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Social and Emotional Intelligence: Starting a Conversation about Their Similarities and Differences

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Summary

To facilitate conversation and collaborative research, we review historical developments and empirical findings from the literatures pertaining to emotional and social intelligence. Our review focuses on conceptual and measurement issues: internal consistency, criterion validity of the constructs, and comparison of their components with each other and components of academic intelligence. Additionally, we address challenges to interpreting research results occasioned by lack of theoretical coherence underlying empirical investigations and methods of measurement. We conclude that social and emotional intelligence are multidimensional, interdependent, and overlapping. It is suggested that future research might concentrate on such issues as the appropriate distinctions from academic intelligence (e.g., fluid vs. crystallized intelligence), differentiating components of constructs (e.g., knowledge of self vs. knowledge of others), and further development of measures and exploration of measurement issues.

5.1 INTRODUCTION

Social and emotional intelligence have a powerful intuitive appeal. That people vary in their ability to "understand others and act wisely in interpersonal relationships" (Thorndike, 1920, p. 228) is consistent with our experiences with others in social settings and with our observations of the social interactions of others. Similarly, that people vary in their ability "to perceive and express emotion, assimilate emotion in thought, understand and reason with emotion, and regulate emotion in the self and others" (Mayer, Salovey, & Caruso, 2000, p. 401; Mayer & Salovey, 1997) fits with the experiences and observations of many of us. Further, that people who behave in socially and emotionally intelligent ways seem to experience more success (e.g., in close relationships, in work settings) appears obvious. Indeed, the belief that social and emotional intelligence may be more important than academic intelligence, especially in one's realization of important life goals, has an equalizing aspect. That is, many laypeople and experts alike believe that social and emotional intelligence may be less genetically determined and, hence, more modifiable than academic intelligence (e.g., Matthews, Zeidner, & Roberts, 2002). That social, emotional, and academic intelligence are all labeled *intelligence*, implies that the abilities and skills involved are qualities of the person that can be revealed in multiple ways (e.g., exceptional knowledge, quickness) across a variety of settings and circumstances (e.g., on a test, during a social interaction) (Zeidner, Roberts, & Matthews, 2002) and, further, that these abilities and skills do not reflect *non-intellectual factors* such as interest, motivation, or personality (although see Bar-On, 1997, for a model of emotional intelligence that does include motivational factors and affective tendencies). That is, although smart individuals do stupid things (Sternberg, 2002), on balance, those who are more socially and emotionally (or academically) intelligent are not idiot savants (i.e., proficient in following rigidly a limited number of scripts).

Other remarkable similarities between the two constructs become apparent when Thorndike's (1920) definition of social intelligence (SI; understanding others and acting wisely in interpersonal relationships) and the Mayer et al. (2000) definition of emotional intelligence (EI; perceiving and expressing emotion, understanding and reasoning with emotion, and regulating emotion in self and others) are examined together. Each definition is broad and each includes both cognitive (e.g., understanding and perceiving) and behavioral (e.g., acting, regulating emotion in others) components. In fact, within each definition, the cognitive and behavioral components themselves each involve multiple and overlapping processes. For instance, perceiving (which appears more circumscribed than understanding) involves attending to and interpreting social and emotional cues. Similarly, regulating emotion in others (which seems more focused than "acting wisely") involves deciding on and implementing some strategy (e.g., calming talk), monitoring the success of that strategy, and, should the chosen strategy fail to meet one's goal, switching to a different strategy.

The breadth and inclusion of both cognitive and behavioral skills into the definitions of these two intelligences has led to difficulties in developing measures of these constructs and in establishing convergent, discriminant, and concurrent validity. Thus, although the breadth of the definitions and the inclusion of cognitive and behavioral dimensions in each are partly responsible for their appeal, these qualities also explain why these constructs remain so "empirically elusive" (Davies, Stankov, & Roberts, 1998; Sternberg, 2000). Below we review research on SI focusing first on conceptual and definitional issues and second on the measurement issues (especially convergent, discriminant, and criterion validity concerns) that follow from the conceptual and definitional ones. We then undertake a parallel review of the EI literature. We conclude with a recommendation that researchers of SI and EI converse with one another and suggestions about the exciting and informative research questions that could follow from such conversations.

5.2 SOCIAL INTELLIGENCE: CONCEPTUAL AND MEASUREMENT ISSUES

5.2.1 Conceptualizations of Social Intelligence

Several approaches have been used in attempts to define and conceptualize SI, like the psychometric approach and implicit-theory methodology, for example. Consequently, Thorndike's (1920) seemingly simple but elegant definition of SI has been parsed into several cognitive and behavioral factors or components (Chapin, 1942; Marlowe, 1986; O'Sullivan & Guilford, 1975; O'Sullivan, Guilford, & deMille, 1965; Walker & Foley, 1973). These component abilities include, but are not limited to:

1. social sensitivity, social insight, and social communication (with seven subordinate facets: role-taking, social inference, social comprehension, psychological insight, moral judgment, referential communication, and social problem-solving) (Greenspan, 1989);

2. prosocial attitude (i.e., both social interest and social self-efficacy), empathy skills, social skills, emotionality (emotional expressiveness and sensitivity to others' affective states), and social anxiety (Marlowe, 1986); and

3. understanding people, dealing well with people, being warm and caring, being open to new experiences and ideas, perspective taking ability, knowing social rules and norms, and social adaptability (Kosmitzki & John, 1993).

Notably, all of these components of SI were developed in the absence of an explicit theory, which likely contributed to the proliferation of components and corresponding measures. The measures, in turn, produced difficulties in establishing convergent and discriminant validity for SI.

5.2.2   Measurement Issues

Like laypeople, many researchers (e.g., Kosmitzki & John, 1993; Sternberg, Conway, Ketron, & Bernstein, 1981) believe that SI consists of several interrelated abilities that are probably correlated with, but also distinguishable from, academic intelligence. Historically, however, efforts to establish empirically the multidimensionality, yet coherence of SI, and its distinctiveness from academic intelligence, were largely unsuccessful (e.g., Gresvenor, 1927; Hoepfner & O'Sullivan, 1968; Keating, 1978; Pintner & Upshall, 1928; R. L. Thorndike & Stein, 1937). In fact, early studies showed that measures of SI (typically paper-and-pencil measures of cognitive aspects of SI) did not correlate highly among themselves but did correlate highly with measures of academic intelligence (Chapin, 1942; Gough, 1968; Gresvenor, 1927; Hoepfner & O'Sullivan, 1968; Hunt, 1927, 1928; Moss & Hunt, 1927; Pintner & Upshall, 1928; R. L. Thorndike & Stein, 1937). Thus, researchers concluded that: "The putative domain of social intelligence lacks empirical coherency" (Keating, 1978, pp. 221-222) and that social and academic intelligence might be conceptually (but not empirically) distinct (Ford & Tisak, 1983; Riggio, Messamer, & Throckmorton, 1991). The few studies that did document the distinctiveness of social and academic intelligence measured these two intelligences with different types of measures (e.g., traditional paper-and-pencil tests of academic intelligence that have right and wrong answers and self-report tests of SI that do not, strictly speaking, have right and wrong answers), thus confounding the traits of interest and the methods of measuring those traits (Ford & Tisak, 1983; Legree, 1995; Marlowe, 1986).

More recently, Day and her colleagues have further explored the multidimensionality and coherence of SI and its distinctiveness from academic intelligence using multitrait-multimethod designs and confirmatory factor analyses (CFAs; Jones & Day, 1997; Lee, Wong, Day, Maxwell, & Thorpe, 2000; Wong, Day, Maxwell, & Meara, 1995). Across these studies, multiple, different dimensions of SI were examined and contrasted with academic intelligence (defined and measured variously across the studies) including: social perception, social knowledge, social insight, social cognitive flexibility, social inference, and heterosexual social interaction (the latter is the only SI component in the list that involved observations of actual social interactions). The correlations among the SI constructs (e.g., social knowledge and social perception) ranged from .30 to .63. The correlations among the social and academic constructs ranged from .13 to .79. These patterns of correlations are consistent with prior conclusions: (a) that SI is multidimensional in nature (Keating, 1978; Kihlstrom & Cantor, 2000); and (b) that social and academic intelligence may be conceptually, but not empirically, distinct (at least not consistently and decisively distinct empirically).

At least one of these conclusions must be modified, however, based on additional data provided by the CFA models. In two of these investigations, which reported a total of three studies (Jones & Day, 1997; Wong et al. 1995), CFA models were constructed a priori in which: (a) pairs of SI constructs (and

in one case a triad of SI constructs) were combined (to test whether SI was a single construct), (b) a social and an academic trait were combined with one another (to test whether social and academic intelligence could be discriminated), and (c) all social and academic intelligence measures were constrained to load on one factor. In only one model of six tested (Study 2 in Wong et al. 1995), did a CFA model that combined two SI constructs (specifically, social inference and social insight) fit the data better than a model that retained separate, but correlated, SI traits. In only one instance (of four tested) did a CFA model that combined an aspect of SI (social knowledge) and one component of academic intelligence (academic problem solving) fit the data (Jones & Day, 1997). These two constructs were, however, distinguishable in another study, when they were measured differently (Wong et al. 1995, Study 2). Nonetheless, none of the three models that combined all social and academic traits fit the data. Consistent with prior conclusions, these analyses suggest that SI is *multidimensional*. Contrary to prior conclusions, however, these analyses demonstrate that social and academic intelligence can be discriminated.

By some standards, for SI to be appropriately labeled an aspect of intelligence, measures of SI should correlate at least modestly with measures of academic intelligence (Carroll, 1993). In one study, however (Lee et al., 2000), Day and her colleagues demonstrated that social and academic intelligence might not be correlated. The purpose of the Lee et al. (2000) study was to determine whether lower-level crystallized and fluid academic intelligence factors could be combined into one higher-order academic intelligence construct and lower-level crystallized and fluid SI factors could be combined into one higher-order SI construct. In one model the two higher-order constructs were allowed to correlate; in the other the correlation between the higher-order social and academic intelligence constructs was set to zero. Both models fit the data. For academic intelligence, the path loadings from the higher-order trait to the lower-level crystallized and fluid academic intelligence traits were estimated at .60 or .52, depending on the model (i.e., whether the traits were correlated or not). For SI, the path loadings from the higher-order trait to the lower-level crystallized and fluid social intelligence traits were estimated at .50 or .37, depending on the model. Thus, some evidence of the coherence of SI was provided, given that a higher-order construct defined the lower-level ones. Some evidence was also provided that social and academic intelligence were related to one another. That is, in the model in which the two higher-order traits were allowed to correlate, the correlation was estimated at .37, which was statistically significant ($p < .05$). The model that set the correlation to zero did not, however, provide a significantly worse fit to the data than the model that allowed the higher-order social and academic constructs to correlate. A model with fewer paths to estimate is more parsimonious and is, therefore, the better model. These findings call into question, at least by some standards (e.g., Carroll, 1993), whether the construct labeled SI (as assessed in the Lee et al., 2000 study) can be rightfully identified as an intelligence at all.

5.2.3   Criterion Validity of Social Intelligence

Perhaps because researchers have mainly focused on establishing the convergent and discriminant validity of SI, only a handful of studies have examined whether SI tests actually relate to socially competent behavior. For example, (Ford & Tisak, 1983) found that measures of SI explained more variance in social-behavior effectiveness (assessed by judges' ratings on social behaviors in an interview) than academic intelligence tests (18% vs. 13%). This result challenged the earlier conclusion from Keating (1978)'s study that SI measures did not predict social competence (measured by the Social Maturity Index derived from the California Psychological Inventory by Gough, 1966). Notice that external criteria of SI were differently defined in these studies, which might account for the conflicting results. It also illustrates how difficult it is for researchers to operationally define social competence (Rose-Krasnor, 1997). Taken together, some evidence for criterion validity of SI measures exists, but this evidence is limited.

5.2.4   Summary

Early research on social and academic intelligence, as well as more recent work, are fairly consistent in showing that SI is multidimensional. These literatures are inconsistent, however, in documenting whether social and academic intelligence are distinct constructs. We believe that some of the strongest research (i.e., studies using multitrait-multimethod designs and CFAs) shows that social and academic intelligence are distinct. These conclusions must be tempered by acknowledgement that we lack a theory of SI that could provide a basis for explicating the similarities and differences between social and academic intelligence and, thus, a framework to develop more adequate measures of SI to test our intuitions. We also notice that few studies have examined whether SI tests actually relate to socially competent behavior. The evidence for the predictive validity of SI measures is limited.

5.3   EMOTIONAL INTELLIGENCE: CONCEPTUAL AND MEASUREMENT ISSUES

5.3.1   Conceptualizations of Emotional Intelligence

Although EI, like SI, is thought to include cognitive (e.g., perceiving emotion, understanding emotion) and behavioral components (e.g., expressing emotion, regulating emotions), fewer components of emotional than of social intelligence have been explicitly identified. Mayer and Salovey (1997), for example, identify only four, hierarchically organized, aspects of EI: Perception, Assimilation, Understanding, and Management. Additionally, Mayer et al. (2000) argue that these four competencies should be assessed, much as academic intelligence is assessed, with tests that have more and less correct answers. Inclusion of a limited number of competencies, a narrow focus on emotions, and reliance

on ability tests that have right and wrong answers would likely facilitate the development of measures and the establishment of convergent, discriminant, and criterion validity of EI.

However, as noted by Mayer et al. (2000), some conceptualizations of EI are sufficiently broad to include non-ability factors such as personality and motivation. Bar-On (1997), for instance, conceptualizes EI as "an array of non-cognitive capabilities, competencies, and skills that influence one's ability to succeed in coping with environmental demands and pressures" (Bar-On, 1997, p. 14) and Goleman (1995) includes in his definition "self-control, zeal and persistence, and the ability to motivate oneself" (Goleman, 1995, , p. xii). These "mixed models" (Mayer et al. 2000, p. 401) have led researchers to create self-report measures of EI that overlap with measures of personality. Thus, two, apparently divergent, frameworks are operating—one that contrasts emotional and academic intelligence as abilities and employs tests with more or less right and wrong answers and one that focuses more on personality characteristics and employs self-report measures.

Self-report measures of EI are problematic for several reasons including: (1) they are susceptible to response biases, social desirability, and dissimulation (e.g., Roberts, Zeidner, & Matthews, 2001); (2) they seem to assess dimensions closely akin to well-established personality constructs rather than intelligence (Davies et al., 1998); and in at least one study (Derksen, Kramer, & Katzko, 2002), they had near zero correlations with academic intelligence. For these reasons, we will focus our review, below on the psychometric qualities of ability measures of EI (i.e., those measures for which a more or less agreed-upon correct answer exists).

5.3.2 Measurement Issues

As is the case with SI, researchers and laypeople alike believe that EI consists of several interrelated abilities (e.g., perception of emotions in self and others, regulation of emotion in self and others), which are likely correlated with, but also distinguishable from, abilities associated with academic intelligence. Early efforts to establish empirically the coherence of EI and its distinctiveness from academic intelligence were more successful than those for SI, possibly because emotion researchers focused narrowly on one aspect of EI, the perception of emotions in others (e.g., Mayer, DiPaolo, & Salovey, 1990; Mayer & Geher, 1996). This early work showed: (a) that perception of emotion across different stimuli (e.g., facial images, colors, abstract designs) cohered into a single construct, an EI construct that was positively correlated with empathy (Mayer et al., 1990) and (b) that perception of emotion in stories was positively correlated with empathy and self-reported SAT scores (Mayer & Geher, 1996).

Later research expanded ability tests of EI to include each of the four dimensions articulated by Mayer and Salovey (1997): Perception, Assimilation, Understanding, and Management (Caruso, Mayer, & Salovey, 2002; Mayer, Caruso, & Salovey, 1999; Mayer, Salovey, Caruso, & Sitarenios, 2003). Results for the initially developed measure (the Multifactor Emotional Intelligence Scale,

or MEIS), although generally encouraging, were somewhat mixed. For example, the MEIS total score correlated positively with a measure of verbal intelligence ($r = .36$) and self-reported empathy ($r = .33$; see Mayer et al., 2000) but not with personality characteristics (Caruso et al., 2002). Exploratory factor analysis of the data, however, yielded a three (Perception, Understanding, and Managing), rather than the hypothesized four, factor solution (Mayer et al., 1999; although see Roberts et al., 2001 for support for a four factor solution) and some of the reliabilities of individual subscales of the MEIS were low (e.g., .31, .40) (Caruso et al., 2002; Roberts et al., 2001). Interestingly, correlations among the three EI factors were of similar magnitude to those obtained between SI constructs (between .33 and .49), and the correlations between EI factors and verbal intelligence were also of similar magnitude to those obtained in SI research (from .16 to .40; see Mayer et al., 2000). A similar pattern of intercorrelations from the SI literature was interpreted as indicating that SI is multidimensional. Another similarity (albeit based on limited data) between findings about EI and SI is that near-zero (and sometimes negative) correlations between EI factors as measured by the MEIS and the Raven's Progressive Matrices Test have been reported (Ciarrochi, Chan, & Caputi, 2000). In Section 5.4, we suggest that the crystallized/fluid distinction made in the academic intelligence literature might provide a means to understand some of the parallels between the social and emotional intelligence research traditions, as well as a means to resolve some of the discrepancies in these traditions.

5.3.3   Criterion Validity of Emotional Intelligence

To our knowledge, few studies report concurrent validity and even fewer predictive validity of EI. Correlations between overall scores on the MEIS and empathy are positive (e.g., $r = .33$ in Mayer et al., 2000; $r = .43$ in Ciarrochi et al., 2000). In addition, small but significant correlations between overall scores on the MEIS and other measures have been obtained for relationship quality ($r = .19$), life satisfaction ($r = .28$ in Ciarrochi et al., 2000; $r = .11$ in Mayer et al., 2000), and parental warmth ($r = .23$; Mayer et al., 2000; although this latter result was not replicated in Ciarrochi et al., 2000). Negative correlations between EI and tobacco and alcohol use (among adolescents) have also been found ($r = -.19$ and $-.16$, respectively) (Trinidad & Johnson, 2002). Currently, evidence for the concurrent and predictive validity of EI, like that of SI, is therefore limited.

5.3.4   Summary

As with the SI literature, research on emotional and academic intelligence provides mixed data on whether EI is a multidimensional domain of intelligence that is related to, and different (but not too different) from, academic intelli-

gence.[1] The data from ability-based tests of EI (as opposed to self-report assessments) strongly suggest that EI is multidimensional and distinguishable from academic intelligence (as well as from established personality constructs). The data are less clear about its concurrent and predictive validity, and whether it is sufficiently related to academic intelligence to be called a form of intelligence.

5.4   DIRECTIONS FOR FUTURE RESEARCH

That social and emotional intelligence and their attendant research literatures share many similarities (e.g., their intuitive appeal as constructs, conceptual underpinnings, and measurement difficulties) is obvious, whereas the differences between the constructs seem subtle and more implicit. What appears less obvious—because to our knowledge it has not been done—is that careful examination of similarities and differences in conceptualizations and measurement of social and emotional intelligence and conversations about, and, perhaps, collaborative research on, those similarities and differences could advance understanding of both constructs and of their relationship to one another. Below, we suggest a few, but not exhaustive, topics of possible conversation and research.

5.4.1   Defining Social and Emotional Intelligence

If both social and emotional intelligence exist (an assumption which is open to investigation), they clearly overlap and probably have components that are interdependent. For example, perception of the emotional states of others (social/emotional perception) is an individual difference variable that is assessed in both research traditions (e.g., Salovey, Mayer, Caruso, & Lopes, 2003; Wong et al. 1995). Accurately perceiving the feelings of others is, presumably, a necessary, although not sufficient condition, for making sensitive social responses, which is why researchers in SI assess it. Yet, accurately perceiving the emotions of others may be more precisely conceptualized as a component of EI, albeit an aspect of EI that can inform judgments about how to respond in socially and emotionally intelligent ways. Similarly, social knowledge (e.g., knowledge of the norms and rules of one's culture or knowledge about the individuals involved) may be best conceptualized as a component of SI that can enhance one's awareness and understanding of the emotional responses of others when violations of those norms occur. Speculatively, perhaps if one perceives that an unusual or unexpected social or emotional response (either one's own or another's) has occurred in a given interpersonal situation, then one might reevaluate and add to, or otherwise modify, one's social or emotional knowledge. Even more speculatively, perhaps the more accurate the perception that the response was unusual (i.e., the higher one's EI), the more

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[1]For other discussions of these topics and related issues, see Chapter 10 by Weis and Süß as well as Chapter 6 by Austin and Saklofske.

subtle and precise the modifications to one's social or emotional knowledge may be. If SI and EI are overlapping and interdependent, as we believe they are (and not competing constructs as others believe they are, e.g., Mayer & Geher, 1996; Mayer & Salovey, 1997), conversations about the similarities and differences between these two intelligences would help clarify and expand the conceptualization and measurement of each domain.

5.4.2   Crystallized and Fluid Social/Emotional Intelligence

Refinements in the explication and assessment of social and emotional intelligence might also be reached by appropriating distinctions from the academic intelligence literature (for instance, that between crystallized and fluid intelligence) (Matthews et al., 2002). Roberts et al. (2001) suggest that EI may primarily reflect acquired declarative and procedural knowledge (i.e., crystallized abilities). We would argue that SI also reflects acquired declarative and procedural knowledge about familiar social events (e.g., rules of social etiquette). However, we would also suggest that SI, like academic intelligence (Sternberg et al., 1981; Sternberg & Gastel, 1989) and possibly EI, may have fluid components that may be demonstrated by the ability to apply knowledge flexibly to solve novel problems (e.g., Jones & Day, 1997; Lee, Day, Meara, & Maxwell, 2002). Perhaps the hallmarks of socially and emotionally intelligent people include: (a) the availability, accessibility, and richness of social and emotional knowledge (e.g., Kang & Shaver, 2004) and (b) the ability to entertain multiple perspectives and hypotheses about unusual social/emotional behavior or behavior in unfamiliar social/emotional situations. Although extensive social, emotional, and academic knowledge may be a prerequisite for flexible application of that knowledge, possession of such knowledge does not guarantee its flexible use. That is, one could be very perceptive about one's own and others' emotional experiences and have a rich and detailed understanding about the situations that elicit such responses (i.e., be emotionally and socially knowledgeable) but fail to consider alternative explanations or alter one's behavioral strategies (i.e., be flexible). Similarly, one could be emotionally and socially knowledgeable and be more able to be flexible in either or both the social or emotional arenas. Thus, we suspect that the fluid/crystallized distinction made in the academic intelligence literature might be usefully applied in the SI and EI literatures. This last statement is not meant to imply that an individual with rich social knowledge and the ability to apply that knowledge flexibly will also have, and will apply, flexibly rich emotional or academic knowledge (although this possibility is worthy of investigation).

5.4.3   Knowledge of Self and of Others

Implicit in some discussions of SI and EI is an assumption that individuals with extensive self-knowledge (e.g., individuals who know how and why they would respond socially and/or emotionally in a given situation) probably have extensive knowledge of others. While we believe this assumption is proba-

subtle and precise the modifications to one's social or emotional knowledge may be. If SI and EI are overlapping and interdependent, as we believe they are (and not competing constructs as others believe they are, e.g., Mayer & Geher, 1996; Mayer & Salovey, 1997), conversations about the similarities and differences between these two intelligences would help clarify and expand the conceptualization and measurement of each domain.

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bly correct, it is nevertheless conceivable that one could have extensive self-knowledge and little knowledge about anyone else. Further, if the fluid/crystallized distinction applies to SI and EI, then it is also possible that some individuals may be able to apply their knowledge flexibly with respect to themselves but not to others (or vice versa). The relationships among self-knowledge and its flexible application, and other-knowledge and its flexible application, merit conversations and, further research. Incidentally, implicit in research on social and academic intelligence is the assumption that individuals' knowledge of people in general (normative or typical social and emotional responses) will correlate with their knowledge of, for example, close friends. This too may merit discussion and research, although assessments of individuals' knowledge of their close friends would by necessity be individualized, would likely have to include participation of those friends in the research, and makes salient the very difficult issue of how best to score SI and EI tests (e.g., whether to use consensus, expert, or target scoring) given that such tests may not have clearly defined right or wrong answers (e.g., Roberts et al., 2001; Salovey et al., 2003).

A recent study (Kang & Shaver, 2004) is related to the some of the ideas expressed above. Kang and Shaver (2004) evaluated the assumption that individuals who have extensive emotional knowledge about themselves will also have greater empathy for, and perhaps will have higher-quality interpersonal relationships with, others. They developed and evaluated the construct validity of a self-report measure of emotional complexity (Range and Differentiation of Emotional Experience Scale, or RDEES) to evaluate whether emotional complexity, defined as experiencing a range of emotions and making subtle discriminations between similar emotions (such as sadness and depression), was related to empathic responding and better relationships. They found support for this claim and they present evidence that it was differentiation of emotions, more than the range of emotional experience, which predicted empathy and interpersonal adaptability.

We describe this particular study for three reasons. First, differentiation (of emotions or of social situations and social behaviors) might be important but largely unexamined components of both SI and EI. Second, differentiation can be assessed through a card-sorting activity (e.g., Kang & Shaver, 2004; Shaver, Schwartz, Kirson, & O'Connor, 1987), making it a viable candidate for ability assessments. That is, given cards with emotion words (or pictures of emotional expressions) and descriptions (or pictures) of social scenes, research participants with higher levels of differentiation may sort the cards into more categories in a particular card sort or into a larger number of different categories across multiple card sorts thus providing an ability measure of differentiation. And third, although in this paragraph we describe differentiation as an attribute of crystallized EI, we are uncertain about that characterization. We wonder if the ability to make subtle distinctions or differentiations is, in fact, an aspect of fluid intelligence. Thus, we feel even more strongly that discourse among researchers in social, emotional, and academic intelligence might prove fruitful.

5.5   CONCLUSIONS

Social and emotional intelligence share many similarities, both with one an-other and plausibly with academic intelligence. These intelligences also proba-bly differ in important ways. We suggest that conversations among researchers in which those similarities and differences are carefully explored and expli-cated would advance theory and research in SI and EI. We provide a few ideas of topics that might serve to initiate those conversations.

We would like to conclude by outlining (in draft form) a study that could emerge from dialogue with others. The purpose of this study would be to es-tablish the convergent and discriminant validity of fluid and crystallized abil-ities in each of three domains: academic, emotional, and social intelligence. Of course, other abilities, for example, processing speed, could be included in the design. For now, however, we will focus on crystallized and fluid abilities. A multitrait (i.e., fluid academic, crystallized academic, fluid emotional, crys-tallized emotional, and fluid social and crystallized social intelligence) mul-timethod (paper-and-pencil measures presented in writing, paper-and pencil measures presented in pictures, self-, and peer-report measures) design would be used. Various CFA models, some combining pairs of traits, others testing the equality of various correlations between traits, would be tested. Of course, decisions about how to define, for example, fluid ability (i.e., is differentiation the skill of most interest?), and which traits to assess (e.g., are emotion percep-tion and knowledge of social rules and norms of most interest because they may interact?) would depend on the outcomes of the conversations. Differ-ent studies might emerge from conversations, but we believe that whatever research questions come to be seen as the most interesting, can only be an-swered with the same high-quality and methodologically rigorous approaches already evident in both research traditions.

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