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Emotional Recognition Ability
Among Incarcerated Youth
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Emotional Recognition Ability among Incarcerated Youth

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Aubrey Elmore

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Abstract

The purpose of this study was to consider emotional recognition ability among incarcerated youth. Specifically, thirty-eight inmates who were eligible for a Free and Appropriate Education (FAPE) under New York State law participated in the study. Participants were administered Ekman’s facial discrimination task (1976), the Sociomoral Reflection Measure-Short Form (SRM-SF; Gibbs, Basinger, & Fuller, 1992), and an Emotional Intelligence Survey (Schutte et al., 1998). Results showed the incarcerated youth were less accurate in identifying emotions from facial expressions than were non-incarcerated young adults. Further, incarcerated youth with identified learning disabilities were even less accurate in their ability to recognize emotions than those juvenile offenders without a learning disability. Racial differences in emotional recognition were observed as well. Correlational analysis revealed that social perspective taking was related to the recognition of some of the emotions, as was emotional intelligence.
Emotional Recognition Ability
Among Incarcerated Youth

The study of emotional recognition can be traced back to Darwin’s research on nonverbal communication. Darwin (1898) stipulated that body movement and facial expressions in humans and animals were the result of inherited ability, instinctive recognitions of body movement and facial expression, and the importance of the intended communication. To support his theory of emotional expressions as innate, Darwin described the blind population as displaying the same facial expressions as those displayed by the visual population. “The movements of expression in the face and body serve as the first means of communication between the mother and her infant” (Darwin, 1898, p. 364). In addition, Darwin explained, “expression in itself, or the language of the emotions, as it has been called, is certainly of importance for the welfare of mankind” (p.366).

Overall, Darwin (1898) advanced the idea that “facial expressions are universal, a product of our evolution” (Ekman, 2003, p.14). For Darwin there are six innate facial expressions: happy, sad, anger, surprise, disgust, and fear.

Birdwhistell’s research showed, however, that across different cultures, people smile when they were actually unhappy (Birdwhistell, 1970). He rejected Darwin’s theory of the innateness of emotional expression and asserted that emotional expressions are learned and vary across cultures. Ekman and Friesen (1969), conversely, studied an isolated tribe in New Guinea to better understand facial expressions across various cultures and the universality of emotions. Ekman and Friesen found that all the facial expressions made by members of the New Guinea tribe, were identifiable and similar to those displayed in western civilization. Therefore, Ekman and Friesen were the first to provide empirically based research in support of Darwin’s theory of innate emotional expression and recognition. Overall, based on Ekman’s research (1969, 1972, 1974, 1975, 1978, 2003) he found that emotional expression is innate but emotional recognition can be taught and developed
through skill practice and observation. In other words, one’s life experiences can influence one’s emotional recognition ability.

Ekman’s research also asserted Darwin’s position that there are indeed six basic universal human emotions in facial expressions. Ekman (2003) described the emotion of anger as “the most dangerous of all emotions, which may lead to the potential for violence and danger towards others” (p.151). Therefore, being aware of and accurately identifying the facial expression of anger is crucial for one’s safety. According to Ekman, the feeling of anger is the one emotion that is most frequently experienced with other emotions. Also, Ekman found that the facial expression of anger is most often confused with the facial expression of disgust. The facial expression of disgust does not emerge as a separate emotion until between the ages of four and eight (Rozin, Haidt, & McClauley, 1999). Ekman (2003) described the facial expression of surprise as the “briefest of all emotions, lasting only a few seconds at the most” (p.148). Ekman questions the validity of surprise as a separate emotion because “it cannot last longer than a few seconds, unlike the other emotions” (p.150). Interestingly, Ekman reported that the emotion of fear, which frequently follows the emotion of surprise, can be short lived in duration or lasting for an extensive amount of time.

The facial expression of “sadness/agony, on the other hand, is one of the longer-lasting emotions” (Ekman, 2003, p.84). Ekman described the “angling upward of the inner corners of one’s eyebrows as the most reliable sign of the sadness/agony emotion because few people can make this movement voluntarily” (p.103). Sadness is the emotion that evokes pity or empathy in those who observe it.

The recognition of emotional signals through facial expressions, which include the muscles of the face and the actual nonverbal display of an emotion, function as a way to relate clearly towards others’ current state of emotion and allow individuals to make inferences about others’ affects. In order for individuals to interact appropriately in social situations, the ability to recognize various emotions that are portrayed through facial expressions is critical for maintaining positive,
healthy relationships with others (Pollak & Sinhah, 2002). Facial expressions, therefore, are viewed more frequently in social interactions than the sound of words (Ekman, 2003). In other words, although someone may verbally respond that he or she feels “fine” but if their facial expression was that of sadness, the observer would attend more readily to the facial expression rather than the verbal utterance.

The theory of emotional recognition is also supported by the concept of interpersonal intelligence. Gardner’s theory of multiple intelligence (1993) defines interpersonal intelligence “as one’s ability to understand others” (Dimitrovsky, Spector, & Levy-Shiff, 2000, p. 410). More specifically, interpersonal abilities are described as “the development of the internal aspects of a person, such as one’s personal affects or emotions, and also the ability to notice and make distinctions among other individuals, among their moods, temperaments, motivations, and intentions” (Gardner, 1993). Thus emotional intelligence not only “impacts individuals’ behaviors in social relations, but also involves sensitivity to nonverbal signs of emotion in others” (Dimitrovsky et al., 2000, p. 410).

There are two lines of thought that attempt to explain the developmental process of emotional recognition through facial discriminations of various affects. One line of reasoning supports the notion that children’s recognition of facial expressions is the result of an instinctive or biological process of development. For example, research indicates that children under the age of one are able to recognize emotions through facial and vocal expressions and then use these signals to regulate their behaviors in social situations (Soken & Pick, 1999). Specifically, Soken and Pick, found that seven-month-old infants have the capacity to distinguish between isolated positive (happy, interested) and negative (angry, sad) expressions.

On the other hand, research also suggests that while individuals’ ability to recognize facial expressions may be innate, repeated exposure and experiences with emotional expression facilitate this developmental process. A child’s ability to interpret facial expressions accurately increases
with age and through exposure to social interactions with others (Feldman, Coats, & Spielman, 1996; Lenti, Lenti-Boero, & Giacobbe, 1999, Philippot & Feldman, 1990). Further, as children develop cognitively, the accuracy and ability to observe nonverbal expressions have greater meaning as the complexity of social behaviors increase.

Elfenbein, Marsh, and Ambady (2002) indicate that, during preschool- and school-age, emotional recognition accuracy, as measured by the child's ability to label and discriminate emotional expressions, is positively correlated with peer popularity and adult-rated social competence. In addition, it has been shown that these relations are not mediated by verbal intelligence, academic competence or temperament. Taken together, these findings reveal that an individual’s ability to recognize the emotional states of other people from nonverbal cues is a significant predictor of social competence in children and future success for adults at the workplace (Elfenbein, Marsh, & Ambady). The effects of early experiences on children’s recognition of facial displays of emotion and their ability to perceive faces accurately, therefore, serve important adaptive functions. Social information acquired from facial expressions promotes efficient interpersonal behavior that can help maximize future social outcomes (Dimitrovsky, Spector, & Levy-Shiff, 2000).

Early negative experiences, however, also can impede a child’s emotional recognition ability. This is an especially critical issue with children and adolescents as their ability to recognize the emotions of others is heavily reliant on the quality of their past experiences as well as their future expectancies. In other words, emotional recognition through facial expressions or verbal descriptions has been closely associated with the development of social competencies. However, certain "at risk" groups of children have had difficulty with this ability. For example, neglected/abused children, children with learning disabilities, and children with mental retardation all show delayed development in emotional recognition as compared to nonclinical samples. Dimitrovsky, Spector, Levy-Shiff, and Vakil (1998) found that in comparison to children without a
specified learning disability, children with an identified nonverbal language deficit were less accurate in identifying four of the six basic emotions, which were anger, disgust, fear, and surprise. Contrarily, those with verbal language deficits showed greater misperception for surprise (Dimitrovsky, Spector, Levy-Shiff, & Vakil). Older children are more accurate in identifying emotions than the younger children, as well (Dimitrovsky, Spector, Levy-Shiff, & Vakil). Also, previous research findings have concluded that individuals with mental retardation are less accurate in identifying emotions through facial expressions. For example, Rojahn and Rabold (1995) found that mentally retarded adults were significantly less accurate on Ekman’s Facial Discrimination Task than were a nonretarded population. In a subsequent study, Kroeger, Rojahn, and Naglieri (2001) found that for adults with mental retardation, ability to identify accurately facial expressions of emotions was positively related to simultaneous and successive processing, but not to attention and executive functioning. In other words, how visual information is processed is more important in emotional recognition than is general reasoning ability.

Pollak, Cicchetti, Hornung, and Reed (2000) conducted two experiments, an Emotion discrimination task and an Emotion differentiation task, that examined the recognition of emotion among physically abused and physically neglected preschoolers and the effects of atypical experience on emotional development. Pollak, Cicchetti, Hornung, and Reed asked children to match facial expressions to a series of vignettes depicting common emotional themes (e.g., the sudden death of a child, receiving good news, etc.). They found that neglected children had more difficulty discriminating emotional expressions than did a control sample and physically abused children. Children who had been physically abused presented a response bias for angry facial expressions (Pollak, Cicchetti, Hornung, & Reed). Further, these researchers had children rate how similar or different two different facial expressions were when asked to compare. Results showed neglected children recognized fewer distinctions between angry, sad, and fearful facial expressions than did the control group. Physically abused children and control children were more accurate at
distinguishing between anger and negative emotional expressions than were neglected children (Pollak, Cicchetti, Hornung, & Reed). Pollak and Sinhah (2002) found similar findings with children who had been physically abused; they portrayed the most inconsistency across emotions, yet were the most accurate in identifying anger. These results suggested to them that when children’s experience with the world varies significantly, their interpretation and understanding of emotional signals would be greatly impacted as well (Pollak, Cicchetti, Hornung, & Reed, 2000). In other words, the more children’s experience differs from the normal development or adequate care, the more disruption to the development of emotional recognition and adequate social skills.

Although Darwin (1898) underplayed the importance of the communication value of emotional expression, individuals do communicate emotions to others through facial expressions. In order for an observer to correctly identify an emotion, an individual must rely on visual information that comes from facial muscular movements (Pollak & Sinhah, 2002). Therefore, accurately labeling the expressed emotion will improve social interactions among people. Pollak and Sinhah (2002) hypothesized that physically abused children would accurately identify facial displays of anger on the basis of less sensory input than would nonabused children and physically abused children would require more perceptual information to recognize displays of sadness. Past studies of emotional interactions have indicated that parents who maltreat their children portray fewer positive emotions and more negative emotions toward them than do parents who do not mistreat their children (Pollak & Sinhah, 2002). Also, parents who abuse their children tend to isolate themselves and their families from others, leaving their child exposed to fewer nonparental models of emotional communication (Pollak & Sinhah). In other words, the facial expressions children observe within their environment and from their caregivers predict the accuracy at recognizing other’s emotions. This study demonstrated that children whose parents reported high levels of hostility directed toward their offspring required less perceptual information when identifying facial expressions of anger; where as, physically abused children required more
perceptual information than did control children to recognize sad facial expressions (Pollak & Sinhah).

Thus the findings within the Pollak and Sinhah study suggest that children possess complex learning abilities that are applied to affective information received from the environment. The way in which affective information is processed, therefore, may provide insight into both behavioral adaptation and maladaptation. Thus based on this suggestion, to consider emotional recognition among the behaviorally maladaptive child it is fundamental to consider whether the processing of affective communication is applicable to the antisocial, youthful offenders of society. If one were to make inferences regarding juvenile delinquents' social and emotional history backgrounds, one inescapable conclusion would be that many of these who became incarcerated youths are the product of dysfunctional, neglected, and/or abused families. Therefore, when considering the results of the previously described emotional recognition studies as applied to incarcerated youth, the inability to recognize sad facial expressive emotions among individuals may explain their failure in recognizing the fearful and sad facial expressions of their crime victims. In other words, those incarcerated youth from disadvantaged familial backgrounds are likely to experience a lack of appropriate exposure to positive emotions and are also more likely to develop poor displays of emotions. It is suggested, therefore, that children who grow up in violent households are more likely to show a reduced ability to recognize positive expressions. One would suspect that this might indeed be the case with incarcerated youth.

As of to date, this issue of emotional expression has not been investigated with incarcerated youth. Can youth who are currently incarcerated adequately recognize the emotions behind facial expressions? This research question remains open.

It is also an unanswered question whether incarcerated youth’s ability to recognize emotions in others is related to their ability to form accurate social perceptions or engage in social perspective taking. In other words, are cognitions regarding issues of fairness of the rights of others related to
one's ability to process accurately affective information? Further, this certainly would shed light on the role of empathy with regards to the incarcerated youth population. Lindsey, Carlozzi, and Eells (2001) considered a number of individual characteristics that may affect the empathetic responses of delinquents. For example, a history of empathetic deprivation is believed (a) to result in a diminished capacity for empathetic responding; (b) to result in socialization differences or the individual's understanding of what it means to show empathy; and, (c) to consider whether behaviors that delinquents define as empathetic, are judged to be empathetic by the larger culture (Lindsey, Carlozzi, & Eells, 2001).

When considering the role of individual characteristics in empathetic responding, it is important to realize that an understanding of empathy is as complex as our understanding of each unique individual (Lindsey, Carlozzi, & Eells, 2001). Frequently, offenders may consider themselves highly empathetic when thinking about family members, close friends, or fellow gang members. But because they do not perceive their victims as similar to themselves, empathy is not extended to the same degree to strangers (Lindsey, Carlozzi, & Eells).

Lindsey, Carlozzi, and Eells (2001) examined the hypothesis that male juvenile sex offenders, delinquent nonsexual offenders, and “normal” nondelinquent juveniles differ significantly in empathy. Surprisingly, they found delinquent groups differed significantly from the nondelinquent group in only one particular area, that of Personal Distress. Davis (1996) defines personal distress as “an individual’s level of anxiety when observing the negative experience of another” (Lindsey, Carlozzi, & Eells, p.512). This suggests that delinquents have a greater tendency to become emotionally reactive during intense situations than do nondelinquents. Lindsey, Carlozzi, and Eells suggested that this emotionally reactive tendency reflects a self-oriented perspective; therefore, less focus on the distress of their victim. This personal distress and emotional reactivity may be the result of witnessing and experiencing violence in the home and other settings (Lindsey, Carlozzi, & Eells). Juvenile sex offenders also showed less of a tendency
to experience “other” oriented feelings of sympathy and concern for the suffering of their victims (Lindsey, Carlozzi, & Eells).

Therefore, based on Lindsey, Carlozzi, and Eells’ (2001) findings, juvenile delinquents are less capable to observe the distress in their victims. This may be quite similar to the outcome that Pollak and Sinhah (2002) observed with children from neglected and/or abused families. That is, they had considerably more difficulty recognizing sadness through facial discrimination.

The lack of research regarding incarcerated youths’ ability to accurately recognize emotions from facial expressions, has suggested the need for this study. Often times the incarcerated youth population is overlooked. Research with this population is fundamental to their advancement of rehabilitation and future socialization. One might even predict that emotional recognition ability is inversely related to their severity of crime. In other words, those individuals that have committed more severe and violent crimes are less accurate at identifying the facial expressions of their victims.

Many questions surrounding this topic occur because there is no research available to further explain if juvenile delinquents are capable of recognizing the emotions from various facial expressions. Also, one possible explanation of why crimes that involve victims occur is because incarcerated youth lack the ability to recognize facial expressions. Poor use of the information gained from interpreting facial expressions can be worse than being unable to perceive the emotional information at all. Thus leads one to further question whether indeed the incarcerated youth are capable of recognizing facial expressions, but ignore or at the very least do not know how to process this information accurately. The important question is how individuals use emotional information, not that they are capable of perceiving the emotion.

Also, when considering the incarcerated youth is a lack of facial discrimination related to the type of crimes committed? In other words, is it the case that the less an individual is capable of recognizing facial expressions, the more likely we are to see increases in the severity of the crimes
committed upon others? After all taking a crime victim’s feelings into account, means that one must be empathic to that individual. Available research available that examines empathy among the incarcerated youth is limited.

Barnett and Thompson (2001) examined what they believed to be the two most significant factors during social interactions, namely, empathy and perspective taking ability. The main purpose of their study was to better understand the process and the possible relationship between empathy and one’s perspective taking ability. Based on the previous research, Barnett and Thompson reported there were inconsistent results about the sole predictor of specific interpersonal behaviors and judgments. Therefore, Barnett and Thompson analyzed, “the child’s affective perspective taking ability, or the capacity to accurately identify and infer the emotional state of another individual, and the child’s empathic disposition, or the tendency to vicariously experience the feelings of another” (p. 295). More specifically, Barnett and Thompson decided to analyze empathy and perspective taking abilities among elementary students to determine the possible relationship between the two social responses.

Barnett and Thompson (2001) hypothesized the students that display low empathy and high perspective taking skills were expected to be highly “Machiavellian” and only help others for further self-growth; highly empathic children would be more helpful and sincere about helping others in need. Further, a child that shows high empathic characteristics and high affective perspective taking skills would be more helpful when the need of another individual is subtle. Barnett and Thompson found that female students had significantly higher empathy scores than males. Additionally, Barnett and Thompson found that female students had significantly higher feelings scores than male students. Finally, Barnett and Thompson found a significantly weak correlation between the students’ scores on the empathy and affective perspective taking (APT) measures.
Overall, Barnett and Thompson (2001) found that the low empathy and high perspective taking ability of a student were reported as Machiavellian and were less helpful than their peers when rated by their teacher. This suggests that when a child is perceptive about the feelings of others he or she is more inclined to act in a manipulative manner (Barnett and Thompson). The highly empathic students were less Machiavellian and reported reasons other than for personal purposes for helping others. Based on teachers’ ratings, regardless of perspective taking abilities, students with high empathy were significantly more likely to help others when their needs were subtle (Barnett and Thompson). Barnett and Thompson reported that due to the inability to find similar high versus low empathy results with the obvious-need situations suggests that other causes influence one’s motivation for helping others, such as familial factors (genetic or behavioral) or societal norms.

Contradictory to one’s belief, researchers are not unanimous in the analysis that good perspective taking predicts positive social behavior. Past research have specified that good perspective takers are possibly disruptive and quarrelsome and manipulative in their behavior and social interactions. Based on the literature, the development of perspective taking skills predicts an increased ability to draw conclusions about mental status, including aspects such as goals, needs, and emotions (Mendelsohn & Straker, 1999).

Mendelson and Straker (1999) investigated the relationship between a child’s ability to take the social perspective of another individual’s kindness when helping others. Past research findings conclude as children develop socially, they tend to evaluate other individuals who behave prosocially for personal gain as less kind than someone who behaves prosocially for more altruistic motives (Mendelsohn & Straker). Mendelson and Straker’s findings supported past research that social perspective taking ability and chronological age are correlated in that children move from an egocentric point of view (e.g., child does not differentiate between the social perspective, thoughts,
and feelings of others and self) to a social and conventional perspective taking view (e.g., an awareness that perspectives are part of the greater influences of society).

How researchers measure the ability to recognize facial expressions of emotion is crucial to understanding the limitations of methods used that gauged emotional intelligence. Generally, expressions in the social world are subtle so it is difficult for researchers to develop a variety of subtle expressions that are true representations that exist by individuals in society. Essentially, the question of whether the ability to accurately recognize emotions of others is a profitable attribute is still unclear. Humans rely heavily on facial expressions when communicating and interpreting emotional states. Also, information from facial expressions promotes efficient interpersonal behavior to help maximize social outcomes (McArthur & Baron, 1983). Elfenbein, Marsh, and Ambady (2002) found that one’s ability to recognize emotions from facial expressions appears to be inborn.

Foley (2001) conducted a review of incarcerated youth’s cognitive, academic, social, and emotional backgrounds to develop an accurate representation of this specialized population. Based on the 1988 to 1997 statistics, 86.5% of delinquents held in public and private juvenile detention, correctional, and shelter facilities were young men from ethnic minority backgrounds (40% African American; 18.5% Hispanic) and ranged in age from 13 to 17 years (Foley, 2001). Foley reported, “youth with disabilities make up a substantial portion (12% to 70%) of the incarcerated juvenile population” (Foley, p.249). In addition, incarcerated adolescents have educational histories that prove high percentages of academic failure and grade retention. For example, the cognitive functioning among the incarcerated youth falls within the Low-average to Below-average range (Full Scale IQ score of 80 to 100) and academically are performing between the fifth and ninth grade levels (Foley, 2001). Intellectual functioning among the incarcerated youth has found that Verbal IQ is lower that the Performance IQ (Foley). “In New York, a small percentage (12%) of
older youth entered correctional facilities with a high-school diploma or its equivalent" (Foley, 2001, p.267).

Based on the review of the literature, no studies have investigated the incarcerated youth’s abilities to recognize emotions. The incarcerated youth have difficulty with social adjustment and represent a socially deviant group; it is unclear if they have the same cognitive capabilities to recognize others’ facial expressions. It is evident that emotional recognition is important to human behavior and one’s ability or lack thereof to interact appropriately in social situations. Also, emotional recognition has been studied in various populations except the incarcerated. Given these facts, the primary aims of the present study were (a) to address the relationship between emotional recognition and social moral reasoning, to consider emotional recognition related to (b) severity of crime, (c) cognitive scores, and (d) length of time incarcerated.

Based on past research, it was hypothesized that there will be a significant relationship between emotional recognition and social moral reasoning among the incarcerated youth population. Those with enhanced emotional recognition will be able to perform social recognition to determine the fairness of the rights of others. It was also hypothesized that there will be an inverse relationship between seriousness of crime to emotional recognition and social moral reasoning. Those with more severe offenses are less adequate at emotional recognition than those who committed less severe offenses. We also hypothesized perspective taking ability and emotional intelligence will be positively related to emotional recognition. In addition, it was hypothesized that individuals are more accurate at identifying emotions of their own racial background. Finally, within the incarcerated youth population those with identified learning disabilities will not be as accurate at recognizing facial expressions as those without recognized learning disabilities.
Method

Participants

Convicted male criminal offenders between the ages of 18 to 21 were selected from a medium security correctional facility in New York State to participate in the study. Medium security classification dictates a remaining sentence length of six years or less to earliest possible release date, as well as a relatively non-violent institutional history. At this particular setting the population consisted of all ages; however, only individuals that were 21 years of age or younger and were also eligible under the New York State Department of Education for a free and appropriate education were considered as potential participants. Among this specialized population, approximately 45 inmates were eligible for this study. Of the 45 eligible participants, approximately 84% returned signed consent forms and agreed to undertake the study (n = 38).

The incarcerated youth were all currently assigned to academic classes or had recently obtained a General Education Diploma (GED). Special education programs are provided to those inmates who are 21 years of age or under and have identified special education disabilities. Those receiving special education services were identified as learning disabled in reading and/or arithmetic based on a review of their school records while incarcerated. The special education students were reading at approximately a 5.7 grade equivalent and had mathematic skills at a middle fifth grade level. Inmates not classified as eligible to receive special education services were enrolled in GED or Pre-GED classes. There were no reading and mathematic grade equivalents available among the GED and Pre-GED classes. In all, there were 17 special education and 21 regular education participants among the offenders. The racial makeup of the sample consisted of the following: 21 African Americans, 11 Hispanics, and 6 Caucasians. Overall, the mean age was 19.7 years.

Felony crimes committed in New York State are classified based on the severity of the crime(s) committed on an A through E scale (Shalley & Murray, 2003). The most serious crimes
are identified as Class A Felonies (e.g., Murder First Degree) and the least severe crimes committed are identified as Class E Felonies (e.g., Criminal Mischief). The mean offense level for the sample was 0% Class A Felony Offenders, 28.9% Class B Felony Offenders, 34.2% Class C Felony Offenders, 18.5% Class D Felony Offenders, 2.6% Class E Felony Offenders, and 15.8% Youthful Offenders. Youthful offenders are defined as any individual between the ages of 16-18 at the time of the offense and all records are kept confidential to protect them from any long-term effects of a criminal record. Among the participants involved in this study 81.6% were identified as violent offenders and 18.4% were identified as non-violent offenders.

Materials

Each incarcerated youth was administered Ekman's facial discrimination task (1976). Ekman’s facial discrimination task consists of 110 black and white slides of six Caucasian male and eight Caucasian female adults expressing one of six emotions. The six emotions that were identified as the most frequently expressed facial expressions were happiness, sadness, fear, anger, disgust, and surprise (Ekman & Friesen, 1976).

For this study, 40 of Ekman and Friesen’s photos of both male and female faces with the highest interrater reliability were selected of all seven facial expressions. The seventh facial expression of neutral was added based on Ekman’s normative sample. Participants were given an answer sheet with a choice of the seven emotions and asked to circle and identify the emotion displayed in the picture. Each picture was presented for approximately 10 seconds on an overhead screen. For the purpose of this study the sample that Ekman used to establish interrater reliability was used as a control group or reference norm. All of the participants were undergraduate college students in their late teens or early 20’s. Based on Ekman’s sample, he used 18 participants’ responses to judge the expression of happiness, 17 participants to judge the expressions of anger and sadness, 15 for the emotions of fear and disgust, and 14 participants identified the emotions of surprise and neutral.
Gibbs Sociomoral Reflection Measure-Short Form (SRM-SF; Gibbs, Basinger, & Fuller, 1992) was group administered to the participants. This measure consisted of 11 questions whereby the participants were asked about the social fairness of maintaining promises toward others, helping parents/friends, the value of another’s life, and obeying the laws. Each question was followed by a response choice of Very Important, Important, or Not Important. After determining the social fairness the participant provided a one to two sentence response. The estimated time of this measure was approximately 15 minutes.

Finally, an Emotional Intelligence Survey (Schutte et al., 1998) was group administered to each of the participants. The questionnaire consisted of 33 items, where the participants reply on a Likert scale and a total score was determined by totaling the item responses. In addition, to a total score a factor-analysis was computed using the four factors that were measured and developed by Petrides & Furnham, 2000. The four factors were identified as Positive Expectancies, Emotional Recognition, Emotional Expression, and Mood Self-Awareness.

A review of the inmates’ records was completed with permission obtained from the Department of Correctional Services and the individual inmates to obtain information pertinent to the study, such as severity of crime, age, scores from psychological assessments (cognitive and achievement), length of sentence, and duration of incarceration. All inmates were assured of complete confidentiality.

The BETA-III, a revision of the Revised BETA Examination-Second Edition (Beta-II; Kellogg & Morton, 1978) a group administered non-verbal cognitive assessment conducted at the detention holding center, and the Wechsler Adult Intellectual Scale-Revised (WAIS-R; Wechsler, 19) conducted by the facility’s School Psychologist were administered to determine offenders’ intellectual abilities. Both scales use a mean of 100 and a standard deviation of 15. The range of cognitive scores among the Regular Education students were between 61 and 117, with a mean of 95, which falls within the Average range of intellectual functioning. The range of cognitive scores
among the Special Education students were between 72 and 101, with a mean of 85, which falls within the Below Average range of intellectual functioning.

Experimental Procedure

Testing occurred in one group session. Upon entrance, the participants were presented with Gibbs Sociomoral Reflection Measure-Short Form (SRM-SF; Gibbs, Basinger, & Fuller, 1992) where they completed the form independently. The Emotional Intelligence Survey was then completed. Finally, the participants viewed 40 black and white overhead transparencies of adults displaying facial expressions of happy, sad, angry, surprised, afraid, disgusted, and neutral. The participants were required to respond to each facial expression.

Results

Figures 1 through 7 show the overall accuracy of the incarcerated youth’s identification of facial expressions in comparison to Ekman’s norms (Ekman & Friesen, 1978). The correct percentage from this sample ranged from 88% (for happiness) to 43% (for neutral). Comparing then to Ekman’s norms, using a one sample proportional difference test (Hinkle, Wiersma, & Jurs, 2003) indicated significant differences on four of the seven emotions: Neutral ($z = 3.12, p < .001$); Disgust ($z = 4.3, p < .001$); Sad ($z = 3.7, p < .001$); and Fear ($z = 3.18, p < .001$). Further, across all emotions, our sample was less accurate than the norm group in accurately recognizing emotions.

Shown in Table 1 are the means and standard deviations of three racial groups from the sample on seven emotions. Scores indicate the average numbers of photos correctly identified. As there are a total of 40 slides, scores could range from zero to six for all emotions except for neutral, which could range from zero to four. Results of seven one-way ANOVAs show significant group differences on four of the seven emotions: Neutral ($F_{2,35} = 2.82, p < .05$); Fear ($F_{2,35} = 4.03, p < .05$); Sad ($F_{2,35} = 2.82, p < .05$); and Anger ($F_{2,35} = 2.75, p < .05$). In general, Caucasians were more accurate in the identification of emotions.
Displayed in Table 2 are means and standard deviations according to inmates’ educational status. Regular education participants had significantly greater accuracy over non-regular education participants on two out of the seven emotions: Disgust \((t_{2,35} = -1.69, p < .05)\) and Happy \((t_{2,35} = 2.82, p < .05)\). In other words, the special education students had greater difficulty accurately identifying facial expressions when compared to the regular education students.

Shown in Table 3 are the correlations between accuracy of emotional recognition and social perspective taking and emotional intelligence. Results indicated that social perspective taking was significantly related to accurately identifying two emotions: Happy and Anger \((r = .49\) and \(r = .43\) respectively, \(p < .01)\). Further emotional recognition perceptions was significantly related to emotional recognition accuracy for three of the seven emotions: Happy, Anger, and Fear \((r = .29, r = .34, \text{ and } r = .32\) respectively, \(p < .05)\).

Discussion

This study demonstrated that incarcerated youth were less accurate in their ability to identify facial expressions. This coincides with previous research that children who experience poor social development can have a negative impact on their emotional recognition ability. The first important aspect to report is those with an identified learning disabilities were less accurate at identifying the appropriate emotion behind the facial expression when compared to the non-Special Education students. This finding is consistent with the previous study that nonverbal and verbal language deficits when compared to the controls are less accurate in identifying emotions (Dimitrovsky, Spector, Levy-Shiff, & Vakil, 1998). Second, racial differences were also found, which supports the idea that people are more accurate in identifying the emotion within their own race. When considering the past research that approximately 85% of delinquents are young men from ethnic minority backgrounds suggests that multicultural experiences and racial cohesion will promote more accuracy at identifying the facial expressions of others across all races.
An additional finding to emerge from this study is that social perception, emotional intelligence, and emotional recognition was related to only three emotions: Happiness, Anger, and Fear. A possible explanation of this finding is that happiness, anger, and fear are the only three emotions that are relevant to the incarcerated youth population. In other words, incarcerated youth relate to others based on a friend, foe, or prey emotional recognition process. Interestingly, this study found that the emotion of sadness was unrelated to social moral reasoning and emotional recognition. This suggests that incarcerated youth may not have any consideration for sadness or empathy towards others. This finding is consistent with the Lindsey, Carlozzi, and Eells’ (2001) study that juvenile delinquents are less aware of the distress of their victims.

Based on these findings, it supports the concept of incorporating emotional recognition into social skills training programs in order to increase an individual’s perspective taking abilities and empathy toward others. Those who interact with the incarcerated youth want to focus on empathy enhancement, increasing accuracy at identifying facial expressions of others, and greater exposure to multicultural experiences as treatment recommendations. The results from this study need to be taken into consideration based on the small sample size, Ekman’s dated instrument, and the use of black and white still photos, rather than multi-cultural faces on a videotape that allows movement to determine the accurate emotion.
References


Compared to Controls
Percentage Differences of Recognizing the Anger Emotion Among Incarcerated Youth
Figure 3

Emotion Recognition Compared to Controls

Percentage Differences of Recognizing the Fear Emotion Among Incarcerated Youth
Figure 4: Compared to Controls, the Percentages of Recognizing the Happy Emotion Among Incarcerated Youth.
Compared to Controls

Percentage Differences of Recognizing the Neutral Emotion Among Incarcerated Youth

Figure 5
Figure 6

Emotional Response:

- Neutral
- Disgust
- Fear
- Surprise
- Anger
- Sad
- Happy

Compared to Controls

Percentage Differences of Recognizing the Sad Emotion Among Incarcerated Youth
Figure 7

Percentage Differences of Recognizing the Surprise Emotion Among Incarcerated Youth Compared to Controls
### Table 1

*Racial Differences in Emotional Recognition Among Incarcerated Youth*

<table>
<thead>
<tr>
<th>Emotions</th>
<th>Caucasian (n = 6)</th>
<th>African American (n = 21)</th>
<th>Hispanic (n = 11)</th>
<th>F-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Neutral</td>
<td>2.5 ± 1.2</td>
<td>1.8 ± 0.9</td>
<td>1.2 ± 1.0</td>
<td>2.82*</td>
</tr>
<tr>
<td>Disgust</td>
<td>3.8 ± 1.1</td>
<td>3.5 ± 1.6</td>
<td>3.2 ± 1.3</td>
<td>0.27</td>
</tr>
<tr>
<td>Fear</td>
<td>3.8 ± 1.1</td>
<td>3.8 ± 1.1</td>
<td>2.4 ± 1.8</td>
<td>4.039*</td>
</tr>
<tr>
<td>Sad</td>
<td>4.1 ± 1.1</td>
<td>2.8 ± 1.3</td>
<td>3.1 ± 0.5</td>
<td>2.822*</td>
</tr>
<tr>
<td>Happy</td>
<td>5.8 ± 0.4</td>
<td>5.1 ± 1.6</td>
<td>5.8 ± 0.6</td>
<td>1.068</td>
</tr>
<tr>
<td>Surprise</td>
<td>4.5 ± 1.0</td>
<td>4.5 ± 1.2</td>
<td>5.0 ± 0.6</td>
<td>0.584</td>
</tr>
<tr>
<td>Anger</td>
<td>4.1 ± 0.7</td>
<td>3.9 ± 0.9</td>
<td>3.1 ± 1.0</td>
<td>2.759*</td>
</tr>
</tbody>
</table>

* p ≤ .05

N = 38
Table 2

Education Placement Differences in Emotional Recognition Among Incarcerated Youth

<table>
<thead>
<tr>
<th>Emotion</th>
<th>Special Education</th>
<th>Regular Education</th>
<th>t-value</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(n = 17)</td>
<td>(n = 21)</td>
<td></td>
</tr>
<tr>
<td>Neutral</td>
<td>1.5  1.0</td>
<td>1.9  1.0</td>
<td>-1.212</td>
</tr>
<tr>
<td>Disgust</td>
<td>3.0  1.7</td>
<td>3.8  1.2</td>
<td>-1.690*</td>
</tr>
<tr>
<td>Fear</td>
<td>3.1  1.4</td>
<td>3.7  1.4</td>
<td>1.242</td>
</tr>
<tr>
<td>Sad</td>
<td>3.1  1.3</td>
<td>3.1  1.2</td>
<td>0.219</td>
</tr>
<tr>
<td>Happy</td>
<td>5.0  1.7</td>
<td>5.8  0.6</td>
<td>-1.780*</td>
</tr>
<tr>
<td>Surprise</td>
<td>4.8  1.3</td>
<td>4.5  0.8</td>
<td>0.744</td>
</tr>
<tr>
<td>Anger</td>
<td>3.4  1.0</td>
<td>3.9  0.9</td>
<td>-1.494</td>
</tr>
</tbody>
</table>

* p ≤ .05

N = 38
Table 3

*Correlations Among the Recognition of Facial Expressions, Moral Reasoning, and Emotional Intelligence*

<table>
<thead>
<tr>
<th>Emotions</th>
<th>Felony Grade</th>
<th>Social Perception</th>
<th>Positive Expectancies</th>
<th>Emotional Recognition</th>
<th>Emotional Expression</th>
<th>Mood Self-Awareness</th>
</tr>
</thead>
<tbody>
<tr>
<td>Neutral</td>
<td>-.04</td>
<td>.11</td>
<td>.15</td>
<td>.09</td>
<td>.05</td>
<td>.10</td>
</tr>
<tr>
<td>Disgust</td>
<td>-.19</td>
<td>-.09</td>
<td>.20</td>
<td>.15</td>
<td>.07</td>
<td>.01</td>
</tr>
<tr>
<td>Fear</td>
<td>-.08</td>
<td>-.01</td>
<td>.25</td>
<td>.32*</td>
<td>.17</td>
<td>.08</td>
</tr>
<tr>
<td>Sad</td>
<td>.13</td>
<td>.19</td>
<td>.27</td>
<td>.11</td>
<td>.40*</td>
<td>.20</td>
</tr>
<tr>
<td>Happy</td>
<td>-.19</td>
<td>.49**</td>
<td>.48**</td>
<td>.29*</td>
<td>.41**</td>
<td>.40*</td>
</tr>
<tr>
<td>Surprise</td>
<td>.05</td>
<td>.07</td>
<td>.01</td>
<td>.10</td>
<td>.09</td>
<td>.04</td>
</tr>
<tr>
<td>Anger</td>
<td>.09</td>
<td>.43**</td>
<td>.45**</td>
<td>.34*</td>
<td>.25</td>
<td>.16</td>
</tr>
</tbody>
</table>

** p ≤ .01
* p ≤ .05

N = 38