Emotional Intelligence and

the Recognition of Emotion from Facial Expressions

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Emotional intelligence—the "accurate appraisal and expression of emotions in oneself and others and the regulation of emotion in a way that enhances living" (Mayer, DiPaolo & Salovey, 1990, p. 772)—encompasses a set of interrelated skills and processes. Because the face is the primary canvas used to express distinct emotions nonverbally (Ekman, 1965), the ability to read facial expressions is particularly vital, and thus a crucial component of emotional intelligence.

Facial expressions are privileged relative to other nonverbal "channels" of communication, such as vocal inflections and body movements. Facial expressions appear to be the most subject to conscious control (Zuckerman, DePaulo, & Rosenthal, 1986). Individuals focus more attention on projecting their own facial expressions and perceiving others' facial expressions than they do on other nonverbal channels (Noller, 1985) and often more than they focus on verbal communication (Friedman, 1978). We are so primed to read facial expressions that we often read expressions into neutral faces, perceiving static facial features as indicative of emotional or personality traits (Laser & Mathie, 1982; Zebrowitz, 1997). People are more accurate in recognizing facial expressions relative to other kinds of expressive information (Boyatzis & Sayaprasad, 1994; Fridlund, Ekman, & Oster, 1984). Moreover, information from the face is privileged relative to other communication channels. For example, when inconsistent or mixed messages are communicated via different channels of communication—such as a positive facial expression with a negative spoken message—the facial information tends to carry relatively more weight (Carrera-Levillain & Fernandez-Dols, 1994; Fernández-Dols, Walbott, & Sanchez, 1991; Mehrabian & Ferris, 1967).

Perceiving is for doing

Overall, the ability to perceive faces accurately serves important adaptive functions. Information acquired from facial expressions promotes efficient interpersonal behavior that can help to maximize social outcomes (McArthur & Baron, 1983). Although the ability to perceive emotion from all channels—and particularly the face—shows reliable individual differences (Buck, 1976; Rosenthal, Hall, DiMatteo, Rogers, & Archer, 1979), often these differences are adaptations structured by contextual and situational phenomena.

We attempt to review these phenomena in the current chapter. We begin by discussing briefly the evolution and development of the ability to recognize facial expressions, and then review findings on the relationship between the expresser and perceiver of facial expressions as well as cross- group differences. We then summarize methodological issues that provide the backdrop for understanding how the recognition of facial expressions in real life settings can differ from traditional experimental studies. Later, we review evidence that the ability to recognize facial expressions has important consequences for social functioning. Given the enthusiastic reception that emotional intelligence has received in organizational contexts (e.g., Goleman, 1995, 1998), we emphasize the link between organizational outcomes and recognizing facial expressions of emotion. Finally, we discuss the recognition of facial expressions in the context of other components of emotional intelligence.

Universality and early development of recognizing facial expressions

The ability to recognize emotion from facial expressions appears at least partially inborn. Newborns prefer to look at faces rather than other complex stimuli, and thus may be programmed to focus on information in faces (Fantz, 1961; Kagan & Lewis, 1965).

Infants also appear able to discriminate between facial expressions, to imitate them, and to comprehend their emotional tenor (Field, Woodson, Greenberg, & Cohen, 1983; Fridlund, Ekman, & Oster, 1984; Meltzoff & Moore, 1983; Zebrowitz, 1997). It seems, then, that we are born with the tendency and capacity to focus on facial expressions. However, infants' recognition skills are rudimentary, and the ability to read faces improves greatly with age (Feldman, Coats, & Spielman, 1996; Lenti, Lenti-Boero, & Giacobbe, 1999; Philippot & Feldman, 1990). This improvement has been attributed to development of relevant cognitive and perceptual capacities, as well as increasing practice and exposure over time (Nelson & De Haan, 1997; Walker-Andrews, 1997). On the basis of this and other evidence, evolutionary theorists have argued that natural selection may have favored a predisposition towards attending to information expressed in the face (Fridlund, 1997).

Facial expressions also likely serve a social function. Some basic expressions may have developed and maintained their particular appearance because they elicit reactions and attributions beneficial to the person who expresses them. For example, fear may make a person look more submissive, while anger may make a person look more dominant (Keating, Mazur, & Segall, 1977; Marsh & Kleck, 2001; Zebrowitz, 1997). In this way, expressing fear might serve to limit the aggression of another person, while expressing anger might induce submission. Thus, the tendency to perceive basic facial expressions in consistent ways may be an adaptation permitting social interactions to run more efficiently and smoothly. There may also be a social function to less consistent facial expressions. Ambiguous messages can sometimes be useful, and the flexibility of many facial expressions allows for the communication of indirect, tactful, or duplicitous messages.

The relationship between the expresser and the perceiver of facial expressions

In the recognition of facial expressions, it matters whose face is being judged. The relationship between the expresser and perceiver of a facial expression has important consequences for accuracy. Two particular aspects of this relationship are shared cultural background and acquaintanceship.

Familiarity with a group

Emotional communication is generally more accurate among people who share similar cultural backgrounds. Although classic studies conducted by Ekman (1972), Izard (1971) and their colleagues have demonstrated that facial photographs of Americans expressing "basic" emotions can be recognized with above-chance accuracy in both literate and non-literate cultures, these studies also provide evidence for cultural differences. Non-American samples generally did not recognize the photographs of American facial expressions as accurately as did Americans (Elfenbein & Ambady, 2002; Russell, 1994; but see also Ekman, 1994; Izard, 1994). For example, in Izard's (1971) large-scale study, American and European groups identified 75-83% of the facial photographs, while Japanese scored 65% and Africans correctly identified only 50%.

A long-standing debate about the universality versus cultural specificity of emotion recognition has more recently been replaced with attempts to integrate the evidence for both perspectives (e.g., Fiske, Kitayama, Markus & Nisbett, 1998; Markus & Kitayama, 1991; Mesquita & Frijda, 1992; Scherer & Wallbott, 1994). Along these lines, a recent meta-analysis of cross-cultural research on emotion recognition found evidence for both universality and cultural differences (Elfenbein & Ambady, 2002).

Although emotions are recognized at above chance levels across cultural boundaries, there is also evidence for an "ingroup advantage," such that that emotion recognition is more accurate when individuals judge emotions expressed by members of their same national, ethnic or regional group. In order to explain this ingroup advantage, we suggest a metaphor of "emotional dialects." While emotional communication may be a universal language, there may also be subtle differences in this language across cultural groups such that we can better understand people expressing themselves using a similar "dialect" to our own. Further, there is evidence that cross-cultural exposure can reduce the size of the ingroup advantage in emotion recognition (Elfenbein & Ambady, 2001a. 2002), just as familiarity with a dialect improves understanding of a spoken language.

Familiarity with an individual

Acquaintance with an individual's cultural group appears to improve the accuracy of perceiving facial expressions, as subtle differences in emotional expression across cultural groups may aid in communication, implicitly or explicitly. There is less evidence, however, that familiarity with any single person improves the recognition of his or her facial expressions. People exhibit roughly equal accuracy in judging the facial expressions of strangers versus acquaintances (Ansfield, DePaulo, and Bell, 1995; Zuckerman, Lipets, Koivumaki, & Rosenthal, 1975), dating partners (Sabatelli, Buck, & Dreyer, 1980), and, even themselves (Ansfield, DePaulo, & Bell, 1995; Lanzetta & Kleck, 1970).

The ability to perceive expressive behavior may actually be hindered by familiarity with a person's past behavior. Kenny and Acitelli (2001) have argued that familiarity may improve accuracy but increase bias. In the particular example of lie detection, personal familiarity decreases the ability to detect deception (Brandt, Miller, & Hocking, 1980; Millar & Millar, 1995). Individuals may become overloaded when they possess too much information about an interaction partner's behavioral patterns (Millar & Millar, 1995). This could cause perceivers to attend selectively to expected behavioral cues only, potentially overlooking other cues, which could result in biased interpretation. Sabatelli, Buck and Dreyer (1982) provide an alternate explanation for the absence of large acquaintanceship effects in emotion recognition. They hypothesized that accurate understanding of nonverbal expressions may increase intimacy early on, but later declines in importance. Thus, acquaintanceship effects may exist only up to a certain threshold, after which people with differing levels of familiarity should be on roughly equal footing.

Group differences in recognizing facial expressions

As with any form of "intelligence," there are individual differences in the ability to recognize facial expressions of emotion (e.g., Rosenthal et al., 1979). Further, there are systematic differences in the ability across demographic groups and personality types.

Gender

As early as three years of age, and across many cultures, females have greater ability than males to perceive facial expressions of emotion (Babchuk, Hames, & Thompson, 1985; Boyatzis, Chazan, & Ting, 1993; Hall, 1978, 1984; Kirouac & Doré, 1985; Rotter & Rotter, 1988). Explaining this gender difference has proved controversial. Psychologists have linked the finding to a wide range of other gender differences, including women's greater empathy, greater expressiveness, greater practice, greater tendency to accommodate others, greater breadth in using emotional information, and subordinate role in the larger culture (Noller, 1986; Hall, 1979).

The *subordination hypothesis*, asserting that women's traditional social subordination causes their superior skills in detecting emotions, has been particularly controversial (Henley, 1977; LaFrance & Henley, 1994; Snodgrass, 1985, 1992). The logic is that it is more valuable for subordinates to understand their superiors' emotions than the reverse (Keltner, Gruenfeld, & Andersen, 2001). In favor of the subordination hypothesis is experimental evidence that assigning subordinate versus superior status to experimental participants does alter sensitivity to certain types of nonverbal cues (Snodgrass, 1985; Snodgrass, Hecht, & Ploutz-Snyder, 1998). Recent evidence also suggests that the ingroup advantage in emotion recognition is not symmetric for ethnic groups, as members of majority groups were much worse at reading emotions expressed by minority group members than the reverse (Elfenbein & Ambady, 2002). However, empirical evidence also argues against the subordination hypothesis. First, males are more accurate than females with certain types of expressions, such as anger (Mandal & Palchoudhury, 1985; Rotter & Rotter, 1988; Wagner, MacDonald, & Manstead, 1986). Further, the experimental manipulation of subordination status does not always reliably improve emotion recognition skills (Kombos & Fourent, 1985). Evidence considering subordinated groups other than women has generally demonstrated that they often achieve lower—rather than higher—accuracy in emotion recognition (Hall & Halberstadt, 1994; Hall, Halberstadt, & O'Brien, 1997; Kirouac & Doré, 1985).

Rosenthal and colleagues have proposed an alternative to the subordination hypothesis, termed the *accommodation hypothesis* (Rosenthal & DePaulo, 1979). This stemmed, in part, from the finding that women's superior emotional recognition skills do not apply equally to all forms of emotional expression. In particular, men are superior at recognizing nonverbal "leakage"—information that is expressed inadvertently, usually through poorly controlled channels of communication such body movements. This gender disparity increases with age. Although young boys and girls detect leaked information at roughly equal levels, over time girls grow less sensitive to leakage relative to boys (Blanck, Rosenthal, Snodgrass, DePaulo, & Zuckerman, 1981). Such a difference in skills allows women to be more accommodating socially by, among other things, not "eavesdropping" on information unintentionally transmitted (Rosenthal & DePaulo, 1979). Correspondingly, women adept at detecting leaked information appear to be <u>less</u> socially successful than women poor at understanding such leakage. The accommodation hypothesis may also account for men's superiority in judging anger, especially in other men. Because stringent display rules exist for the expression of anger, particularly in women (Feinman & Feldman, 1982; Maccoby & Jacklin, 1974; Underwood, Coie, & Herbsman, 1992), anger is more likely than some other expressions to leak from behind a more controlled facade.

Taken together, the above evidence suggests that using or judging emotions "intelligently" involves the regulation of the ability to recognize facial expressions. While it is important to know the nonverbal dialect being "spoken," it is perhaps equally important to know when to recognize and when to ignore what is being communicated.

Socioeconomic status

Individuals of a higher socioeconomic status (SES) appear to perform better on tests of nonverbal skill in general (Hall, Halberstadt, & O'Brien, 1997; Michael & Willis, 1968) and on tests of facial expression more specifically (Izard, 1971) than do lower SES individuals. It may be that SES is itself a type of cultural difference leading to

segregation in American society. Because most standardized tests of emotion recognition use expressers from relatively affluent private universities, the ingroup advantage could lead to better performance on standardized instruments for higher-SES participants. Although differences across ethnic groups are often accompanied by socioeconomic differences as well, both of these factors affect emotion recognition even in the absence of the other (Elfenbein & Ambady, 2002, Elfenbein & Ambady, 2001b).

Personality

Attempts to link general emotion recognition ability with individual differences in personality traits have met with mixed success (Cunningham, 1977; Hall, Gaul, & Kent, 1999; Rosenthal, et al. 1979). With reference to faces specifically, however, Snyder (1974) did find a slight tendency for participants high in self-monitoring—the tendency to focus on situational appropriateness—to recognize facial expressions more accurately. Similarly, Nowicki and colleagues (Nowicki & Hartigan 1988; Nowicki & Richmond, 1986) found that internal locus of control predicted greater accuracy in recognizing expressions. Also focusing on the face, Matsumoto and colleagues recently found evidence that the Big-Five personality traits of Openness and, to a lesser extent Conscientiousness and Extraversion, predicted accuracy with facial expressions. The trait Neuroticism, on the other hand, predicted lower accuracy (Matsumoto, LeRoux, Wilson-Cohn, Raroque, Kooken, Ekman, et al. 2000). Taken together, this evidence suggests that individuals more predisposed to attend to social and situational cues may be better able to recognize others' facial expressions.

Measuring the ability to recognize facial expressions.

Considering how researchers measure the ability to understand facial expressions of emotion is crucial to understanding the limitations of such methods to gauge emotional intelligence. In most of the studies discussed above, researchers selected particular expressions as stimulus materials, presented them to participants, and elicited tightly defined types of responses. The ecological validity of each of these steps affects the degree to which a measure is a valid representation of the perception of facial expressions in everyday life.

First, the selection of stimuli requires many choices by researchers. Expressions in the social world are generally subtle, embedded in a particular context, spontaneous, dynamic, fleeting, and exist in combination with other expressions, words, and behaviors. It is difficult for researchers to choose photographs or videos that accurately reflect this true phenomenon. Stimulus materials used are often posed, static, stripped of context, seen only from a full-frontal vantage point, shown while the target is alone, and may consist of "prototypical" combinations of gestures that actually occur at a low frequency in natural interactions. Any of these variables can qualitatively change an expression's interpretation (Carroll & Russell, 1996; Ekman, Hager, & Friesen, 1981; Fujita, Harper, & Wiens, 1980; Gosselin, Kirouac, & Doré, 1995; Hess & Kleck, 1990; Kappas, Hess, Barr, & Kleck, 1994; Motley, 1993; Motley & Camden, 1988; Russell, 1994). Even seemingly small details, such as the frequent presentation of stimulus faces in grayscale rather than color, may alter the perceived intensity of the emotion (Barr & Kleck, 1995), which can in turn influence the emotion that is perceived (Hess, Blairy, & Kleck 1997).

The sample of participants is the next detail for researchers to choose. Many participants are college students, who come from a relatively narrow range of age, ethnicity, socio-economic status, and even gender, as females volunteer more often for

psychological experiments. Researchers also choose how to record responses from participants. Most tests for facial emotion recognition require an explicit emotional label from participants, often based on a forced-choice response format. This presupposes that recognition of nonverbal behavior is accompanied by the ability to verbalize the judgment, which may not necessarily be the case (Walden & Field, 1982). Further, as Russell (1993, 1994) has argued, forced-choice responses often overstate consensus among participants, although this critique itself has been the subject of ongoing debate (e.g., Ekman, 1994; Elfenbein, Mandal, Ambady, Harizuka, & Kumar, 2002; Frank & Stennett, 2001; Haidt & Keltener, 1999). Finally, in scoring participants' responses, researchers must decide which answer is "correct." Psychologists have a tradition of multiple perspectives on the nature of accuracy in social judgments (Funder, 1987, 1995; Kruglanski, 1989). While the realistic approach assumes that there is a "right answer" that the experimenter can use for comparison, the constructivist approach views judgments as social constructions, and assesses accuracy in terms of consensus among observers (Funder, 1995). Neither of these two perspectives considers explicitly what expressers believe they are expressing, which often, but not always, corresponds to the answers suggested by the realistic or constructivist approaches (Wagner, McDonald, & Manstead, 1986).

Each of these methodological issues requires researchers to make choices, and each provides an opportunity for experimental settings to differ from the everyday context of recognizing facial expressions. In spite of these issues, the measurement of emotion recognition ability has developed over several decades and is generally believed to be valid and reliable (Nowicki & Duke, 1994; Rosenthal, et al. 1979). Unlike areas of psychology that use pencil-and-paper questionnaires, the study of emotion recognition uses a nonverbal measure that recreates the phenomenon itself rather than a self-report or verbalization of the phenomenon. Most likely for this reason, recent empirical work attempting to validate the basic components of emotional intelligence has demonstrated that emotional perception measures show high reliability and validity, particularly relative to pencil-and-paper instruments (Ciarrochi, Chan, & Caputi, 2000; Davies, Stankov & Roberts, 1998[1]). More recent emotional intelligence tests, such as the MSCEIT (Salovey, Mayer, Caruso, & Lopes, 2001), incorporate measures using facial expressions of emotion.

Differences between emotion recognition in experiments versus real life settings

It is worthwhile to consider how several of these choices discussed above may affect how participants judge facial expressions. The judgment of facial expressions can differ considerably between real life settings and traditional experimental studies.

Motivation and attention

One difference between the experimental context and real life is the researcher's request for the participant to make a judgment and record a response. This request focuses participants' conscious attention on decoding emotional stimuli. This additional attention and motivation can serve to create certain individual and group differences in recognition ability where there are none in more ecological settings. Such requests can also serve to hide certain differences that do exist. For example, several studies suggest that women's greater nonverbal sensitivity in general—and with the face in particular— may stem largely from greater motivation. Hall (1984) argued that women gaze at others more frequently than men do, which is what permits them to pick up larger amounts of

nonverbal information and results in their apparent decoding advantages. Similarly, Ickes, Gesn, and Graham's (2000) review found that, in empathic accuracy exercises testing nonverbal sensitivity, women outperformed men only in experiments that made them aware and more motivated to perform well. Equalizing status roles or the amount of time attending to relevant cues may also equalize the decoding abilities of men and women (Snodgrass, 1992). Mufson and Nowicki (1991) found that men recognized facial expressions less accurately than women, but that this difference was smaller for men informed that the task measured their social competence. In other studies testing facial expression recognition, individual differences have a smaller impact once situational variables are measured and taken into account (Kenny & La Voie, 1984). For instance, Sabatelli, Buck, and Kenny (1986) found that much of the variability due to differences in recognition ability decreased when they asked participants to pay explicit attention to targets' facial behavior.

　　　　Some theorists have gone as far as to argue that all humans possess the necessary tools for adept nonverbal decoding (Gibson, 1979), and that individual differences in emotion recognition are simply differences in the motivation to attend and use nonverbal cues (Buck, 1988). Even without going this far, it is still important to consider how experimental measurements of ability may also inadvertently measure attention and motivation to understand others' facial expressions.

Context and situations

　　　　Facial expressions are normally interpreted within a larger context that includes the situation precipitating the expression, concurrent verbal messages, and other information likely to affect expectations and thus the interpreted meaning of an expression. But most experimental measurements of emotional expressions do not include this bigger picture. Although participants generally report that they do not make extensive use of contextual information when making a judgment (Nakamura, Buck, & Kenny, 1990; Watson, 1972), such contextual information has a major impact on judgments when it is available (Carroll & Russell, 1996). For instance, the perceived verbal or emotional context paired with an expression of emotion can alter its interpretation (Carrera-Levillain & Fernandez-Dols, 1994; Friedman, 1978; Knudsen & Muzekari, 1983; Motley, 1993; Motley & Camden, 1988; Nakamura, Buck & Kenny, 1990). Moreover, differences in perceived status or other factors can influence perceivers' attributions of a particular expression (Algoe, Buswell, & DeLamater, 2000; Hess, Blairy, & Kleck, 2000; Tiedens, Ellsworth, & Mesquita, 2000).

　　　　Besides immediate contextual variables, more long-term situational factors also influence facial expression recognition. In general, it seems that we develop skills adapted to our own particular environments. For example, siblings tend to show similarities in terms of nonverbal decoding skills (Blanck, Zuckerman, DePaulo, & Rosenthal, 1980). One reason for such similarity could be a common family environment. Children with relatively inexpressive families become better at understanding facial expressions than do children from expressive families, because it pays to learn to recognize subtleties in less expressive families (Halberstadt, 1983, 1986). Children who are heavy consumers of televised programs decode facial expressions better than lighter viewers, but they also tend to interpret emotional information more simplistically (Coats, Feldman, & Philippot, 1999; Feldman, Coats, & Spielman, 1996). Because televised emotions are somewhat exaggerated and simplistic, these children may

be unaccustomed to considering factors such as display rules or impression management when interpreting expressions. Family contexts can affect the recognition of facial expressions in other ways as well. Children who grow up in violent households show a reduced ability to recognize positive expressions (Camras, Grow, & Ribordy, 1983; Hodgins & Belch, 2000). Hodgins and Belch suggest that these children do not learn to recognize facial expressions that are infrequent and subsequently less useful to understand. Utility, then, seems fundamental in learning to recognize facial expressions. People adapt to their surroundings by developing the communication skills that serve them best. However, tests of emotion recognition are often based on a "normative" sample of perceivers, and individuals who have learned to recognize expressions in unusual contexts may appear deficient by comparison to this normative standard. What appears deficient in one setting may in fact be adaptive and appropriate in another, but unappreciated by the criteria that define emotionally intelligent responses.

<u>Personal effectiveness and recognizing facial expressions.</u>

The final part of Mayer, DiPaolo and Salovey's (1990, p. 772) definition of emotional intelligence—the "accurate appraisal and expression of emotions in oneself and others and the regulation of emotion in a way that enhances living"—is that the skill should serve to improve personal and social effectiveness. A wide range of research demonstrates a generally positive association between social adjustment and mental health and the ability to recognize facial expressions (e.g., Carton, Kessler, & Pape, 1999; Cooley & Nowicki, 1989; Denham, McKinley, Couchoud, & Holt, 1990; Field & Walden, 1982; Nowicki & Duke, 1994; Rosenthal, et al. 1979). It is beyond the limited scope of this paper to review these findings in detail. In light of the particularly enthusiastic reception for emotional intelligence in organizational contexts, we focus below on evidence regarding to what extent this enthusiasm is warranted. In general, the ability to recognize facial expressions of emotion predicts greater success both at work and in school.

<u>School outcomes</u>

School performance is perhaps the earliest type of workplace outcome that we experience. Many studies have documented a positive association between academic performance and nonverbal sensitivity (e.g., Halberstadt & Hall, 1980), and for facial expressions in particular (e.g., Izard, 1971; Izard, Fine, Schultz, Mostow, Ackerman, & Youngstrom, 2001; Nowicki & Duke, 1994). For example, the greater skill in interpreting facial emotions in 5-year-old children positively predicted social and academic outcomes four years later (Izard, et al, 2001). Interestingly, in some studies, nonverbal sensitivity was strongly related to academic achievement—especially teachers' ratings of students—but only weakly related to traditional measures of cognitive skill (Halberstadt & Hall, 1980; Nowicki & Duke, 1994). Halberstadt and Hall (1980) found that nonverbal sensitivity predicted teacher-rated academic ability much more strongly than did social maturity ratings. Over time, students with greater nonverbal skills improve in cognitive abilities as well, possibly because they are better able to respond to favorable expectations from teachers (Conn, Edwards, Rosenthal & Crowne, 1968).

<u>Adult workplace outcomes</u>

Skill in emotion recognition has long been associated with positive workplace outcomes. A range of empirical studies have documented that individuals' ability to understand general nonverbal behavior predicts a range of important workplace outcomes

(e.g., Campbell, Kagan & Krathwohl, 1971; Costanzo & Philipott, 1986; Rosenthal, et al. 1979; Schag, Loo, & Levin, 1978). Although some studies have reported null results, it is interesting to note that these studies made use of laboratory simulation outcomes rather than real, consequential, workplace performance (e.g., Hill, Siegelman, Gronsky, Sturniolo, & Fretz, 1981; Lee, Hallberg, & Kocsis, 1980). However, studies using laboratory outcomes that were previously validated assessment tools have replicated the positive relationship (Costanzo & Philipott, 1986; Schag, et al., 1978). Therefore, it is possible that ecologically valid outcome measures are necessary to observe this phenomenon.

The findings are somewhat more complicated for studies examining the relationship between workplace effectiveness and the recognition of facial expressions in particular. Because the face contains the information that is the most controllable, and consequently the most subject to deliberate falsification, accuracy at recognizing facial expressions is valued in some organizational settings but penalized in others. DiMatteo, Friedman and Taranta (1979) found that patient ratings of bedside manner were much more strongly related to their doctor's ability to read cues expressed by the body than by the face. Because facial expressions are more deliberate than body movements, they concluded that patients value the ability of doctors to "eavesdrop" on their feelings—especially those feelings that the patient may be unwilling or unable to volunteer. More recently, Tickle-Degnen (1998) examined how the importance of skill in different nonverbal channels can vary according to the demands of particular workplaces. She found that interns doing pediatric fieldwork received *lower* ratings for accuracy with facial cues and higher ratings for accuracy with body cues. By contrast, interns doing psycho-social fieldwork received marginally *higher* ratings for accuracy with facial cues and lower ratings for accuracy with body cues. Tickle-Degnen argues that different patient populations place different demands on interns. Because children are limited in their ability to express difficulties, pediatric fieldworkers are held back if they are too experienced with—and consequently dependent on—controllable information expressed through the face. By contrast, psycho-social patients can better articulate what they actually want their fieldworker to know. Being able to "eavesdrop" on unintended signals from distressed patients may actually impair the effectiveness of the relationship. Elfenbein and Ambady (2001c) recently found that members of a public service organization received lower performance ratings if they could "eavesdrop" on negative emotions, but better ratings if they could "eavesdrop" on positive emotions. Given that the face provides the most highly controllable form of nonverbal communication, it may be valuable to understand negative emotions when they are expressed intentionally, but not when they are expressed inadvertently. Likewise, it may be counterproductive to be highly skilled at reading the controllable positive messages most likely to be falsified or exaggerated for public consumption.

Emotional intelligence and facial expressions: The bigger picture.

A wealth of time and talent has been spent determining how well emotion in the face can be recognized in the research laboratory. Emotion recognition is just one component of Mayer, DiPaolo and Salovey's (1990) definition of emotional intelligence—the "accurate appraisal and expression of emotions in oneself and others and the regulation of emotion *in a way that enhances living*" (italics ours). We hope that future research emphasizes how the ability to recognize basic expressions relates to the

other components, such as the expression and regulation and emotions.

The relationship between emotion recognition and expression is worth mentioning briefly, although a complete discussion is beyond the scope of this chapter. While there was once considered a theoretically logical link between skill in emotional expression and perception, empirical work has demonstrated that the connection is likely more complex. Viewing facial expressions of emotion can evoke imitative muscle movements (Lundqvist & Dimberg, 1995) which, in turn, can induce corresponding moods (Cappella, 1993; Walbott, 1991; Zajonc, 1985). One could thus speculate expressive ability to evoke greater empathy, which could then lead to better recognition of other people's emotion. Some evidence does indirectly support a small positive correlation between the two skills. For example, women are better at both encoding and decoding facial emotions (Fujita, Harper, & Wiens, 1980; Rotter & Rotter, 1988). However, a number of other studies suggest that the skills are unrelated (Daly, Abramovitch, & Pliner, 1980; DePaulo & Rosenthal, 1979; Rosenthal, et al. 1979; Zuckerman, Hall, DeFrank, & Rosenthal, 1976; Zuckerman, Lipets, Koivumaki, & Rosenthal, 1975; Zuckerman & Przewuzman, 1979) or even inversely related (Cunningham, 1977; Lanzetta & Kleck, 1970; Lee, et al. 1980). The ability to express emotions and to perceive facial emotions may simply result from separate processes (Blairy, Herrera, & Hess, 1999; Boyatzis & Satyaprasad, 1994). The complexity of the relationship between these two core components of emotional intelligence highlights the multifaceted nature of the construct.

Likewise, emotional *regulation* skills are also crucial. Poor use of the information gained from recognizing facial expressions can be worse than being unable to perceive the emotional information at all (e.g., Hall, 1979). For example, as discussed above, skill in "eavesdropping" on unintended emotional expressions can be associated with poor social functioning as well as workplace performance. Further, some social relationships may function better with "rose-colored glasses" rather than accurately reflective ones (Sabatelli, et al. 1982). While the ability to recognize facial expressions is a useful component of emotional intelligence, it is valuable only within its context and adaptive environment. The most important issue is how people *use* emotional information, not merely than they can perceive it.

Overall, the research reviewed in this chapter suggests that emotional intelligence, as reflected in the process of judging information from the face, is not a global construct. It is a multidimensional skill—not an isolated or simple ability—encompassing a range of constructs with complex relationships to each other. Such complexity suggests that the popular trend of emphasizing emotional intelligence in applied settings might have the potential to cause unintended negative consequences. An emphasis on emotional intelligence has encouraged organizations to consider hiring, training, and rewarding individuals for high levels of skill based on standardized settings. Such an emphasis may, unfortunately, be counterproductive in a range of situations in which the skills required are more nuanced, and contextually defined, changing along with shifting contexts. It is important for the various constructs within emotional intelligence to be considered together. Although this may complicate the research process, psychologists cannot afford to overlook the other components of emotional intelligence. Indeed it will make what we know about the recognition of emotion in the face infinitely more interesting and relevant to the way in which we live our lives.

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Author Notes

[1] Editor's comment: Note that there are serious flaws in the analysis of Davies et al. (1998). LFB.