EFFECTS OF GENDER AND SELF-MONITORING ON OBSERVER ACCURACY IN DECODING AFFECT DISPLAYS

THESIS

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By

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This study examined gender and self-monitoring as separate and interacting variables predicting judgmental accuracy on the part of observers of facial expressions of emotional categories. The main and interaction effects failed to reach significant levels during the preliminary analysis. However, *post hoc* analyses demonstrated a significant encoder sex variable. Female encoders of emotion were judged more accurately by both sexes. Additionally, when the stimulus was limited to female enactments of emotional categories, the hypothesized main and interaction effects reached significant *F* levels.

This study utilized 100 observers and 10 encoders of seven emotional categories. Methodological considerations and alternatives are examined at length.
# TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>LIST OF TABLES</th>
<th>ii</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chapter</td>
<td></td>
</tr>
<tr>
<td>I. BACKGROUND AND HYPOTHESES</td>
<td>1</td>
</tr>
<tr>
<td>Statement of the Problem</td>
<td></td>
</tr>
<tr>
<td>Review of the Literature</td>
<td></td>
</tr>
<tr>
<td>Hypotheses</td>
<td></td>
</tr>
<tr>
<td>Summary</td>
<td></td>
</tr>
<tr>
<td>II. METHOD</td>
<td>10</td>
</tr>
<tr>
<td>Preliminary Considerations</td>
<td></td>
</tr>
<tr>
<td>Preparation of Facial Stimuli</td>
<td></td>
</tr>
<tr>
<td>Procedures</td>
<td></td>
</tr>
<tr>
<td>Summary</td>
<td></td>
</tr>
<tr>
<td>III. RESULTS</td>
<td>24</td>
</tr>
<tr>
<td>Reliability of the Self-Monitoring Measure</td>
<td></td>
</tr>
<tr>
<td>Homogeneity of Variance of Self-Monitoring Variable</td>
<td></td>
</tr>
<tr>
<td>Multiple Regression Analysis</td>
<td></td>
</tr>
<tr>
<td>Post Hoc Analyses</td>
<td></td>
</tr>
<tr>
<td>Summary</td>
<td></td>
</tr>
<tr>
<td>IV. DISCUSSION</td>
<td>32</td>
</tr>
<tr>
<td>Summary</td>
<td></td>
</tr>
<tr>
<td>APPENDICES</td>
<td>39</td>
</tr>
<tr>
<td>REFERENCES</td>
<td>55</td>
</tr>
</tbody>
</table>


<table>
<thead>
<tr>
<th>Table</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Overall Judgmental Accuracy</td>
<td>27</td>
</tr>
<tr>
<td>2. Judgmental Accuracy for Female Enactments</td>
<td>29</td>
</tr>
<tr>
<td>3. Judgmental Accuracy for Male Enactments</td>
<td>30</td>
</tr>
</tbody>
</table>
CHAPTER I

BACKGROUND AND HYPOTHESES

The human face serves as the locus for a major proportion of sensory organs. This concentration of perceptual centers and their associated muscle groups imparts an extremely complex repertoire of movements and expressions. In fact, Birdwhistell (1970) contends that this extraordinary musculature enables the face to generate over a quarter-million different facial expressions. Due to the high visibility and diverse motor activities of which it is capable, researchers find the face particularly interesting and rich in communicative potential. Indeed, different facial expressions are often interpreted as indicators of an individual's varying physical, attitudinal, and emotional states. When groups of individuals are able to interpret similarly a facial expression as indicative of a particular emotional or physical state, such expressions constitute a code. Most researchers, regardless of whether they favor a "nature" or "nurture" stance concerning the origins of facial expressivity, agree that at least some facial expressions are sufficiently codified to warrant their inclusion in communication studies. It is not on the origins of this code that
the present study is focused, but rather on the fidelity with which persons use it. Specifically, this study examines personality and gender-linked factors in the ability to correctly decipher or decode affective messages transmitted via facial display.

Statement of the Problem

Numerous investigations regarding the accuracy with which individuals interpret or "decode" facial expressions have indicated that different individuals vary significantly in decoding ability. Curiously, and despite decades of inquiry, few stable predictors of this ability have been uncovered. However, two variables examined in previous research are exceptions and may provide a better understanding of the decoding phenomena when considered jointly: They are gender and self-monitoring. Before considering the rationale and hypotheses of the present study, it may be useful to review some of the previous studies involving these two variables.

Review of the Literature

Gender and Decoding

Numerous investigations (e.g., Argyle, Laljee, & Cook, 1968; Birdwhistell, 1970; Lakoff, 1973; Mehrabian, 1972; Zimmerman & West, 1975) have demonstrated significant differences with regard to the nonverbal behaviors of men and women. Argyle, Salter, Nicholson, Williams, and Burgess
indicate that women are more responsive to nonverbal cues than men. Rosenthal, Archer, Koivumake, Dimatteo, and Rogers (1973) report women to be relatively better at interpreting nonverbal communication attempts than men. During the testing of the Profile of Non-Verbal Sensitivity (PONS), Rosenthal, Archer, Koivumake, Dimatteo, and Rogers (1979) indicated that women demonstrated a significantly higher sensitivity to nonverbal behaviors than men. Zuckerman, Larrance, Hall, DeFrank, and Rosenthal (1979) found women to be better decoders than men when presented with either facial or auditory nonverbal cues. Buck (1976) reported females being slightly better decoders of facial affect than males. Similar results were reported by Zuckerman, Lipets, Koivumake, and Rosenthal (1975). Other investigations (Allport, 1924; Buck, 1976; Eiland & Richardson, 1976; Fields, 1953; Frijda, 1953; Gates, 1927; Gitter, Mostofsky & Quincy, 1971; Guilford, 1929; Staffieri & Bassett, 1970) reported either no difference between the sexes or a male advantage with effect sizes similar in magnitude to the studies reporting female superiority.

In a review of and attempt to clarify the results of 75 studies dealing with gender and decoding ability, Hall (1978) concluded that females are more adept decoders than men. However, she qualifies that conclusion by specifying that the upper 50% of the female distribution of sample subjects exceeds 75% of the male distribution in judgmental
accuracy. Thus, it appears that while it may be a modest one, females do hold an advantage over males with regard to decoding accuracy. Zuckerman et al. (1979) suggest that "The methodological implication is that sex is an important moderating variable and should be routinely included in the investigation of encoding and decoding skills" (p. 732).

Isenhart (1980) suggested that another variable closely correlated with gender could aid in the explication of the inconsistencies in findings regarding decoding accuracy. She contended that an individual's psychological sex role (i.e., masculinity-femininity) could account for more variance than gender. She noted:

> With regard to nonverbal sensitivity, researchers have suggested that femininity may be associated with better nonverbal decoding because of practice gained in traditionally feminine occupations. It has also been reasoned that certain traits, such as submissiveness are linked to both femininity and nonverbal sensitivity (p. 309).

Isenhart predicted that female gender would be more positively associated with decoding accuracy than male gender and femininity would account for more of the variance in decoding scores than gender. However, her results indicated a positive association between gender and decoding accuracy and a negative relationship between femininity and decoding accuracy. Female gender accounted for only five percent of the total variance in decoding ability.
Still, while Isenhart failed to obtain experimental support for psychological sex roles as a predictor variable regarding decoding accuracy, her contention that researchers should investigate the potential predictive value of other constructs closely aligned with femaleness warrants attention. One such construct is self-monitoring.

The Self-Monitoring Concept

Snyder's (1974, 1979) research into the construct of self-monitoring suggests that individuals demonstrate varying degrees of awareness of the behaviors and communication attempts of others in social settings. Snyder describes the prototypic high self-monitor as an individual who:

... out of a concern for social appropriateness, is particularly sensitive to the expression and self-presentation of others in social settings, and uses these cues as guidelines for monitoring his own self-presentation (1974, p. 528).

Snyder contrasts the behavior of the prototypic low self-monitor as being more strongly influenced by internal norms, attitudes, and emotional states with less attention to and utilization of situational cues. Snyder (1979) contends that the heightened situational and behavioral vigilance demonstrated by high self-monitors should result in those individuals exhibiting greater skill at "reading others to correctly infer their affective experience and emotional states" (p. 92). This sensitivity contention
has received empirical support with relation to the ability of observers to detect deception. Elliot (1979) suggests that due to the greater degree of behavioral awareness attributed to high self-monitors, these individuals "show greater sensitivity to the characteristics of others involved in the interaction, whether revealed by self-presentation or by inadvertence" (p. 1283). Brandt, Miller, and Hocking (1980) report that self-monitoring accounts for significant differences in individual ability to detect deceptive messages, as do Geizer, Rarick, and Soldow (1977) and Krauss, Geller, and Olson (1976).

Rosenthal et al. (1979) reported a non-significant correlation between nonverbal sensitivity and self-monitoring. However, the PONS assessed an individual's overall sensitivity to a wide variety of nonverbal cues including but not restricted to facial expressivity. Additionally, it should be noted that the PONS utilized filmed enactments of emotional displays by actors, thus including time and encoding ability as variables in the experimental design. The inclusion of these variables enhances the potential for affective blends and contradictory expressions of emotion to confound the results since more adept decoders may be confused by inconsistent emotional displays. Further, and perhaps more importantly, Zuckerman, Larrance, Hall, DeFrank, and Rosenthal (1979) reported significant differences in
decoding accuracy between high and low self-monitoring females. However, no such differences approach significant levels with regard to male self-monitors. Also, although Rosenthal et al. (1979) found non-significant relationships between self-monitoring and decoding ability, a correlation of .26 was reported between femaleness and self-monitoring. While self-monitoring scores have not been shown to strongly influence decoding ability in previous studies, it seems plausible that they could function as an interacting variable with gender and be in part responsible for the slight female advantage in decoding ability. Specifically, high self-monitoring females may demonstrate non-additive increases in decoding ability with increasingly high self-monitoring scores. This seems to be a particularly interesting possibility since the previous findings regarding self-monitoring and judgmental accuracy in decoding non-verbal cues seem inconsistent with the theoretical construct.

**Hypotheses**

The research cited above indicates that individuals can and do render judgments concerning the emotional states of others on the basis of facial expressions. It has also been shown that individuals vary in their ability to decode accurately facial expressions of affect. Results indicating inconsistent relationships between self-monitoring and decoding ability seem especially curious in view of the
theorized heightened behavioral awareness associated with the construct. In light of these inconsistencies between theory and findings, further investigation into the relationship between self-monitoring and decoding seems warranted. The contention that high self-monitors should demonstrate greater judgmental accuracy in the decoding of facial expressions of affect provides the basis for Hypothesis 1.

H₁: Self-monitoring will be positively and significantly related to observer's accuracy in decoding facial expressions of affect.

Decades of previous research examining the decoding abilities of males and females is far from conclusive. Females are asserted to be more expressive, more responsive, and more sensitive to nonverbal communication attempts than males. When sex differences do appear, they tend to favor a slight female advantage. Thus, Hypothesis 2 predicts a small but significant main effect of female advantage.

H₂: Women will be significantly more accurate in decoding facial expressions of affect than men.

Previous studies of nonverbal decoding ability typically focus on either gender or self-monitoring, and neither variable alone has proven to be a strong predictor of decoding accuracy. Isenhart (1980) suggested that the key to unravelling the mysterious female decoding advantage might lie in a variable closely associated with gender (such
as self-monitoring). Zuckerman et al. (1979) report that female high self-monitors seem to demonstrate greater decoding ability than female low self-monitors. Thus, it may be prudent to consider gender and self-monitoring jointly rather than as separate and distinct variables. Accordingly, Hypothesis 3 predicts an interaction between sex and self-monitoring.

\textbf{H}_3: \text{There will be a significant ordinal interaction between gender and self-monitoring: Specifically, females will demonstrate a non-additive increase in judgmental accuracy with increasingly high scores of self-monitoring.}

Summary

This chapter seeks to provide a rationale and framework for inquiry into the possible relationships among gender, self-monitoring, and accuracy in decoding facial expressions of affect. The literature regarding previous research in this area has been reviewed and the rationale presented for the development of three hypotheses.

Chapter Two will outline the experimental design in which the hypotheses will be tested. Methodological considerations will be reviewed.
CHAPTER II

METHOD

The previous chapter outlined the logic and rationale leading to the generation of this study. Chapter Two provides a complete description of the methods used in testing the hypotheses, as well as an overview of the considerations upon which methodological alternatives were either chosen for inclusion in the experimental design or rejected. The results of the investigation and interpretation of the results will be presented in subsequent chapters.

The method and procedures operationalized within this study were formulated with special attention to three major considerations: (1) encoding, (2) decoding, and (3) accuracy assessment. Although the major thrust of the study is that of decoding accuracy on the part of observers of facial expressions, it is essential that both the nature of the messages transmitted and the circumstances under which they are encoded, be carefully evaluated, since they provide the basis for assessing accuracy. These issues are addressed in the following section.
Preliminary Considerations

Approaches to the Study of Facial Affect

Generally speaking, research concerning facial expressions of affect has followed one of three conceptual-methodological lines of inquiry. The first approach is **dimensional**: facial displays are presumed to be reflections of fundamental affective continua (e.g., pleasantness-unpleasantness) which define the emotion being expressed. The goal of the researcher employing a dimensional approach is to define the fewest possible dimensions which describe facial expressions. Exemplary of research using this approach are Osgood (1966), Scholsberg (1954), Woodworth (1938), and Frijda (1969). These studies asked observers to either rate photographs of facial expressions along experimentally preselected scales or rate similarities between photographs. The ratings were then factor analyzed to obtain the dimensions.

A second approach involves the **content analysis** of different areas of the face. This approach is grounded on the assumption that certain facial areas are more readily decipherable than others, and that regions of the face vary in their information-sending capacity. This approach generally employs the measurement of different facial areas and/or the counting of wrinkles caused by muscular contractions. Ekman, Friesen, and Tomkins (1971) have proposed a facial component scoring technique which seems notably
effective in distinguishing between emotional categories. Observers rate or code different areas of the face (e.g., eyes, mouth, . . . etc.) without making judgments based upon the complete facial configuration. The observations or ratings from a number of observers are then pooled to obtain ratings for each facial component, and supply the criteria by which the emotion being expressed may be calculated. This method has demonstrated notable ability to calculate emotional states consistent with self-report of the emotion by encoders. While the component analysis approach has achieved some success in deciphering facial displays of affect, it is an unwieldy research tool involving rigorous training of observers. Perhaps the most serious disadvantage of the component analysis approach with regard to judgmental accuracy studies is the fact that observers are not judging emotional states. Observers are limited to coding various movements in order to later calculate the emotions being expressed.

A third approach has been termed categorical and rests upon two premises: (1) there is a basic set of emotions or emotional categories which cannot be meaningfully further reduced, and (2) for each facial expression of a basic emotion, there is a corresponding verbal label. Plutchick (1962), Osgood (1966), Tomkin and McCarter (1964), and Frijda (1968) each found differing numbers and types of emotional categories. However, seven categories have been
found to be consistent across the studies; suggesting that
the "code status" of these categories may be relatively
stable and intelligible across samples. Ekman, Friesen,
and Ellsworth (1972) note:

It is a tribute to the robustness of the phenomena
that despite the span of time over which this research
was done and the very different theoretical viewpoints
of the investigators, the results are by and large
consistent (pp. 60-61).

This set of emotional categories enjoying current accep-
tance is: (1) happiness, (2) surprise, (3) fear, (4) sad-
ness, (5) anger, (6) disgust-contempt, and (7) interest.

With regard to the measurement of decoding accuracy,
the categorical approach may be the most appropriate alter-
native. There is evidence that encoders can be more easily
instructed to encode specific emotional categories into
facial expressions than multi-dimensional blends. In fact,
Williams and Tolch (1965) reported complaints from experi-
mental subjects who found dimensionalized instructions
difficult to interpret. The subjects reported that they
might have performed better if words they associated with
specific emotional constructs were used, such as happy,
sad, etc. The categorical approach affords accuracy
assessment while operationalizing terms more easily under-
stood by the experimental subjects.

Preparation of Facial Stimuli

The primary considerations in the preparation of the
facial stimuli to be presented to decoders were (1) correct
identification of the emotion being encoded, (2) compensation for encoder idiosyncrasies and encoding ability, and (3) choice of an appropriate presentational medium (i.e., still photographs, videotapes, . . . etc.). Each of these considerations will be discussed individually and the methodological alternatives evaluated.

Emotional Identification

With regard to the preparation of the nonverbal stimuli in judgmental accuracy assessment research, there are two predominant approaches to the identification of the emotion being communicated. The first approach involves the examination and/or control of the circumstances eliciting the behaviors or movements of the encoder. This approach is exemplified by the slide-viewing-paradigm developed by Buck (1979), Buck, Miller, and Caul (1974), and Buck, Savin, Miller, and Caul (1972). Emotionally loaded slides (i.e., pleasant-unpleasant) were presented to subjects and their spontaneous facial expressions candidly videotaped. Typical pleasant slides would picture attractive landscapes while unpleasant slides would present graphic photographs of facial burns. Sexually classified and unusual photographic effects were also presented. The recorded responses were then presented to observers for decoding. Accuracy was assessed on the basis of a comparison between observer judgment and encoder self-report of
his/her emotional experience. Encoders were unaware that their facial expressions were being monitored or recorded. Therefore, the encoder's behavior cannot necessarily be considered a conscious attempt to communicate his/her affective state to others. This raises serious conceptual-methodological questions regarding the nature of nonverbal communication and the fidelity with which individuals communicate via a shared code. If the encoder's facial expressions were not intended to inform others of his/her affective experience, and observers are aware of the unintentionalness of the behaviors, then one must question whether communication is under study, or a simple stimulus-response chain. Wiener, Devoe, Rubinow, and Geller (1972) contend that much of the research into nonverbal recorded behaviors seems inappropriate for judgmental accuracy assessment, since in many cases identification of the affect being encoded is only as reliable and accurate as the experimenter's inference of meaning on the behavior. Further, this method seems inappropriate for use within a categorical inquiry since experimenters must question the propriety of eliciting spontaneous emotional states such as fear, anger, sadness, or surprise from experimental subjects in order to capture on film their nature uninhibited physiological responses.

An alternative approach centers on the intentional communication of a specific message or feeling and relies
upon encoder self-report to determine the affect being intentionally encoded. Ekman et al. (1972) contend that self-report of the emotion being expressed provides a reliable indicant of the intended communication act, if the encoder is photographed at the exact time he/she feels the desired facial expression has been created. This approach not only assures that the affective messages are consciously and intentionally encoded, but also provides the experimenter with a first-hand report of the emotion being expressed. Further, this approach allows the experimenter to conduct the research without the use of deception or two-way mirrors.

Encoding Ability and Idiosyncracies

Ekman et al. (1972) point out that a large proportion of the judgmental research to date has based itself on the facial expressions of one or two encoders. This is particularly curious in light of findings that individuals vary significantly in encoding ability (Drag & Shaw, 1964; Gitter, Black, & Mostogsky, 1972; Jorgensen & Howell, 1969; Snyder, 1974; Thompson & Meltzer, 1969). Zuckerman et al. (1975) report that just as overall encoding abilities vary across individuals, so do abilities with regard to category-specific encoding. The implication is that multiple instances of each emotional category, depicted by several encoders, should be presented to decoders to assure that a more generalizable sample of encoding ability is provided.
Additional encoder-based influences on decoding accuracy include sex and self-monitoring. Snyder (1974) contends that individuals scoring highly on the Self-Monitoring Scale tend to be more adept at encoding affective nonverbal messages than low self-monitors. Since variations in encoder ability may confound decoder accuracy, their potential effects must be taken into account during the analysis of the experimental data. An attempt is made to account for these factors in the present research.

Presentational Medium

Past research has utilized a number of different media for recording and presenting stimulus expressions to observers. Typically, the methods used have been: still photographs, motion pictures, videotapes, or live enactments. Harper, Weins, and Matarazzo (1978) provide a concise summary of the ramifications inherent in the use of still versus moving recordings of facial expressions.

Still photographs provide consistent stimuli across observers, but background facial features (e.g., wrinkles due to a static facial characteristic) may be confounded with facial movements and expressions (wrinkles caused by muscle contractions). In contrast, motion picture or videotape films preserve the natural flow of changes in expression but observers are presented with multiple stimuli (p.111).

The use of still photographs has a number of advantages to the experimenter over videotape or or motion picture recording. Probably the most significant advantage is the economy of time and expense associated with still photography in
comparison with moving recordings. A second advantage is the decreased potential for confusing affective blends or contradictory expressions of affect as may be found in moving recordings where time is included as a variable in the encoding process. This seems particularly important when the experiment relies upon posed rather than spontaneous or candid recordings of facial expressions. The problems associated with still recordings (i.e., potential for static facial characteristics to be confused with muscular contractions) can be easily remedied by presenting observers with photographs of each encoder displaying a neutral or baseline facial expression prior to the decoding task. A baseline photo of each encoder would allow observers to become familiar with each encoder's static facial characteristics prior to attempting to decode expressions of affect. This would allow the observers to be able to distinguish between the medium and the message.

Procedures

Encoders

Eight undergraduate students and two graduate students were recruited to serve as encoders of the emotional categories. The encoders were selected on a voluntary basis with undergraduate students receiving extra credits in the basic speech courses in which they were enrolled. This was in accordance with both university and departmental policy regarding student participation in research experiments.
Upon arrival, encoders were met by the experimenter and individually escorted to the test room. The encoder was seated on a stool three feet in front of a blank white wall. A 35 mm camera was positioned on a tripod four feet from the encoder. The camera was equipped with 400 ASA color slide film and a timing mechanism for delayed exposure. The timing device included a flashing red light which notified the encoder of the impending exposure by flashing progressively faster as the exposure neared. The timer was set for fifteen seconds. The manner in which the photos were taken was carefully explained to each encoder and demonstrated during the taking of ID and neutral photos. All encoders reported feeling comfortable with the procedures.

The experimenter read each of the seven situations or stories to the encoder and asked the subject to enact the facial expression which best portrayed the emotional category named in the story (Appendix A). Encoders were allowed as much time as they wished to mentally prepare for each photograph. There were no mirrors in the room because the experimenter wished to record facial expressions under more normal circumstances than before a mirror. When the encoder felt ready to provide the facial display, they signaled the activation of the timing device. At no time during the encoding of the emotional displays were the subjects observed by the experimenter. After activating the camera
timing device, the experimenter turned aside and looked at his wristwatch in order to give the encoders a final five second countdown. It was felt that the subjects might feel somewhat embarrassed if they felt they were being watched as they enacted the emotions and might therefore be inhibited with regard to highly expressive displays. More importantly, it was feared the encoders might gage and modify their displays on the basis of real or imagined reactions of the experimenter to the facial expressions. Since these displays were to be presented to a large number of student decoders, it seemed inappropriate to risk encoder adaptation of facial expressions aimed at a specific individual. Upon completion of the photographic segment of the experiment, encoders were asked to complete a Self-Monitoring Scale (Appendix B). All encoders expressed satisfaction with the procedures although several indicated they would have liked to pose in front of a mirror. **Stimulus Selection**

The encoding procedures resulted in the generation of seventy emotional display slides. These slides were then presented to students enrolled in a basic speech course. The students were asked to rate the emotional displays with regard to encoder success in communicating the intended affect. The experimenter then chose two male and two female display slides per emotion (one black female, one white female, one black male, and one white male). Each
of the twenty-eight slides chosen for presentation to decoders was rated as a successful portrayal by at least 90% of the student judges. Each of the ten encoders contributed at least one display to the final set chosen. It should be noted that the experimenter was only able to recruit one black male for encoding. Therefore, each of his seven displays were included in the final set of stimulus slides.

Decoders

One hundred students enrolled in basic speech courses at North Texas State University were asked to participate in the decoding study. The sample consisted of 50 males and 50 females, none of whom had taken part in any of the other aspects of the study. The decoders were taken to a test room in groups of approximately 25. Each decoder was given a questionnaire (Appendix C) and instructions regarding the nature of their participation while their eyes adjusted to the darkened room. The room measured 30' x 30', and was sufficiently illuminated to allow decoders to read the questionnaire. A 4' x 4" viewing screen was positioned at one end of the room and the slide projector at the other end. The positioning of the screen allowed students in all parts of the room to easily observe minute facial characteristics that might have otherwise been only discernable to decoders seated near the viewing screen.
Observers were first presented with ID photographs for each of the ten encoders and asked to indicate the extent to which they might have recognized the individual whom they saw on the screen. This procedure was taken as a precautionary measure since observers familiar with the facial displays of a particular encoder might have an advantage over other decoders in deciphering the emotional message. Each slide was viewed for ten seconds.

Observers then viewed each of the neutral photographs for ten seconds. The experimenter explained the purpose of the neutral slides to observers in order to make clear the significance of their inclusion in the decoding process. The observers then received a ten second exposure to each of the twenty-eight slides and attempted to decode the affective message. Observers circled their choices on the questionnaire. Following the completion of the decoding task, observers were asked to answer a self-monitoring scale (Snyder, 1974). Upon completion of the self-monitoring scale, subjects were thanked for their participation and allowed to leave.

Dependent Variable

The dependent variable (decoding accuracy) was calculated as the proportion of correct judgments to total judgments. For each emotional display slide, observers were asked to choose the correct affect from a list of ten
categories. This list included all seven of the consistently identifiable categories along with three dummy categories; love, embarrassment, and apathy. This procedure afforded a semi-restricted format with more potential variance than would have been possible with the seven categories alone. Dummy categories were chosen on the basis of their disassociation with the other categories as indicated by the Gough Adjective Checklist (1965).

Summary

This chapter outlined the procedures and methodological considerations relevant to the testing of the hypotheses generated in Chapter One. Specifically, the considerations regarding the conceptual-methodological approach to facial study, encoding procedures, decoding procedures, and stimulus preparation were examined. The next chapter will report the results of data analyses, including the tests of the hypotheses.
CHAPTER III

RESULTS

The purpose of the present study is to examine the accuracy with which individuals interpret or decode facial expressions of emotion. Specifically, this study focuses on the effects of gender and self-monitoring on accuracy in decoding facial displays of affect.

In Chapter One, three hypotheses were proposed and developed: (1) females would have an advantage over males with regard to decoding accuracy; (2) individuals with increasingly higher scores of self-monitoring should demonstrate increasingly higher decoding ability; and (3) an ordinal interaction between gender and self-monitoring scores should result in a non-additive increase in judgmental accuracy.

In Chapter Two, an experimental design for testing the hypotheses was outlined and the methodology of the study described.

This chapter reports the results of the data analyses. Specifically, results are reported concerning (a) reliability, (b) homogeneity of variance, (c) tests of the hypotheses, and (d) post hoc analyses.
Reliability of the Self-Monitoring Measure

The internal reliability of the Self-Monitoring Scale was assessed through the use of Kuder-Richardson Formula 20 (KD-20). A reliability coefficient of .729 was obtained, which falls within the .70 to .75 range reported by Snyder (1974) and Brandt et al. (1980), respectively. While this coefficient is not extremely high, its magnitude and comparability to previous findings were deemed as acceptable for the purposes of this study.

Homogeneity of Variance of Self-Monitoring Variable

Prior to the assessment of main and interactive effects of gender and self-monitoring on judgmental accuracy in the decoding of facial expressions of affect, it was important to establish homogeneity of variance in self-monitoring scores across both male and female groups. This assumption of homogeneity was tested by obtaining variance estimates for both males and females and dividing the smaller estimate by the larger. The resulting quotient, which is distributed as $F$ may be used to assess the significance of the variance differences across the groups (Bruning & Kintz, 1968, 107-108). The value obtained ($f = 1.46; df = 49.49$) is well below the .05 level of confidence. Thus, it was concluded that the assumption of homogeneity of variance was justified.
Multiple Regression Analysis

The main and interaction effects of gender and self-monitoring on decoding accuracy were assessed through a hierarchical regression analysis, consistent with the recommendations of Cohen and Cohen (1975) for experimental designs in which one of the variables (gender) is a dichotomy and the other a quantitative factor (self-monitoring scores). For each observer, gender was treated as a dummy variable. The dependent measure (judgmental accuracy) was calculated as the proportion of correct answers to total responses. The main effect variables (gender and self-monitoring) were entered simultaneously on the first step of the analysis. The interaction variable (the partialled product of gender and self-monitoring) was entered on the second step of the analysis.

The overall results indicated accuracy means of 46.2% for males and 50.9% for females. The difference, however, was non-significant. The results of the hierarchical regression analysis are summarized in Table 1. Neither gender or self-monitoring main effects were statistically significant at the .05 level of confidence. The interaction variables also failed to reach statistical significance. Thus, Hypothesis 1, which predicted increasing decoding accuracy with increasingly high self-monitoring scores failed to obtain empirical support in this study.
TABLE 1
OVERALL JUDGMENTAL ACCURACY

<table>
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<th>Variable</th>
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<td>2.77</td>
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<td>Self-Monitoring</td>
<td>0.0058</td>
<td>0.10</td>
<td>1.55</td>
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<tr>
<td>Interaction</td>
<td>0.0006</td>
<td>0.12</td>
<td>1.03</td>
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Complete Model: Constant = 0.44; R = 0.22; R² = 0.050

* I denotes the incremental change in R² due to a given variable.

Hypothesis 2, stating that women should demonstrate greater decoding accuracy than men also failed to reach significance. However, it should be noted that the results did indicate a slight though non-significant female advantage. Hypothesis 3 (the interaction variable) had been expected to carry the most variance in the model. However, the results indicated that there was no significant interaction between self-monitoring and gender with regard to decoding accuracy.

Post Hoc Analyses

Considering the lack of statistical support obtained for the predicted main and interaction effects, several post hoc analyses were conducted in the hope of shedding light on possible explanations for the results. These analyses
focused on: (1) encoder self-monitoring, (2) recognition variables, (3) encoder sex, and (4) statistical power.

As noted in previous chapters, Snyder (1979) contends that individuals scoring highly on the self-reported self-monitoring scale should demonstrate better encoding abilities than low self-monitors. Encoder self-monitoring scores were obtained during the preparation of the display slides. In order to determine whether this contention could have explicative value with regard to the results, a Pearson correlation was computed between encoder self-monitoring and judgmental accuracy. A non-significant correlation coefficient of .303 was obtained. Therefore, it was assumed that while encoder self-monitoring scores may be somewhat predictive with regard to encoding abilities, the variables did not significantly influence the tests of the hypotheses.

In Chapter Two, it was proposed that observers familiar with the facial expressions of a particular encoder might demonstrate an advantage in decoding expressions of that encoder over observers unfamiliar with the encoder's facial displays. Therefore, each observer indicated the degree to which he/she felt familiar with each encoder used in the slide preparation on a ten point Likert scale (see Appendix C). Examination of these responses revealed that the vast majority of the observers had never met any of the encoders.
Insufficient variance along the recognition variable so severely limited the explicative value of the variable that further examination was deemed useless.

Zuckerman et al. (1975) suggest that women tend to be slightly more proficient encoders of facial communication than men. Since variations in judgmental accuracy may be considered reflections of both encoding and decoding ability, it was considered necessary to explore the possibility of a female encoding advantage. Consequently, two additional hierarchical regression analyses were performed in a fashion identical to the preliminary analysis, except female-only and male-only encoded expressions of affect were used in calculating judgmental accuracy. Table 2

<p>| TABLE 2 |
| JUDGMENTAL ACCURACY FOR FEMALE ENACTMENTS |</p>
<table>
<thead>
<tr>
<th>Variable</th>
<th>I*</th>
<th>B</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td>0.118</td>
<td>0.978</td>
<td>8.03**</td>
</tr>
<tr>
<td>Self-Monitoring</td>
<td>0.033</td>
<td>0.341</td>
<td>5.27**</td>
</tr>
<tr>
<td>Interaction</td>
<td>0.006</td>
<td>0.664</td>
<td>3.62**</td>
</tr>
</tbody>
</table>

Complete Model: Constant = 6.34; R = 0.392; R^2 = 0.157

* I denotes the incremental change in R^2 due to a given variable.

** Significant at or beyond the .05 level of confidence.
reports the results of the female-only analysis, while Table 3 reports the results of the male-only analysis. Female-only results revealed positive direction and statistical significance (p < .05) for both main and interaction effects. Neither main nor interaction effects reached significant levels in the male-only analysis. While these results are not claimed as support for the main hypotheses, they suggest the importance of encoder sex as a moderating variable with regard to judgmental accuracy.

**TABLE 3**

**JUDGMENTAL ACCURACY FOR MALE ENACTMENTS**

<table>
<thead>
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<th>Variable</th>
<th>I*</th>
<th>B</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td>0.004</td>
<td>0.593</td>
<td>0.219</td>
</tr>
<tr>
<td>Self-Monitoring</td>
<td>0.002</td>
<td>0.104</td>
<td>0.225</td>
</tr>
<tr>
<td>Interaction</td>
<td>0.003</td>
<td>-0.544</td>
<td>0.216</td>
</tr>
</tbody>
</table>

Complete Model: Constant = 5.847; $R = -0.095$; $R^2 = 0.011$

* I denotes the incremental change in $R^2$ due to a given variable.

** Significant at or beyond the .05 level of confidence.

Previous research in the field of judgmental accuracy in the decoding of facial expressions (Zuckerman et al., 1975) suggests the presumption of what Cohen (1969) would deem a moderate effect size (.30). Presuming a moderate
effect size, and using 1-.80 as a convention for power (Cohen & Cohen, 1979), the sample size necessary to assure proper power was assessed through the application of the formula: \( n = \frac{L}{2} + K + 1 \). The results (\( n = 100.37, f^2 = .099 \)) indicated sufficient sample size to obtain the desired degree of statistical power. Thus it was concluded that the lack of support obtained for the hypotheses was probably not a function of Type II error.

**Summary**

This chapter has reported the results of the hypotheses tests based on the rationale and methodology delineated in Chapters One and Two. Non-significant results were obtained for both main and interaction effects. *Post hoc* analyses revealed a significant encoder sex variable. Encoder self-monitoring, recognition variables, and power analysis demonstrated no significant influences over the results obtained. Chapter Four provides a discussion of the results and their possible implications to future research in the area of facial decoding accuracy.
CHAPTER IV

DISCUSSION

This study has examined the potential predictive value of gender and self-monitoring as interacting variables with regard to judgmental accuracy in the decoding of facial expressions of emotion. Specifically, three hypotheses were tested: (1) Increasingly high self-monitoring scores on the part of observers should be positively and significantly associated with increases in judgmental accuracy; (2) females should demonstrate a slight but significant decoding advantage over males; and (3) females with increasingly high self-monitoring scores should demonstrate non-additive increases in judgmental accuracy. Chapter Three reported the results of the hypotheses tests. This chapter will seek to provide an interpretation of the results obtained in the present study and a discussion of their implications for future research in the area of facial affect decoding.

As reported in the previous chapter, none of the predicted main or interaction effects reached significant F levels during the preliminary analysis. Hypothesis 1 predicted that self-monitoring would be positively and significantly associated with decoding accuracy. While the main effect was in the proper direction, the effect size
fell short of significance. Hypothesis 2 dealt with the theorized female decoding advantage over males. The results indicated a slight but non-significant female advantage. The interaction variable carried in Hypothesis 3 failed to demonstrate any significant predictive utility with regard to judgmental accuracy.

Due to the lack of support obtained for the hypotheses, several exploratory post hoc analyses were conducted. These results indicated that encoder sex seems to serve as an important mediating variable. Specifically, female encoders were judged slightly more accurately than males regardless of the sex of the observer. Additionally, when observers only rated female enactments of emotion, both main and interaction effects reached significant levels. It is also important to note that females judged females significantly better than males judged females. However, males demonstrated no significant advantage judging males. These post hoc analyses may provide several possible explanations for the lack of support received by the hypotheses during the preliminary analysis.

It has been suggested (Zuckerman et al., 1975) that females tend to be more adept encoders than males. The results of this study indicating that females were judged more accurately by all observers may offer some support for this contention. However, it must be noted again that
one half of the male enactments of emotion were encoded by a single black male. This was necessitated by the experimenter's choice to present one black and one white enactment of each emotion per sex, and the inability of the experimenter to recruit additional black male encoders. Black female enactments of emotion were divided between two encoders. It is possible that this discrepancy could have had some influence over the results obtained. However, it seems equally likely that females are indeed more adept encoders than males. Given these and the results of previous studies, it appears that encoder sex should be routinely examined as a mediating variable in future study. This seems particularly important in light of the fact that much of the research conducted in this area has relied upon the enactments of one or two encoders. Future inquiries should consider the possibility that some of the female advantage could be couched in female enactments. Isenhart (1980) noted that utilization of the PONS may induce artificiality into decoding accuracy assessment due to the exclusive use of female encoding throughout the test. If indeed females are more adept at decoding female enactments, then the PONS would be of questionable utility in the assessment of overall nonverbal sensitivity. This possibility seems even more important when encoding takes place in a laboratory setting.
This study utilized an experimental design which focused upon conscious and intentional communication via the facial medium. The decision to limit the scope of the study to conscious communication attempts was dictated by the choice to operationalize a categorical approach to the study of facial affect. Contemporary research ethics prohibited the experimenter from eliciting spontaneous affects such as fear, anger, and sadness from experimental subjects. While previous studies (Ekman et al., 1972; Zuckerman et al., 1976) have indicated that posed enactments of emotion provide an adequate basis from which decoding accuracy may be assessed, there does seem to be potential for certain factors to influence test results. The use of the present experimental design made it necessary for encoders to consciously attempt to communicate varying affective states via a shared codification of facial expressions. This would seem to place male encoders in a position of potential disadvantage since cultural norms would usually dictate that males attempt to camouflage or hide such internal affective states as fear or sadness (i.e., big boys don't cry). If indeed males do attempt to restrain their communication of affective states, a potential problem arises for the facial affect researcher. Male encoders asked to consciously encode facial displays of affect may be forced to attempt communication using a code they are unfamiliar with or at least uncomfortable with. If so, the researcher
must decide whether the communication act under study is utilizing a shared code as a medium. It seems possible that decoders could be confounded by unusually animated if not awkward facial expressions of males trying to communicate internal affective states. It would seem that further inquiry regarding decoding should be intimately tied to the encoding process. Specifically, the circumstances surrounding the elicitation of enactments of emotional states should be carefully evaluated. Previous research in the area of facial affect decoding has in large part failed to direct adequate attention to the encoding process. It seems possible that future investigations could find the slight female decoding and encoding advantages to be experimentally induced by allowing females to operationalize a code they feel comfortable with, while placing males at a disadvantage. However, it must be noted that much of the previous research as well as the present study, has relied upon university populations to provide judges of facial expressivity. Isenhart (1980) contends that university subjects may fail to account for the theorized influence on nonverbal sensitivity stemming from more traditional gender-typed occupations and lifestyles.

An additional point of concern regarding the use of a laboratory setting in the present research is the contention (Snyder 1974, 1979) that the self-monitoring process is a product of a social setting. The self-monitor's
motivation to pay special attention to the behavior of others is to be better able to adapt his/her behavior to suit the social climate. It may be possible that high self-monitors lose their theorized enhanced awareness when the attention of even low self-monitors is directed to the behavior of others in a laboratory setting. Perhaps the high self-monitor's advantage most strongly comes into play when no one else is paying as close attention to the behavior of others. On the other hand, it may be that high self-monitors are indeed much more adept decoders than low self-monitors. If this is the case, the more adept decoders may have been confounded by emotional enactments of encoders posing in perhaps a less than convincing fashion. This might account for the lack of support obtained by the hypotheses during the preliminary analyses.

**Summary**

The *post hoc* analyses were conducted in order to shed light on possible explications of the lack of support obtained by the hypotheses during the preliminary analysis. These secondary examinations of the data indicated that females were judged more accurately than male encoders by observers of either sex. Additionally, when the assessment of accuracy was calculated using the group of more adept female encoders, the hypothesized effects attained significance. While these *post hoc* analyses cannot be
considered as direct support for the hypotheses, they do indicate that acceptance of the null would be premature. Further, it seems imperative that future inquiry in the field of facial decoding accuracy examine much more closely the effects of encoder sex, encoding circumstances, and the codification of nonverbal behaviors than has been exemplary of research to date.
Jane (Joe) is very angry. She (he) has just confronted someone who has been spreading vicious rumors concerning her (him) to people around campus.

Jane (Joe) has just come home from work. As she (he) opens the door, the lights come on inside her (his) house and twenty people begin singing happy birthday. Since it's the day before her (his) birthday, it really is a surprise.

Jane (Joe) has just stepped barefooted into a pile of cow manure. She (he) is extremely disgusted.

Jane (Joe) has just been informed of the death of a friend. She (he) is very sad.

Jane (Joe) has just been given a promotion and a large raise for the good work she (he) has been doing for the company. Jane (Joe) is very happy.

Jane (Joe) was walking home late one night when suddenly out of the dark a hand reached out and grabbed her (him). She (he) was very frightened.

Jane (Joe) is sitting in her (his) favorite class, listening to her (his) favorite instructor lecturing on her (his) favorite subject. She (he) is very interested.
APPENDIX B

The statements on the following pages concern your personal reactions to a number of different situations. No two statements are exactly alike, so consider each statement carefully before answering. If a statement is TRUE or MOSTLY TRUE as applied to you, circle the T on your answer sheet. If a statement is FALSE or NOT USUALLY TRUE as applied to you, circle the F on your answer sheet. It is important that you answer as frankly and as honestly as you can. Your answers will be held in strict confidence.

1. I find it hard to imitate the behavior of other people. T F
2. My behavior is usually an expression of my true inner feelings, attitudes, and beliefs. T F
3. At parties and social gatherings, I do not attempt to do or say things that others will like. T F
4. I can only argue for ideas which I already believe. T F
5. I can make impromptu speeches even on topics about which I have almost no information. T F
6. I guess I put on a show to impress or entertain people. T F
7. When I am uncertain how to act in a social situation, I look to the behavior of others for cues. T F
8. I would probably make a good actor. T F
9. I rarely need the advice of my friends to choose movies, books, or music. T F
10. I sometimes appear to others to be experiencing deeper emotions than I actually am. T F

11. I laugh more when I watch a comedy with others than when alone. T F

12. In a group of people I am rarely the center of attention. T F

13. In different situations and with different people, I often act like very different persons. T F

14. I am not particularly good at making other people like me. T F

15. Even if I am not enjoying myself, I often pretend to be having a good time. T F

16. I'm not always the person I appear to be. T F

17. I would not change my opinions (or the way I do things) in order to please someone else or win their favor. T F

18. I have considered being an entertainer. T F

19. In order to get along and be liked, I tend to be what people expect me to be rather than anything else. T F

20. I have never been good at games like charades or improvisational acting. T F

21. I have trouble changing my behavior to suit different people and different situations. T F

22. At a party I let others keep the jokes and stories going. T F
Appendix B (cont.)

23. I feel a bit awkward in company and do not show up quite as well as I should. T F

24. I can look anyone in the eye and tell a lie with a straight face (if for a right end). T F

25. I may deceive people by being friendly when I really dislike them. T F

AGE

SEX  Male  Female
APPENDIX C

The following questionnaire is designed to examine the accuracy with which individuals read facial expressions of emotion, and to assess the extent to which sex and a specific psychological construct affect accuracy. You will in no way be identified. There are no questions in the questionnaire which might embarrass you. Please answer each question honestly.

1. With regard to the person shown in this slide: (circle one)
   I do not know 1 2 3 4 5 6 7 8 9 10 I know him or her very well

2. With regard to the person shown in this slide: (circle one)
   I do not know 1 2 3 4 5 6 7 8 9 10 I know him or her very well

3. With regard to the person shown in this slide: (circle one)
   I do not know 1 2 3 4 5 6 7 8 9 10 I know him or her very well

4. With regard to the person shown in this slide: (circle one)
   I do not know 1 2 3 4 5 6 7 8 9 10 I know him or her very well

5. With regard to the person shown in this slide: (circle one)
   I do not know 1 2 3 4 5 6 7 8 9 10 I know him or her very well

6. With regard to the person shown in this slide: (circle one)
   I do not know 1 2 3 4 5 6 7 8 9 10 I know him or her very well

7. With regard to the person shown in this slide: (circle one)
   I do not know 1 2 3 4 5 6 7 8 9 10 I know him or her very well

8. With regard to the person shown in this slide: (circle one)
   I do not know 1 2 3 4 5 6 7 8 9 10 I know him or her very well

9. With regard to the person shown in this slide: (circle one)
   I do not know 1 2 3 4 5 6 7 8 9 10 I know him or her very well

10. With regard to the person shown in this slide: (circle one)
    I do not know 1 2 3 4 5 6 7 8 9 10 I know him or her very well
Appendix C (cont.)

*The individual shown in this slide is expressing:  (circle one)

<table>
<thead>
<tr>
<th>anger</th>
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</table>
Appendix C (cont.)

1) I may deceive people by being friendly when I really dislike them.
   a) Statement 1 is basically TRUE_____ FALSE_____ about me.
   b) Statement 1 is basically: (circle one)

      | extremely          | extremely        |
      | uncharacteristic  | characteristic   |
      | 1 2 3 4 5         | 1 2 3 4 5        |
      | of me             | of me            |

c) Statement 1 is basically: (mark on line)

      | not at all         | totally          |
      | true about me     | true about me    |

2) I laugh more when I watch a comedy with others than when alone.
   a) Statement 2 is basically TRUE_____ FALSE_____ about me.
   b) Statement 2 is basically: (circle one)

      | extremely          | extremely        |
      | uncharacteristic  | characteristic   |
      | 1 2 3 4 5         | 1 2 3 4 5        |
      | of me             | of me            |

c) Statement 2 is basically: (mark on line)

      | not at all         | totally          |
      | true about me     | true about me    |

3) I find it hard to imitate the behavior of other people.
   a) Statement 3 is basically TRUE_____ FALSE_____ about me.
   b) Statement 3 is basically: (circle one)

      | extremely          | extremely        |
      | uncharacteristic  | characteristic   |
      | 1 2 3 4 5         | 1 2 3 4 5        |
      | of me             | of me            |

c) Statement 3 is basically: (mark on line)

      | not at all         | totally          |
      | true about me     | true about me    |
Appendix C (cont.)

4) I can always repeat back to a person exactly what was meant.
   a) Statement 4 is basically TRUE _____ FALSE _____ about me.

   b) Statement 4 is basically: (circle one)

      extremely                        extremely
      uncharacteristic  1  2  3  4  5   characteristic
      of me                        of me

   c) Statement 4 is basically: (mark on line)

      not at all                 totally
      true about me             true about me

5) I am very good at knowing the exact feelings of other people.
   a) Statement 5 is basically TRUE _____ FALSE _____ about me.

   b) Statement 5 is basically: (circle one)

      extremely                        extremely
      uncharacteristic  1  2  3  4  5   characteristic
      of me                        of me

   c) Statement 5 is basically: (mark on line)

      not at all                 totally
      true about me             true about me

6) I sometimes appear to others to be experiencing deeper emotions
   than I actually am.
   a) Statement 6 is basically TRUE _____ FALSE _____ about me.

   b) Statement 6 is basically: (circle one)

      extremely                        extremely
      uncharacteristic  1  2  3  4  5   characteristic
      of me                        of me

   c) Statement 6 is basically: (mark on line)

      not at all                 totally
      true about me             true about me
Appendix C (cont.)

7) I would not change my opinions (or the way I do things) in order to please someone else or win their favor.

a) Statement 7 is basically TRUE _____ FALSE _____ about me.

b) Statement 7 is basically: (circle one)

<table>
<thead>
<tr>
<th>extremely uncharacteristic</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>extremely characteristic of me</th>
</tr>
</thead>
</table>

c) Statement 7 is basically: (mark on line)

not at all true about me          totally true about me

8) In different situations and with different people, I often act like very different persons.

a) Statement 8 is basically TRUE _____ FALSE _____ about me.

b) Statement 8 is basically: (circle one)

<table>
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<th>extremely uncharacteristic</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>extremely characteristic of me</th>
</tr>
</thead>
</table>

c) Statement 8 is basically: (mark on line)

not at all true about me          totally true about me

9) I am not particularly good at making other people like me.

a) Statement 9 is basically TRUE _____ FALSE _____ about me.

b) Statement 9 is basically: (circle one)

<table>
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<th>extremely uncharacteristic</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>extremely characteristic of me</th>
</tr>
</thead>
</table>

c) Statement 9 is basically: (mark on line)

not at all true about me          totally true about me
Appendix C (cont.)

10) When I am uncertain how to act in social situations, I look to the behavior of others for cues.
   a) Statement 10 is basically TRUE _____ FALSE _____ about me.
   b) Statement 10 is basically: (circle one)

       extremely
       uncharacteristic 1 2 3 4 5 extremely
       characteristic
       of me
       of me

   c) Statement 10 is basically: (mark on line)

       not at all true about me
       totally true about me

11) I rarely need the advice of my friends to choose movies, books, or music.
   a) Statement 11 is basically TRUE _____ FALSE _____ about me.
   b) Statement 11 is basically: (circle one)

       extremely
       uncharacteristic 1 2 3 4 5 extremely
       characteristic
       of me
       of me

   c) Statement 11 is basically: (mark on line)

       not at all true about me
       totally true about me

12) I have trouble changing my behavior to suit different people and different situations.
   a) Statement 12 is basically TRUE _____ FALSE _____ about me.
   b) Statement 12 is basically: (circle one)

       extremely
       uncharacteristic 1 2 3 4 5 extremely
       characteristic
       of me
       of me

   c) Statement 12 is basically: (mark on line)

       not at all true about me
       totally true about me
Appendix C (cont.)

13) I would probably make a good actor.
   a) Statement 13 is basically TRUE____ FALSE____ about me.
   b) Statement 13 is basically: (circle one)

      extremely
      uncharacteristic  1  2  3  4  5  extremely
      characteristic of me of me

   c) Statement 13 is basically: (mark on line)

      not at all            totally
      true about me        true about me

14) At a party I let others keep the jokes and stories going.
   a) Statement 14 is basically TRUE____ FALSE____ about me.
   b) Statement 14 is basically: (circle one)

      extremely
      uncharacteristic  1  2  3  4  5  extremely
      characteristic of me of me

   c) Statement 14 is basically: (mark on line)

      not at all            totally
      true about me        true about me

15) I feel a bit awkward in company and do not show up quite so well as I should.
   a) Statement 15 is basically TRUE____ FALSE____ about me.
   b) Statement 15 is basically: (circle one)

      extremely
      uncharacteristic  1  2  3  4  5  extremely
      characteristic of me of me

   c) Statement 15 is basically: (mark on line)

      not at all            totally
      true about me        true about me
16) I guess I put on a show to impress or entertain people.
   a) Statement 16 is basically TRUE_____ FALSE_____ about me.
   b) Statement 16 is basically: (circle one)
      extremely uncharacteristic 1 2 3 4 5 extremely characteristic of me
   c) Statement 16 is basically: (mark on line)
      not at all true about me totally true about me

17) I try to read between the lines when I am listening to another person.
   a) Statement 17 is basically TRUE_____ FALSE_____ about me.
   b) Statement 17 is basically: (circle one)
      extremely uncharacteristic 1 2 3 4 5 extremely characteristic of me
   c) Statement 17 is basically: (mark on line)
      not at all true about me totally true about me

18) I can only argue for ideas which I already believe.
   a) Statement 18 is basically TRUE_____ FALSE_____ about me.
   b) Statement 18 is basically: (circle one)
      extremely uncharacteristic 1 2 3 4 5 extremely characteristic of me
   c) Statement 17 is basically: (mark on line)
      not at all true about me totally true about me
Appendix C (cont.)

19) In a group of people I am rarely the center of attention.
   a) Statement 19 is basically TRUE____ FALSE____ about me.
   b) Statement 19 is basically: (circle one)
      
      extremely uncharacteristic 1 2 3 4 5 
      extremely characteristic of me
      
   c) Statement 19 is basically: (mark on line)
      
      not at all true about me 
      totally true about me

20) At parties and social gatherings, I do not attempt to do or say things that others will like.
   a) Statement 20 is basically TRUE____ FALSE____ about me.
   b) Statement 20 is basically: (circle one)
      
      extremely uncharacteristic 1 2 3 4 5 
      extremely characteristic of me
      
   c) Statement 19 is basically: (mark on line)
      
      not at all true about me 
      totally true about me

21) My behavior is usually an expression of my true inner feelings, attitudes and beliefs.
   a) Statement 21 is basically TRUE____ FALSE____ about me.
   b) Statement 21 is basically: (circle one)
      
      extremely uncharacteristic 1 2 3 4 5 
      extremely characteristic of me
      
   c) Statement 19 is basically: (mark on line)
      
      not at all true about me 
      totally true about me
Appendix C (cont.)

22) I am very good at knowing the exact feelings of other people from their communication.
   a) Statement 22 is basically TRUE_____ FALSE_____ about me.
   b) Statement 22 is basically: (circle one)

   | extremely    | 1 | 2 | 3 | 4 | 5 |
   | uncharacteristic of me |              |              |              |              |
   | characteristic of me     |              |              |              |              |
   c) Statement 22 is basically: (mark on line)

   not at all true about me           totally true about me

23) In order to get along and be liked, I tend to be what people expect me to be rather than anything else.
   a) Statement 23 is basically TRUE_____ FALSE_____ about me.
   b) Statement 23 is basically: (circle one)

   | extremely    | 1 | 2 | 3 | 4 | 5 |
   | uncharacteristic of me |              |              |              |              |
   | characteristic of me     |              |              |              |              |
   c) Statement 23 is basically: (mark on line)

   not at all true about me           totally true about me

24) I can look anyone in the eye and tell a lie with a straight face (if for a right end).
   a) Statement 24 is basically TRUE_____ FALSE_____ about me.
   b) Statement 24 is basically: (circle one)

   | extremely    | 1 | 2 | 3 | 4 | 5 |
   | uncharacteristic of me |              |              |              |              |
   | characteristic of me     |              |              |              |              |
   c) Statement 24 is basically: (mark on line)

   not at all true about me           totally true about me
Appendix C (cont.)

25) I can make impromptu speeches even on topics about which I have almost no information.
   a) Statement 25 is basically TRUE______ FALSE_____ about me.
   b) Statement 25 is basically: (circle one)
      
      extremely uncharacteristic 1 2 3 4 5 extremely characteristic of me

   c) Statement 25 is basically: (mark on line)
      not at all true about me totally true about me

26) Usually I can read another person "like a book."
   a) Statement 26 is basically TRUE______ FALSE_____ about me.
   b) Statement 26 is basically: (circle one)
      
      extremely uncharacteristic 1 2 3 4 5 extremely characteristic of me

   c) Statement 26 is basically: (mark on line)
      not at all true about me totally true about me

27) I have never been good at games like charades or improvisational acting.
   a) Statement 27 is basically TRUE______ FALSE_____ about me.
   b) Statement 27 is basically: (circle one)
      
      extremely uncharacteristic 1 2 3 4 5 extremely characteristic of me

   c) Statement 27 is basically: (mark on line)
      not at all true about me totally true about me
Appendix C (cont.)

28) Even if I am not enjoying myself, I often pretend to be having a good time.

   a) Statement 28 is basically TRUE _____ FALSE _____ about me.

   b) Statement 28 is basically: (circle one)

      extremely
      uncharacteristic  1  2  3  4  5 extremely
                        of me                           of me

   c) Statement 28 is basically: (mark on line)

      not at all         totally
      true about me     true about me

29) I'm not always the person I appear to be.

   a) Statement 29 is basically TRUE _____ FALSE _____ about me.

   b) Statement 29 is basically: (circle one)

      extremely
      uncharacteristic  1  2  3  4  5 extremely
                        of me                           of me

   c) Statement 29 is basically: (mark on line)

      not at all         totally
      true about me     true about me

30) I have considered being an entertainer.

    a) Statement 30 is basically TRUE _____ FALSE _____ about me.

    b) Statement 30 is basically: (circle one)

       extremely
       uncharacteristic  1  2  3  4  5 extremely
                         of me                           of me

    c) Statement 30 is basically: (mark on line)

       not at all         totally
       true about me     true about me
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