TOWARD A MORE CONTEXTUAL, PSYCHOLOGICAL, AND DYNAMIC MODEL OF EMOTIONAL INTELLIGENCE

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Our world is a quantifiable one, and so are people. Assigning numbers to behavioral and cognitive phenomena allows for relationships to be tested, categorizations to be made, and predictions about what people are likely to do. However, scores about people can be misapplied. Imagine an organization that is interested in revamping its culture by emphasizing communication and cooperation across boundaries and in general making the tenor of the interactions among personnel more positive. One key to helping with this may be to focus on employee emotional intelligence (EI), provide assessments of these capacities, and educate where gaps seem apparent. Maybe some employees are having difficulty recognizing their emotions or those of others, which can create problems in social interaction, while others' difficulties stem from challenges to controlling frustrations at work. Depending on the size of the organization, this could be a very involved and

Advances in Positive Organizational Psychology, Volume 1, 167–187

ISSN: 2046-410X/doi:10.1108/S2046-410X(2013)0000001010

costly undertaking. The hope is that the culture will be improved, along with the organizations' efficiency and performance.

But what if the predictive validity of EI tests was minimal? This is a valid concern, especially with recent meta-analyses indicating that when cognitive ability and personality measures are controlled for, the relationship between EI measures and a variety of consequential outcomes, such as work outcomes, academic outcomes, and life outcomes, is remarkably small (O'Boyle, Humphrey, Pollack, Hawver, & Story, 2011; Van Rooy & Viswesvaran, 2004).[1] Such evidence contradicts popular notions surrounding the promise and "big idea" behind EI, in which it was claimed that EI can matter more than IQ in life success (Goleman, 1995). The evidence also does not align with more recent claims from researchers. For example, Cherniss (2010, p. 184) noted that, "This big idea is that success in work and life depends on more than just the basic cognitive abilities typically measured by IQ tests and related measures; it also depends on a number of personal qualities that involve the perception, understanding, and regulation of emotion."

With such concerns regarding the predictive validity of EI, organizational decision makers might not bother following through with the assessments they had planned to help overhaul their organization's culture. However, as researchers, our concern is a different one, and that is to consider ways to increase the predictive value of EI. In this chapter, we offer a set of suggestions for how to refine the way EI is conceptualized to enhance its predictive utility. We aim to do this by creating a synthesis based on two principles:

- *Principle 1*: A useful model of EI needs to delineate the nature and influence of the social context in order to understand *when* and *why* people apply their EI skills.
- *Principle 2*: A useful model of EI needs to integrate fundamental conceptions of *how* the mind works – namely, by defining the interaction between intuitive (automatic) and deliberative (controlled) mental processes – to fully capture the psychology of EI and the flexibility with which people make sense of their social worlds and are influenced by it.

We begin by reviewing briefly the diverse approaches to conceptualizing EI. We then elaborate the two principles of our EI model and discuss their implications for theory, research, and practice.

CONCEPTUALIZING AND ASSESSING EMOTIONAL INTELLIGENCE

Researchers have undertaken many approaches to conceptualizing and assessing EI. Some approaches combine self-reported EI with broader personality constructs. Other approaches are based on so-called ability measures of EI, whether as tendencies people can self-report (Tett, Fox, & Wang, 2005) or as assessments developed to measure specific components of EI (e.g., Nowicki & Duke, 1994). We briefly survey the literature to arrive at a working understanding of what EI is currently thought to be (for more extensive reviews, see Mayer, Roberts, & Barsade, 2008; Zeidner, Matthews, Roberts, 2009).

Mixed Models

So-called mixed models, in addition to assessing qualities that appear related to EI abilities, also consider factors participants self-report on, such as their motives, self-assessments, and coping tendencies. Examples include the Emotional Quotient Inventory (EQ-i; Bar-On, 1997), the Self-Report Emotional Intelligence Test (SREIT; Schutte et al., 1998), and the Multidimensional Emotional Intelligence Assessment (MEIA; Tett et al., 2005). Because mixed approaches overlap with other personality traits and assess self-judgments rather than "abilities," it has been suggested that they do not provide real assessments of EI (Mayer et al., 2008). For example, studies have reported correlations above .70 between the EQ-i and the Big Five personality scales (e.g., Brackett & Mayer, 2003). However, more recent work appears to embrace such overlap and suggests this is consistent with the view that the General Factor of Personality is equal to trait EI (e.g., Linden et al., 2012).

Ability Models

In contrast to mixed models, ability models focus on single abilities, such as how people reason about emotions (e.g., Roseman, 1984) or how emotions influence thought (e.g., Frijda, 1988; Isen, Johnson, Mertz, & Robinson, 1985). Other potential abilities include facial recognition, emotion perception and recognition (Banziger, Grandjean, & Scherer, 2009; Ekman & Friesen, 1975;

Matsumoto et al., 2000; Nowicki & Duke, 1994; O'Sullivan, 1982; Sanchez-Burks & Huy, 2009), and emotion management (e.g., Freudenthaler & Neubauer, 2007; Gross, 1998; Kross, Ayduk, & Mischel, 2005). The interest in distinct abilities seems to be based in part on their separate historical and intellectual traditions. For example, research on emotion management is closely tied to impulse control and coping (e.g., Lazarus, 1994) and is rooted in part in the clinical tradition (e.g., Ellis, 2001).

Integrative Models

Finally, some models bring together separate abilities thought to be related to EI. The main integrative model is the four-branch model, which deals with people's ability to recognize emotions in self and others, use emotion to influence thought, understand emotions, and manage emotions (Mayer & Salovey, 1997; Mayer et al., 1997). Some researchers, though, consider the abilities contained within this model to be a little arbitrary, as it is unclear what criteria beyond the researchers' judgment is used to include some abilities over others (Roberts, Matthews, & Zeidner, 2010).

RECONCEPTUALIZING EMOTIONAL INTELLIGENCE

Given the many approaches to studying EI, it is challenging to understand what EI actually is. Such a lack of conceptual coherence promotes confusion among researchers and potential misunderstandings by the public. This does not, however, imply that EI is of no use. Current research and conceptions provide important early steps in the study of EI. Our aim is to elaborate these steps and provide a framework to help guide theoretical development and research on EI. One aspect of our approach is to consider the social context in which EI-related tools are applied (Principle 1). An explicit focus on social context can ground the concept and study of EI. The second element of our approach is to take seriously the notion that EI involves a set of mental processes, not just a score a person is given on an EI test. By delving deeper into the psychology of EI and relating it to widely accepted dual-process models (Principle 2), we delineate a conception of EI that is more dynamic and flexible. The model thus embraces the reality that people's behaviors and decisions are bound to context as much as the person's characteristics. The present conception also may help explain why

individuals thought to be high on EI can enact ineffective behavior in some situations – which no current model of EI can do. We turn to the two principles of our framework next.

Principle 1: Social Context Matters

Implied in many discussions of EI is the idea that how people manage aspects of the social environment is important for success. For example, some of the subscales of the EQ-i (Bar-On, 1997) converge onto an interpersonal factor, and many of the ability models deal with emotion recognition in others (e.g., Matsumoto et al., 2000; Nowicki & Duke, 1994) and the ability to manage emotions in others (e.g., Mayer, Salovey, & Caruso, 2002). Popular treatments have also moved beyond the term *emotional intelligence* and refer to *social intelligence* (Goleman, 2006) to make explicit the connection between EI and social and interpersonal processes. Despite these suggestions, current EI conceptions do little to fully explicate the importance of the social context in which people apply their EI toolkit and at times have attempted to distance themselves from earlier formulations that focused on the social realm, such as work on social intelligence (e.g., Mayer, Caruso, & Salovey, 1999; for reviews of some of the early work on social intelligence, see Kihlstrom & Cantor, 1989).

But earnestly focusing on social context broadens the promise of EI, helping it address puzzling questions such as why it is that otherwise emotionally intelligent individuals crumble when faced with temptation, such as President Clinton with Monica Lewinsky. President Clinton won two elections – achievements based in part on the careful navigation of the social and perilous world of US politics. But the Lewinsky debacle resulted from a failure to read the social landscape and control his emotions. Usually, the explanation for such occurrences is based on the so-called "big idea behind EI," that successful people with high IQ's can falter, which leaves room for other abilities such as EI to help explain such shortfalls – meaning they must have been low on EI or some aspect of it (Cherniss, 2010). However, Clinton clearly demonstrated the capacity to be "emotionally intelligent" in other situations. For example, he was adept at negotiating difficult treaties between opposing factions and when interacting with opposing parties in Congress.

Dealing with such discrepancies necessitates greater elaboration of the role of context in EI, and that is why we make the context an explicit element of this analysis. This consideration will make clear that the social

world people navigate can shape and constrain a person's EI (for similar arguments in the domain of personality, see Mischel & Shoda, 1995).

Contexts Activate Goals in People that can Impair Emotional Intelligence
People pursue varied goals throughout the day, some chronic and some more short term in nature. A classic study in social psychology highlights how chronic versus short-term goals can conflict in ways that consequentially influence behavior. Darley and Batson (1973) were interested in studying the power of context to influence helping behavior. The participants of their study involved seminary students. In the study, the seminary students had the goal to deliver a talk on either the parable of the Good Samaritan or a non-helping topic. In addition, participants were randomly assigned to a condition in which they either thought they had enough time to get to the hall where they would deliver their talk or a different condition in which they were told they were late. On their way to deliver the talk the students were presented with a powerful contextual event that was directly relevant to their task but also conflicted with the task goal – as they were making their way to give the talk they encountered a man slumped in an alleyway in need of help. So, what did the results show?

The findings were striking and indicated that the seminary students, whether or not they were to give a speech on the Good Samaritan or the non-helping topic, were more likely to help when they were not in a hurry to give their talk. Some hurried students even literally stepped over the person in the alleyway. Here you have a group of people who is undertaking what might be considered intensive EI training, in the sense that they are honing their skills in reading others and being more sympathetic. Half of them were even off to give a talk on helping. But when presented with the opportunity to read a potentially problematic social situation in which a person needs help, many of them faltered because of a pressing goal activated by the context. It is unclear how any available conception of EI would explain such a finding (see Fig. 1 for a standard view of EI and how it is thought to affect outcomes).

Other ironic effects abound when the social context is considered more closely. It is understood by a growing number of researchers that people greatly value and strive for positive social connections. In an extensive review, Trivers' (1971) concluded that people are driven to establish relationships with others, at times even at great cost to the self (also see Baumeister & Leary, 1995). This drive to create social and emotional bonds emerges and asserts itself even in work- and task-related contexts. Research has shown, for example, that when formal groups were put in place to

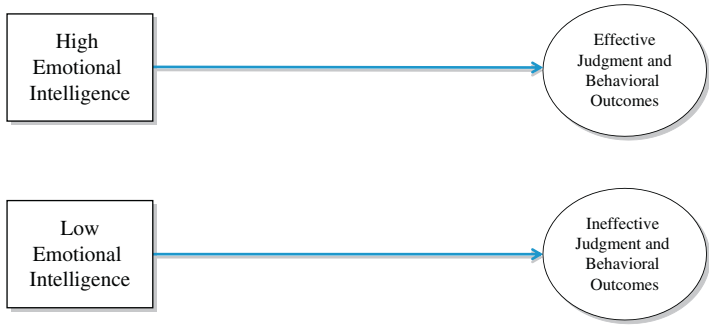

Fig. 1. Standard Model of EI Effects on Outcomes.

perform tasks relevant to organizational goals, informal groups – such as employees from different units gathering to eat lunch – were spontaneously created as a response to people's need for social contact (e.g., Sayles, 1957). More recently, researchers have shown that the social conditions at work predict people's mortality levels (Shirom, Toker, Alkaly, Jacobson, & Balicer, 2011).

However, the power of social goals can also bleed into other judgments and behaviors to create biases. People, for example, are faster to notice information with social versus nonsocial implications (Ybarra, Chan, & Park, 2001), and when getting to know someone, people are biased to ask for information that tells them about the person's social versus work-related qualities (Wojciszke, Bazinska, & Jawoski, 1998). Even while sleeping we tend to think about other people (McNamara, McLaren, Smith, Brown, & Stickgold, 2005), and at times even see social cues where there are none, such as in clouds (Humphrey, 1976). These biases may become elevated when people's need to be socially accepted and connected to others is thwarted, regardless of what their EI capacities might be. In such cases, people tend to focus on information related to fulfilling the need to connect (Gardner, Pickett, & Brewer, 2000), which can limit their ability to take in information relevant to the task at hand and blind them to other aspects of the social environment. Such unfulfilled social needs can also induce negative emotional reactions that impair people's ability to reason (e.g., Baumeister, Twenge, & Nuss, 2002). So, core goals for people – to connect with others and to have positive social relationships – vary by context and the current situation and can put mental blinders on people that can actually result in compromised EI.

The above discussion suggests that a more complete model of EI needs to incorporate information about context, social goals, and potential conflict in activated goals. Such considerations would suggest that the EI process is fluid and at times open to inefficiencies. It suggests that situational factors that pit task versus social goals can create conflict in people and even override outcomes at the core of EI (cf. Sanchez-Burks, 2005). For instance, rather than shelving an emotional reaction in response to a colleague's feedback, a person might carry that experience into the next meeting, which could influence team dynamics and their ability to complete the task at hand. At other times situational forces can make people feel lacking in positive social connections and may lead them to misread social information or, as we will discuss in Principle 2 of our analysis, short-circuit higher-level reasoning processes when such processes are most needed.

Context Influences Target Emotional Displays in Addition to Personal Mental Biases

In addition to not explicitly considering issues of dynamic motivation or the perpetual goal conflicts that comprise social life, current EI models assume that assessments of the social world – given a person has scored high on some measure of EI – are static and valid. It is comforting to assume so, but just as smart people can be foolish for a host of reasons (also see Sternberg, 2002), people who score high on EI may also exhibit socially ineffective behavior for a host of reasons. In addition to being overtaken by situationally triggered goals, another way this can happen is by assuming that the emotions of others can actually be recognized as most EI models assume. Although many models of social and person perception share this bias with EI conceptions – focusing on the perceiver (i.e., the person and their EI level) – social understanding is ultimately the product of perceiver hypotheses but also the actual stimulus that is being perceived.

For example, in complex and mixed-motive environments in which people deal with strangers or competitors, those being perceived many times enact unpredictable behaviors or limit the degree to which they are "readable" (Ybarra et al., 2010). At best, a person high on EI would be expected not to render a judgment of another person in such cases, but no conception or assessment of EI has been created to capture this "skeptical" approach to information presented by others. At worst, the person will inaccurately infer the target's emotions, triggering a cascade of additional assumptions that could potentially lead to a suboptimal way of interacting. Just like people can see faces in clouds, they may see emotional expressions in others that are not there in mixed-motive environments. Ecologically valid models of EI need to incorporate such knowledge of others and the social conditions

that are more or less likely to trigger attempts not to be figured out and predicted (e.g., Ybarra et al., 2010).

Certain social environments can also shape the construals people make and inferences they draw. Although various psychological and behavioral processes are in place that prompt people to form social connections with others, people are also attuned to potential interpersonal costs, such as being betrayed by a coworker, overlooked by a boss, or treated with disrespect in front of other employees. This sensitivity to potential costs can create barriers to positive social connections as people have lower thresholds for noticing the bad and drawing negative inferences about others, and higher thresholds for accepting at face value others' positive acts (Ybarra, 2001, 2002; Ybarra, Schaberg, & Keiper, 1999). One implication of this is that contexts that emphasize values related to competitiveness, distrust, and behavioral practices harmful to the "social glue" could trigger less-than-generous and erroneous inferences and thus ineffective EI, due in part to supporting some beliefs over others (e.g., "My colleagues only care about themselves"), but also due to social stress and diminished cognitive resources, as we discuss under Principle 2.

Summary: Principle 1 of our analysis suggests that an explicit exposition of the social context and the situations in which people apply their EI skills is needed to enhance current conceptions of EI. Such considerations help inform the *when* and *why* of EI. We could all be interested in or even immersed in EI training, but if other goals are activated by the context, conflict may occur and our best intentions to understand and problem-solve in social situations can be compromised. Further, even though all people have a need to connect, when such a need is unfulfilled, they may actually exhibit low EI despite having scored high on an EI assessment. A better understanding of the context thus can also help explain *why* people considered emotionally intelligent can be socially ineffective as a function of context – a scenario no current model of EI addresses.

Next, we turn to Principle 2, which highlights the importance of incorporating knowledge concerning the intuitive and deliberate processes that govern how the mind operates to develop a more comprehensive model of EI.

Principle 2: The Mental Processes Involved in Emotional Intelligence

Many times in EI studies participants are asked to judge scenarios or facial stimuli and then describe what they have seen or complete self-report personality-type inventories. At other times participants are presented with

hypothetical descriptions of social situations and asked to report how they and the other person in the situation would feel. Communicating and reporting such opinions and feelings are very conscious activities (e.g., Smith & DeCoster, 2000) and they can be cognitively demanding. We refer to this aspect of EI as *deliberate* – individuals consciously use their EI to judge and analyze social and emotional situations or internal reactions. On the other hand, research from other areas has begun to show that processes related to EI can actually be carried out automatically, with little awareness. We refer to this as the *intuitive* aspect of EI, and discuss the deliberate–intuitive distinction presently. As we elaborate in the next section, taking seriously the distinction between deliberate and intuitive processes adds dynamism and context sensitivity to our framework, but it also suggests novel hypotheses and implications.

Two General Abilities and Two Types of Processing for Emotional Intelligence

Although EI instruments assess a variety of so-called abilities, here we focus on two meta-capabilities that are common to many EI models – *emotion recognition* and *emotion control*. We realize that no exhaustive test of EI-related assessments has been conducted. However, the two meta-capabilities of emotion recognition and control can be considered the workhorses of social navigation. Beyond this, our framework also incorporates the two types of information processing discussed above – *intuitive* and *deliberate* processing. What this does is help place our framework in the context of similarly distinctive dual-process models used in various disciplines, including social cognition, cognitive science, reasoning and rationality, personality, behavioral economics, and emotion regulation, for example (e.g., Chaiken & Trope, 1999; Smith & DeCoster, 2000; Stanovich & West, 2000).

Emotion recognition traditionally deals with people's ability to determine in the self and others which emotions are being felt or expressed verbally and nonverbally and is rooted in earlier work on nonverbal sensitivity (e.g., Buck, 1984; Rosenthal, Hall, DiMatteo, Rogers, & Archer, 1979). Emotion control refers to a person's ability to manage moods and emotions in self and others, usually in the service of maintaining or creating positive affective states and eliminating or minimizing negative ones (e.g., Clark & Isen, 1982).

Both emotion recognition and control can operate through a deliberate process. An employee, for example, can consciously focus on what his boss

is saying and attend to the boss' facial expressions and gestures to infer what the boss wants done. In terms of emotion control, a unit leader could guide their attention to think differently about the impending downsizing of the unit. This conscious frame switching could help quell personal distress but could also suggest different ways of helping the affected employees.

In the majority of EI models, emotion recognition and control are considered to operate through a deliberate process (Mayer & Salovey, 1997; for an exception, see Fiori, 2009), and research indicates that there are deliberate components to the operation of both of these skills. For example, individuals who suffer from autism spectrum disorder, in order to recognize faces effectively, rely on the deliberate application of rules and knowledge to make inferences about what another person is feeling (e.g., Winkielman, McIntosh, & Oberman, 2009). In terms of emotion control, psychotherapeutic techniques are based on a conscious, controlled approach in which therapists raise awareness in clients about distressing emotions and events and provide them with conscious activities to practice controlling such reactions (Ellis, 2001). In fact, researchers have been able to manipulate the particular deliberate manner in which people approach a negative emotional experience – for instance, whether they immerse themselves or take a step back from it, with findings indicating that the ability to take a step back and consider more information about the social situation helps to buffer against reexperiencing intense negative emotions (Kross & Ayduk, 2011). Deliberate steps taken by a unit leader to distance herself from the distress of impending layoffs, for example, may be effective for managing emotions (for related discussion see Mischel, DeSmet, & Kross, 2006).

Deliberately implemented skills are critical to helping people interact effectively in social contexts, but their use is restricted in part by a person's level of cognitive resources. Fortunately, these skills can also operate *intuitively* through a process that is more immune to one's cognitive resource level (e.g., Smith & DeCoster, 2000). A service provider, for example, might readily notice among a group of jockeying customers one who is smiling and seems friendly, even if they are not aware of why that person captured their attention. With regard to emotion control, a team leader, almost impulsively, could speak up and rally his or her team when the team has suffered a setback and the members are overcome with disappointment.

Recent research has delved deeper into the intuitive operation of EI-related abilities. For example, in terms of emotion recognition, research indicates that people can recognize the valence of faces (positive, negative) even when the faces are presented too fast to engage higher-level cognitive skills (e.g., Clark, Winkielman, & McIntosh, 2008). Recent findings also

suggest that some elements of emotion control can occur quite efficiently with little deliberation (for reviews see Bargh & Williams, 2007; Mauss, Bunge, & Gross, 2007). In one study, researchers primed participants with words related to controlling or expressing their emotions, and this was done to activate these emotion-related goals. Participants then filled out a mood questionnaire and were led to experience anger. They then completed a posttest mood questionnaire. The findings indicated participants with the "control" goal expressed less anger at Time 2 than participants for whom the goal of "express" had been activated (Mauss, Cook, and Gross, 2007, Experiment 1). This was the case even though participants were unaware that the goal concepts had been activated. Such findings provide evidence of an efficient, intuitive type of process.

Other work that has documented the operation of efficient, automatic processes comes from research on theory of mind and the understanding of psychological states related to behavior. Understanding emotions in others is intertwined with the perception of others' psychological states. Comparative and developmental approaches to theory of mind have shown that perceivers can immediately grasp the meaning of others' acts or aspects of their mental states without thinking extensively about the available information (e.g., Iacaboni et al., 2005; Qureshi, Apperly, & Samson, 2010).

Although we argue that the operation of EI can occur quite efficiently through intuitive processing, it does not mean this type of processing will always be effective. Its effectiveness depends to a large extent on the veracity of the social and contextual information on which it is based. If the available intuitive process is based on well-crafted habits of mind and prior emotion recognition and control that was adaptive given the prevailing context, then the process can be useful. But if the intuitive processes are not well tuned to past social experience and social reality, they may actually get the person in a lot of trouble. For example, having been part of an overly competitive organizational environment could lead a person to see interpersonal threats at a new job even when there are no threats. Basing final judgments on such initial inferences could then create a host of interpersonal problems. In cases such as these, conscious and deliberate processes are useful in order to unlearn potentially ineffective ways of relating to others, and for controlling and modulating initial assessments of others to correct for inaccurate inferences.

However, because deliberate processing tends to be more controlled and linked to limited cognitive resources, such processing should influence emotion recognition only to the extent that people are not cognitively overloaded or fatigued. Similarly, if people are under time pressure, or if

they are not motivated to undertake such deliberate processing (cf. Smith & DeCoster, 2000), emotion recognition (or control) could be compromised – instead of reserving judgment about the emotion being perceived, for instance, an individual might jump to conclusions and judge inaccurately. In another example, the employee lacking sleep and overwhelmed by the tasks piling up on his desk may not have the cognitive resources to discern the boss' intent (assuming he or she has little experience with the boss), which could compromise subsequent performance on the job.

The above discussion suggests that people can be flexible in how they integrate their EI abilities, playing them off each other to arrive at effective assessments of their social surroundings, but this use of deliberate processing to restrain or inform intuitive processes is restricted by the availability of limited cognitive resources. However, EI-related abilities can become efficient and automatized through practice, much like other skills. This bodes well for employees who want to develop their EI. It suggests that, although work or life can be stressful and fatiguing, well practiced skills and abilities can be executed with little need for cognitive resources (Bargh & Chartrand, 1999; Smith & DeCoster, 2000). In order for this to happen, however, people need to put themselves in situations in which they can practice, develop, and apply these abilities.[2]

In sum, Principle 2 contends that two factors influence a person's EI: (a) the availability of cognitive resources and (b) the determination of appropriate individual reactions. Recall that, even though a skill can be executed efficiently does not imply appropriateness, as skills at times may be based on a history of imperfect social understanding and they can be misapplied. In some cases it may thus make sense to more carefully consider or "shelve" these inferences before acting on them. Many times the outcomes of intuitive processes are proposed solutions that need to be monitored for appropriateness given the current context, which requires cognitive resources. The level of individual cognitive resources thus allows for various idiosyncrasies in how people manifest their EI, but so does the degree to which people practice and make more intuitive some EI reactions over others.

MOTIVATION AND THE TWO PRINCIPLES MOVING FORWARD

At different points in discussing Principles 1 and 2 we have highlighted the power of people's goals and motivations to shape EI. Here we consider

people's motivation more broadly. In fact, in our conception, it is difficult to separate motivation from the two principles, as the three elements many times interact to produce a wide range of EI-related outcomes. The examples and research we reviewed can be used to highlight these interactions, and also, moving forward, suggest ways in which these and other ideas can be tested.

One example has to do with automatic and deliberate processes (Principle 2) related to how people understand psychological states such as theory of mind, which matters when assessing emotions in others. Some of this research has shown that when people perform theory of mind tasks under cognitive load, they can still carry out simple calculations to arrive at some understanding of others (e.g., Qureshi et al., 2010). In day-to-day life, different contexts (Principle 1) could give rise to time pressure or to different motivations, such as not wanting to be in the company of a certain individual or feeling bored at a meeting. The time pressure in the former case and the lack of motivation in the latter could actually reduce cognitive resources and the extent to which people attend to those around them, thus limiting deliberate processing related to EI. This does not mean perceivers in these situations would fail to achieve any understanding, but that emotional understanding is likely to be of a more simple and generic quality, even though a person might have received a high score on some traditional EI assessment.

However, if we assume people who are higher on EI compared to those lower on EI should extract richer understandings of others' mental states and more complex reasons for others' emotions, studies could be done comparing high and low EI participants under conditions of cognitive load or no load. One expectation would be that under no load conditions both high and low EI participants would extract rich emotion understandings, but that under load only those higher on EI would continue to do so. According to our framework, this would assume the EI abilities of those high in EI are well practiced and intuitive. If the EI abilities are not intuitive – which is difficult to measure with current assessments of EI – then what might be expected is that under cognitive load even participants considered high on EI would be ineffective (see Fig. 2 for a depiction of this possibility). As this example makes clear, without knowing anything about a person's EI abilities in terms of whether they can be applied automatically, or the degree to which the testing context depletes cognitive resources, it is difficult to ascertain what high or low EI is. For example, the second outcome, if obtained, would suggest that part of what makes for effective EI

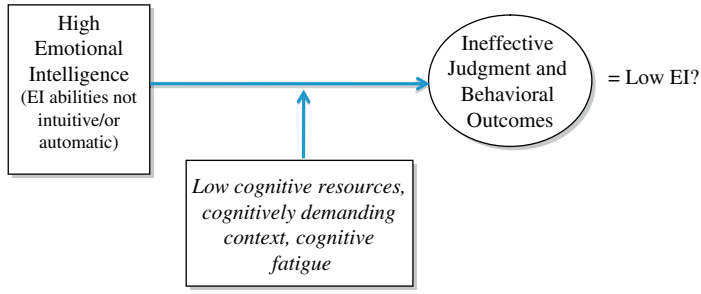

Fig. 2. Reconceptualized Model of High EI Effects on Outcomes: Dual Process Considerations.

is the availability of cognitive resources and/or EI abilities that are well practiced and intuitive and not open to disruption from stressful contexts.

The study on the Good Samaritan situation (Darley & Batson, 1973) provides an example of how the three elements – context, dual processes, and motivation – might interact in other ways. The seminary students who were in a hurry were under a different motivational state than those not in a hurry, and this motivational state was determined by context (Principle 1: different information received from instructors). Many people due to their current context have experienced deadlines, which changes what they value and their priorities – that is, their motivation. For the seminary students who thought they were late, their goal caused many of them to disregard the person in need of help, which could have stemmed from various processes involving automatic and deliberate EI (Principle 2). For example, one possibility is that they just did not notice the person. Another is that they noticed the person but they categorized the situation incorrectly. A third possibility is that the students accurately categorized the situation but overrode the assessment through a deliberate process and decided they could not help due to the pressing goal.

To disentangle these possibilities, researchers could have participants perform a similar task, but at the end assess memory for the critical incident (person in need of help). If participants in the time pressure condition, regardless of EI level, could not remember the person in need, this would suggest that the induced motivational state directed cognitive processing away from the person and the social situation. Alternatively, it is possible that participants lower on EI would show poor memory but those high in EI good memory and accurate categorization of the critical incident.

This would suggest that even when an assessment of the critical situation was made correctly, the pressing goal overrode EI inferences and intentions to help. Viewed without consideration for context and the conflicting goals they can elicit, such an outcome might in actuality suggest low EI, as depicted in the top panel of Fig. 3. But it could just as well be that on a different day, free of conflicting goals, the seminary students might have been quite willing to help (like those in the control group; see bottom panel of Fig. 3), which might lead some observers in this case to attribute high EI to them for being able to read the situation and for being generous. But the inference of low EI in the former case and high EI in the latter is less than clear without consideration of the principles we have outlined here.

The current discussion should help demonstrate that three elements we are proposing to help reconceptualize EI are pieces in an interactive mental system. The elements can interact and align in different ways, providing more nuanced explanations of how effective EI emerges but also helping to suggest a variety of hypotheses that could be tested in future research and ultimately help explain why individuals thought to be high on EI can enact ineffective behavior in other situations.

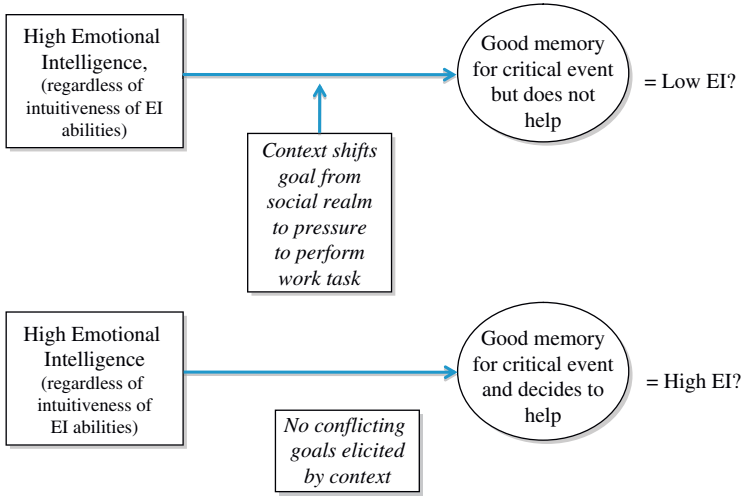

Fig. 3. Reconceptualized Model of High EI Effects on Outcomes: Context × Motivation Considerations.

CONCLUSION

Many questions remain regarding EI, so we concur with many of our colleagues' previous calls for further study of EI to help address these issues. But we would add that what is also needed is more conceptual work that takes social context seriously and provides a model of mental processes (at different levels) given what is known in the psychological literature. In this vein, we have proposed one approach for doing this. It is our hope that by delving deeper into both the social context and psychology of EI researchers and practitioners will have more guidance and knowledge at their disposal to pursue questions and projects that can help unlock the promise of EI.

NOTES

1. These analyses focus on measures specifically labeled as EI. Other approaches to the study of EI-relevant abilities exist, as we discuss under the section dealing with ability measures. Most of the research assessing predictive validity (in meta-analyses controlling for other important factors) has focused on specific measures of EI, whether as integrated EI abilities or self-report trait or "mixed" models.
2. Most skills follow the path of explicit practice to automaticity, from being deliberate to becoming more automatic and intuitive. This is not to say that skill acquisition cannot occur implicitly and with little awareness (Bargh & Chartrand, 1999; Lewicki et al., 1992).

REFERENCES

Bargh, J. A., & Chartrand, T. L. (1999). The unbearable automaticity of being. *American Psychologist*, *54*, 462–479.

Bargh, J. A., & Williams, L. E. (2007). The nonconscious regulation of emotion. In J. Gross (Ed.), *Handbook of emotion regulation* (pp. 429–445). New York, NY: Guilford.

Bar-On, R. (1997). *Bar-On emotional quotient inventory: Technical manual*. Toronto, ON: Multi-Health Systems.

Banziger, T., Grandjean, D., & Scherer, K. R. (2009). Emotion recognition from expressions in face, voice, and body: The Multimodal Emotion Recognition Test (MERT). *Emotion*, *9*, 691–704.

Baumeister, R., & Leary, M. (1995). The need to belong: Desire for interpersonal attachments as a fundamental human motivation. *Psychological Bulletin*, *117*, 497–529.

Baumeister, R. F., Twenge, J. M., & Nuss, C. (2002). Effects of social exclusion on cognitive processes: Anticipated aloneness reduces intelligent thought. *Journal of Personality and Social Psychology*, *83*, 817–827.

Brackett, M., & Mayer, J. (2003). Convergent, discriminant, and incremental validity of competing measures of emotional intelligence. *Personality and Social Psychology Bulletin*, *29*, 1147–1158.

Buck, R. (1984). *The communication of emotion*. New York, NY: Guilford Press.

Chaiken, S., & Trope, Y. (Eds.). (1999). *Dual process theories in social psychology*. New York, NY: Guilford Press.

Cherniss, C. (2010). Emotional intelligence: New insights and further clarifications. *Industrial and Organizational Psychology*, *3*, 183–191.

Clark, M. S., & Isen, A. M. (1982). Toward understanding the relationship between feeling states and social behavior. In A. Hastorf & A. M. Isen (Eds.), *Cognitive social psychology*. New York, NY: Elsevier.

Clark, T. F., Winkielman, P., & McIntosh, D. N. (2008). Autism and the extraction of emotion from briefly presented facial expressions: Stumbling at the first step of empathy. *Emotion*, *8*, 803–809.

Darley, J. M., & Batson, C. D. (1973). From Jerusalem to Jericho: A study of situational and dispositional variables in helping behavior. *Journal of Personality and Social Psychology*, *27*, 100–108.

Ekman, P., & Friesen, W. V. (1975). *Unmasking the face: A guide to recognizing emotions from facial clues*. Englewood Cliffs, NJ: Prentice-Hall.

Ellis, A. (2001). *Overcoming destructive beliefs, feelings and behaviors*. New York, NY: Prometheus Books.

Fiori, M. (2009). A new look at emotional intelligence: A dual process framework. *Personality and Social Psychology Review*, *13*, 21–44.

Freudenthaler, H. H., & Neubauer, A. C. (2007). Measuring emotional management abilities: Further evidence of the importance to distinguish between typical and maximum performance. *Personality and Individual Differences*, *42*, 1561–1572.

Frijda, N. H. (1988). *The laws of emotions*. Mahwah, NJ: Erlbaum.

Gardner, W. L., Pickett, C. L., & Brewer, M. B. (2000). Social exclusion and selective memory: How the need to belong influences memory for social events. *Personality and Social Psychology Bulletin*, *26*, 286–296.

Goleman, D. (1995). *Emotional intelligence: Why it can matter more than IQ*. New York, NY: Bantam.

Goleman, D. (2006). *Social intelligence: The new science of human relationships*. New York, NY: Bantam.

Gross, J. J. (1998). The emerging field of emotion regulation: An integrative review. *Review of General Psychology*, *2*, 271–299.

Humphrey, N. K. (1976). The social function of intellect. In P. P. G. Bateson & R. A. Hinde (Eds.), *Growing points in ethology* (pp. 303–317). Cambridge: Cambridge University Press.

Iacaboni, M., Molnar-Szakacs, I., Gallese, V., Buccino, G., Mazziotta, J. C., & Rizzolatti, G. (2005). Grasping the intentions of others with one's own mirror neuron system. *PLoS Biology*, *3*, 529–535.

Isen, A. M., Johnson, M. M. S., Mertz, E., & Robinson, G. F. (1985). The influence of positive affect on the unusualness of word associations. *Journal of Personality and Social Psychology*, *48*, 1413–1426.

Kihlstrom, J. F., & Cantor, N. (1989). Social intelligence and personality: There's room for growth. In R. S. Wyer & T. K. Srull (Eds.), *Advances in social cognition* (Vol. 2, pp. 197–214). Hillsdale, NJ: Erlbaum.

Kross, E., & Ayduk, O. (2011). Making meaning out of negative experiences by self-distancing. *Current Directions in Psychological Science*, *20*, 187–191.

Kross, E., Ayduk, O., & Mischel, W. (2005). When asking "'why"' does not hurt: Distinguishing rumination from reflective processing of negative emotions. *Psychological Science*, *16*, 709–715.

Lazarus, R. S. (1994). *Emotion and adaptation*. Oxford, UK: Oxford University Press.

Lewicki, P., Hill, T., & Czyzewska, M. (1992). Nonconscious acquisition of information. *American Psychologist*, *47*, 796–801.

Linden, D., van der, Tsaousis, Y., & Petrides, K. V. (2012). Overlap between general factors of personality in the Big Five, giant three, and trait emotional intelligence. *Personality and Individual Differences*, *53*, 175–179.

Matsumoto, D., LeRoux, J., Wilson-Cohn, C., Raroque, J., Kooken, K., Ekman, P., … Goh, A. (2001). A new test to measure emotion recognition ability: Matsumoto and Ekman's Japanese and Caucasian brief affect recognition test (JACBART). *Journal of Nonverbal Behavior*, *24*, 179–209.

Mauss, I. B., Bunge, S. A., & Gross, J. J. (2007). Automatic emotion regulation. *Social and Personality Psychology Compass*, *1*, 146–167.

Mauss, I. B., Cook, C., & Gross, J. J. (2007). Automatic emotion regulation during anger provocation. *Journal of Experimental Social Psychology*, *43*, 698–711.

Mayer, J. D., Caruso, D., & Salovey, P. (1999). Emotional intelligence meets traditional standards for an intelligence. *Intelligence*, *27*, 267–298.

Mayer, J. D., Roberts, R. D., & Barsade, S. G. (2008). Human abilities: Emotional intelligence. *Annual Review of Psychology*, *59*, 507–536.

Mayer, J. D., & Salovey, P. (1997). What is emotional intelligence? In P. Salovey & D. Sluyter (Eds.), *Emotional development and emotional intelligence: Educational implications* (pp. 3–31). New York, NY: Basic.

Mayer, J. D., Salovey, P., & Caruso, D. (1997). *Emotional IQ test*. Needham, MA: Virtual Knowledge.

Mayer, J. D., Salovey, P., & Caruso, D. R. (2002). *Mayer-Salovey-Caruso emotional intelligence test (MSCEIT) user's manual*. Toronto, ON: MHS Publ.

McNamara, P., McLaren, D., Smith, D., Brown, A., & Stickgold, R. (2005). A ''Jekyll and Hyde'' within: Aggressive versus friendly interactions in REM and non-REM dreams. *Psychological Science*, *16*, 130–136.

Mischel, W., DeSmet, A., & Kross, E. (2006). Self-regulation in the service of conflict resolution. In M. Deutsch, P. T. Coleman & E. C. Marcus (Eds.), *Handbook of conflict resolution* (pp. 294–313). San Francisco, CA: Jossey-Bass.

Mischel, W., & Shoda, Y. (1995). A cognitive-affective system theory of personality: Reconceptualizing situations, dispositions, dynamics and invariance in personality structure. *Psychological Review*, *102*, 246–268.

Nowicki, S., Jr., & Duke, M. (1994). Individual differences in the nonverbal communication of affect: The diagnostic analysis of nonverbal accuracy scale. *Journal of Nonverbal Behavior*, *18*, 9–35.

O'Boyle, E. H., Humphrey, R. H., Pollack, J. M., Hawver, T. H., & Story, P. A. (2011). The relation between emotional intelligence and job performance: A meta-analysis. *Journal of Organizational Behavior*, *32*, 788–818.

O'Sullivan, M. (1982). Measuring the ability to recognize facial expressions of emotion. In P. Ekman (Ed.), *Emotion in the human face* (pp. 281–317). Cambridge, UK: Cambridge University Press.

Qureshi, A., Apperly, I. A., & Samson, D. (2010). Executive function is necessary for perspective-selection, not Level-1 visual perspective-calculation: Evidence from a dual-task study of adults. *Cognition*, *117*, 230–236.

Roberts, R. D., Matthews, G., & Zeidner, M. (2010). Emotional intelligence: Muddling through theory and measurement. *Industrial and Organizational Psychology*, *3*, 140–144.

Roseman, I. J. (1984). Cognitive determinants of emotion. *Review of Personality and Social Psychology*, *5*, 11–36.

Rosenthal, R., Hall, J. A., DiMatteo, M. R., Rogers, P. L., & Archer, D. (1979). *Sensitivity to nonverbal communication*. Baltimore, MD: Johns Hopkins University Press.

Sanchez-Burks, J. (2005). Protestant relational ideology: The cognitive underpinnings and organizational implications of an American anomaly. *Research in Organizational Behavior*, *26*, 263–305.

Sanchez-Burks, J., & Huy, Q. (2009). Emotional aperture: The accurate recognition of collective emotions. *Organization Science*, *20*, 22–34.

Sayles, L. R. (1957). Work group behavior and the larger organization. In C. M. Arensburg, (Ed.), *Research in industrial human relations* (pp. 131–145). New York, NY: Harper & Row.

Schutte, N., Malouff, J., Hall, L., Haggerty, D., Cooper, J., Golden, C., & Dornheim, L. (1998). Development and validation of a measure of emotional intelligence. *Personality and Individual Differences*, *25*, 167–177.

Shirom, A., Toker, S., Alkaly, Y., Jacobson, O., & Balicer, R. (2011). Work-based predictors of mortality: A 20-year follow-up of healthy employees. *Health Psychology*, *30*, 268–275.

Smith, E. R., & DeCoster, J. (2000). Dual process models in social and cognitive psychology: Conceptual integration and links to underlying memory systems. *Personality and Social Psychology Review*, *4*, 108–131.

Stanovich, K. E., & West, R. F. (2000). Individual differences in reasoning. Implications for the rationality debate. *Behavioral and Brain Sciences*, *23*, 645–726.

Sternberg, R. J. (2002). Smart people are not stupid, but they sure can be foolish: The imbalance theory of foolishness. In R. J. Sternberg (Ed.), *Why smart people can be so stupid* (pp. 232–242). New Haven, CT: Yale University Press.

Tett, R. P., Fox, K. E., & Wang, A. (2005). Development and validation of a self-report measure of emotional intelligence as a multidimensional trait domain. *Personality and Social Psychology Bulletin*, *31*, 859–888.

Trivers, R. L. (1971). The evolution of reciprocal altruism. *The Quarterly Review of Biology*, *46*, 35–57.

Van Rooy, D., & Viswesvaran, C. (2004). Emotional intelligence: A meta-analytic investigation of predictive validity and nomological net. *Journal of Vocational Behavior*, *65*, 71–95.

Winkielman, P., McIntosh, D. N., & Oberman, L. (2009). Embodied and disembodied emotion processing: Learning from and about typical and autistic individuals. *Emotion Review*, *1*, 178–190.

Wojciszke, B., Bazinska, R., & Jaworski, M. (1998). On the dominance of moral categories in impression formation. *Personality and Social Psychology Bulletin*, *24*, 1251–1263.

Ybarra, O. (2001). When first impressions don't last: The role of isolation and adaptation processes in impression revision. *Social Cognition*, *19*, 491–520.

Ybarra, O. (2002). Naive causal understanding of valenced behaviors and its implications for social information processing. *Psychological Bulletin*, *128*, 421–441.

Ybarra, O., Chan, E., & Park, D. C. (2001). Young and old adults' concerns with morality and competence. *Motivation and Emotion*, *25*, 85–100.

Ybarra, O., Keller, M., Chan, E., Garcia, S., Sanchez-Burks, J., Rios Morrison, K., & Baron, A. (2010). Being unpredictable: Friend or foe matters. *Social Psychological and Personality Science*, *1*, 259–267.

Ybarra, O., Schaberg, L. A., & Keiper, S. N. (1999). Favorable and unfavorable target expectancies and social information processing. *Journal of Personality and Social Psychology*, *77*, 698–709.

Zeidner, M., Matthews, G., & Roberts, R. (2009). *What we know about emotional intelligence: How it affects learning, work, relationships and our mental health*. Cambridge, MA: MIT Press.