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NONVERBAL SKILLS AND ABILITIES

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The practice of nonverbal communication relies on a range of innate and developed foundational processes. One foundation underlying the use of nonverbal communication focuses on individual differences in the abilities to communicate nonverbally. This ability, or skill, approach is akin to a personality perspective in that it focuses on individual differences in the sending (encoding), receiving (decoding), and regulation (management) of nonverbal communication (for more on personality, see Gifford, this volume). In other words, people vary in their abilities to convey nonverbal messages to others accurately, "read" others' nonverbal communications, and monitor and control their nonverbal displays.

The skill approach to nonverbal communication was advanced in a 1979 book edited by Robert Rosenthal, *Skill in Nonverbal Communication: Individual Differences*, and by the work of Rosenthal and colleagues (1979) on the Profile of Nonverbal Sensitivity (PONS), a measure of individual differences in the ability to decode nonverbal messages. In Rosenthal's *Skill* volume, Friedman (1979) argued that the skill approach to nonverbal communication represented three important shifts in conceptualizing the study of human social interaction. The first was a shift from an emphasis on cognitive processes (e.g., attitudes, cognitive attributions) in interpersonal relations to a focus on emotional processes. The second shift moved the focus from abstract traits to more

concrete abilities. The third shifts the concept of nonverbal skill from a study of inferred states to the study of process. A clear example of this last shift is illustrated by research on expectancy effects (Harris & Rosenthal, 2005; Rosenthal & Jacobson, 1968) that prompted scholars to try to understand the "process" of how positive (and negative) expectations are conveyed.

The work by researchers who were focusing on individual differences in nonverbal communication skill represented the groundwork for the highly popular concept of *emotional intelligence* (Goleman, 1995, 1998; Mayer & Salovey, 1997; Salovey & Mayer, 1990). Indeed, Friedman (1979) used the analogy of an intelligence test, with its "right" and "wrong" answers, when discussing the measurement advantages of a nonverbal skill approach to personality over traditional traitlike measures. The same measurement distinction divides the emotional intelligence research community with its distinction between the "abilities model" and the "mixed model" (Caruso, Mayer, & Salovey, 2002; Mayer, Salovey, & Caruso, 2000) for explaining and describing emotional intelligence. The abilities model of emotional intelligence focuses on abilities to perceive, understand, use, and manage emotions, and it is represented by the Multifactor Emotional Intelligence Scale (MEIS) and the Mayer, Salovey, Caruso, Emotional Intelligence Test (MSCEIT) (Mayer, Salovey, & Caruso, 1997, 2002) measures.

Both these instruments are performance-based assessments of emotional abilities, many of which are central to skill in nonverbal communication and, like most measures of emotional intelligence ability, have correct and incorrect answers. The mixed model of emotional intelligence combines emotional skills and abilities with traitlike notions of personality, which are represented by Goleman's (1995, 1998) work and instruments like the Bar-On Emotional Quotient Inventory (EQI; Bar-On, 1997). Its measures of emotional intelligence resemble self-report personality assessments typically.

Not unlike emotional intelligence, nonverbal skills are important for success in various aspects of social life. Specifically, there is evidence that nonverbal skills and abilities are important in initiating and maintaining social interaction, developing interpersonal relationships, and managing impressions. Nonverbal skills and abilities are also linked to stress management and to success in careers in various business settings (Riggio, 1992a, 2005). Importantly, nonverbal skills, unlike personality traits, can be learned and improved. For example, research on deception detection suggests that this decoding ability improves by providing feedback concerning performance accuracy and with practice (Zuckerman, Koestner, & Alton, 1984; Zuckerman, Koestner, & Colella, 1985), as well as by providing decoders information concerning more accurate nonverbal clues to deception (de Turck, Harszlak, Bodhorn, & Texter, 1990; see also Patterson, Foster, & Bellmer, 2001). There is also evidence that nonverbal expressiveness can be improved through training (Taylor, 2002; see also Vrij, this volume).

Following the belief in the importance of nonverbal skills for an array of outcomes, this chapter reviews theory and research on the skill approach to nonverbal communication by focusing on three general domains of nonverbal skills and abilities: (1) nonverbal decoding skill, (2) nonverbal encoding skill, and (3) skill in regulating nonverbal communication. In addition to defining these skill domains, the means of measuring these nonverbal skills will be reviewed, as will research on the impact of each specific nonverbal skill domain on outcomes in human social interaction. Finally, the research and application potentials of the nonverbal skills and abilities perspective will be discussed.

◆ *Skill in Nonverbal Decoding*

Skill in nonverbal decoding involves sensitivity to the nonverbal messages of others as well as the ability to interpret those messages accurately. For the most part, others' nonverbal messages involve the communication of emotions, attitudes (e.g., liking or disliking), and cues of status or dominance (Mast, 2002). Skill in nonverbal decoding is a subset of the broader construct of interpersonal sensitivity, which is defined as "the ability to sense, perceive accurately, and respond appropriately to one's personal, interpersonal, and social environment" (Bernieri, 2001, p. 3).

A number of assessment instruments have been designed to measure individual differences in nonverbal decoding skill. An examination of the properties of these various skill instruments can help illustrate the conceptual and methodological issues involved in studying nonverbal skills and abilities. The earliest and simplest instruments consisted of having respondents attempt to decode photographs of basic facial expressions of emotions. The Brief Affect Recognition Test (BART), developed by Ekman and Friesen (1974), is an example of this type of measure. Using a tachistoscope, test takers are presented with a brief presentation (a fraction of a second) of individuals posing "basic" emotional expressions (happiness, sadness, surprise, disgust, fear, and anger) and must choose the correct emotion. A total accuracy score represents the measure of nonverbal or emotional decoding skill. Matsumoto and colleagues (2000) developed an improved version of this instrument, the Japanese and Caucasian Brief Affect Recognition Test (JACBART). A limitation of these instruments, however, is the focus on measuring accuracy in decoding only static, visual cues of distinct facial expressions of emotions, devoid of context.

Similarly, Buck and colleagues (Buck, 1978, 2005; Buck, Miller, & Caul, 1974; Buck, Savin, Miller, & Caul, 1972) developed a technique to assess individual differences in the ability to read subtle, natural (unposed) emotional expressions. Using this "slide-viewing technique" (SVT), the faces of stimulus subjects are videotaped while watching emotion-evoking slides and talking about them. Some of the slides are meant to evoke positive emotions (a group of laughing children, sleeping baby); others evoke negative emotions (severe facial injury, crying child with crutch). Others are simply unusual or scenic slides. Respondents view the silent video segments of stimulus subjects' faces and try to determine which slide the stimulus subject was viewing. Again, a total accuracy score is the measure of emotional or nonverbal decoding skill, but scores can also be obtained for accuracy at decoding specific emotions. Buck (1976) also developed a standardized instrument, the Communication of Affect Receiving Ability Test (CARAT), from some of the video sequences. The slide-viewing technique measures spontaneous, natural, dynamic emotional expressions and relies on videotape segments rather than still photographs, providing more of the available nonverbal information.

The Diagnostic Analysis of Nonverbal Accuracy (DANVA) assesses both visual cues of basic emotional expressions and auditory nonverbal cues (i.e., paralanguage) of emotion (Nowicki & Duke, 1994). The DANVA is actually a collection of several instruments that includes both posed and spontaneous photographs of emotional expressions (including subtests measuring facial expressions of emotions, emotions expressed via hand gestures, and emotions expressed via body posture). In addition, there are subtests that measure decoding of vocal cues, with audio segments of emotions being expressed while using the same

content-standard sentence ("I am going out of the room now but I'll be back later."). In all cases, respondents choose the correct emotional expression ("happy," "sad," "angry," or "fearful"). Scores are the number of correct choices on each subtest. There are both adult and child versions of the DANVA (Nowicki & Duke, 2001) as well as a modified version of both measures useful in the field (Duke & Nowicki, 2005). The DANVA assesses sensitivity to both visual and auditory cues and increases the range of nonverbal expressions by including the ability to decode both posed and spontaneous expressions of emotions. Research shows that scores on the DANVA correlate with greater overall social competence and better psychosocial adjustment (Nowicki & Duke, 2001).

Perhaps the most well-known measure of nonverbal decoding skill is the aforementioned PONS (Rosenthal et al., 1979). The PONS consists of 220 brief, two-second audio and video clips of a woman enacting multiple, emotionally laden scenes (e.g., expressing jealous rage, asking for a favor, talking about the death of a friend). By masking the spoken words via electronic content filtering or randomized splicing of the audio track, only nonverbal cues are presented. Eleven different channels (e.g., face only, body only, audio only, and all possible combinations) are used to assess specific aspects of nonverbal decoding. After each clip, respondents are presented with a multiple-choice item and instructed to choose the correct portrayal. A total accuracy score represents general sensitivity to nonverbal cues (Hall, 2001). There are also brief versions of the PONS that use only the audio or visual cues. The full-length PONS has been used widely in research and has demonstrated good psychometric properties (Hall, 2001; Rosenthal, 1979). Not surprisingly, research with the PONS suggests that persons receiving high scores are more interpersonally aware than those receiving low scores (e.g., Ambady, Hallahan, & Rosenthal, 1995; Hall & Carter, 1999). In addition, physicians receiving higher scores on the PONS had more satisfied patients than their colleagues with low-sensitivity scores (DiMatteo, Friedman, & Taranta, 1979).

The PONS assesses a wide range of sensitivity to different channels of nonverbal communication: audio versus visual, the relatively "rich" nonverbal cues provided by facial expressions versus the more limited range of cues emitted by the body channel. It also involves nonverbal cues displayed in a number of enacted scenarios, such as "helping a customer" or "talking about one's divorce," sometimes combining the nonverbal display of emotion with cues of dominance-submission (e.g., "talking to a lost child" or "asking forgiveness"). Other items involve reading cues that represent complex blendings of emotions and circumstances (e.g., "returning a faulty item to a store," "talking about one's wedding"), whereas some are seemingly devoid of emotional content (e.g., "ordering food in a restaurant"). The breadth of the PONS's sampling of enacted scenes and the multiple channels of nonverbal cue displays seem to capture the diversity of nonverbal behavior, but this has led to low internal consistency (see Hall, 2001) and can be time-consuming to implement. Other limitations of the PONS are its reliance on a lone sender and the fact that the scenarios are posed rather than genuine enactments of emotions.

The Interpersonal Perception Task (IPT; Archer & Costanzo, 1988; Costanzo & Archer, 1989) is another measure of nonverbal decoding skill but one that focuses more on reading nonverbal, verbal, and situational cues to assess the ability to decode the relationships among video interactants, their status or dominance in relationship to one another, their level of intimacy in the

relationship, and whether they are truth telling or deceiving. Scenes include trying to determine a child's parent (relationship), identifying the person of higher status or the winner of a sporting event (status or dominance), or trying to determine the length of a couple's dating relationship (intimacy). The IPT consists of 30 brief video (with full audio) scenes of one, two, or more stimulus persons, communicating with an interviewer, communicating with another person on the telephone, or in face-to-face communication. After watching the scene, respondents choose the correct interpretation via a multiple-choice question. There is also a brief version of the IPT (IPT-15, Costanzo & Archer, 1993) that removed some of the problematic items from the longer version (e.g., items that were decoded at about chance or less than chance accuracy).

The IPT goes beyond nonverbal decoding and presents individuals being assessed with both the audio and the video interaction between or among participants. Most other measures of nonverbal decoding skill eliminate the verbal content to focus solely on nonverbal (visual and paralinguistic) cues. The authors of the IPT suggest that it is more closely aligned with the construct of "social intelligence" than with emotional intelligence (Archer, Costanzo, & Akert, 2001). Research with the IPT has been primarily focused on psychometric issues, although there is evidence that persons scoring high on the IPT are more socially aware and socially competent (Archer et al., 2001). In a study of college roommates, high scorers on the IPT had higher-quality and more supportive relationships with one another than did low IPT scorers (Hodgins & Zuckerman, 1990).

The IPT has the advantage of using naturalistic interactions as opposed to the posed communications used in most other measures of nonverbal decoding skill. Moreover, rather than presenting a single

communicator, the IPT has many segments with two or more interactants, requiring a more sophisticated level of decoding skill, such as the ability to notice inconsistencies between verbal and nonverbal channels or to use cues of dyadic rapport (Bernieri & Gillis, 2001; Bernieri & Rosenthal, 1991). It is also likely that correct decoding of IPT scenes requires not just recognition of specific cues, as in decoding facial expressions of emotion, but also sophisticated interpretation of complex verbal, nonverbal, and social cues. For example, one study found that whereas Japanese and American participants scored about the same in the visual-only condition of the IPT-15, Japanese participants' accuracy in relation to Americans dropped off considerably when the vocal and verbal cues were added (Iizuka, Patterson, & Matchen, 2002). Furthermore, respondents who rely on "common sense" heuristics tend to make systematic errors on the IPT, such as assuming that the older interactant (or the male interactant) has the higher status (Archer & Costanzo, 1988). An individual who has great skill in nonverbal and situational decoding should be more likely to avoid these errors.

A limitation of all the performance measures of nonverbal decoding skill is the relatively small sampling of what is obviously a vast domain of nonverbal behavior. For instance, the BART and DANVA focus exclusively on emotional communication. Although the PONS assesses skill in decoding an array of nonverbal messages involving cues of emotion, status, and relationship, it is limited to one sender; the IPT has multiple senders, but it is brief (15 or 30 items) and suffers from low internal consistency (Hall, 2001). The extremely low internal consistency coefficients (KR20s of .38 and .52 for the brief and long versions of the IPT) suggest that the IPT may indeed be assessing a broad domain of interpersonal skills. Finally, performance measures of nonverbal skill are

time-consuming to develop and often difficult to administer.

Another approach to measuring nonverbal skill involves the use of self-report methods. Self-report methods offer the advantages of sampling across a broad range of nonverbal skill-related areas, and they are relatively easy to administer (Riggio & Riggio, 2001). The earliest published attempt to assess nonverbal decoding skill via self-reports was by Zuckerman and Larrance (1979) with their Perceived Decoding Ability (PDA) and Perceived Encoding Ability (PEA) tests. As part of a larger "social skill" model, Riggio's Social Skills Inventory (SSI; Riggio, 1986, 1989, 2005; Riggio & Carney, 2003) uses self-report techniques to measure two decoding abilities, emotional sensitivity (the ability to decode emotions and other nonverbal cues) and social sensitivity (the ability to decode and understand social situations, social roles, and social scripts). Unfortunately, measuring nonverbal decoding skill via self-reports has demonstrated only limited success. For example, correlations between self-report measures of decoding skill and performance measures have been positive but low (typically below .20). The emotional sensitivity subscale of the SSI, however, has had a slightly stronger relationship with decoding scores on the DANVA (decoding faces) and a similar decoding facial expressions subtest of the Multifactor Emotional Intelligence Test (correlations of .22 and .26, respectively; Riggio & Carney, 2003). In addition, self-reported emotional sensitivity is correlated substantially with relevant self-reported social behaviors, including the size and closeness of social networks (Riggio, 1986; Riggio, Watring, & Throckmorton, 1993).

Skill in decoding nonverbal communication is considered a very important component of nonverbal ability. It is aligned closely with important personality characteristics, particularly empathy and being other-oriented (Losoya & Eisenberg, 2001). Nonverbally sensitive individuals may also be more prone to emotional contagion effects, vicariously experiencing others' emotions (Hatfield, Cacioppo, & Rapson, 1994). Indeed, there is a .48 correlation between the emotional sensitivity scale of the SSI and a self-report measure of emotional contagion (Riggio & Carney, 2003). This suggests that although nonverbal sensitivity is considered to be an important component of global nonverbal skill or competence, it is possible to be *too* nonverbally sensitive. Davis (1983, 1994), in his multidimensional model of empathy, conceptualizes one aspect of other-oriented sensitivity as taking another's perspective or showing some empathic concern with others' emotional states. A different form of empathy, however, is labeled "personal distress," suggesting emotional contagion effects. Taken to an extreme, nonverbal sensitivity may cause people to experience some personal distress. It is important to emphasize that when considering global skill or competence in nonverbal and emotional communication, an individual needs to also possess skills in decoding, encoding, and regulating communication and emotional processes (see Riggio, 1986; Riggio & Carney, 2003).

DETECTION OF DECEPTION

The ability to detect deception accurately is a particular nonverbal decoding skill. Because of its complexity, the ability to detect deception is rare, with a very small percentage of the general population able to detect deception much above chance levels (Ekman, O'Sullivan, & Frank, 1999; Malone & DePaulo, 2001; Vrij, this volume). Yet some individuals seem to be particularly successful at detecting deception

and are labeled "wizards" (O'Sullivan, 2005). These rare individuals are particularly skilled at reading nonverbal cues, although they also possess a number of other skills and qualities critical for detecting deception. These include the ability to notice inconsistencies in and between nonverbal and verbal cues, a strong motivation to both observe and analyze human behavior, and an ability to avoid the systematic cognitive biases that hamper the ability to detect deception successfully in the general population (O'Sullivan, 2005).

A great deal of research suggests why decoding of deception is such a difficult skill. First, there is a trusting bias: a tendency to believe that others' communications are more likely to be truthful than deceptive (Ekman, 1985; Riggio, 1992b). This manifests itself in proportionately more judgments of "truth" as opposed to "lie" in most experimental investigations of deception detection. Second, people may not be able to hone their deception detection skills if they receive inadequate feedback concerning whether someone was lying or telling the truth (i.e., in everyday life, we may never find out for sure if a friend or relation was lying to us or not). People may also rely too much on stereotypical cues of deception, such as an inability to maintain eye contact, nervous fidgeting, and slow, staccato speech patterns, cues that may be unrelated to actual deception (DePaulo et al., 2003). Furthermore, because deceivers are also aware of these stereotypical deception cues, they may take steps to ensure that they monitor and control these "known" clues to deception. For example, in one study, participants engaged in significantly greater eye contact when deceiving as compared with truth telling, presumably in an effort to look more honest (Riggio & Friedman, 1983).

There is some evidence that nonverbal decoding abilities, including deception detection, are correlated, although the magnitude of relationships is modest. For example, the ability to detect one kind of lie is related to detecting the accuracy of another form of lie (Frank & Ekman, 1997). In addition, the ability to detect deception is slightly positively related to the ability to decode nonverbal cues of emotion (Buller & Burgoon, 1994; Malone & DePaulo, 2001). Likewise, a review of intercorrelations among standardized performance measures of decoding skill (e.g., PONS, IPT, CARAT) shows that there are positive relationships among the tests, but they are quite modest (Hall, 2001). This result suggests, perhaps, that nonverbal decoding skill is complex and multifaceted, consisting of multiple abilities that are somewhat related to, but considerably independent from, one another.

♦ *Skill in Nonverbal Encoding*

Nonverbal encoding skill, also referred to as *nonverbal expressiveness*, involves the ability to send nonverbal messages to others accurately. Typically, performance measures of individual differences in nonverbal encoding consist of videotaping participants while they are sending emotional expressions spontaneously or while posing them on cue. For example, Buck's (2005) slide-viewing technique was reviewed earlier as a method of assessing nonverbal decoding skill. But the slide-viewing technique can also be used to measure individual differences in the spontaneous *encoding* of emotions: A measure of spontaneous encoding ability consists of the percentage of judges who can identify the emotion being portrayed correctly via facial expressions while the sender is viewing or discussing the emotion-evoking slide. More frequently, however, participants are asked to pose an

emotion with either a facial expression or facially and vocally while reciting some content-standard sentence or phrase. In other instances, encoders may be asked to pose a positive or negative affect (i.e., liking or disliking) toward a person or object. Scores of nonverbal encoding ability consist of the percentage of judges who identify correctly the posed emotion or affect (e.g., Zaidel & Mehrabian, 1969; Zuckerman, Lipets, Koivumaki, & Rosenthal, 1975).

Unlike measures of nonverbal decoding ability, there are no standardized observation-based tests of nonverbal encoding ability readily available. Instead, researchers have either used the slide-viewing technique or created some form of posed nonverbal encoding task to measure individual differences. For example, in a series of studies, nonverbal encoding ability was measured by having participants pose each of six basic emotional expressions to a video camera while saying content-standard sentences (Friedman, Prince, Riggio, & DiMatteo, 1980). Persons scoring high on posed emotional encoding were evaluated as better speakers and were viewed as more likable than individuals scoring low on encoding ability (Riggio & Friedman, 1986). Good encoders of emotion were also more successful deceivers than were poor encoders (Riggio & Friedman, 1983).

Assessment of nonverbal or emotional encoding ability is a costly and time-consuming procedure that involves the use of multiple judges to obtain reliable scores concerning the individual senders' accuracy. As a result, researchers have turned to other methods to measure emotional encoding skill and have had good success using self-report means to assess nonverbal or emotional expressiveness. Zuckerman and Larrance's (1979) PEA measure, mentioned earlier, was the first such published measure. The Affective Communication Test (ACT; Friedman et al., 1980) has been used widely

as a measure of nonverbal encoding skill, although it is related more to spontaneous emotional encoding than to posed sending of emotions (Riggio & Riggio, 2005). Personality scholars have shown renewed interest in emotional expressiveness in the past decade, and several newer self-report measures have been developed, including the Berkeley Expressivity Questionnaire (BEQ; Gross & John, 1995) and the Emotional Expressivity Scale (EES; Kring, Smith, & Neale, 1994). All these measures are relatively brief, self-report instruments ranging from 13 to 17 items. For a review of these measures, see Riggio and Riggio (2005).

Whereas the PEA did not correlate significantly with either posed or spontaneous emotional encoding tasks (Zuckerman & Larrance, 1979), the other self-report measures (ACT, BEQ, and EES) have all correlated positively and significantly with emotional encoding tasks (Friedman & Riggio, 1999; Friedman et al., 1980; Gross & John, 1995; Kring et al., 1994). Moreover, persons scoring high on self-report measures of nonverbal or emotional encoding ability make more positive first impressions (Friedman, Riggio, & Casella, 1988), appear more attractive to others (DePaulo, Blank, Swaim, & Hairfield, 1992), are more socially self-confident and less lonely and shy (Friedman et al., 1980; Riggio, 1986), and report larger and more supportive social networks (Friedman et al., 1980; Riggio, 1992a) than do individuals scoring low on self-report measures of emotional or nonverbal expressiveness.

There is specific evidence of the tie between encoding abilities. In one of the earliest studies of the emotional contagion process, for instance, Friedman and Riggio (1981) found that nonverbally expressive individuals, as measured by the ACT, were able to "infect" others with their emotions through purely nonverbal channels. Nonverbal expressiveness has also been

implicated in the ability to deceive successfully, but the relationship is complex. Nonverbally expressive individuals, as measured by a posed emotional encoding task, were somewhat more successful at deceiving others, but much of their success was related to a "demeanor bias." That is, they simply looked more honest and truthful than nonexpressive persons regardless of whether they were truth telling or lying. Presumably, this was due to their tendency to be animated and expressive and to avoid "nervous" cues that are stereotypically associated with deception (Riggio & Friedman, 1983).

Nonverbal or emotional expressiveness has often been either equated with the personality trait of extraversion or considered a component of it. Consistent evidence suggests, however, that although expressiveness and extraversion are related, they are different constructs (Friedman, 1983; Riggio & Riggio, 2002). The fact that nonverbal expressive ability is most often measured via self-report instruments (with shared method variance inflating the correlations between measures of expressiveness and measures of extraversion) further drives the misconception that expressiveness is "just extraversion."

The ability to convey nonverbal messages to others, particularly the sending of emotional messages, is a critical skill for social success, and a fundamental component of the larger construct of communication competence (see Greene & Burleson, 2003). Performance-based measurement of nonverbal encoding skill is a difficult task; therefore, it has not received as much attention as nonverbal decoding ability. Instead, researchers have relied on self-report measures of nonverbal expressiveness. Whereas evidence suggests that the ability to express positive emotions creates more favorable impressions and can positively influence others' moods, the expression of negative affect, such as the spontaneous expression of anger or dislike, can have equally negative outcomes (see Burgoon & Bacue, 2003). Therefore, it is important to consider the monitoring and regulation of expressive displays when discussing competence in nonverbal skills and abilities.

◆ *Skill in Nonverbal Regulation and Control*

Skill in nonverbal communication involves more than just encoding and decoding abilities. The ability to regulate and control one's nonverbal communication is also a key component of what it means to be "nonverbally skilled" (Riggio, 1986). Specifically, the ability to regulate both the experience of emotions and the expression of those emotions has received a great deal of attention (e.g., Eisenberg, Champion, & Ma, 2004; Gross, 1998). People learn to suppress the expression of emotions, which is likely responsible for the consistent differences in emotional expressiveness due to culture (Ekman & Friesen, 1969; Matsumoto, 2001, this volume; Matsumoto & Yoo, 2005; but see Fridlund, 1994, this volume, for an alternative view) and gender (Hall, Carter, & Horgan, 2000; Riggio & Carney, 2003). Regulating or managing emotions is also one of the core elements in the abilities model of emotional intelligence (Mayer et al., 2000). Gross (2001) suggests that regulation of emotion can involve two processes: reappraisal and suppression. Reappraisal involves altering both the experience and the expression of an emotion, whereas suppression involves the inhibition of emotionally expressive behavior. In either case, the nonverbal communication of emotion can be controlled and can thus be considered an "ability."

Snyder's (1974, 1987) research on self-monitoring represents some of the earliest

work attempting to measure control over nonverbal communication. By definition, self-monitoring is, in part, the ability to monitor, regulate, and control one's nonverbal displays. Yet self-monitoring also involves being attentive to others' nonverbal cues and an ability to adjust one's own expressive behavior to try to "fit in" to social situations. It has been argued, based on factor analyses of Snyder's (1974) self-monitoring scale, that the SMS also measures elements of nonverbal encoding and decoding skill (Riggio & Friedman, 1982). Indeed, a key validation study conducted by Snyder (1974) involved correlating SMS scores with posed emotional encoding and decoding tasks. Positive relationships between SMS and emotional encoding and decoding success suggest that self-monitoring could represent a measure of global social skill or competence. Factor analyses of the original SMS demonstrated separate factors that measured *other-directedness*, a tendency to focus on others' behavior, likely a prerequisite for nonverbal decoding skill, and *extraversion-acting*, a factor that involves not only control or communication but also a form of social acting skill that would be related to posed nonverbal encoding skill (Briggs & Cheek, 1988; Briggs, Cheek, & Buss, 1980). These results suggest that global nonverbal and social skills or competence is composed of encoding, decoding, and regulatory skills, inspiring a more general, multidimensional model of nonverbal and social skills (Riggio, 1986, 1989; Riggio & Carney, 2003).

In this multidimensional nonverbal and social skill model, *emotional control* (EC) is one of three core elements of nonverbal skill that involves the ability to control and regulate emotional and nonverbal displays. The other two elements in this model, discussed earlier, are emotional or nonverbal encoding (labeled *emotional expressivity*) and decoding (labeled *emotional sensitivity*).

Individuals scoring high on EC, for example, are able to stifle the expression of felt emotions or cover the display of the felt emotion with another emotional "mask." Tucker and Riggio (1988) found that individuals scoring high on EC were more difficult to decode in a spontaneous emotional sending using the slide-viewing technique, suggesting that they monitor and stifle their emotional expressions. Research also suggests that persons with high levels of EC have greater comfort speaking before large audiences, performed better in a discussion-oriented problem-solving group, and had more formal acting experience than persons lacking EC (Riggio, 1986; Riggio, Riggio, Salinas, & Cole, 2003).

Another measure of the ability to control nonverbal and emotional communication is the Emotion Regulation Questionnaire (ERQ), a 10-item self-report instrument with subscales measuring the ability to regulate emotions via reappraisal or suppression (Gross & John, 2003). Research using the ERQ suggests that there are psychologically "healthy" and "unhealthy" means to regulate and control the expression of emotion. For example, reappraisal-based EC or regulation leads to more positive outcomes (e.g., positive emotions, well-being), whereas controlling the expression of emotion via suppression leads to more negative outcomes. Riggio and Zimmerman (1991) found that persons scoring high on SSI-EC reported using social support strategies less to cope with stress, whereas persons scoring high on emotional expressiveness and sensitivity reported having larger supportive social networks and making greater use of social support strategies to cope with stress.

The ability to control strong emotions can be an asset in formal social settings, such as in public speaking, in the workplace, and in positions of authority when under crisis or stress, where an individual would not want to arouse others' anxiety

levels further by nonverbally conveying his or her own anxiety and fears. Similarly, regulation and suppression of anxiety should lead high-control individuals to be more effective deceivers, although this was not the case in a study of deception that did not involve strong emotions or arousal (Riggio, Tucker, & Throckmorton, 1988). Bonanno and colleagues (2004) argue that abilities to both enhance and suppress emotional expression lead to greater flexibility and positive psychosocial outcomes. This suggests that having a broad repertoire of nonverbal skills is most important for social effectiveness and psychosocial well-being.

Riggio and colleagues (Perez & Riggio, 2003; Riggio, 1986; Riggio & Carney, 2003) have argued, however, that whereas possession of high levels of nonverbal and social skills is important for social success and personal adjustment, there needs to be a "balance" among the skills. For example, being overly emotionally expressive without possessing the ability to regulate and control that expressiveness is typically maladaptive. Emotionally expressive individuals who lack the ability to regulate these displays may appear emotionally unstable and "out of control." Similarly, being overly sensitive to nonverbal cues can make one susceptible to emotional contagion processes as discussed earlier. Perez, Riggio, and Kopelowicz (in press) found a connection between lack of balance among nonverbal and social skills and poor psychological adjustment in clinical patients.

◆ *The Skill Approach to Nonverbal Communication: Unrealized Potential*

There is more to nonverbal skill than just the ability to encode and decode nonverbal messages. Monitoring, regulation, and control of nonverbal communication represent a set of complex skills that are particularly important for effective interpersonal communication. Indeed, each of the three areas of nonverbal skill just reviewed—decoding, encoding, and control—are each internally complex and multifaceted. There is still a great deal of research to be done to understand the domain of nonverbal communication skills fully.

The study of nonverbal communication has been dominated by the study of functions and process. Early research focused primarily on the meaning of various nonverbal behaviors, such as the communicative function of facial expressions (e.g., Ekman, Friesen, & Ellsworth, 1972), gestures (Birdwhistell, 1970), posture (e.g., Mehrabian, 1969), touch (e.g., Henley, 1977), and vocalics (e.g., Argyle, 1999). Later research used the "lens model" perspective (Brunswik, 1956) to try to understand the process by which, for example, a sender uses nonverbal cues to affect, persuade, or influence others or to understand the person perception process (see DePaulo & Friedman, 1998).

There has been comparatively little attention given to individual differences in the ability to communicate nonverbally. Friedman (1979) saw great potential in using the concept of skill in nonverbal communication to reframe thinking about individual differences from the traditional trait approach to more objectively measured skills and abilities. More than 25 years ago, he predicted that "the next few years will likely see a proliferation of measures of nonverbal sensitivity, nonverbal expressiveness, deceptive abilities, rhythm, expressive style, channel preference, self-monitoring, and the like" (Friedman, 1979, p. 23). In actuality, there have been relatively few measures of nonverbal skill (most of which are reviewed in this chapter), and these are not used widely. Research on individual differences is

still dominated by traditional personality measures, with Big Five measures used in the majority of investigations. Indeed, a literature search turned up more than 1,000 publications with either "Big Five" or "NEO" (the primary Big Five scale) in the title as opposed to 35 publications with "nonverbal skill" or "nonverbal ability."

Admittedly, performance measures of nonverbal skill are extremely costly to develop, are time-consuming to administer, and sample only a limited "slice" of nonverbal behavior. The last characteristic may not be much of a problem, however, because thin slices can be quite informative (Ambady, LaPlante, & Johnson, 2001; Ambady & Rosenthal, 1992). It was, in fact, the time and costs issue that led this author to the development of self-report measures of nonverbal and social skill. These measures were supposed to be a "stopgap" until we could develop a battery of performance-based measures assessing the broad range of nonverbal skills and abilities suggested by nonverbal communication research. Because the self-report measures seemed to do the job and took on a life of their own, the standardized performance measures were never pursued fully. The technology exists, however, to have persons pose or spontaneously express emotions while being videotaped and then to have those videotaped expressions compared with templates of "correct" prototype emotional expressions. Similar technology could be used to assess performance-based abilities to regulate and control emotional expressions.

A similar situation exists in personnel selection. Assessment centers offer a performance-based alternative to traditional pencil-and-paper testing in evaluating job applicants (usually for managerial positions). The assessment center requires applicants to engage in a variety of work-related simulations, such as making a formal presentation, coaching a subordinate,

participating in a group discussion, and other exercises, many of which are designed to assess, in part, communication and "people" skills (Howard, 1997; Thornton, 1992). Trained observers then evaluate the participants' performance by rating, for example, their communication skills, rapport with others, and decision making. There is evidence that possession of nonverbal and social skills does predict performance on many assessment center tasks (Riggio et al., 1997). Yet the question of whether it is worth the trouble to get these expensive and time-consuming performance-based assessments is one that parallels the work on measuring nonverbal skills and abilities.

The recent explosion of interest in emotional intelligence has fueled the development of measures, particularly those of Mayer, Salovey, and associates (Mayer et al., 1997, 2002), that assess components of nonverbal skill. These researchers are, in many ways, reinventing the decades-old measures of nonverbal decoding skill and encountering many of the same problems that plagued the nonverbal communication scholars (Ciarrochi, Chan, Caputi, & Roberts, 2001). Many emotional intelligence researchers, however, are simply opting for the easier to administer self-report measures. Despite their conceptual similarity, the two lines of research—skill in nonverbal communication and emotional intelligence—have rarely crossed. Perhaps, this will change with increasing recognition that both are focusing on the same phenomena.

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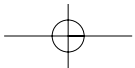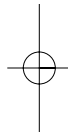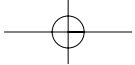
6

NONVERBAL AND VERBAL COMMUNICATION

Hand Gestures and Facial Displays as Part of Language Use in Face-to-Face Dialogue[1]

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Of the many different research perspectives on the fundamentals of nonverbal communication, one of the most taken for granted is the relationship between verbal communication and co-occurring nonverbal acts. Most researchers assume that conversational gestures (e.g., illustrators) and some facial actions (e.g., eyebrow emphasizers or a quizzical expression) contribute to the talk-in-progress. This chapter is the

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next step in a developing model on the contribution of nonverbal communication to face-to-face dialogue (proposed originally in Bavelas & Chovil, 2000). In addition to drawing on the evidence so far, we will suggest new directions for research in this relatively neglected area. Specifically, we will propose four theoretical propositions regarding the subset of nonverbal acts that function as part of language use in face-to-face dialogue and will discuss the logical and empirical evidence for each. We hope that the reader will agree that this area of research and theory is at an exciting point, with enough evidence to be promising but with many more questions and possibilities still open for investigation.

◆ *Historical and Theoretical Context*

Researchers who focus on face-to-face dialogue have long noted that some nonverbal behaviors can work closely with words, prosody, and each other in ordinary conversation. In our view, the beginning of a systematic theory was in 1955, with the highly influential, although mostly unpublished, Natural History of an Interview project (cf. Leeds-Hurwitz, 1987; McQuowan, 1971). We can then trace a line of proponents of an integrated approach in many disciplines, including Birdwhistell (1966), Scheflen (1968), Ekman and Friesen (1969), Kendon (1972, 1980), Blurton-Jones (1972), Pike (1972), Weiner, Devoe, Rubinow, and Geller (1972), Slama-Cazacu (1976), Duncan and Fiske (1977), Poyatos (1980), Scherer (1980), Linell (1982), McNeill (1985), Goodwin and Goodwin (1986), Sanders (1987), Leeds-Hurwitz (1989), Chovil (1989), Bavelas, Black, Chovil, and Mullett (1990, chap. 6), Fridlund (1991a), Streeck and Knapp (1992), Clark (1996, chap. 6), and Jones and LeBaron (2002). These authors have used a variety of terms for verbal-nonverbal

combinations of words, prosody, hand gestures, facial displays, or gaze, including *mixed syntax* (Slama-Cazacu, 1976), *comprehensive communicative act* (Linell, 1982), *multichannel process* (Leeds-Hurwitz, 1989; Sanders, 1987; Scherer, 1980), *composite signal* (Clark, 1996; Engle & Clark, 1995), *integrated message* (Bavelas & Chovil, 2000), and, most recently, *multimodal communication* (e.g., Engle, 2000), although the last term often includes computers or objects as well as human actions.

The broader context of the approach discussed in this chapter is our interest in the unique features of face-to-face dialogue as a primary mode of language use. Changes in conceptions of language itself have been a boon for conversational hand gestures and facial displays. Historically, when linguists and psycholinguists conceptualized language as an abstract entity or idealized it as written text or formal monologues, all nonverbal acts were either irrelevant or a completely separate communication channel. Recent interest in how interlocutors ordinarily *use* language has led to an emphasis on conversation and, eventually, to face-to-face dialogue. Indeed, many authors (e.g., Bavelas, 1990; Bavelas, Hutchinson, Kenwood, & Matheson, 1997; Clark, 1996, pp. 8–10; Fillmore, 1981; Goodwin, 1981; Levinson, 1983; Linell, 1982) have proposed that face-to-face dialogue, rather than written text or formal monologue, is the fundamental or basic site of language use, for at least three reasons: (1) face-to-face dialogue is arguably the first format for human language in evolutionary terms; (2) in typical development, it is the individual's first language; and (3) it is the most common format for language use in everyday life.

More specifically, we have proposed (e.g., Bavelas, 1990; Bavelas & Chovil, 2000; Bavelas, Coates, & Johnson, 2002; Bavelas, Hutchinson, Kenwood, & Matheson, 1997) that there are two features of dialogue that, in combination, do not occur in other forms