & Morin, 2010), and social effectiveness (van der Linden et al., 2017). However, recently, this focus has begun to shift towards more process-based approaches that integrate knowledge stemming from other domains of the affective sciences (e.g., Barrett & Salovey, 2002; Joseph & Newman, 2010; Pekaar, van der Linden, Bakker, & Born, 2017b; Peña-Sarrionandia et al., 2015). We consider this a positive development because it may help to understand *how* EI affects daily life and under which circumstances individuals profit most from it. Therefore, an important aim of the present study is to examine how individuals respond to self-emotions and other-emotions during their work on a weekly basis.

Current knowledge on EI processes has yielded at least two relevant insights that are important for the present study. First of all, the enactment of EI starts with the appraisal of emotions before these emotions can be processed more thoroughly. Hence, the appraisal of emotions seems a prerequisite for more complex emotion-related processes such as the regulation of emotions. This highest and most complex level of emotion processing, emotion regulation, is the ultimate step through which external criteria such as job performance are affected (Gross & Thompson, 2007; Joseph & Newman, 2010; Peña-Sarrionandia et al., 2015). A second relevant insight is that EI facets can be distinguished in terms of their focus on emotions of the self or emotions of others (i.e., self-focused EI and other-focused EI; Pekaar, Bakker, van der Linden, & Born, 2018; Salovey & Mayer, 1990). Dealing with these two sources of emotions is conceptually different as self-emotions are internal experiences that directly influence one's mood, behavior, and/or cognitions (Frijda, 1986), whereas other-emotions belong to others, so dealing with these emotions is part of a social process that may also influence the other person (Niven, 2017).

Drawing from these insights, the present study aims to test how trainees use EI to deal with their own and others' emotions during a regular workweek, and how this impacts their active learning behavior and level of energy. We focus on active learning behavior because

this is a valuable outcome for individuals in a learning environment, such as the trainees in the present study (Bakker, Demerouti, & ten Brummelhuis, 2012). One of the main goals of working in a learning environment (i.e., a traineeship) is that individuals develop themselves professionally. Active learning behavior, defined as an active and open attitude in which new skills and knowledge can be learned and applied (Bakker et al., 2012), contributes to employee development (Simmering, Colquitt, Noe, & Porter, 2003), which makes it an important outcome for trainees. As a proxy of trainees' well-being at work we examine their level of energy. Coping with new and difficult affective situations at work costs energy (Zohar, Tzischinski, & Epstein, 2003). These energetic resources need to be replenished, for example by taking rest or seeking social support, in order to remain able to reach one's work goals (Frese & Zapf, 1994). The fleeting nature of energy and its potential to be replenished with adaptive emotion management strategies makes it a relevant outcome in the context of trainees' weekly work experience.

In the next sections of the paper, we describe self- and other-focused EI as core concepts of our model and develop our hypotheses. Specifically, we will first elaborate on the self- and other-focused EI processes and then describe how the regulation of own emotions may qualify these processes. Figure 1 provides our conceptual model. In short, the left-hand side of this figure shows how the EI processes start with the appraisal of one's own and/or others' emotions. Consequently, these emotion appraisals lead to different emotion management strategies (self-focused emotion regulation, crafting social job resources, and other-focused emotion regulation) that are portrayed in the middle of the figure. The emotion management strategies, in turn, lead to the outcomes of active learning and energy that are depicted on the right-hand side of Figure 1. The moderating role of self-focused emotion regulation on the proposed processes is represented with the diagonal arrows that are named H3a-c. In the following sections, we will elaborate on the main components as depicted in our conceptual model.

Other-Focused Emotional Intelligence and Active Learning Behavior

We start with the way individuals respond to the emotions of others. A first step that is needed to set this process in motion is that an individual becomes aware of the emotions of others (see other-focused emotion appraisal on the left-hand side of Figure 1). Once these emotions are appraised, a subsequent step will be to manage them. There are numerous ways in which individuals may manage the emotions of others. An individual may typically use different strategies to do so, such as humor, listening, and eye contact (for an overview, see Niven, Totterdell, & Holman, 2009). Generally, intelligent emotion regulation can be characterized by a flexible and tailor-made use of various emotion management strategies (Mayer, Roberts, & Barsade, 2008; Mayer & Salovey, 1995). This intelligent way of responding to others' emotions has been shown to contribute to the communication with others or the effectiveness of patient treatment (Dube, Belanger, & Trudeau, 1996; Hueston et al., 2004). Consequently, when trainees get more experience in managing the emotions of patients they will most likely learn to communicate better with patients and to develop their

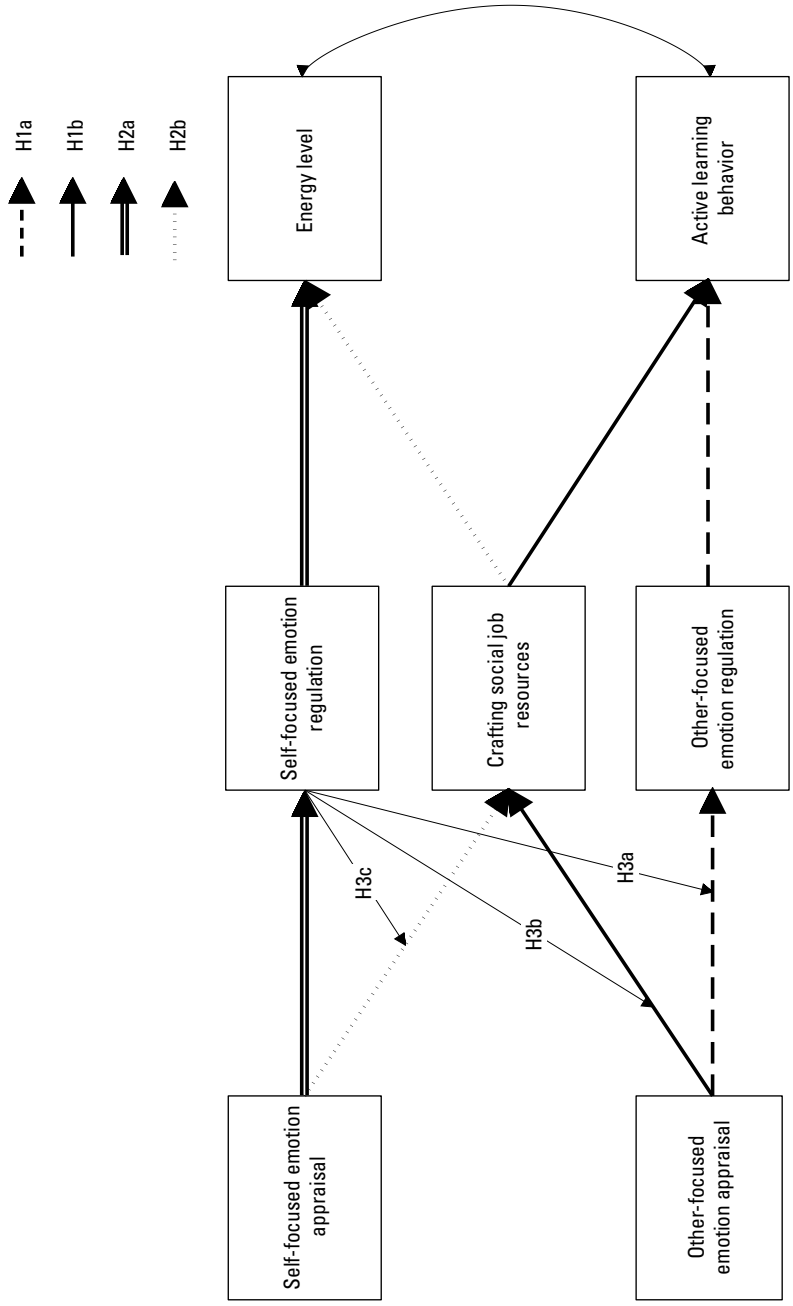

FIGURE 1: Proposed process model of EI. The horizontal and diagonal arrows in bold represent the hypothesized self- and other-focused EI processes (Hypothesis 1a-2b). The vertical arrows including Hypothesis 3a-c represent the hypothesized moderating role of self-focused emotion regulation on the self- and other-focused EI processes. All hypothesized paths are positive.

treatment skills. Such learning and development processes are all part of active learning (Bakker et al., 2012).

We expect that the appraisal of others' emotions leads to the management of these emotions, which, in turn, contributes to active learning. This process is depicted in the lower part of Figure 1. In the context of a traineeship in which one is expected to behave professionally and to respond to the emotions of patients, trainees have basically two options to manage these emotions. A first possibility is that trainees directly regulate the emotions of the patients themselves (i.e., other-focused emotion regulation). Figure 1 shows this process with dashed arrows. However, as this task might be quite new and challenging for a trainee, a second possibility is to obtain assistance from colleagues or a supervisor. This alternative process is depicted with bold arrows in Figure 1. This assistance could, for example, take the form of social support, supervisory coaching, or feedback (Tims, Bakker, & Derks, 2012). Proactively increasing such social job resources in order to execute a work task is part of job crafting. Job crafting has been defined as employees' own initiatives to redesign parts of their job to create a better fit with their abilities and preferences (Tims et al., 2012; Wrzesniewski & Dutton, 2001). Hence, crafting social job resources to deal with others' emotions may be a good alternative strategy for trainees as it may compensate for the limited experience or knowledge they have.

Hypothesis 1a: At the week-level, other-focused emotion appraisal is positively related to active learning behavior through other-focused emotion regulation.

Hypothesis 1b: At the week-level, other-focused emotion appraisal is positively related to active learning behavior through crafting social job resources.

Self-Focused Emotional Intelligence and Energy

We also examine how individuals respond to their own emotions at work. Stimulated by a high prevalence of job stress and burnout among caring professionals (e.g., Khamiza, Peltzer, & Oldenburg, 2013; Paris & Hoge, 2010), scholars and practitioners have only recently begun to place more emphasis on this process (Satterfield & Hughes, 2007; Shapiro, Shapiro, & Schwartz, 2000). The idea is that self-focused emotional skills, such as self-focused EI, are important for caring professionals as they may contribute to employee well-being by diminishing job stress or replenishing energy (Satterfield & Hughes, 2007). Following this, some scholars argue that self-focused emotional skills are equally important for the health care profession as other-focused emotional skills and should therefore be included in medical education and clinical practice (Novack et al., 1997). A recent meta-analysis confirmed that people who care for others but neglect to care for themselves suffer from lower levels of well-being (Le et al., 2018). Against this background, the current study examines how the self-focused EI process unfolds during a regular workweek – parallel to the aforementioned other-focused EI process.

The proposed self-focused EI process starts when individuals appraise their own emotions (see self-focused emotion appraisal on the left-hand side of Figure 1). As caring professionals are confronted with patient suffering or distress on a daily basis, their emotions may be negatively influenced by their work (i.e., vicarious traumatization; Pearlman & Mac Ian, 1995), which, in turn, may negatively impact their well-being. Therefore, after appraising their own emotions, a consequent step is to manage these emotions. The literature has suggested several strategies by which caring professionals can effectively manage their own emotions ranging from mindfulness (Epstein, 1999) to improving their work-home balance (Novack et al., 1997). Hence, a first possibility is that the trainees directly regulate their own emotions (i.e., self-focused emotion regulation). The upper part of Figure 1 shows this process with doubled arrows. An alternative effective way to cope with the emotional impact of caring work, however, is to mobilize one's social job resources (de Boer et al., 2011; Novack et al., 1997). This process is depicted with dotted arrows in the upper part of Figure 1. Especially for trainees who work in a new environment and occupation, it could be valuable to receive social support, advice, or feedback from experienced colleagues or supervisors. Hence, crafting social job resources may be a useful and effective strategy to cope with the emotional impact of caring work. These social job resources are expected to positively affect trainees' levels of energy.

Hypothesis 2a: At the week-level, self-focused emotion appraisal is positively related to energy level through self-focused emotion regulation.

Hypothesis 2b: At the week-level, self-focused emotion appraisal is positively related to energy level through crafting social job resources.

Moderating Role of Self-Focused Emotion Regulation

In the previous paragraphs, we have described the emotion-related processes that deal with one's own and others' emotions as two parallel processes: Managing the emotions of others contributes to active learning, whereas managing the emotions of the self protects or replenishes one's energetic resources. This first process is illustrated in the lower part of Figure 1, whereas the latter process is illustrated in the upper part of Figure 1. Yet, it may be clear that this is a simplification of what really happens when the emotions of others emotionally impact an individual (Pekaar et al., 2017b). In real life, the processing of one's own and others' emotions may influence each other reciprocally. Following this, we propose that there may be conditions under which individuals are better equipped to deal with self-emotions and other-emotions. One pivotal factor that may benefit the proposed self- and other-focused EI processes is the extent to which individuals have regulated their own emotions. Previous research showed that experienced therapists, as compared to non-therapists, are more skilled in the regulation of their own emotions (Hassenstab, Dziobek, Rogers, Wolf, & Convit, 2007; Pletzer, Sanchez, & Scheibe, 2015). This competence helps them to effectively manage the emotions of patients (Paivio, 2013), and also to safe-guard

their own well-being (Berking & Wupperman, 2012). We expect that these effects generalize to the weekly work experience of trainees in the sense that they may benefit from regulating their own emotions before crafting their social job resources or managing the emotions of others.

There are several reasons to expect that the regulation of individuals' own emotions would moderate the relation between appraising the emotions of others and the use of effective emotion management strategies at work (see the diagonal arrows named H3a and H3b in Figure 1). First, in weeks when individuals more strongly regulate their own emotions they may also more often engage in managing others' emotions because they will not be distracted by their own emotions. Being emotional may interfere with other activities because it can lead to ruminative thoughts or heightened levels of arousal that distract one's attention from the task at hand (Beal, Weiss, Baros, & MacDermid, 2005). Second, individuals who already have regulated their own emotions can use all their energetic and processing resources to focus on others, which is a better starting point than one in which these resources need to be allocated over others *and* the self (Pekaar, van der Linden, Bakker, & Born, 2017a). Subsequently, we pose the following hypotheses:

Hypothesis 3a: The weekly positive relationship between other-focused emotion appraisal and other-focused emotion regulation is stronger in weeks when trainees regulate their emotions more.

Hypothesis 3b: The weekly positive relationship between other-focused emotion appraisal and crafting social job resources is stronger in weeks when trainees regulate their emotions more.

We expect a similar pattern with regard to crafting social job resources in order to cope with own emotions. Namely, when individuals appraise their emotions at work, they will craft more social job resources in weeks when they do not let these emotions take over (see the diagonal arrow named H3c in Figure 1). This effect may occur for the following reasons. First, when individuals regulate their emotions more, they may be better able to mobilize social resources when appraising their own emotional state. This idea draws from the proactivity literature, which states that appraisal processes give *reason to* engage in proactive behaviors, whereas regulation processes actually *enable* individuals to engage in proactive behaviors (Parker, Bindl, & Strauss, 2010). Second, when individuals have their own emotions under control, they can spend all their energy on crafting social job resources (Beal et al., 2005). This may be a more optimal situation than one in which individuals appraise their emotions but lack the (emotional) control that is needed to ask others for help or advice.

Hypothesis 3c: The weekly positive relationship between self-focused emotion appraisal and crafting social job resources is stronger in weeks when trainees regulate their emotions more.

Method

Participants and Procedure

Participants consisted of the entire cohort of third-year students that were enrolled in the Social Work track of a Dutch school for higher professional education in 2016-2017. Students in this track are in training to become social workers in domains like intellectual-disability nursing, addiction care, or child abuse. In the third year of the study program, students are required to work full-time as a trainee (a social worker in training) in a relevant organization. This traineeship is generally their first real work experience in the field for a longer period of time. As part of the traineeship, the students took part in the current study to help them reflect on their (learning) experience during the traineeship. All trainees were asked to fill out a general questionnaire at the start of their traineeship, and three weekly diary surveys during their traineeship in which they reflected on their functioning in the respective weeks. In these same weeks, the practical supervisors of the trainees (mostly senior employees working in the health care organizations) were asked to fill out rating forms on the active learning behavior (for a definition see below) of the trainees.

Participation was compulsory but anonymous. At the start of the different data collection periods, the trainees received links to the online questionnaires. As the practical supervisors were not formally required to participate, time and effort to evaluate the trainees were minimized by providing them with paper-and-pencil rating forms. Later, the researchers digitalized and merged the paper-pencil data with the self-reported data of the trainees.

The entire cohort included 281 students. However, several students could not participate in the study because they were doing their traineeship abroad. In total, 242 trainees answered the general questionnaire and completed 654 diary surveys. Because we were interested in within-person relationships, at least two diary surveys per trainee were needed to examine within-person variation (Ilies et al., 2007). Therefore, we included only those trainees who provided a minimum of two diary surveys. This resulted in a final dataset of 638 diary surveys filled out by 226 trainees, which corresponds to a response rate of 80.4% with 5.9% missing diary surveys. The majority of the diary surveys (n = 530) could be matched with a supervisor rating form. The 108 diary surveys that lacked such a rating form were retained in the dataset because they provided information on the self-reported variables of the trainees.

Participants' average age was 21.46 (SD = 2.05) years, and 11.5% was male. The trainees were enrolled in three different minors, namely "cultural and social development" (n = 9), "social work and social services" (n = 83), or "social educational care" (n = 134). The majority of the trainees had none (46.9%) or limited (i.e., less than six months, 26.1%) work experience in the social work field when they started their traineeship. However, as one of the goals of the traineeship is to experience what it is like to work full-time as a caring professional, the work activities that are expected from trainees are comparable to those

that employed caring professionals perform. The type of organizations in which the trainees did their traineeship was diverse and ranged from psychiatric hospitals to schools for blind and deaf children. Despite these differences, the overall aim of all organizations was to improve the life of vulnerable patient groups, and to provide them opportunities to participate independently in society.

Measures

General Questionnaire

The general questionnaire included demographics and an informed consent. This informed consent stated that participation was anonymous and that the data would be treated confidentially.

Weekly Diary Survey

All measures included in the weekly surveys (i.e., the diary survey and the supervisor rating form) were adapted to measure the constructs week-specifically (Ohly, Sonnentag, Niessen, & Zapf, 2010). That is, the time frame was adjusted so that the items referred to the specific weeks, and the answer scales were broadened because fluctuations in weekly behaviors or feelings may be more subtle than general tendencies (Fisher & To, 2012; Ohly et al., 2010). Accordingly, we presented all items in the weekly surveys on seven-point Likert scales (1 = *totally disagree*, 7 = *totally agree*).

Emotional intelligence

The weekly enactment of EI was measured using the Rotterdam Emotional Intelligence Scale (REIS; Pekaar et al., 2018). The REIS is a 28-item self-reported EI measure and can, according to Siegling et al. (2015), therefore, be classified under the trait EI tradition. This measure was chosen because it consists of four distinct EI facets that differentiate between appraising and regulating emotions, and between processing emotions of the self versus others. The validity and reliability of the REIS has been demonstrated in eight different studies (Pekaar et al., 2018). Example items are "Last week during my traineeship, I was aware of my own emotions" (self-focused emotion appraisal), "Last week during my traineeship, I knew which feelings others experienced" (other-focused emotion appraisal), "Last week during my traineeship, I was in control of my own emotions" (self-focused emotion regulation), and "Last week during my traineeship, I was able to calm others down" (other-focused emotion regulation). Cronbach's alphas averaged over three weeks were .87 (self-focused emotion appraisal), .87 (other-focused emotion appraisal), .71 (self-focused emotion regulation), and .89 (other-focused emotion regulation).

Crafting social job resources

Crafting social job resources was measured with the 5-item increasing social job resources dimension of the Job Crafting Scale developed by Tims and colleagues (2012). These authors

conceptualize the crafting of social job resources as individuals' proactive efforts to seek social support, supervisory coaching, and feedback at work. An example item is "Last week, I asked my colleagues for advice during my traineeship". Cronbach's alpha averaged over three weeks was .74.

Energy level

Weekly level of energy refers to the energy, strength, and focus that employees can invest in their work during a regular week. We measured trainees' weekly energy level with the 5-item Resource Depletion Scale of Johnson, Lanaj, and Barnes (2014). An example item is "Last week at my traineeship, I lacked the vigor to continue with my tasks" (reversed). Cronbach's alpha averaged over three weeks was .89.

Weekly Supervisor-Ratings

Active learning behavior

We measured trainees' weekly active learning behavior with the 7-item scale developed by Bakker and colleagues (2012). These authors describe active learning behavior as employees' active self-directed and self-initiated behavior to improve their skills and knowledge. We used supervisor-ratings of active learning because these may be more objective and reliable than self-reports. Example items are "Last week, my trainee tried to develop him/herself all the time", and "Last week, my trainee tried to learn new things through work". Cronbach's alpha averaged over three weeks was .87.

Analytic Strategy

The current data are hierarchically structured with weeks on the first level (N = 638 weeks) nested within individuals on the second level (N = 226 trainees). To account for this hierarchical structure, the hypotheses were tested using multilevel path analyses in Mplus version 7.4 (Muthén & Muthén, 1998-2015). The (within-person) predictor variables were person-mean centered. In order to account for the between-person variability in the weekly outcome measures (e.g., variance due to the supervisors who provided the active learning ratings), we decomposed their variances into a latent within-person and between-person component by modelling them on the within-person and between-person levels of our models. This approach is a recommended way to separate within-person variance from between-person variance in Mplus (Hox, 2010; Muthén & Muthén, 1998-2015). Prior to testing the hypotheses, several relevant multilevel confirmatory factor analyses were conducted to examine the measurement model and to empirically distinguish the variables in our models. The parameters of the hypothesized path models were estimated using maximum likelihood estimation with robust standard errors (MLR estimator), which is robust to non-normality of observed variables. Missing data were handled using full information maximum likelihood (FIML) estimation, and model fit was assessed with the RMSEA, CFI, and TLI indices using the conventional cut-off scores of Hu and Bentler (1999).

Hypotheses 1a–2b were tested in a path model including only main effects. In this model, we also tested the indirect (mediation) effects from self- and other-focused emotion appraisal on the outcomes through (a) crafting social job resources, (b) other-focused emotion regulation, and (c) self-focused emotion regulation. We followed the Monte Carlo method for assessing mediation and calculated the distribution of each indirect effect with a 95% confidence interval (CI) using 20,000 repetitions. There is support for mediation when the distribution of possible estimates for the indirect effect lies above or below zero (see Bauer, Preacher, & Gil, 2006; Preacher & Selig, 2012). Subsequently, the interaction terms (other-focused emotion appraisal × self-focused emotion regulation and self-focused emotion appraisal × self-focused emotion regulation) were added to the main effects model to test Hypotheses 3a–c. The predictor variables involved in these interactions were first person-mean centered before we multiplied them to create the interaction terms (Aiken & West, 1991). Simple slope analyses for multilevel models (Preacher, Curhan, & Bauer, 2006) were used to explore the interactions further.

Table 1 Descriptive statistics, reliabilities, and within-person and between-person bivariate correlations among variables

	M	*SD*	ICC	1	2	3	4	5	6	7
Self-focused emotion appraisal	5.41	0.66	.37	(.87)	.52***	.55***	.34***	.19***	.34***	.24***
Other-focused emotion appraisal	5.38	0.56	.44	.58***	(.87)	.50***	.59***	.23***	.31***	.27***
Self-focused emotion regulation	5.20	0.61	.32	.55***	.55***	(.71)	.37***	.12**	.29***	.23***
Other-focused emotion regulation	5.00	0.68	.45	.46***	.72***	.45***	(.89)	.20***	.10**	.22***
Crafting social job resources	5.13	0.80	.39	.39***	.43***	.36***	.40***	(.74)	.21***	.21***
Energy level	5.06	1.03	.32	.39***	.41***	.33***	.31***	.33***	(.89)	.23***
Active learning behavior	5.52	0.64	.35	.40***	.32***	.29***	.28***	.39***	.26***	(.87)

Notes. Cronbach's α reliabilities averaged across the three weeks are in parentheses on the diagonal. Correlations at the week level are displayed above the diagonal (N = 638), whereas correlations at the person level averaged across the three weeks are displayed below the diagonal (N = 226). ICC = intraclass coefficient.
**p < .01. ***p < .001.

Results

Descriptive Statistics

Table 1 shows the means, standard deviations, reliabilities, intraclass coefficients (ICC), and correlations among the variables at the within-person and between-person levels of analysis. The ICC reflects the percentage of variance in each weekly measured variable that is explained by between-person differences. The low to moderate ICC values (ranging from .32 to .45) indicate that there is relatively high within-person variability, which justifies the multilevel approach. Moreover, these ICC values are comparable to the ICC values found in other diary studies examining the use of emotion management strategies in daily life (e.g., Brans, Koval, Verduyn, Lim, & Kuppens, 2013; English, Lee, John, & Gross, 2017).

Multilevel Confirmatory Factor Analyses

As a first step, the measurement model was examined to check the construct validity and independence of the included variables. This model contained seven factors: self-focused emotion appraisal; other-focused emotion appraisal; self-focused emotion regulation; other-focused emotion regulation; crafting social job resources; energy; and active learning behavior. The multilevel measurement model in which all items of all variables loaded on their respective latent factors showed a good fit to the data (χ^2 (924) = 1931.01, $p < .001$, RMSEA = .04, CFI = .91, TLI = .90).

Second, two additional multilevel confirmatory factor analyses were conducted to examine whether the mediator social job crafting in our model could be empirically distinguished from the outcome active learning behavior. Such a test is important given the conceptual overlap between some items of social job crafting (e.g., "asking for advice") and active learning behavior (e.g., "trying to learn new things"). Therefore, a model in which the items of each construct loaded on their own respective latent factor (χ^2 (53) = 290.47, $p < .001$, RMSEA = .08, CFI = .88, TLI = .85) was compared with a model in which all items loaded on one overall latent factor (χ^2 (54) = 686.15, $p < .001$, RMSEA = .14, CFI = .68, TLI = .61). This comparison showed that, although the CFI and TLI values were relatively low, the two-factor model had a significantly better fit to the data than the one-factor model (Sattora-Bentler Scaled $\Delta\chi^2 = 146.14$, $\Delta df = 1$, $p < .001$). These results show that social job crafting can be empirically distinguished from active learning behavior.

Hypotheses Testing

Hypotheses 1a-2b were tested in a main effects model. The overall model fit, however, was relatively poor (χ^2 (13) = 89.81, $p < .001$, RMSEA = .10, CFI = .84, TLI = .75). Therefore, we conducted additional exploratory analyses to examine whether adding a path to the hypothesized model would improve model fit. We used theory to guide these explorations

and added a path from other-focused emotion appraisal to self-focused emotion regulation because it has been shown that appraising the (negative) emotions of others in the healthcare industry demands self-regulatory resources (Figley & Kleber, 1995; Pletzer et al., 2015; Zeidner et al., 2013). Consistent with this notion, the added path was positive and significant ($\gamma = .36$, $p < .001$) and its inclusion indeed improved model fit (Sattora-Bentler Scaled $\Delta\chi^2 = 32.61$, $\Delta df = 1$, $p < .001$). Overall, our re-specified model showed a good fit to the data (χ^2 (12) = 42.85, $p < .001$, RMSEA = .06, CFI = .94, TLI = .89). Note that this adjustment did not change the initial parameter estimates other than two decimals behind the comma – the parameter estimates are reported in Tables 2 and 3.

Results showed that in weeks when trainees more often appraised others' emotions, they also more often regulated others' emotions ($\gamma = .70$, $p < .001$), and that weekly regulation of others' emotions was positively related to active learning ($\gamma = .14$, $p = .030$). Moreover, the Monte Carlo method showed that the distribution interval of the indirect effect of other-focused emotion appraisal on active learning through other-focused emotion regulation was above zero at a 95% CI (lower level (LL) = .01, upper level (UL) = .19). This pattern of results supports hypothesis 1a.

Confirming hypothesis 1b, results showed that in weeks when trainees more often appraised others' emotions, they crafted more social job resources ($\gamma = .27$, $p = .001$). Further, when trainees crafted more social job resources, they displayed more active learning behavior ($\gamma = .11$, $p = .007$). Furthermore, there was an indirect effect through social job crafting on the relationship between other-focused emotion appraisal and active learning (Monte Carlo 95% CI: LL = .01, UL = .06).

Supporting hypothesis 2a, results showed that in weeks when trainees more often appraised their own emotions, they also more often regulated their emotions ($\gamma = .40$, $p < .001$), and the weekly regulation of trainees' own emotions was positively associated with their weekly energy levels ($\gamma = .24$, $p = .014$). The indirect effect from the weekly appraisal of own emotions on energy through self-focused emotion regulation was significant (Monte Carlo 95% CI: LL = .02, UL = .19).

Regarding hypothesis 2b, we found that the relationship between the weekly appraisal of trainees' own emotions and social job crafting was positive, but not significant ($\gamma = .11$, $p = .096$). Yet, the expected positive relationship between weekly social job crafting and energy was found ($\gamma = .22$, $p = .001$). Following these mixed results, crafting social job resources did not mediate the positive relationship between trainees' weekly appraisal of their own emotions and their level of energy (Monte Carlo 95% CI: LL = -.004, UL = .06). Hence, hypothesis 2b was not supported.

Table 2 Unstandardized coefficients from multilevel path models predicting other-focused emotion regulation, crafting social job resources, and self-focused emotion regulation

	Other-focused emotion regulation				Crafting social job resources				Self-focused emotion regulation			
	Model 1		Model 2		Model 1		Model 2		Model 1		Model 2	
	γ	*SE*	γ	*SE*	γ	*SE*	γ	*SE*	γ	*SE*	γ	*SE*
Intercept	0.00[a]	0.00[a]	0.00[a]	0.00[a]	0.00[a]	0.00[a]	0.00[a]	0.00[a]	0.00[a]	0.00[a]	0.00[a]	0.00[a]
Week-specific variables												
OFEA	0.70***	0.05	0.65***	0.06	0.27**	0.09	0.30***	0.09	0.36***	0.07	0.36***	0.07
SFEA					0.11†	0.07	0.14*	0.07	0.40***	0.06	0.40***	0.06
SFER			0.09†	0.05			-0.04	0.08				
Week-specific interactions												
OFEA × SFER			0.02	0.03			-0.02	0.07				
SFEA × SFER							0.11*	0.06				
Variance level 1	0.16		0.16		0.38		0.38		0.18		0.18	
Variance level 2	0.00[a]		0.00[a]		0.00[a]		0.00[a]		0.00[a]		0.00[a]	
Δ Pseudo $R1^2$	0.58		0.01		0.40		0.01		0.12		0.00	
Δ Pseudo $R2^2$	0.00[a]		0.00[a]		0.00[a]		0.00[a]		0.00[a]		0.00[a]	

Notes. Estimates result from one overall analysis including the prediction of other-focused emotion regulation, crafting social job resources, and self-focused emotion regulation, as well as energy level and active learning behavior in one main effects model (Model 1) or one moderation effects model (i.e., including the interaction terms; Model 2). OFEA = other-focused emotion regulation; SFEA = self-focused emotion appraisal; SFER = self-focused emotion regulation.
Δ Pseudo $R1^2$ represents the incremental within-person variance explained and calculated on the basis of the formula 1 − ([Level 1 restricted error + Level 2 restricted error] / [Level 1 unrestricted error + Level 2 unrestricted error]). Δ Pseudo $R2^2$ represents the incremental between-person variance explained and calculated using the formula 1 − ([Level 1 restricted error/*n*] + Level 2 restricted error) / ([Level 1 unrestricted error/*n*] + Level 2 unrestricted error) from Snijders and Bosker (1999). *n* is the average number of weekly points in each Level 2 unit.
[a] The parameter estimates for the intercepts of other-focused emotion regulation, crafting social job resources, and self-focused emotion regulation were fixed to 0 because we person-mean centered these mediating variables in our model prior to the analyses. This implies that there is also no variance on their between-person levels of analysis.
†$p < .10$.*$p < .05$. **$p < .01$. ***$p < .001$.vw

Table 3 Unstandardized coefficients from multilevel path models predicting active learning behavior and energy level

	Active learning behavior				Energy level			
	Model 1		Model 2		Model 1		Model 2	
	γ	*SE*	γ	*SE*	γ	*SE*	γ	*SE*
Intercept	5.53***	0.04	5.53***	0.04	5.06***	0.07	5.06***	0.07
Week-specific variables								
OFEA	0.23†	0.13	0.23†	0.13				
SFEA					0.36***	0.08	0.36***	0.08
OFER	0.14*	0.06	0.14*	0.06				
SFER					0.24*	0.10	0.24*	0.10
Crafting social job resources	0.11**	0.04	0.11**	0.04	0.22**	0.07	0.22**	0.07
Variance level 1	0.40		0.40		1.08		1.08	
Variance level 2	0.23		0.23		0.63		0.63	
Δ Pseudo $R1^2$	0.06		.00		.08		.00	
Δ Pseudo $R2^2$	0.04		.00		.02		.00	

Notes. Estimates result from one overall analysis including the prediction of other-focused emotion regulation, crafting social job resources, and self-focused emotion regulation as well as active learning behavior and energy level in one main effects model (Model 1) or one moderation effects model (i.e., including the interaction terms; Model 2). OFEA = other-focused emotion appraisal; SFEA = self-focused emotion appraisal; OFER = other-focused emotion regulation; SFER = self-focused emotion regulation.

Δ Pseudo $R1^2$ represents the incremental within-person variance explained and calculated on the basis of the formula 1 − ([Level 1 restricted error + Level 2 restricted error] / [Level 1 unrestricted error + Level 2 unrestricted error]).

Δ Pseudo $R2^2$ represents the incremental between-person variance explained and calculated using the formula 1 − ([Level 1 restricted error/*n*] + Level 2 restricted error) / ([Level 1 unrestricted error/*n*] + Level 2 unrestricted error) from Snijders and Bosker (1999). *n* is the average number of weekly points in each Level 2 unit.

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

Alternative Models

To further examine the proposed relationships in hypothesis 1a–2b, we also tested several alternative models in which we changed the paths between the constructs. These alternative models each yielded a poor fit to the data. Specifically, we examined a model in which the appraisal of others' emotions leads simultaneously to active learning behavior, social job crafting, and the regulation of others' emotions (χ^2 (3) = 63.13, $p < .001$, RMSEA = .18, CFI = .77, TLI = .31), and a model in which the appraisal of others' emotions leads to active learning, which leads to social job crafting and the regulation of others' emotions (χ^2 (4) = 193.02, $p < .001$, RMSEA = .27, CFI = .04, TLI = -.68). In addition, we examined a model in which the appraisal of own emotions leads simultaneously to energy, social job crafting, and the regulation of own emotions (χ^2 (3) = 46.40, $p < .001$, RMSEA = .15, CFI = .82, TLI = .47), and a model in which the appraisal of own emotions leads to energy, which leads to

social job crafting and the regulation of own emotions (χ^2 (4) = 155.56, p < .001, RMSEA = .24, CFI = .30, TLI = -.22).

Moderation Hypotheses

The final set of hypotheses (hypotheses 3a-c) examine the moderating role of regulating own emotions on the proposed self- and other-focused EI processes. These moderation hypotheses were tested in a model in which the interaction terms were added to the main effects. The fit indices of this moderation effects model were comparable to the satisfactory fit indices of the main effects model (χ^2 (17) = 60.90, p < .001, RMSEA = .06, CFI = .92, although the TLI value was relatively low; TLI = .86). Tables 2 and 3 report the parameter estimates.

Hypothesis 3a predicted that the positive relation between the weekly appraisal of others' emotions and the regulation of others' emotions would be stronger in weeks when trainees regulated their own emotions more. A similar moderation pattern was predicted by hypothesis 3b, namely that the positive relation between the weekly appraisal of others' emotion and social job crafting behavior would be stronger in weeks when trainees regulated their own emotions more. In contrast to these hypotheses, the interaction between other-focused emotion appraisal × self-focused emotion regulation on the weekly regulation of others' emotions (γ = .02, p = .600) and crafting social job resources (γ = -.02, p = .819) was not significant. Therefore, hypothesis 3a and 3b could not be confirmed.

Supporting hypothesis 3c, results showed that the relation between trainees' weekly appraisal of their own emotions and social job crafting was qualified by the extent to which they regulated their emotions (γ = .11, p = .038). Figure 2 illustrates that when self-focused emotion regulation was high (1 *SD* above the mean), the relationship between self-focused emotion appraisal and crafting social job resources was positive and significant (b = .20, p = .008); whereas when self-focused emotion regulation was low (1 *SD* below the mean) the relationship between self-focused emotion appraisal and crafting social job resources was not significant (b = .07, p = .330). The path coefficients of our complete hypothesized model are reported in Figure 3.

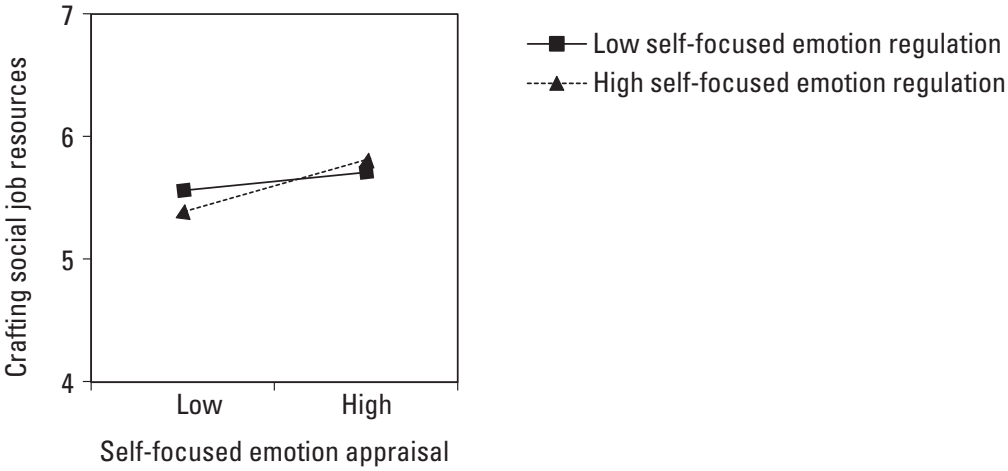

FIGURE 2: Moderating effect of weekly self-focused emotion regulation on the weekly relationship between self-focused emotion appraisal and crafting social job resources.

The Time of Measurement

The current study was designed to examine how trainees deal with emotions during a regular week of their traineeship and how this related to their energy and active learning behavior during that week. For this purpose, we sampled three random weeks of the traineeship period to measure the phenomena that we were interested in. These weekly variables were person-mean centered to examine weekly (within-person) relationships that may answer different questions than cross-sectional (between-person) relationships. However, from a more longitudinal perspective, it might be argued that data gathered at multiple time points could be affected by the time of measurement. In order to explore this possibility, we conducted an additional analysis in which we controlled for measurement time in our final model. Figure 3 reports the controlled estimates of the path coefficients between brackets. The majority of the path coefficients in the controlled model remained identical and a few coefficients differed minimally. Although, due to this change, four paths did no longer reach the rather arbitrary threshold of $p < .05$, in absolute sense the effect sizes were nearly identical (e.g., the weekly relationship between self-focused emotion appraisal and crafting social job resources $\gamma = .135$ ($p = .049$) became $\gamma = .133$ ($p = .054$)) and would not lead to radically different conclusions. These results suggest that the proposed emotion-related processes are generally consistent over time, but it also signals that there may be small changes in the enactment of some specific behaviors (e.g., crafting social resources).

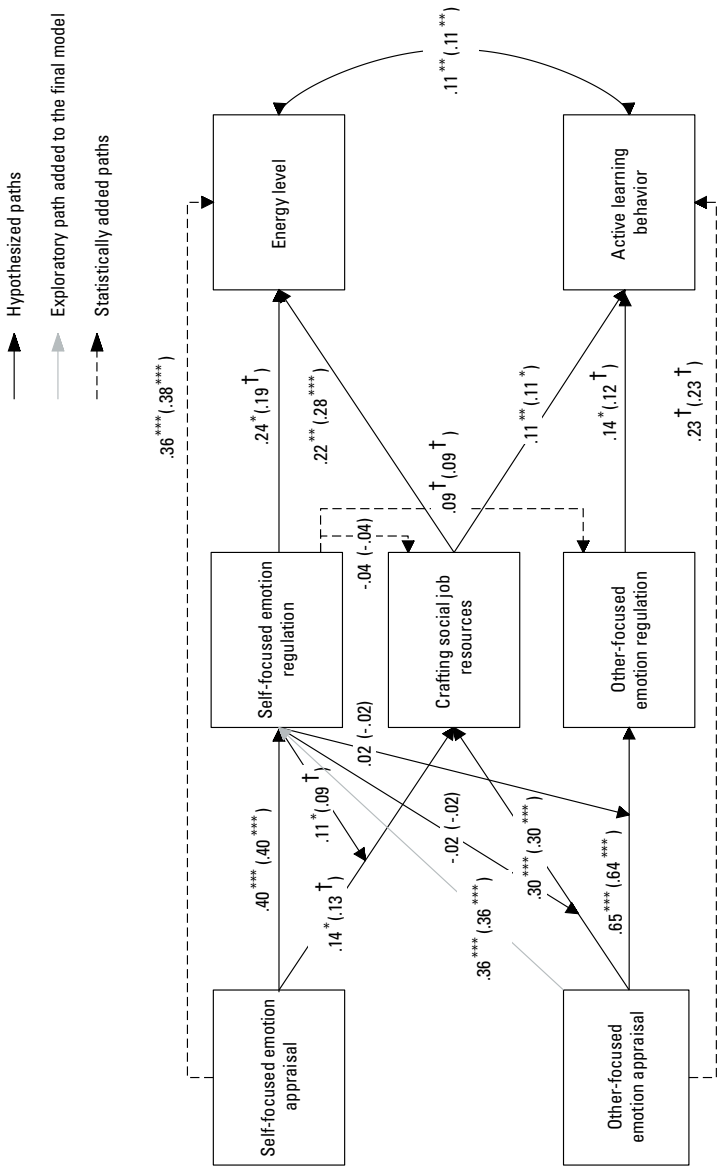

FIGURE 3: Complete path model tested at the week (within-person) level of analysis.
Notes. The path coefficients are unstandardized estimates of maximum likelihood estimation with robust standard errors. Solid black arrows represent the hypothesized relationships, the solid grey arrow represents the explorative relationship that was added to the final model, and the dashed black arrows represent relationships that were included to enable a statistical test of the model (i.e., main effects of the moderator, and direct effects from the independent variables to the dependent variables). The path coefficients between brackets are controlled for the factor time.
$^{\dagger}p < .10$.$^{*}p < .05$. $^{**}p < .01$. $^{***}p < .001$.

Discussion

In the current study, we used a within-person approach to examine the weekly enactment of self- and other-focused EI. Our results revealed that other-focused and self-focused EI processes could be distinguished. Regarding the first, we found that in weeks when trainees more often appraised the emotions of others, they also more often engaged in the regulation of others' emotions and searched for more help/advice from their colleagues, which benefited their active learning. Regarding the self-focused EI process, we found that in weeks when trainees more often appraised their own emotions, they also more often engaged in the regulation of these emotions and searched for more help/advice from their colleagues, which positively influenced their energy level. However, crafting social job resources was only fostered in weeks when trainees more often regulated their own emotions. Our results suggest that the weekly enactment of self- and other-focused EI has direct and differential consequences for (learning) performance and well-being.

Regulating one's own emotions did not significantly relate to the emotion management strategies trainees used to respond to others' emotions. Irrespective of their own emotional state, in weeks when trainees more often appraised the emotions of others, they always responded by attempting to regulate these emotions and by searching for social support or advice. A possible reason might be that during a traineeship in the social work field, trainees are primarily focused at responding to others' emotions because that is one of the main tasks of a caring professional (Neumann et al., 2009), and has been a central topic in their education (Satterfield & Hughes, 2007). In other words, the demand to respond to the emotions of others may be so dominant in this context, that it will always be performed, regardless of the emotional condition of the trainee. The situation is different, however, with regard to the trainees' own emotions. Namely, dealing with own emotions has received far less emphasis in clinical practice and education (Novack et al., 1997; Satterfield & Hughes, 2007), and may therefore come less naturally. Our results showed that only in weeks when trainees regulated their own emotions more, they searched for more social support and supervisory coaching in response to the emotions they experienced during work. This finding is consistent with the facilitating role of emotion regulation on proactive behaviors in general (Parker et al., 2010).

Theoretical Implications

The present study has several theoretical implications. First, the within-person design enabled to study trainees' actual usage (i.e., enactment) of the various EI facets during a workweek. This is a different approach than the traditional EI research that mainly examines stable individual differences in EI (see also Pekaar et al., 2017a). Yet, our findings indicated that approximately 50% to 70% of the variance in the week-specific EI measures could be attributed to within-person fluctuations. This means that trainees differed quite strongly in their enactment of EI across the different weeks. Focusing on individuals' enactment of EI rather than on individuals' stable level of EI may contribute to a new

perspective on EI. That is, the enactment of EI is more behavior-like, which means that it may be triggered, interrupted, or intervene with other activities. Hence, this new approach may yield several conceptual and theoretical advantages. Most importantly, taking a within-person approach to examine the enactment of EI allows to empirically investigate the underlying processes of EI, which has only been done on a piecemeal or theoretical basis (e.g., Barrett & Salovey, 2002; Peña-Sarrionandia et al., 2015). For example, one could answer such questions as what proximal factors activate the enactment of EI, what kind of behavior is associated with the enactment of EI, and what direct costs and benefits does the enactment of EI have. As such, the present results may function as a starting point in examining the manifestation of EI *within* individuals' daily life.

Second, an important asset of the current study is its distinction between dealing with one's own emotions and dealing with the emotions of others. Although both self- and other-focused emotional skills and knowledge have been organized under the umbrella concept of EI (Mayer & Salovey, 1997; Siegling et al., 2015), our study shows that appraising own emotions is associated with different behaviors than appraising others' emotions. Furthermore, the results show that the enactment of self- versus other-focused EI facets has specific consequences; they either affect one's energy level or active learning behavior. Hence, these findings strengthen the positive links between self-focused EI and the well-being domain, and between other-focused EI and the (social) performance domain that have been found in previous studies (Pekaar et al., 2017a, 2018). This pattern suggests that the enactment of self- versus other-focused EI may serve different goals. Specifically, self-focused EI could be a form of coping (Grandey & Melloy, 2017; Lazarus & Folkman, 1987), whereas other-focused EI could be part of the social process (in our study: a form of caring for patients). It is important to note, however, that our results also revealed an unexpected cross-link between the self- and other-focused EI processes, namely the positive relationship between appraising others' emotions and regulating own emotions. This suggests that self-focused emotion regulation fulfils a key role in responding to self-emotions *and* other-emotions.

Third, the current study contributes to the EI literature by explicitly testing whether the combined enactment of EI facets has different consequences than the enactment of a single EI facet alone. Although scholars have begun to emphasize that variation may exist in the specific EI facets that individuals possess and use, and that this variation may be meaningful (Elfenbein, 2016; Petrides et al., 2016), very few have actually tested these interactions (for exceptions see Joseph & Newman, 2010; Pekaar et al., 2017a). We consider this unfortunate because in daily life individuals are confronted with situations in which they have enough time and energy to employ all their emotional skills and knowledge, but also with situations in which they need to divide their emotional resources over multiple other activities (Beal et al., 2005). For example, our results showed that in weeks when trainees more often appraised their emotions, they only asked for social support or feedback on their emotional experience when they had also regulated their emotions. These findings illustrate that a simultaneous usage of different EI facets may alter one's behavioral response, which can ultimately result in a different outcome. We encourage scholars to

explore interactions between EI facets further because it may help to foresee under which conditions the enactment of EI will be most effective, or when it may be less optimal.

Limitations and Future Research

The present study has several limitations. The majority of our variables were simultaneously measured in one weekly survey, which does not allow to make causal inferences (Blalock, 1966; Holland, 1986). For example, the relationship between appraising and regulating others' emotions could reflect the logical process of first appraising the emotions of others and then regulating them, but also the other way around. From a theoretical perspective, however, emotion appraisal must precede its regulation, because without the appraisal of emotions there is not much to regulate in the first place (Joseph & Newman, 2010; Mayer & Salovey, 1997). This assumption is widely accepted and embedded in the field given that even the influential cascading model of EI (Joseph & Newman, 2010), which demonstrated a causal chain from emotion perception to emotion regulation, used (meta-analytic) data gathered at one time point. Nevertheless, our research design could be improved by incorporating time lags between the measures of all different steps in the proposed processes.

Related to this point is the notion that emotion processing is a fairly rapid process that may take place within a couple of seconds or minutes. Therefore, our weekly measures do not capture one specific emotion appraisal or regulation attempt, but rather provide a summary of a number of emotion appraisals and regulations that occurred during a week. This method approaches the EI process closer than cross-sectional studies do; although future research may need to use experience-sampling methods to capture the different steps in our proposed process in their actual timeframe (Dimotakis & Ilies, 2012).

Third, we collected self-reported measures of trainees' responses to emotions as we considered this a straightforward method for the subjective emotional experiences that we were interested in (Siegling et al., 2015). Yet, this method may have induced common-method variance (Podsakoff & Todor, 1985). On the other hand, there are several reasons to assume that this limitation did not compromise our conclusions. First, while a common-method bias may artificially inflate main effects, for example by a shared social desirability factor (Podsakoff, MacKenzie, Lee, & Podsakoff, 2003), there is no such reason to expect this process to bias interaction or mediation effects (van Yperen & Janssen, 2002), such as the one's found in the current study. Second, the conclusions regarding trainees' weekly enactment of EI and active learning stem from multi-source data (i.e., ratings of the trainees and practical supervisors), and therefore cannot be affected by a common-method bias. Nevertheless, future studies may also include other-reports or objective measures (e.g., peer-ratings of job crafting; Tims et al., 2012) to replicate the current findings.

Fourth, we did not measure the amount or intensity of emotional events that trainees encountered during the weeks they participated in the study, so we could not control for this variance in our models. Is it feasible that a more emotional week elicits more emotion appraisal and emotion regulation which, in turn, affects trainees' active learning and

energy. Hence, emotional events could have been the trigger that activated the EI processes. Another possibility is that emotional events moderate the relationships between the weekly use of EI and active learning or energy in the sense that these relationships will be stronger in weeks with many emotional events than in weeks with less emotional events. However, irrespective of the *reasons why* or the *circumstances under which* trainees used more or less EI during a week, we did find that the *actual enactment* of EI had direct consequences, which was one of the prior aims of the current study. Nevertheless, we encourage future researchers to expand on this knowledge by examining whether emotional events may function as antecedents or moderators of the enactment of EI.

A final limitation relates to the trainee sample to investigate occupational phenomena. This sample may diminish the generalizability of our findings to employed caring professionals. An advantage of the current sample was that it enabled us to investigate individuals' responses to self-emotions and other-emotions in a setting not determined by routines or habits. That is, trainees' behavioral and emotional response to emotions at work may be more genuine than those of experienced employees who may have learned to match their response with the work situation but not necessarily with the associated feelings (i.e., Bolton, 2001). Hence, our unique setting may have facilitated examining the enactment of EI in a more fundamental way, which may enhance the generalizability of our findings to all kinds of (unexpected) situations in individuals' daily life. Moreover, it has been acknowledged that students engaged in vocational training, such as the trainees in the current study, may constitute a valuable and informative sample to understand work experiences (Daniels, 2016).

Practical Implications

Our findings show that it is important for trainees' functioning to not only manage the emotions of others at work, but to also respond to the emotions they experience themselves (see also Le et al., 2018). When trainees manage their own emotions at work they stay more energetic, which ultimately helps them to become better active learners. Hence, our results echo prior calls to devote more time and attention to self-focused emotional skills and knowledge in clinical practice and medical education (Novack et al., 1997; Satterfield & Hughes, 2007). Trainees in the caring industry who are better prepared for the emotional impact that this work can have on their emotional state and know how they can cope with it, may be less likely to drop out (Andrew et al., 2008) or to experience stress or burn-out complaints during their working life (Satterfield & Hughes, 2007). For example, educational institutes could organize courses that teach trainees effective coping techniques or start supervision groups in which trainees reflect on their emotional self-care during their traineeship.

However, the present study suggests that the way trainees respond to their own emotions at work may not only be supported in a top-down manner, but that trainees can also initiate efforts to improve their emotional self-care (job crafting; Tims et al., 2012; Wrzesniewski & Dutton, 2001). Specifically, our results point at the relevance to craft and

mobilize social job resources to enhance or replenish energy levels and to facilitate active learning. Research has suggested that there are several situational conditions that may stimulate job crafting behaviors (Demerouti, 2014). These include, among others, autonomy (Petrou, Demerouti, Peeters, Schaufeli, & Hetland, 2012) and a sense of responsibility (Berg, Wrzesniewski, & Dutton, 2010). So, to stimulate trainees to proactively ask for help and advice when dealing with emotions at work, trainees could be empowered to design their own work tasks and challenges during the workweek. Doing so will create a more active learning environment that may foster personal initiative to craft social job resources (Petrou et al., 2012).

Conclusion

This study examined the enactment of self- and other-focused EI from week to week. We argued and showed that the appraisal of own versus others' emotions elicits different emotion management strategies, namely proactively crafting social job resources or regulating own or others' emotions. These strategies, in turn, either affect one's energy level or active learning process. We conclude that the weekly enactment of self- and other-focused EI has important implications for well-being and performance, respectively.

Chapter 7
Summary and General Discussion

The overarching purpose of the studies in this dissertation was to expand EI theory with a more interpersonal and process-based perspective in order to better understand how EI affects daily (organizational) life. Accordingly, the studies examined (1) whether EI shows its effects through the behavioral enactment of EI; (2) whether self- and other-focused EI can be meaningfully distinguished, and are associated with different psychological processes and outcomes; (3) how dealing with one's own emotions may interact with dealing with the emotions of others; and (4) how the EI process unfolds during emotional episodes.

Answering these questions contributes to the literature in several ways. First, the studies included in this dissertation examined individuals' actual display of EI in a given situation (i.e., the enactment of EI) rather than individuals' general potential for displaying EI. This method may do better justice to real-time emotional functioning, and aligns EI theory with the dynamic experience of emotions. Second, the current studies explicitly distinguished whether individuals are dealing with their own emotions or whether they are dealing with the emotions of others, and how these potentially different emotion processes interact. The distinction in self- and other-focused EI may refine the predictive validity of EI for different life domains, and may help to elucidate the behavioral and psychological processes that play a role in EI responding. Furthermore, examining when the processing of one's own emotions facilitates (or hinders) the processing of others' emotions may provide a clearer picture of people's actual response and performance during social interactions. Third, the final two studies of the current dissertation examined *when, how,* and *for whom* EI is used and what *proximal* and *distal consequences* EI may have. This knowledge is vital to understanding what the EI process looks like.

In this final chapter, I will first answer the research-guiding questions of this dissertation with a summary of the main findings, while positioning these findings in the broader literature. Subsequently, I will elaborate on the theoretical and practical implications of this dissertation. Next, I will discuss the limitations of the studies and provide directions for future research. This chapter will be closed with a conclusion.

Summary of Main Findings

Research question 1: Does EI have its effects through behavioral enactment, and are fluctuations in the enactment of EI meaningful predictors of well-being and performance outcomes?

Previous research on EI has been primarily concerned with stable individual differences in EI and whether these differences are reflected in valued outcomes such as job performance and health (Peña-Sarrionandia, Mikolajczak, & Gross, 2015). Accordingly, most studies have used cross-sectional research designs in which one-time EI questionnaires or performance-based EI tests are used to measure individuals' general potential for displaying EI. This method has been fruitful in showing that stable individual differences in EI are associated

with work- and health-related criteria (Joseph & Newman, 2010; Martins, Ramalho, & Morin, 2010; O'Boyle, Humphrey, Pollack, Hawver, & Story, 2011). It, however, does not allow for examining the enactment of EI within a particular situation or on a given day. Therefore, it remains unknown under which conditions individuals use or not use their EI. Moreover, this cross-sectional (survey) method cannot grasp the immediate consequences of using EI. In an attempt to clarify these issues, the current studies used a new and alternative method to the EI field in which individuals' actual enactment of EI at a given moment in time is measured by means of event sampling.

The event-sampling studies in **Chapter 2** among divorce lawyers and sales persons showed how the enactment of EI may fluctuate from event to event. Specifically, the variance explained at the event-level for the different EI dimensions was on average 40%. Furthermore, sales interactions in which sales persons were better aware of the emotions of their customers were directly associated with better objective and subjective sales success. However, fluctuations in the enactment of EI during consults with clients were not directly associated with the (subjective) performance of the divorce lawyers. Perhaps the divorce lawyers evaluated their performance more globally in light of their longer-term relationships with clients. In **Chapter 6**, using a weekly diary study, I showed that 55% to 68% of the variance in the enactments of EI dimensions could be explained at the week-level; indicating that the enactment of EI fluctuates from week to week. Moreover, in weeks that trainees enacted more of their EI, they received better active learning evaluations from their supervisors and they reported to be more energetic. In order to further facilitate research on the enactment of EI, in **Chapter 5** I developed a theoretical process model focusing on the episodic enactment of EI. In this chapter, I explained how important events or the emotions of other people may activate the enactment of EI, and what immediate consequences this EI enactment may have. Furthermore, I described how repeated enactments of EI during emotional episodes might contribute to more distal outcomes such as relationship quality and (mental) health.

In sum, as described, **Chapters 2** and 6 make an integrated effort to show that the enactment of EI fluctuates across events or weeks and that these fluctuations have a direct impact on how individuals feel and perform during these specific events or weeks. This finding suggests that the positive effects of EI on well-being and job performance are, at least partially, established through the behavioral enactment of EI. These results raise new questions as to how EI enactment can be triggered and how the enactment of EI evolves over time. The theoretical framework presented in **Chapter 5** may be useful in finding answers to these questions.

The studies in this dissertation introduced the enactment of EI in the EI literature. The enactment of EI is congruent with the concept of "trait activation", which has been used in the personality literature (Tett & Guterman, 2000). Trait activation theory proposes that the behavioral enactment of a personality trait requires trait-relevant situational cues. For example, conscientious behavior is generally expected in response to conscientiousness-inducing stimuli, such as an exam or an interview (i.e., strong situations; Mischel, 1977). Moreover, people high in conscientiousness are expected to show a faster or more intense

response to these stimuli's, and they will be more sensitive to weak situational cues (i.e., weak situations; Mischel, 1977). Hence, trait activation theory allows to explain within- and between-person variability in (personality) trait congruent behavior. Likewise, examining the enactment of EI provides opportunities to explain within- and between-person variability in EI responding. It is important to note that the existing EI literature has predominantly focused on the "who" question (i.e., using a between-person perspective), whereas the studies included in this dissertation have particularly focused on the "when" question (i.e., using a within-person perspective). Hence, a fruitful next step might be to examine person × situation interactions between general EI levels and the enactment of EI, because such an approach may mirror reality even closer. For example, this approach may reveal that individuals with high (vs. low) general levels of EI are more successful in the enactment of EI in daily life.

Research question 2: Can EI be meaningfully distinguished in self-focused EI and other-focused EI, and are these forms associated with different (a) psychological processes and (b) outcomes?

EI can be regarded as a higher-order construct that describes individuals' general effectiveness in dealing with emotions (Mayer & Salovey, 1997; Petrides, 2011; Zeidner, Roberts, & Matthews, 2008). Underneath this global EI level, however, distinct EI dimensions can be distinguished that differ in type of processing (ranging from emotion perception to emotion regulation), and in their social focus (processing own emotions or the emotions of another person; Joseph & Newman, 2010; Mayer & Salovey, 1997). Most existing research, however, has been conducted on the global EI level. Although global EI has been a useful predictor of one's social and work-related success (e.g., O'Boyle et al., 2011; Schutte et al., 2001), it is less well suited to examine the specific behavioral processes that lead to this success, as it cannot elucidate the specific emotional responses that individuals having diverse amounts of EI show. For instance, are high-EI individuals (socially) effective because they understand their own emotions? Or do they achieve (social) success because they know how to manage the emotions of others? While both mechanisms may be plausible, they are different in nature. Specifically, the first mechanism primarily influences the self (through the understanding of one's own emotions), whereas the latter mechanism primarily affects the other persons involved (through the management of others' emotions).

A large-scale meta-analysis has focused on how different phases in processing emotions (i.e., perceiving, understanding, and regulating emotions) may contribute to better performance at work (Joseph & Newman, 2010). This study found that the regulating aspect of EI seems to influence the EI-job performance link most, because it allows one to induce and sustain positive emotions that are beneficial at work. Similarly, it has been suggested that emotion regulation plays a key role in the positive association between EI and health-related outcomes because it helps one to cope in a healthy way with negative emotional responses to stressful events (Matthews, Zeidner, & Roberts, 2017). Despite these and other attempts to clarify how specific lower-order EI dimensions contribute to success in different

life domains, the potentially differential role of self- or other-focused EI dimensions remained underexplored in the EI literature.

To facilitate investigating self- and other-focused EI, in **Chapter 3** I developed one of the first EI instruments that explicitly distinguishes between self- and other-focused EI dimensions (see also the Profile of Emotional Competence; Brasseur, Grégoire, Bourdu, & Mikolajczak, 2013). Using eight samples, I showed that self- and other-focused EI dimensions are factorially distinct and can be reliably measured with the Rotterdam Emotional Intelligence Scale (REIS). Furthermore, these studies revealed that a distinction in self- and other-focused EI is meaningful as other-focused EI dimensions relate particularly to outcomes in the "performance domain" such as (other-rated) interview performance, whereas self-focused EI dimensions relate particularly to outcomes in the "well-being domain" such as experienced stress. This pattern was replicated with different performance- and well-being-related indicators in the studies reported in **Chapter 2** and **Chapter 4**. Specifically, the two event-sampling studies reported in **Chapter 2** showed that only the appraisal of others' emotions contributed to better performance of the divorce lawyers and sales persons studied in this chapter. Furthermore, the lab study in **Chapter 4** showed that secretaries' effectiveness in regulating others' emotions was somewhat related to their performance in answering emotionally demanding phone calls. At the same time, this study showed that secretaries' with high levels of self-focused EI experienced less (subjective) stress when answering the phone calls, while they at the same time were physiologically more aroused.

In order to examine whether self- and other-focused EI are associated with different psychological processes, I developed a theoretical process model in **Chapter 5**. This model differentiates between the way self- and other-emotions are evoked, are processed, and related to external criteria. In **Chapter 6** I provided an empirical test of this model among trainees in the social work sector. This study revealed that the appraisal of patients' emotions was beneficial for the trainees' active learning processes through the regulation of patients' emotions and the crafting of social job resources. The appraisal of trainees' own emotions was related to their energy level through the regulation of their own emotions and through the crafting of social job resources. Hence, this study provided initial support for the idea that self- and other-focused EI are enacted through different behavioral processes. Cumulatively, the findings of **Chapter 2 to 6** suggest that self- and other-focused EI can be meaningfully distinguished from each other as both EI types are associated with unique behavioral processes and outcomes.

Although the distinction between self- and other-focused EI has not been a trending topic in the EI literature (for exceptions see Bar-On, 1997; Brasseur et al., 2013), other research domains have also examined whether individuals are focused on the self or on others to explain emotional behavior. For example, research on social value orientation, defined as the weight that individuals assign to their own and others' outcomes (Messick & McClintock, 1968), has revealed that pro-socials tend to attach with, cooperate with, and help others more (e.g., McClintock & Liebrand, 1988; van Lange, Bekkers, Schuyt, & van Vugt, 2007). These findings have been explained by the relatively high levels of empathy

that pro-socials possess (DeClerck & Bogaert, 2008; van Kleef & van Lange, 2008). Cultures have also been distinguished in terms of their focus on the self or on others. Collectivistic cultures foster group goals, relationships, and place emphasis on the context. Individualistic cultures, by contrast, foster personal goals, rationality, and place more emphasis on "the self" (Matsumoto, Yoo, & Nakagawa, 2008). These differences, in turn, are reflected in the way their inhabitants deal with emotions. For example, people living in collectivistic cultures tend to show higher levels of empathy (Heinke & Louis, 2009), whereas people living in individualistic cultures tend to be more emotionally expressive (Fernández, Páez, Carrera, Sánchez, & Candia, 2000). I speculate that the large impact of these self- and other-focused values on people's emotional behavior may also be reflected in their levels (and effectiveness) of self- and other-focused EI. Future research may want to investigate whether pro-self or individualistic values stimulate the enactment of self-focused EI, whereas pro-social or collectivistic values stimulate the enactment and effectiveness of other-focused EI.

Research question 3: Do self- and other-focused EI dimensions interact, and are these interactions informative for predictions of well-being and performance outcomes?

The idea that different EI dimensions can be simultaneously used by people is not new. In fact, the cascading model of EI dimensions posits that emotion regulation has to be preceded by emotion understanding and emotion perception. The idea is that only when individuals perceive, understand, *and* subsequently regulate emotions, they reach better performance levels (Joseph & Newman, 2010). Theoretically, this cascading process has been useful in understanding how EI can facilitate better job performance. Unfortunately, empirical research examining interactions between EI dimensions is scarce. Moreover, the question how self- and other-focused EI dimensions interact has barely been addressed. Therefore, one of the aims of this dissertation was to examine the interplay between self- and other-focused EI. This is important for two reasons. First, individuals tends to possess unique EI profiles (Elfenbein, 2016; Petrides et al., 2016), and hence, may enact a unique combination of EI dimensions. Second, the situations in which EI is most relevant are social by nature (Joseph & Newman, 2010), and thus demand the allocation of individuals' emotional resources to their own and others' emotions. Therefore, examining how the interplay between the enactments of different self- and other-focused EI dimensions influences the effectiveness of emotional responses may help to better understand real-time emotional functioning.

In the event-sampling studies of **Chapter 2**, I explicitly examined interactions between EI dimensions. Results showed that sales interactions in which sales persons simultaneously focused on their own emotions *and* the emotions of their customers were less successful than sales interactions in which sales persons focused on either their own emotions or the emotions of their customers. This suggests that that the allocation of emotional resources to the emotions of multiple persons diminishes the effectiveness of a response. Furthermore, I found that sales interactions in which sales persons had used their own

emotions (i.e., by increasing their motivation or enthusiasm) to focus on the emotions of their customers resulted in more sales success than sales interactions in which sales persons had not used their own emotions for this purpose. This finding suggests that one's own emotion use may amplify the positive effect of focusing on customers' emotions for sales performance. Accordingly, I speculated that processing own emotions first may free energetic, attentional, and cognitive resources to invest in the processing of others' emotions, which ultimately, boosts sales success. The study among divorce lawyers in **Chapter 2** showed a similar pattern (albeit not at the event- but at the person-level). Namely, divorce lawyers who were generally more effective in regulating their own emotions *and* appraising the emotions of others reached higher performance levels than divorce lawyers who were only effective in appraising the emotions of others. This finding may be explained by the notion that these lawyers first control their own emotions to better appraise the emotions of their clients. Hence, the *timing* of the enactments of self- and other-focused EI dimensions may be vital to better understand whether their interplay benefits an emotional response or not.

In the process model of **Chapter 5**, I elaborated on the interplay between self- and other-focused EI by specifying under which circumstances the enactments of self- and other-focused EI dimensions may have hindering or facilitating effects. Specifically, I proposed that situations in which one has to simultaneously process one's own and others' emotions may lead to diminished performance because one's cognitive, energetic, and attentional resources are divided over two processes. In contrast, situations in which one first deals with one's own emotions *before* processing the emotions of others may result in increased performance because one will not be distracted by one's own emotional experience and all processing resources can be directed at the other person. I tested this idea using a weekly diary study in Chapter 6. This study showed that in weeks that trainees appraised *and* regulated their own emotions more, they crafted more social job resources at work, which ultimately contributed to better active learning evaluations. This finding is in line with the cascading model of EI dimensions (Joseph & Newman, 2010), but it also shows that when individuals are in control of their own emotions they are better able to direct attention to others, for example by crafting social job resources. In sum, the findings of **Chapters 2, 5, and 6** suggest that examining the interplay between self- and other-focused EI dimensions is important because it may determine how optimal an emotional response is.

The interplay between the enactments of self- and other-focused EI dimensions can be related to research on the allocation of personal, volatile resources (e.g., Beal, Weiss, Baros, & MacDermid, 2005; Grawitch, Barber, & Justice, 2010). Beal and colleagues (2005) proposed that in order to achieve performance goals, employees not only need to possess enough (cognitive) resources, they also have to direct these resources toward task accomplishment. When attention, and thereby resources, is focused at one task, performance will increase. When attention, and thereby resources, is allocated over multiple tasks, performance will decrease. This simple idea of fragmented resources may be the mechanism that can explain why the simultaneous enactments of self- and other-focused EI diminishes performance. Moreover, this idea may explain that the sequential processing of own and others' emotions

is more effective because that allows one to concentrate all processing resources on one emotion process at the time.

The studies in this dissertation raise the question whether the *order* in which one's own and others' emotions are processed is important. I speculate that processing own emotions first may be better than processing others' emotions first. This idea can be recognized in research on self-care in the health care domain. In this area it is acknowledged that doctors or nurses caring for patients who experience negative emotions are vulnerable for the crossover of such negative emotions unless they take good care of their own emotional state (e.g., Kearney, Weininger, Vachon, Harrison, & Mount, 2009; Sanchez-Reilly et al., 2013). Another area to which this order relates is the airline industry. In the emergency plans that are communicated to passengers it is often emphasized that passengers should first put on their own oxygen mask before they help children or others. Hence, the prevalence of this phenomenon across different domains in which individuals are interacting or caring for others suggests that it may be relevant with respect to the enactments of self- and other-focused EI as well.

Research question 4: How does the episodic process of EI unfold over time?

The EI research tradition can be characterized as being outcome-oriented rather than process-oriented (Peña-Sarrionandia et al., 2015). Consequently, the existing literature provides an abundance of research showing how individual differences in EI relate to outcomes such as job performance, leadership, and health (Harms & Credé, 2010; Joseph & Newman, 2010; Martins et al., 2010; O'Boyle et al., 2011). After three decades of research, however, it may be timely to understand *why* individual differences in EI are associated with these outcomes. How do high-EI individuals respond to emotions and why would their response be more successful than the response of their lower-EI peers? Previous attempts to disentangle the EI process have focused on how the different EI dimensions affect job performance (Joseph & Newman, 2010), and how EI is associated with the use of specific emotion regulation strategies (Peña-Sarrionandia et al., 2015). However, an integrated theoretical framework that explains how individuals use their EI to deal with their own and others' emotions and how this influences outcomes in different areas was lacking. Therefore, the final research question of this dissertation was to examine the process of enacting self- and other-focused EI over time.

In **Chapter 5**, I developed an episodic process model of EI in which I explained how the enactment of EI unfolds during emotional episodes (i.e., the period from the trigger of an emotion to its regulation). I chose for the timeframe of an emotional episode in order to disentangle how high-EI individuals respond when they actually face an emotion, and how these momentary actions may eventually lead to a highly effective emotional response-style. In short, the model that I developed starts with a cue that elicits emotions in the self and/or in one's interaction partner. This cue may either be situational (i.e., a noise, a job demand) or it may be the expressed emotion of one's interaction partner. The interdependent emotions of the self and other are then processed by the enactments of self- and other-

focused emotion appraisal and emotion regulation. The effectiveness of these enactments, however, is dependent on the order in which the self- and other-focused EI dimensions are used. Highly effective responses will be given when individuals first process their own emotions and then direct all their emotional resources to process the emotions of their interaction partner. Less effective responses will be given when individuals divide their emotional resources over their own and others' emotions while processing them. The enactments of self- and other-focused EI have direct episodic performance consequences such as the completion of a task or the quality of a conversation. These proximal outcomes may influence subsequent emotional episodes and may accumulate into more distal outcomes such as overall well-being or relationship quality. I further specified how these spill-over effects work and how episodic performance outcomes may influence specific distal outcome domains (e.g., health and well-being, job performance, interpersonal contact). Also, I drew attention to several dispositional and situational factors that may influence the episodic EI process such as individual differences in general EI levels, motivation, the type of emotions, and the sort of relationship with one's interaction partner.

Using a diary study in **Chapter 6**, I examined the weekly process of using self- and other-focused EI among trainees who work in the social work field. Results showed that the weekly appraisal of own emotions led to the weekly regulation of these emotions, which, in turn, contributed to higher energy levels. The weekly appraisal of others' emotions led to the weekly regulation of these emotions, which, in turn, contributed to better active learning evaluations (as rated by the trainees' supervisors). Both the appraisal of own and others' emotions led to the crafting of social job resources, but this effect was strengthened when the trainees had regulated their own emotions first. These findings suggest that the processing of own and others' emotions are indeed two emotion processes that have unique and immediate consequences. Furthermore, effectively going through one's self-focused EI process may facilitate interpersonal behavior (i.e., crafting of social job resources). Together, the findings of C**hapter 5 and 6** provide a new and useful perspective on how the enactment of EI is triggered, how self- and other-focused emotion processes unfold and interact, and how this may lead to immediate outcomes in different life domains. This framework may inspire future research to continue examining the behavioral enactment of EI "in situ".

Although the stimulus-response format of the EI process model proposed in this dissertation may be innovative to the EI field, such models play an important role in the related fields of stress, emotion appraisal, emotion regulation, and emotional labor (e.g., Grandey, 2000; Grandey & Melloy, 2017; Gross, 1998; 2015; Lazarus & Folkman, 1984; Moors, Ellsworth, Scherer, & Frijda, 2013). These process models have yielded increased insight in what people do when confronted with emotions. To illustrate, research has shown that individuals can modify their emotions at the onset of an emotional episode by reappraising the situation that elicited their emotions. Alternatively, individuals may suppress their emotions later in the emotional episode by decreasing their expression of these emotions. Both types of strategies seem to have different (physiological) costs and benefits (Gross, 1998). Furthermore, process models in the emotion regulation and emotional labor literature have yielded valuable insights into the antecedents and moderators of emotional

responding. For example, short-term routine interactions at work elicit the use of surface acting (i.e., modifying one's emotional display to meet organizational requirements), in particular for employees who score high on self-monitoring (Diefendorf, Croyle, & Gosserand, 2005). This type of research has been useful to better explain and predict real-time emotional functioning. The aim of the current EI process model was to advance EI theory likewise and to combine it with insights stemming from these and other domains of the affective sciences.

Implications, Limitations, and Future Research Ideas

The Enactment of Emotional Intelligence

This dissertation introduced "the enactment of EI" and examined EI on the enacted (i.e., situational) level, which is a conceptually different approach than the examination of EI on the general (i.e., individual) level. This approach implies that there are fluctuations in the use of EI. Indeed, the findings of the current studies showed that the enactment of EI fluctuates, and that these fluctuations have immediate work- and well-being related consequences. An important question for future research is what causes these EI fluctuations. A substantial part of the variance in individuals' general (individual) EI level is related to their genetic make-up (van der Linden et al., 2018; Vernon, Petrides, Bratko, & Schermer, 2008). However, such stable individual differences cannot readily function as antecedents of fluctuations in the enactment of EI. The process model introduced in this dissertation suggests that mainly situational cues or the expressed emotions of important others trigger the enactment of EI (cf. Farh, Seo, & Tesluk, 2012; Joseph & Newman, 2010; Ybarra, Kross, & Sanchez-Burks, 2014). It would be interesting to gain more insight into these potential triggers, because that could refine the predictive validity of EI.

Another fascinating question for future research is whether individual volatile factors such as one's current mood, level of energy, or motivation affect the enactment of EI. Research has shown that the experience of positive emotions facilitates effective emotion regulation (Tugade & Fredrickson, 2004), suggesting that positive emotions may also contribute to increased EI enactment. The same may be true with regard to energy. Individuals with low energy may be less able to effectively regulate their emotions (Aspinwall & Taylor, 1997; van Gelderen, Konijn, & Bakker, 2017), suggesting that high energy is another factor that may contribute to using EI. In addition, research has shown that one's motive influences whether emotion regulation knowledge will be used for good or for bad ends (i.e., the dark side of EI). This may imply that situations in which one is motivated to help others or, in contrast, to exploit others, may be associated with increased enactments of EI.

Interest in the enactment of EI has important implications for the methodology that one could use to examine this concept. First, in order to measure the actual display of EI on a given moment, scholars may need to adopt experience sampling or day reconstruction methods that allow to study psychological processes "in the moment" (Kahneman, Krueger, Schkade, Schwarz, & Stone, 2004; Oerlemans & Bakker, 2013; Reis & Gable, 2000). This means that the traditional cross-sectional study designs in the EI literature (i.e., between-person) would benefit from the addition of diary designs (i.e., within-person) that allow to study short-term fluctuations in EI responding (cf. Ohly, Sonnentag, Niessen, & Zapf, 2010). Moreover, the current EI measures may need to be adjusted (e.g., rephrasing the items, shortening the scales; Ohly et al., 2010) so that they can capture fluctuations in the enactment of EI. Finally, scholars may consider using alternative data collection devices such as smartphones or video cameras because such devices enable capturing the real-time enactment of EI better than web-based or paper-and-pencil measures that are often filled out in retrospect.

Self- and Other-Focused Emotional Intelligence

A central topic of this dissertation is the distinction between self- and other-focused EI. It is important to note that scholars disagree on the usefulness of disentangling broad higher-order constructs into narrower lower-order constructs (Hogan & Roberts, 1996; Ones & Viswesvaran, 1996; Sitser, van der Linden, & Born, 2013). In fact, broad constructs tend to be good predictors of overall performance in many domains whereas narrow constructs may only be useful to predict specific or restricted types of performance (Ones & Viswesvaran, 1996). However, the current distinction in self- and other-focused EI has several theoretical merits. First, own emotions are conceptually different from others' emotions because they induce an affective state, physical sensations, and specific action tendencies in the self (Frijda, 1988), which is not always visible or accessible to others. Accordingly, the enactment of self-focused EI could be seen as an intrapersonal process that directly influences one's own psychological and/or physical state. In contrast, the enactment of other-focused EI could be seen as a social process that may have more diffuse effects on one's psychological and/or physical state. Consequently, different psychological behaviors may play a role in these processes. For example, one's unique appraisal and coping style may have a large influence on one' effectiveness to deal with one's own emotions (Jordan, Ashkanasy, & Härtel, 2002; Lazarus & Folkman, 1984). By contrast, one's social skills may have a large influence on one's effectiveness to deal with others' emotions (Lemerise & Arsenio, 2000). Hence, a distinction between self- and other-focused EI may allow to elucidate which psychological processes and behaviors are involved in EI responding. Consequently, this distinction could be used to align the self-focused emotion process with self-focused moderators and consequences, and the other-focused emotion process with other-focused moderators and consequences. Such alignments have shown to benefit the predictive validity of personality measures (Campbell, 1990; Sitser et al., 2013), and, according to the findings in this dissertation, seem to have similar benefits for EI.

A second theoretical asset of the distinction between self- and other-focused EI is that it allows to examine their interplay. Considering this interplay may do better justice to the interpersonal emotion dynamics that characterize social contact (for an overview see Hareli & Rafaeli, 2008). To illustrate, during a conversation with a friend, one's focus may switch from the emotions of the friend to one's own emotions. The findings of the studies in this dissertation raise the question whether the order in which the emotions of the friend and self are processed influences the effectiveness of the response. A simultaneous enactment of self- and other-focused EI would allocate emotional resources over multiple processes making the response less successful. In contrast, a sequential enactment in which the enactment of other-focused EI follows the enactment of self-focused EI may allow focusing one's full emotional potential to processing others' emotions making the response more successful. Drawing from this notion, it may be interesting to explicitly capture "time" when examining the interplay between self- and other-focused EI. Time is an underexplored factor in psychological research (Roe, 2008), yet it may play a vital role in the enactment of EI in social situations. Theories on the allocation of resources (e.g., Beal et al., 2005; Kanfer & Ackerman, 1989) may be helpful to design new studies on this topic.

The distinction between self- and other-focused EI has important implications for the measurement of EI, because most conventional EI measures do not make an explicit distinction between the two (Brasseur et al., 2013). The studies in **Chapter 3** of this dissertation have produced a questionnaire that could be used for this purpose (the REIS; Pekaar, Bakker, van der Linden, & Born, 2018), but there are other alternatives available as well (see Brasseur et al., 2013).

The Episodic Process Model of Emotional Intelligence

The episodic process model of EI that was developed as part of this dissertation may help to move research into EI forward as it incorporates the trigger, process, and the short- and long-term consequences of displaying EI. As such, it has several theoretical implications. First, the process model may inspire scholars to examine how EI is manifested within short periods of time, for example when working on a specific task or during an interaction with someone else. This may increase our understanding of the everyday behaviors that are associated with the use of EI (see also Brackett, Mayer, & Warner, 2004). Second, the process model may draw attention to the antecedents of the enactment of EI. When it is known when individuals start to use their EI, it may be triggered on purpose by exposing individuals to relevant (situational or interpersonal) cues. In addition, the process model suggests several pathways in which the enactment of EI evolves over time and eventually affect major life outcomes such as health or overall job performance. The empirical examination of these pathways may reveal how far-reaching the enactment of EI is, and whether potentially short-term costs may be replenished over time (cf. Grandey and Melloy, 2017).

Furthermore, the proposed moderators of the process model may be a fruitful area for future research. For example, the type of emotions that individuals are dealing with may

alter the enactment of EI (and its consequences). Dealing with positive emotions may boost one's personal resources, whereas dealing with negative emotions may deplete them (Fredrickson, 2001), which, in turn, may influence the effectiveness of the response. In line with this reasoning, the findings of the lab study among secretaries in **Chapter 4** suggest that the EI-task performance link is only apparent when employees are dealing with positive emotions. Another theoretical implication of the episodic process model of EI is that this conception may facilitate better integration of EI theory with other domains of the affective sciences in which process models are better recognized. For example, processes of emotional labor, emotion regulation, and stress are well understood and may inform this first integrated process model of EI further.

The examination of the episodic process model of EI is accompanied with methodological challenges. As the proposed process may unfold rather quickly during a short period of time (i.e., a couple of minutes), it may be hard to capture using the conventional survey measures. A good alternative would be to make video recordings of events and to use a recall procedure in which participants watch the video of their own emotional episode and rate their remembered experience (Butler, 2015). Another possibility may be to conduct smart-phone-based experience sampling studies in which participants receive push messages that ask them to rate their emotional experience at the spot (van Berkel, Ferreira, & Kostakos, 2017). Both methods, however, have downsides. Whereas the former method may be biased because it is a retrospective way of collecting data, the latter has the disadvantage of being disruptive to the process that one tries to capture. Therefore, future research may want to develop new methods that are suitable to capture the enactment of EI – including voice recognition techniques.

Practical Implications

The studies presented in this dissertation have several practical implications for employees and organizations. The findings show that a distinction between self- and other-focused EI is useful to better predict performance and (employee) well-being outcomes: A high level of self-focused EI helps to remain happy and healthy, whereas a high level of other-focused EI facilitates performance during emotionally-laden job tasks. Hence, the dichotomy between self- and other-focused EI may be a good selection tool for managers who wish to select those employees who have the "right" type of EI for the job. If a job involves frequent interpersonal contact, for example in sales or in the health care sector, an indication of the applicant's other-focused EI may be a better predictor of performance than an indication of the applicant's global level of EI. Moreover, working in an emotionally demanding job environment, for example in which one is confronted with conflicts, violence, death, or illness, may have significant negative effects on employees' well-being (e.g., Bakker & Heuven, 2006; Khamisa, Peltzer, & Oldenburg, 2013). Which means that if employees in these sectors do not take care of their own emotional well-being, they may experience serious health complaints or even drop out of their profession (Le, Impett, Lemay, Muise, & Tskhay, 2018; Wilk, Desmarais, & Sackett, 1995). Therefore, when managers are selecting

applicants that are expected to perform "emotion work" it may be wise to pay specific attention to applicants' level of self-focused EI because that may contribute to sustainable employment. The REIS questionnaire, which has been developed as part of this dissertation, could be used to assess applicants' level of self- and other-focused EI.

The REIS provides an indication of individuals' level of self- and other-focused emotion appraisal and emotion regulation. Therefore, it may also be used to construct unique score-profiles that provide insight in how these self- and other-focused EI dimensions are related. In the cognitive ability domain, such score profiles are a popular tool to diagnose or select individuals (e.g., Wechsler, 2008), and recently, scholars have called for similar score profiles in the EI domain (Elfenbein, 2016; Petrides et al., 2016). Score profiles of EI may be valuable for selection or training purposes because they visualize whether employees are "balanced" in terms of their emotional resources. To illustrate, employees who excel in the appraisal of emotions, yet miss the ability to regulate emotions may be vulnerable to experiencing emotional dissonance (Zapf, 2002), which, in turn, has detrimental consequences for employee well-being (Bakker & Heuven, 2006; Hülsheger & Schewe, 2011). As another example, a large gap between employees' level of self- and other-focused EI dimensions in emotionally demanding occupations may be problematic because these employees may be overly sensitive to the (negative) emotions of others, yet they miss the emotional resources to cope with their own emotional response to these emotions (Fiori & Ortony, 2016).

Another practical implication of the present set of studies is that the order in which individuals manage their own and others' emotions may have important consequences. The findings tentatively suggest that processing one's own emotions before focusing on the emotions of others yields performance and well-being benefits. In order to profit from this notion, managers could raise awareness of this "healthy and effective" order of emotion processing by discussing it with their employees during performance evaluations or by organizing training sessions that communicate this message. Another domain that could profit from this notion is the educational sector. Especially in medical school or police training, in which students are prepared to work with individuals who may express severe negative emotions, being trained to first manage own emotions before focusing on the emotions of others could be a valuable lesson.

Limitations

The studies presented in this dissertation have several limitations that need to be discussed. A first limitation is that all studies relied solely on self-reported EI measures. This approach, however, is part of a heavy debate in the literature because self-reported EI measures would produce biased indications of EI (Côté, 2014). Reason for this bias is that the questions are filtered through the self-concept of the test taker who may understand the questions inaccurately or may be tempted to provide social desirable answers (Mayer, Salovey, & Caruso, 2008). However, the alternative approach, performance-based EI tests, also has its downsides. One main challenge of performance-based EI tests is that they aim to objectively assess how individuals deal with the inherently subjective experience of emotions (Siegling,

Saklofske, & Petrides, 2015). In fact, it is barely impossible to determine whether an emotional response is correct because most emotion-related contexts have no clear-cut criteria for what may constitute a credible response (Matthews, Roberts, & Zeidner, 2004). Furthermore, research has shown that the psychometric properties and predictive validities of performance-based EI tests are of lower quality that those of self-reported EI measures (e.g., Fiori & Antonakis, 2011; Roberts et al., 2006). Hence, performance-based EI tests do not seem to do a better job than self-reported EI measures and vice versa. As both approaches have their pros and cons, scholars have suggested picking the approach that is best applicable to the research question of interest (O'Boyle et al., 2011).

Against this background, I decided to use self-reported EI measures in the current studies because they are consistent with the subjective nature of emotional experiences I was interested in (cf. Siegling et al., 2015). Another important reason for this choice was that only the current self-reported EI measures enable to make an explicit distinction between self- and other-focused EI (e.g., Brasseur et al., 2013; Pekaar et al., 2018). Furthermore, the studies included in this dissertation were conducted in the work context, which means that I needed measures that are fast to administer, and that could be adjusted to the respective setting, which is more straightforward using self-reported EI measures (Daus & Ashkanasy, 2005; O'Boyle et al., 2011). Nevertheless, in order to avoid social desirability issues, future research may want to invest developing performance-based EI tests in which the way one deals with one's own versus others' emotions is clearly distinguished.

Second, as this dissertation is concerned with the enactments of self- and other-focused EI, the current study designs may be limited by not actually including information from the other. Especially in **Chapter 2 and 6** in which I studied specific interpersonal situations such as a consult with clients or a sales conversation, it would have been interesting to learn how the respective others felt their emotions were managed, and what consequences this had for them. Therefore, I strongly encourage future research to include dyadic data. It is feasible that the enactments of self- and other-focused EI of an individual interferes with the enactments of self- and other-focused EI of the person with whom this individual is interacting. For example, if one is really in control of one's own emotions there may be less room for an interaction partner to use his/her other-focused EI. A suitable approach to examine these interpersonal emotion dynamics would be to use the actor-partner interdependence model (Kenny, 1996). The actor-partner interdependence model allows capturing how the enactments of self- and other-focused EI by two (interacting) individuals may mutually influence each other, and what consequences this has for both persons involved.

A third limitation is that not all the tested relationships were under causal control. Although, in theory, the hypothesized relationships had a causal order and most of them where supported by prior studies (i.e., the appraisal of emotion leads to the regulation of them; Joseph & Newman, 2010), causality can only be examined using experimental or longitudinal study designs (see Antonakis, Bendahan, Jacquart, & Lalive, 2010). However, the speed of the emotion processes associated with the enactment of EI may hamper a proper assessment of causality. For example, in the weekly diary study of **Chapter 6**, I could

not test causality because the large time lags between the measures made it less obvious to test whether the subtle fluctuations in showing a bit more EI in one week, would have a significant impact on the active learning process during a week that was measured two months later. Nevertheless, it is likely that the enactment of EI includes causal dynamics. Consequently, in the episodic process model of EI in **Chapter 5** I incorporated spill-over effects of EI enactments, and an empirical examination of these spill-over effects would make a substantial contribution to the current literature.

A final limitation that should be mentioned is that most studies included in this dissertation treated emotions in a generic way. In fact, this limitation is not typical for the current set of studies, but applies to the entire EI research tradition (for notable exceptions, see Gooty, Gavin, Ashkanasy, & Thomas, 2014; Mikolajczak, Nelis, Hansenne, & Quoidbach, 2008; Nozaki, 2015). However, discrete emotions have evolved for different reasons, and, in turn, have been associated with specific motives, behaviors (Izard & Ackerman, 2000), and outcomes (e.g., Gibson & Callister, 2010; Grant & Wrzesniewski, 2010). Accordingly, scholars have warned not to mix findings about different emotion types (LeDoux, 1998). Therefore, future research could assess whether the enactment of EI is dependent on the type of emotions that one is exposed to. The findings of the lab study in **Chapter 4** show that secretaries with high levels of other-focused EI were in particular more effective when dealing with *positive* emotions such as enthusiasm and elatedness. This outcome indicates that it is not obvious that high-EI individuals are better able to deal with all kinds of emotions than their peers. It would be interesting to further study these emotion-specific effects in relation to EI, for example by distinguishing emotions in terms of activation, appropriateness, valence, or intensity.

Conclusion

The studies presented in this dissertation examined the emotion processes of enacting self- and other-focused EI. Taken together, the findings show that the enactments of self- and other-focused EI fluctuates from time to time, and that these fluctuations have direct consequences for well-being and (job) performance outcomes. Importantly, a distinction in self- versus other-focused EI appears to be meaningful as one's own and others' emotions are conceptually different and both forms of EI are associated with unique behavioral strategies and outcomes. Self-focused EI seems important to diminish stress and ill-health, whereas other-focused EI seems mainly relevant for social and work-related success. These findings imply that to remain a happy, healthy, and successful worker, employees need to display high levels of self- and other-focused EI. Moreover, the present work implicitly suggests that the best way to do this is to strategically first manage one's own emotions, before managing the emotions of others. In this way, individuals can devote their entire cognitive, attentional, and energetic resource pool to one emotion process at a time. Building on these findings, an important outcome of this dissertation is the episodic process model of EI in which the dynamics between the enactments of self- and other-focused EI

and their proximal and distal consequences for well-being and performance outcomes are incorporated. In light of the general findings this dissertation may contribute to new and inspiring research ideas that may help to better understand how EI affects daily (organizational) life.

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Nederlandse Samenvatting

Summary in Dutch

De invloed van emoties op ons dagelijkse leven is groot. We kunnen bijvoorbeeld emoties ervaren tijdens een gesprek met iemand anders, wanneer we kijken naar een sportwedstrijd, of wanneer we aan het dagdromen zijn. Emoties spelen ook een belangrijke rol tijdens het werk. In veel beroepen is het reageren op emoties zelfs een belangrijk onderdeel van het werk. Dit is niet altijd gemakkelijk. Reageren op emoties heeft mogelijk verband met de vele stress en burn-out klachten in onze huidige samenleving. Gezien de grote invloed die emoties op ons leven hebben, is de manier waarop wij met emoties omgaan erg belangrijk. Onze manier van omgaan met emoties kan worden beschreven door onze *emotionele intelligentie* (EI), wat verwijst naar het vermogen om de eigen en andermans emoties waar te nemen, te begrijpen, en te reguleren (Mayer & Salovey, 1997; Petrides, 2011; Zeidner, Roberts, & Matthews, 2008). Onderzoek heeft laten zien dat EI bijdraagt aan de kwaliteit van sociale contacten, een goede gezondheid, en betere werkprestaties.

Het onderzoek naar EI heeft zich, tot dusver, voornamelijk gericht op individuele verschillen in EI en of deze verschillen samenhangen met succes in uiteenlopende levensdomeinen. Een vraag waar wetenschappers zich onder andere mee hebben bezig gehouden is hoe individuele verschillen in EI het beste gemeten kunnen worden, namelijk met een vragenlijst of met een prestatietest. Onlangs is de wetenschappelijke aandacht echter wat meer verschoven naar de (psychologische) processen die ten grondslag liggen aan de positieve effecten van EI. Deze verschuiving in aandacht is belangrijk want grip krijgen op deze onderliggende processen draagt bij aan de ontwikkeling van EI-theorieën en geeft mogelijk ook aanknopingspunten voor het trainen en verder ontwikkelen van emotievaardigheden. Zo is er bijvoorbeeld onderzoek gedaan naar de manieren waarop mensen met een hoge EI hun eigen emoties reguleren, en wat hun gezondheidsgewoonten zijn. Naast deze waardevolle kennis roept het onderzoek naar de onderliggende processen van EI ook nieuwe vragen op die ik geprobeerd heb te beantwoorden in mijn proefschrift. Bijvoorbeeld: hoe gebruiken mensen hun EI wanneer ze te maken krijgen met de emoties van zichzelf en van anderen? Wat stimuleert eigenlijk het gebruik van EI? Zijn er dagen of momenten dat mensen hun EI meer gebruiken dan op andere dagen of momenten, en zorgt dit ervoor dat iemand zich direct beter voelt of beter presteert?

Mensen gebruiken hun EI waarschijnlijk vooral op de momenten dat zij daadwerkelijk geconfronteerd worden met emoties. Hun reacties op dit soort momenten dragen naar verwachting bij aan hun welzijn en (werk) succes op de langere termijn. Daarom heb ik mij in mijn proefschrift gericht op het gebruik van EI tijdens specifieke momenten. Dit heb ik gedaan door de fluctuaties in het gebruik van EI en de invloed van deze fluctuaties op bijvoorbeeld de stress en prestaties van werknemers te onderzoeken. Deze invalshoek past goed bij de verschillende emoties die mensen tijdens een (werk-)dag kunnen ervaren. Een ander thema dat centraal staat in dit proefschrift is hoe EI wordt gebruikt in sociale situaties. Hoewel we weten dat EI vooral in sociale situaties belangrijk is, is het onduidelijk of EI vooral gebruikt wordt voor de eigen emoties of voor de emoties van anderen. Om dit onderscheid goed te kunnen onderzoeken heb ik een nieuwe vragenlijst ontwikkeld: de Rotterdam Emotionele Intelligentie Schaal (REIS). De REIS meet hoe effectief iemand kan omgaan met de eigen emoties (zelf-gerichte EI) en hoe effectief iemand kan omgaan met de

emoties van een ander (ander-gerichte EI). Iemands eigen emoties verschillen van andermans emoties omdat de eerstgenoemde emoties direct ons denken, voelen, en gedrag beïnvloeden. De emoties van anderen hebben juist een indirectere invloed op ons, namelijk via het sociale contact met de ander. Het zou daarom goed kunnen dat het zelf-gerichte EI-proces psychologisch gezien verschilt van het ander-gerichte EI proces, en dat deze processen ook tot andere gedragingen en uitkomsten leiden. Als laatste heb ik onderzocht of deze twee EI-processen elkaar op een positieve dan wel negatieve manier beïnvloeden.

Kortom, het doel van de studies in dit proefschrift was om meer inzicht te krijgen in de manier waarop EI het dagelijkse sociale (werk-) leven beïnvloedt. Hieronder volgt een korte samenvatting van de belangrijkste bevindingen aan de hand van vier centrale onderzoeksvragen.

Onderzoeksvraag 1: Zorgt het gebruik van EI voor de positieve effecten van EI, en kunnen fluctuaties in dit gebruik voorspellen hoe iemand zich voelt en presteert?

Vrijwel al het eerdere EI onderzoek richtte zich op de vraag hoe mensen gemiddeld genomen met emoties omgaan (algemene EI-niveaus). Hoewel deze onderzoeken veel kennis hebben opgeleverd over de voordelen van het bezitten van een hoge EI, kunnen we met deze methode niet vaststellen op welke momenten mensen hun EI vooral gebruiken. Bovendien is deze methode niet geschikt om de directe gevolgen van het gebruik van EI te bestuderen. Daarom onderzocht ik in mijn proefschrift geen algemene EI-niveaus, maar het daadwerkelijke gebruik van EI tijdens specifieke momenten.

Hoofdstuk 2 beschrijft twee dagboekonderzoeken onder scheidingsadvocaten en straatverkopers waarin wordt aangetoond dat het gebruik van EI fluctueert van gesprek tot gesprek. Bovendien laat dit hoofdstuk zien dat verkoopgesprekken waarin de straatverkopers de emoties van hun klanten beter waarnamen succesvoller waren dan verkoopgespreken waarin zij de emoties van hun klanten minder goed waarnamen. In **Hoofdstuk 6** heb ik onder stagiaires die stage in de sector zorg en welzijn liepen, met een weekboekstudie aangetoond dat het gebruik van EI ook van week tot week kan fluctueren. In weken waarin de stagiaires meer gebruikmaakten van hun EI bleken ze meer energie te hebben en kregen ze tevens een positievere beoordeling van hun begeleiders. Naast deze empirische studies heb ik in **Hoofdstuk 5** een procesmodel ontwikkeld waarin het gebruik van EI tijdens specifieke momenten (zogeheten emotie-episodes) centraal staat. In dit theoretische hoofdstuk beschrijf ik hoe emoties het gebruik van EI kunnen activeren en wat voor korte en lange termijn gevolgen dit kan hebben.

Uit deze resultaten kan geconcludeerd worden dat het gebruik van EI fluctueert van moment tot moment en dat deze fluctuaties vaak een directe invloed hebben op hoe mensen zich tijdens deze momenten voelen en hoe ze presteren. De positieve effecten van EI worden dus -gedeeltelijk - veroorzaakt door het daadwerkelijk toepassen van EI. Deze conclusie roept nieuwe vragen op. Een vraag is bijvoorbeeld hoe het gebruik van EI gestimuleerd kan worden en hoe het gebruik van EI zich over langere tijd ontwikkelt? Het theoretische model

uit **Hoofdstuk 5** zou een bruikbaar uitgangspunt kunnen vormen voor vervolgonderzoek om deze vragen te beantwoorden.

> *Onderzoeksvraag 2: Kan er een zinvol onderscheid gemaakt worden tussen zelf-gerichte EI en ander-gerichte EI, en zijn deze vormen geassocieerd met (a) verschillende psychologische processen en (b) verschillende uitkomsten?*

EI is een breed en overkoepelend begrip dat globaal beschrijft hoe effectief mensen met emoties omgaan. Echter, EI is ook opgebouwd uit meerdere subdimensies die onderscheid maken in de manier van emotieverwerking (van waarneming tot regulatie) en in hun sociale focus (eigen emoties of de emoties van anderen). Toch wordt er meestal alleen gekeken naar globale niveaus van EI. Dit is jammer want globale EI-niveaus geven weinig inzicht in specifieke gedragingen. Een belangrijk onderscheid dat niet gemaakt kan worden met globale EI niveaus is of mensen met een hoge EI succesvol zijn omdat ze goed met hun eigen emoties omgaan of omdat ze goed met de emoties van anderen omgaan. Hoewel beide verklaringen aannemelijk zijn wijzen ze op verschillende processen, namelijk een individueel en een sociaal proces. Uit de wetenschappelijke literatuur weten we dat individuele processen fundamenteel anders zijn dan sociale processen en dat ze vaak ook andersoortige gevolgen hebben. Vandaar dat ik in mijn proefschrift onderzoek of deze bevindingen ook gelden voor het onderscheid tussen zelf- en ander-gerichte EI.

Om dit onderzoek mogelijk te maken heb ik in **Hoofdstuk 3** één van de eerste vragenlijsten ontwikkeld die een duidelijk onderscheid maakt tussen zelf- en ander-gerichte EI; de REIS (Rotterdam Emotionele Intelligentie Schaal). Aan de hand van acht empirische studies heb ik laten zien dat het goed mogelijk is om zelf- en ander-gerichte EI dimensies van elkaar te onderscheiden en dat deze dimensies betrouwbaar te meten zijn. Bovendien lijkt het onderscheid tussen zelf- en ander-gerichte EI ook zinvol in termen van hun gevolgen. Uit mijn studies bleek dat zelf-gerichte EI voornamelijk bijdroeg aan een beter eigen welzijn (o.a. minder stress), terwijl ander-gerichte EI voornamelijk bijdroeg aan betere prestaties (o.a. tijdens een sollicitatiegesprek). Dit patroon herhaalde zich met andere uitkomstmaten in de studies die ik beschrijf in **Hoofdstukken 2** en **4**. In de twee eerdergenoemde dagboekonderzoeken onder scheidingsadvocaten en straatverkopers vond ik dat de waarneming van andermans emoties de enige EI-dimensie was die voor betere eigen werkprestaties zorgde (zie **Hoofdstuk 2**). In een laboratoriumstudie onder secretaresses droeg het goed kunnen reguleren van andermans emoties enigszins bij aan de effectiviteit waarmee de secretaresses emotionele telefoongesprekken afhandelden. Deze studie liet ook zien dat zelf-gerichte EI-dimensies ervoor zorgden dat de secretaresses zich minder gestresst voelden tijdens het beantwoorden van de telefoontjes en dat ze - fysiologisch gezien - actiever waren (zie **Hoofdstuk 4**).

Om de psychologische processen en gedragingen die bij zelf- en ander-gerichte EI horen te onderzoeken heb ik het eerder genoemde procesmodel ontwikkeld (zie H**oofdstuk 5**). Dit model beschrijft hoe iemands eigen en andermans emoties het gebruik van verschillende EI-dimensies kunnen activeren. Ook beschrijft het model hoe beide emoties vervolgens

verwerkt worden, en hoe deze emotieverwerkingen tot verschillende uitkomsten zouden kunnen leiden. Een deel van dit model heb ik in **Hoofdstuk 6** getoetst met de weekboekstudie onder stagiaires in de gezondheidszorg. Uit dit onderzoek kwam naar voren dat in de weken waarin de stagiaires de emoties van cliënten beter waarnamen zij ook betere leerprestaties behaalden. Dit kwam omdat zij in deze weken beter in staat waren de emoties van hun cliënten te reguleren en doordat zij in deze weken meer feedback en sociale steun vroegen. In de weken waarin de stagiaires hun eigen emoties beter waarnamen voelden zij zich energieker. Dit kwam omdat ze in deze weken beter in staat waren om hun eigen emoties te reguleren en voor meer sociale steun zorgden. Het lijkt er dus op dat het onderscheid tussen zelf- en ander-gerichte EI zinvol is omdat de onderliggende psychologische processen verschillend zijn.

Onderzoeksvraag 3: Is er een wisselwerking tussen zelf-gerichte EI en ander-gerichte EI, en heeft deze wisselwerking invloed op iemands eigen welzijn en (werk) prestatie?

Het is bekend dat mensen verschillende EI-dimensies tegelijkertijd kunnen gebruiken. In publicaties over EI wordt beschreven dat voordat emoties gereguleerd kunnen worden, ze eerst waargenomen en begrepen moeten zijn. Het is zelfs zo dat alleen werknemers die emoties beter waarnemen, begrijpen, én reguleren pas tot betere werkprestaties komen. Helaas weten we nog te weinig over de wisselwerking tussen zelf- en ander-gerichte EI. In dit proefschrift bestudeer ik deze wisselwerking om de volgende redenen. Allereerst heeft iedere persoon een uniek EI-profiel, waarin sommige EI-dimensies beter ontwikkeld zullen zijn dan andere. Het ligt dan ook voor de hand dat iedere persoon op zijn of haar EI-dimensies op een unieke manier gebruikt. Ten tweede is EI het meest relevant in sociale situaties, waarin het, logischerwijs, verdeeld moet worden over de eigen emoties en die van anderen. Kortom, het onderzoek naar de wisselwerking tussen zelf- en ander-gerichte EI is een manier om de rol van EI onder "echte" mensen in "echte" situaties beter te begrijpen.

In de dagboekstudies van **Hoofdstuk 2** heb ik deze wisselwerking onderzocht. De studie onder straatverkopers liet zien dat wanneer de verkopers tijdens een verkoopgesprek zowel hun eigen emoties als de emoties van de klant waarnamen, ze minder verkochten dan wanneer zij de emoties van maar één persoon waarnamen (zichzelf of de klant). Deze bevinding suggereert dat een verdeling van iemands EI over de emoties van meerdere personen voor een minder succesvolle sociale interactie zorgt. Verder kwam uit deze studie naar voren dat verkoopgesprekken waarin de straatverkopers hun eigen emoties gebruikt hadden om de emoties van de klant beter waar te nemen (bijvoorbeeld door zichzelf te motiveren) voor nog betere resultaten zorgden. Vermoedelijk kan deze bevinding verklaard worden doordat het allereerst verwerken van de eigen emoties ervoor zorgt dat er meer energie en aandacht is voor de emoties van een ander. Hetzelfde patroon vond ik terug bij de scheidingsadvocaten (zie **Hoofdstuk 2**): Scheidingsadvocaten die goed waren in het reguleren van hun eigen emoties én in het waarnemen van andermans emoties, hadden betere gesprekken met cliënten dan advocaten die alleen goed waren in het waarnemen van andermans emoties. Deze bevinding suggereert dat effectieve scheidingsadvocaten eerst

hun eigen emoties reguleren zodat ze zich vervolgens helemaal kunnen richten op de emoties van hun cliënten. Oftewel, de *timing* van het gebruik van zelf- en ander-gerichte EI zou wel eens belangrijk kunnen zijn om te bepalen of hun wisselwerking positief of negatief uitvalt.

In het procesmodel van Hoofdstuk 5 heb ik de wisselwerking tussen zelf- en ander-gerichte EI verder uitgewerkt door te beschrijven onder welke omstandigheden deze gunstig of juist ongunstig uitvalt. Volgens het model zullen situaties waarin de eigen en andermans emoties tegelijkertijd verwerkt worden minder effectieve reacties opleveren omdat alle energie en aandacht verdeeld wordt over twee emotieverwerkingsprocessen. Situaties waarin iemand eerst reageert op de eigen emoties en daarna pas op de emoties van een ander zullen juist betere reacties opleveren, is de veronderstelling van het model. Eigen emoties kunnen in deze situaties niet meer afleidend zijn (want ze zijn al gereguleerd) en alle energie en aandacht kan worden gebruikt voor de emoties van de ander. In **Hoofdstuk 6** is dit idee getoetst in de eerder genoemde weekboekstudie onder stagiaires. Ik vond dat in weken waarin de stagiaires hun eigen emoties beter waarnamen én reguleerden, zij meer feedback en steun van anderen vroegen. Het zorgen voor sociale steun van anderen zorgde er uiteindelijk voor dat zij positievere beoordelingen kregen van hun praktijkbegeleiders. Deze bevinding laat zien dat wanneer stagiaires hun eigen emoties beter reguleerden, zij zich beter konden richten op de ander; in dit geval door het vragen van advies of hulp. Ik concludeer uit deze hoofdstukken dat de wisselwerking tussen zelf- en ander-gerichte EI aandacht verdiend omdat deze deels bepaalt hoe goed iemand op emoties reageert.

Onderzoeksvraag 4: Hoe verloopt het EI-proces?

Het onderzoek naar EI-processen staat nog in de kinderschoenen. De weinige studies die het EI-proces bestudeerd hebben laten onder andere zien hoe het gelijktijdig gebruik van verschillende EI dimensies zorgt voor betere werkprestaties. Ook laten deze onderzoeken zien wat voor technieken mensen met een hoge EI gebruiken om hun eigen emoties te reguleren. Echter, een algemeen beschrijvend model over hoe mensen hun EI gebruiken om de eigen en andermans emoties te verwerken en welke korte en lange termijn gevolgen dit heeft voor hun welzijn, (werk) prestaties en sociale leven, bestond nog niet. Het laatste doel van mijn proefschrift was dan ook om dit proces te onderzoeken.

Hoofdstuk 5 beschrijft een theoretisch model waarin ik het EI proces in beeld heb gebracht. Dit model beschrijft hoe het gebruik van EI eruit ziet tijdens een emotie-episode, dat wil zeggen de periode tussen het ontstaan van een emotie tot de regulatie van deze emotie. Ik koos voor het tijdsbestek van een emotie-episode om te kunnen focussen op hoe mensen daadwerkelijk reageren wanneer ze geconfronteerd worden met een emotie. Het EI-proces begint met een *trigger* die emoties oproept bij iemand zelf en/of bij iemand anders. Deze trigger kan situationeel van aard zijn (bijvoorbeeld een liedje op de radio), of het kan de emotie van de ander zijn. De eigen en andermans emoties activeren vervolgens het gebruik van zelf- en ander-gerichte EI dimensies: beide typen emoties worden eerst waargenomen en dan gereguleerd. De kwaliteit van deze emotieverwerking is echter afhankelijk van de

volgorde waarin de emoties verwerkt worden. De meest effectieve manier, zo stelt het model, is om eerst de eigen emoties te reguleren om zich vervolgens te richten op de emoties van de ander. De minst effectieve manier is om beide typen emoties tegelijkertijd te verwerken. Het gebruik van zelf- en ander-gerichte EI heeft een directe invloed op hoe iemand presteert tijdens de emotie-episode. Hierbij kan gedacht worden aan de kwaliteit van een lastig gesprek dat iemand voert. Deze prestaties kunnen op hun beurt ook volgende emotie-episodes beïnvloeden. Een fijn gesprek kan er bijvoorbeeld voor zorgen dat iemand met een goed humeur aan een volgende taak begint. Het effectief op emotie-episodes reageren heeft positieve gevolgen op de lange termijn zoals een goede gezondheid, fijne relaties, en goede werkprestaties. Het EI-proces kan verder worden beïnvloed door verschillende factoren zoals de soort emotie waarmee iemand te maken heeft, de relatie met de ander, en iemands eigen motivatie.

Met de weekboekstudie onder stagiaires heb ik het EI-proces, zoals beschreven in het hiervoor genoemde model, empirisch onderzocht (zie **Hoofdstuk 6**). De resultaten van dit onderzoek lieten zien dat het (wekelijks) waarnemen van de emoties van cliënten resulteerde in de regulatie van deze emoties. Deze regulatie had vervolgens weer een positief effect op de beoordeling die de stagiaires van hun praktijkbegeleiders kregen. Het waarnemen van de eigen emoties resulteerde in de regulatie van deze eigen emoties. Deze regulatie had vervolgens weer een positief effect op het energieniveau van de stagiaires. De waarneming van zowel eigen emoties als die van cliënten zorgde ervoor dat de stagiaires om meer feedback en steun vroegen, en dit effect werd versterkt wanneer de stagiaires hun eigen emoties hadden gereguleerd. Al met al laten deze bevindingen zien dat het omgaan met eigen en andermans emoties inderdaad twee verschillende EI-processen zijn die unieke uitkomsten hebben. Bovendien lijkt het succesvol verwerken van de eigen emoties een bijdrage te leveren aan sociaal gedrag (het vragen van advies en hulp). Samen leveren **Hoofdstukken 5** en **6** een nieuw perspectief op het EI-proces. Hopelijk inspireert dit perspectief om het gebruik van EI tijdens specifieke (sociale) situaties verder te onderzoeken.

Conclusie

In dit proefschrift is er onderzoek gedaan naar het gebruik van zelf- en ander-gerichte emotionele intelligentie. De bevindingen tonen aan dat het gebruik van zelf- en ander-gerichte EI fluctueert over de tijd, en dat deze fluctuaties een directe invloed hebben op het welzijn en de (werk) prestaties van mensen. Het onderscheid in zelf- en ander-gerichte EI speelt hierin een belangrijke rol aangezien het omgaan met eigen emoties een ander proces is dan het omgaan met de emoties van anderen, wat tot uiting komt in unieke gedragingen en uitkomsten. Meer specifiek is zelf-gerichte EI vooral belangrijk voor een beter welzijn, terwijl ander-gerichte EI vooral bijdraagt aan goede sociale relaties en werkprestaties. Deze bevindingen suggereren dat het voor werknemers belangrijk is om veel gebruik te maken van zowel zelf- als ander-gerichte EI tijdens hun dagelijkse werkzaamheden om op deze

manier vrolijk, fit, en effectief te blijven. Verwacht wordt dat de beste manier om dit te doen bestaat uit het eerst reguleren van de eigen emoties alvorens zich op de emoties van een ander te richten. Op deze manier wordt iemands volledige aandacht en energie steeds gericht op één EI-proces. Het ontwikkelde procesmodel van EI vormt een belangrijke uitkomst van dit proefschrift, en is gebaseerd op bovenstaande bevindingen. In dit model staat de dynamiek tussen het gebruik van zelf- en ander-gerichte EI centraal, en worden de korte en lange termijn uitkomsten van beide EI-processen op het gebied van welzijn en (werk) prestaties beschreven. Ik hoop dat dit proefschrift een inspiratie vormt voor een nieuwe en creatieve onderzoeksagenda naar de rol van EI in het dagelijkse (werkende) leven.

Curriculum Vitae

Curriculum Vitae

Keri Pekaar was born on October 6th 1987 in Breda, the Netherlands. After graduating cum laude at the Nassau Breda in 2007 (Athenaeum), she studied psychology at Tilburg University. In 2010, Keri obtained her bachelor degree and she spend a year to travel around the world. From 2011 to 2013 she followed the research master Social and Behavioral Sciences at Tilburg University and received her master degree in social psychology. During her studies, Keri worked as a teaching assistant in statistics and social psychology, and she was part of a research committee investigating a scientific fraud case.

In 2014, Keri started her PhD project at the Center of Excellence for Positive Organizational Psychology at the Erasmus University Rotterdam, which resulted in this dissertation. At the start of this project, she attended the European Association of Psychological Assessment autumn school on the assessment of emotional intelligence in Ghent, where she and her teammates were awarded with the "Best presentation award 2014". Her first dissertation paper on the enactment of emotional intelligence was awarded with the "Best paper award" at the 2015 conference of the Dutch Association of Work & Organizational Psychology. During her PhD project, Keri presented her work at several (inter)national conferences including the European Association of Work and Organizational Psychology conferences in Oslo (2015) and Dublin (2017). In her final year she participated in the European Association of Work and Organizational Psychology early career summer school in Crete. Just before printing, the current dissertation was awarded with the "Best dissertation award 2018" of the Erasmus Graduate School of Social Sciences and the Humanities.

As part of her PhD research, Keri developed a new instrument to measure self- and other-focused emotional intelligence: the Rotterdam Emotional Intelligence Scale (REIS). Since 2018, she and her co-authors have been collaborating with Ixly, a Dutch publisher of professional online psychological tests and questionnaires, and have published the REIS commercially.

In February 2019, she started her current job as a post-doctoral research fellow in the Human Performance Management Group at Eindhoven University of Technology.

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Conference Contributions

Presentations

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Pekaar, K. A., Bakker, A. B., Born, M. Ph., & Van der Linden, D. (2017). *The consequences of self- and other-focused emotional intelligence: Not all sunshine and roses.* European Association for Work and Organizational Psychology (EAWOP) conference, Dublin, Ireland.

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Symposium

Pekaar, K. A. (2017). *Dealing with emotions at work: The why and how of emotion appraisal and emotion regulation.* European Association for Work and Organizational Psychology (EAWOP) conference, Dublin, Ireland.

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