

Exploring the Validity of the IPT-15

Using a Multiple Method Approach to Replicate and Expand a Peer-rating Study of Nonverbal Communication

Camilla Lindwall



MASTER'S DEGREE IN PSYCHOLOGY

Department of Psychology

UNIVERSITY OF OSLO

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PREFACE

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TABLE OF CONTENTS

ABSTRACT	1
INTRODUCTION	2
CONCEPTUALIZING INTERPERSONAL SENSITIVITY	4
<i>Relating Attentional and Inferential Accuracy to the Construct of Interpersonal Sensitivity</i>	5
<i>When Accuracy Fails</i>	5
<i>Interpersonal Sensitivity and Empathy; Identical Constructs?</i>	7
MEASURING INTERPERSONAL SENSITIVITY	9
<i>Choosing a Selective or a Holistic Approach to Measure Interpersonal Sensitivity?</i>	10
THE INTERPERSONAL PERCEPTION TASK-15 (IPT-15)	11
<i>The Design of the IPT-15</i>	11
<i>Reliability and Validity</i>	12
<i>Previous Research Results from Studies Using the IPT-15</i>	13
USING SELF-REPORTS TO ASSESS INTERPERSONAL SENSITIVITY	14
<i>Self-reports Versus Performance-based Measures of Interpersonal Sensitivity</i>	14
INFORMANTS AS AN ADDITIONAL SOURCE OF INFORMATION	17
<i>Are Informant Ratings Valid Sources of Information?</i>	17
<i>What Results have Previous Studies Using Peer-ratings Yielded?</i>	18
<i>The Effect of Moderators</i>	19
<i>Choosing a Multiple Measurement Approach</i>	20
SELF-PEER RATING CONGRUENCE	20
INTELLIGENCE, PERSONALITY AND EMOTION RECOGNITION; HOW DO THESE CONSTRUCTS RELATE TO INTERPERSONAL SENSITIVITY?	22
<i>Relations Between Intelligence and Concepts Related to Interpersonal Sensitivity</i>	22
<i>Relations Between Personality and Concepts Related to Interpersonal Sensitivity</i>	24
<i>Facial Recognition and Interpersonal Sensitivity</i>	25
THE PRESENT STUDY	25
METHOD	26
PARTICIPANTS	26
MEASURES	26
PROCEDURE	30
RESULTS	32
DESCRIPTIVE STATISTICS	32
CONDUCTING AN EXPLORATORY FACTOR ANALYSIS	33
INTERCORRELATIONS AMONG MEASURES	34
DISCUSSION	37
DOES THE IPT-15 YIELD VALID MEASURES OF INTERPERSONAL SENSITIVITY?	37
THE RELATION BETWEEN IPT-15 AND METT SCORES	40
INTERPRETING THE RELATION BETWEEN SELF-REPORTS AND INFORMANT RATINGS OF INTERPERSONAL SENSITIVITY	41

DISCUSSING RELATIONS BETWEEN INTELLIGENCE, PERSONALITY AND INTERPERSONAL SENSITIVITY	44
<i>Intelligence</i>	44
<i>Personality</i>	45
IMPLICATIONS FOR FUTURE RESEARCH	46
REFERENCES	48
APPENDIX	53
APPENDIX A	53
APPENDIX B	54
APPENDIX C	56

ABSTRACT

The primary aim of the present study was to assess the validity of scores from the Interpersonal Perception Task-15 (IPT-15). This was done by examining the relation between perceptual accuracy in nonverbal communication, assessed by the IPT-15, and informant ratings of interpersonal sensitivity. A total of 54 psychology students and 122 of their acquaintances participated in the study. The students completed a battery of tests including the Interpersonal Perception Task-15 (IPT-15), the Big Five Inventory (BFI), the Micro Expressions-Training Tool (METT) and a verbal intelligence test (OAN). In addition, students completed a questionnaire asking for subjective estimates of skills and abilities related to the construct of interpersonal sensitivity. Acquaintances completed a similar questionnaire in which they were asked to estimate the participants' skills and abilities related to the same construct. Replicating a previous peer-rating study in which validity evidence of scores from the IPT-15 was obtained, significant correlations between tests scores from the IPT-15 and informant ratings of interpersonal sensitivity were expected in the present study. Expectations regarding significant correlations between IPT-15 scores and the METT were also made explicit as well as expectations of significant positive correlations between intelligence and IPT-15 scores. Results revealed that IPT-15 scores did not correlate significantly with informant ratings of interpersonal sensitivity, contradicting the main hypothesis. In fact, the reliability of scores from the IPT-15 proved to be below that of what previous studies have demonstrated. IPT-15 scores did not correlate with METT scores or with scores from the verbal intelligence test either, contradicting the two additional hypotheses. However, significant correlations were observed between self-reports of interpersonal sensitivity and Openness, Extraversion, Agreeableness and Neuroticism. Informant reports of interpersonal sensitivity also correlated significantly with Agreeableness and Neuroticism. These latter results indicate personality traits being important factors contributing to subjective and others appraisals of interpersonal relations.

INTRODUCTION

The ability to communicate is crucial with regards to practically all aspects of human life. Ranging from subjective aspects of well being where communication allows for expressions of the self, to collective well being where communication constitutes the basis upon which to create successful relations, being able to express oneself and being noticed clearly represent essential aspects of the nature of human kind.

Our impressions of others are undoubtedly formed through cues communicated through a vast variety of expressive behaviours. Reflecting upon the concept of communication, one is often inclined to consider how *verbal* expressions of such behaviours influence the quality of interpersonal relations. To a large extent, however, the social interactions present through out everyday life rely on communicative cues that are not expressed verbally, and hence, leaves a great deal to the interpretative skill of the decoder (i.e., the interpreter). In verbal communication, the message is usually a product of a deliberate attempt in passing on information, facilitating accurate interpretations. Nonverbal communication however (e.g., facial expressions, body movements, vocal expressions etc.), often discloses information that is not always a product of conscious awareness (Harrigan, 2005) and might therefore require more complex interpretative operations. Achieving interpersonal goals are highly dependent upon accuracy in such interpretative processes (both verbal and nonverbal), and appear to influence the quality of relations between interactants. Studies exploring skills in decoding the expressive behaviours of others have demonstrated several positive outcomes for those competent in this field. Amongst these, higher degrees of marital and partner satisfaction have been reported (Hodgins & Zuckerman, 1990; Miczo, Segrin, & Allsop, 2001), clinicians have been rated as more caring and sensitive (Rosenthal, Hall, DiMatteo, Rogers, & Archer, 1979) and predictions of more effective social functioning have been established (Zebrowitz, 2001). Whereas skills in both verbal and nonverbal coding- and interpretation processes are crucial for successful social interactions, the present study focused on the nonverbal aspects of interpersonal communication, i.e., the processes of perceiving, interpreting and responding to nonverbal cues in our social environment

The aim of the present study was to assess the validity of scores from the Interpersonal Perception Task-15 (IPT-15; Costanzo & Archer, 1993) using peer-ratings. The IPT-15 is an audiovisual instrument designed to measure perceptual accuracy in nonverbal communication processes, and has most commonly been used as a measure of *interpersonal sensitivity*

(Archer, Costanzo, & Akert, 2001). To my knowledge, there is only one previous study where the validity of scores from the IPT-15 has been assessed using ratings from peers (Costanzo & Archer, 1993), making the present study the second of its kind. In order to assess the validity of the IPT-15 in the present study, a replication of Costanzo and Archer's (1993) original peer-rating study was conducted. To further explore the validity of the IPT-15, the original 4-item peer-rating questionnaire used in Costanzo and Archer's (1993) study was expanded, adding 14 new items to the original questionnaire. This was done with the purpose of both improving the original questionnaire, as well as to explore whether scores from the IPT-15 would relate to additional aspects of the construct of interpersonal sensitivity.

Previous studies have proven good evidence for the construct validity of the IPT (Ambady, Hallahan, & Rosenthal, 1995; Costanzo & Archer, 1989; Patterson & Stockbridge, 1998) but there is a striking absence of studies demonstrating good reliability for the test. Several studies have actually demonstrated very poor internal consistency. Reliability of the original version of the Interpersonal Perception Task (IPT; Costanzo & Archer, 1989) was reported as .52, whereas an analysis of internal consistency using data from the shorter version of the IPT, the IPT-15, yielded a KR-20 value of merely .38 (Costanzo & Archer, 1993). Even lower internal consistency for the IPT-15 ($\alpha = .14$) was reported in a study by Patterson, Foster and Bellmer (2001) as well as in Iizuka, Patterson and Matchen's (2002) study of the relation between confidence and accuracy on the IPT-15 ($\alpha = .17$). Results obtained from Hodgins and Zuckerman (1990) study using a 28-item version of the IPT also yielded low internal consistency ($\alpha = .21$). Despite evidence of such low internal consistency, several researchers have employed both the original as well as the revised version of the test to explore perceptual accuracy in relation to other constructs (e.g., confidence; Iizuka et al., 2002 & Patterson et al., 2001, the quality of dyadic interaction; Hodgins & Zuckerman, 1990 and cognitive demand; Patterson & Stockbridge, 1998). Whereas the vast majority of previous studies using the IPT and the IPT-15 have disregarded evidence of low internal consistency, analyses of reliability appeared to be an essential component in the present study. After all, if the IPT-15 is to be considered a useful instrument in scientific research, evidence both of validity *and* reliability is essential.

In the next section, the concept of interpersonal sensitivity will be conceptualized in order to gain a fuller understanding of the different components of the concept as well as its relation to similar constructs.

Conceptualizing Interpersonal Sensitivity

The concept of interpersonal sensitivity has been operationalized and measured in several different ways. The research literature offers a vast variety of definitions varying from describing purely perceptive skills to including behavioural aspect of the construct, i.e., the execution of appropriate and effective behaviour as a result of accurate perceptions and interpretations. Amongst several other definitions, “accuracy in judging the meanings of cues given of by expressors, as well as accuracy in noticing or recalling cues” (Hall, Bernieri & Carney, 2005, p. 237) and “the ability to sense, perceive accurately, and respond appropriately to one’s personal, interpersonal, and social environment” (Bernieri, 2001, p. 3), have been used to illuminate the components of the construct. The latter definition seems to represent the broadest spectra of the construct, and will be referred to throughout the thesis. As the definition proposes, identification and comprehension of cues in the social surrounding can be seen as primary dimensions allowing individuals to initiate sensitive approaches when interacting with other people. The concept does, however, not only comprise the perception and understanding of social stimuli, but also one’s ability to respond correctly to both explicit and implicit thoughts, feelings and behaviours, in one self as well as in others. This latter component has been called behaviour execution (Losoya & Eisenberg, 2001) and is, in addition to perception and understanding of social cues, considered to be a crucial component for being perceived as skilled in social interactions (Bernieri, 2001).

Skills and abilities related to the construct of interpersonal sensitivity have shown to be significant indicators of how we respond to our social environment, and appear to influence our impressions of aspects related to life satisfaction and successful interpersonal relationships (Ambady, LaPlante, & Johnson, 2001; Bernieri, 2001; Costanzo & Archer, 1993; Horgan & Smith, 2006; Nowicki & Duke, 2001; Zebrowitz, 2001). During the course of interaction, multiple behavioural signs are communicated through the tone of voice, via facial expressions and postures and gestures, and being able to interpret these are crucial for smooth interactions. Difficulties in doing so generally leads to confusion and misinterpretations (Nowicki & Duke, 2001). Whereas skills in emotion perception and interpretation (i.e., interpersonal sensitivity) have been found to facilitate our social encounters, the lack of these skills has proven to be highly inadapative. Studies involving children have shown that deficits in processing nonverbal cues can lead to maladjustment regarding several social functions essential for successful interactions (McIntire, Danforth, & Schneider, 1999). Unfortunate consequences of such deficits might lead to maladaptive behavioural responses or an incapability of relating to the social surroundings, and there is

reason to believe that such maladjustments in an early stage in life could present the individual with challenges while growing up, as well as later on in life. Costanzo and Archer (1989) further state that the ability to interpret nonverbal cues are essential to several basic aspects of social functioning including both interpersonal sensitivity, self-monitoring and the ability to understand social situations. All in all, evidence seems to suggest that nonverbal communicative skills are crucial with regards to several aspects of interpersonal adjustment and satisfaction, making this field of interpersonal psychology highly relevant for scientific research. In the following section, the concept of interpersonal sensitivity will be further elaborated upon as attentional and inferential accuracy might help explain individual differences in skills and abilities related to the construct.

Relating Attentional and Inferential Accuracy to the Construct of Interpersonal Sensitivity

The ability to detect behavioural cues in our surroundings is influenced by cue perception, which in turn, is dependent on cue attention. For an individual to be considered as interpersonal sensitive, the first step is thus noticing the emotional cues others express. This mechanism has been referred to as attentional accuracy (Hall, 2001). The social perceiver's accuracy in judging other people is highly dependent on how attention is directed, i.e., which sources of information that are being utilised. However, although an individual might direct his or her attention towards the proper stimuli, inferences about others emotional states might turn out to be erroneous. Hall (2001) refers to this process as inferential accuracy, the cognitive process that almost all research on interpersonal sensitivity has been based up on (Hall, Bernieri, & Carney, 2005). Inferential accuracy deals with the extent to which a person is able to accurately infer the emotional state in others. In many cases, drawing conclusions based on what one perceives, yield important information in guiding subsequent behaviour. This is, however, not illustrative for all interactive situations. Individuals, although accurate in both perceiving and directing attention towards stimuli, still risk inferring erroneously. If to place the processes of perceiving and inferring in a timeline, perceiving accurately would be the first step in a complex process where accurate inferences is the final step before executing proper behavioural responses. At any point along this line, misconceptions and fallacies might occur.

When Accuracy Fails

As mentioned above, interpersonal sensitivity is a broad construct. Previous research results in this particular field have shown that studying behaviour execution is at least as

important as the assessment of individual similarities and differences in perceptive and comprehensive abilities related to the concept. People, who are skilled at perceiving behavioural cues that others express, might not be able to understand the nature of the stimuli, nor hold the skills necessary for acting upon these in an adaptive manner. Others, skilled in both perceiving and comprehending cues of affect, might still fail to act accordingly. Establishing how individuals differ with regards to skills and abilities related to interpersonal sensitivity therefore requires studies of how people differ in meeting measurement criteria of accuracy in both perceiving, interpreting and responding to the social world.

Zebrowitz (2001) states that there are two general contextual influences which have to be taken into account when assessing interpersonal sensitivity: the effect of the social setting and the relationship between the encoder (i.e., person sending the message), and the decoder (i.e., the person receiving the message). The fact that people tend to behave differently depending on the contextual frame within which they interact, is not new to researchers studying emotional expressions. An individual in a familiar setting will probably be more prone to elicit intuitive behaviour, whereas someone in a more formal context might have to contemplate his or her actions before deciding how to react to stimuli. Decoding emotional expressions across a wide range of situations would seem to demand a decoder who is highly skilled in detecting micro expressions of affect, or a decoder who has some sort of previous knowledge of the general behaviour of the encoder (e.g., friends, family members, spouses etc.). There is reason to believe that many of us feel more at ease in expressing emotional information when in the company of friends and family, compared to doing so in the company of complete strangers. However, a person skilled in detecting the emotional state of a friend might not be equally skilled in doing so with someone he or she does not know very well. Interpreting emotional expressions in a familiar situation would appear to be less demanding than doing so in a setting characterized by novelty, where behaviours might be staged and purposely produced in order to give a certain impression to the receiver. Taken together, there are several aspects of the social situation which have to be considered when assessing interpersonal sensitivity, all which seems equally important to create a holistic understanding of the concept. These will be further elaborated up on in the section describing informants as additional sources of information. In the next section, however, clarification of the relation between empathy and interpersonal sensitivity will be presented to avoid misconception of these two apparently similar constructs.

Interpersonal Sensitivity and Empathy; Identical Constructs?

Empathy has long been thought to represent an aspect of social competence, as well as contributing to individuals' abilities of perceiving, understanding, predicting and relating to others behaviours, thoughts and feelings (Losoya & Eisenberg, 2001). Similar to the construct of interpersonal sensitivity, there is little consensus regarding its meaning and hence, also a lack of definition agreement. However, regardless of who defines the concepts and in which context, definitions of empathy usually include one common component; the ability to feel what others feel. One definition of empathy describes the concept as a state of emotional arousal that stems from the apprehension and comprehension of another's affective state which is similar to, or congruent with, what that person is feeling (Eisenberg & Strayer, 1987). In other words, being empathic involves a form of intrapersonal replication of the emotional states of others, based on the perception of emotional cues such as facial expressions, hand and body movement, vocal expressions etc. However, it also involves the ability to comprehend what the other person is feeling, i.e., to correctly infer the feelings of this person based on the replication of his or her emotional state.

During the last fifty years, studies assessing individual differences in empathic skills have led researchers to conclude that such skills are crucial in the development of a selection of human abilities which predicts successful interactions. A few of these skills and abilities are morality, prosocial behaviour, emotional intelligence and social competence (Losoya & Eisenberg, 2001). Thus, empathy and interpersonal sensitivity both seem to influence the degree to which individuals experience aspects of their social life to be successful, but do these concepts actually portray the same skills and abilities? The concept of empathy has gained attentional focus in numeral fields of psychological research, spanning from developmental to clinical approaches. Definition consensus seems to be varying along with the disciplines, where the cognitive definition of the construct seems to align closely to the construct of interpersonal sensitivity (Hall & Bernieri, 2001). The cognitive approach emphasizes processes in which skills of decoding affect cues works as predictors of empathic accuracy (Ickes, 1993). Empathic accuracy is a measurement of how well individuals are able to infer thoughts and feelings in other people, indicating that empathic skills or abilities are central to the concept of interpersonal sensitivity. However, although these constructs appear to be closely related, being interpersonally sensitive is not quite the same as being empathic since being empathic concerns the ability of feeling what those around you feel (Carney & Harrigan, 2003). Being empathic however, presupposes abilities rooted in the construct of

interpersonal sensitivity and can thus be seen as both a contributor to, and an aspect of interpersonal sensitivity (Losoya & Eisenberg, 2001). Returning to the definition of interpersonal sensitivity stated by Bernieri (2001, p. 3) which describes the concept as “the ability to sense, perceive accurately, and respond appropriately to one’s personal, interpersonal, and social environment”, one do not find the equivalence of internal replications of emotional states as empathy presupposes, but merely the somewhat related element of sensing. Sensing, however, does not necessarily indicate the occurrence of vicarious emotional reactions within oneself as a result of others emotional expressions. In other words, interpersonal sensitivity and empathy are not identical constructs.

If we are to expect that Losoya and Eisenberg (2001) are accurate in their assumption of empathy being a contributor or an aspect of interpersonal sensitivity, one would not be unreasonable in assuming significant correlations between tests measuring these two concepts. Somewhat puzzling, however, is the result that Ickes (2001) refer to when discussing the construct of empathic accuracy in relation to, amongst others, the concept of interpersonal sensitivity. These research results demonstrated that when comparing scores on the Interpersonal Perception Task (Costanzo & Archer, 1989) with scores of empathic accuracy derived from the standardized empathic accuracy test (Gesn & Ickes, 1999), one did not obtain correlations significantly different from zero (Ickes, 2001). Should one, on the grounds of these results, infer that the construct of interpersonal sensitivity and empathic accuracy, although describing apparently similar aspects of decoding affect cues, represent different dimension of human abilities, bearing no relations what so ever, or should one infer that the tests tap into different aspects of the constructs, measuring separate sets of abilities in two closely related constructs? Or should one simply infer that one of these tests, or maybe even both, fail to provide researchers with valid measurement of either interpersonal sensitivity or empathic accuracy? Based on inconclusive research results regarding the relationship between the two constructs, as well as qualitative differences regarding the definitions of these, I have decided not to intertwine the concepts of interpersonal sensitivity, empathy, and empathic accuracy in this thesis. Future replications of studies exploring the relation between these will be necessary for establishing their true relation, but will not be focused upon in the present study.

The aim of the present study, which was to assess the validity of scores from the IPT-15, required detailed analyses of the methods available for accomplishing such an aim.

Whereas performance based tests (such as the IPT-15) are designed to measure concrete skills or abilities related to different constructs, researchers are also interested in knowing how individuals rate themselves regarding these. The IPT-15, as mentioned earlier, do appear to assess skills and abilities related to perception and interpretation, but does not measure people's responses to these. Finding a golden standard for assessing the validity of performance based test in general seems hard to find, but in order to assess the construct validity of the IPT-15 in the present study, correlational analyses between the IPT-15 and other measures of skills and abilities related to the concept of interpersonal sensitivity, were conducted. Self-report inventories as well as informant ratings were included in the study so as to gain a complete picture of the participants' and informants' judgements of perceptual and behavioural responses, i.e., an overall measure of interpersonal sensitivity. Advantages and disadvantages of using self-reports and informant ratings, as well as previous research results taking use of such measures will be presented further out in this thesis. In the next section however, a variety of performance based tests previously used to assess interpersonal sensitivity and related constructs will be presented.

Measuring Interpersonal Sensitivity

Interpersonal sensitivity is a construct that closely aligns to concepts such as social- and emotional intelligence, emphasizing both cognitive and behavioural responses to social stimuli. Social intelligence is most commonly associated with the understanding of social rules and conventions as well as interpersonal skills, whereas the concept of emotional intelligence comprises both inter- and intrapersonal components, focusing on the emotional aspects of these (Austin & Saklofske, 2005). Similar to the concepts of social- and emotional intelligence, interpersonal sensitivity has been thoroughly investigated using multiple measurement approaches. These have included a broad range of performance based tests such as the Diagnostic Analysis of Nonverbal Accuracy (Nowicki & Duke, 1994), the Profile of Nonverbal Sensitivity (Rosenthal et al., 1979), the Mayer-Salovey-Caruso Emotional Intelligence Test (Mayer, Salovey, & Caruso, 2002) and the original (IPT) and revised (IPT-15) version of the Interpersonal Perception Task (Costanzo & Archer, 1989, 1993). The Diagnostic Analysis of Nonverbal Accuracy (DANVA) measures sensitivity to nonverbal cues of emotion using predominantly posed photographs and audio recordings. The Profile of Nonverbal Sensitivity (PONS) is used to assess interpretative accuracy of affective states using video clips based on vocal information, visual information or a combination of these. The Mayer-Salovey-Caruso Emotional Intelligence Test (MSCEIT) measures perception, use,

understanding and management of emotions communicated through several stimuli such as photographs of facial expressions, landscapes and abstract designs and vignettes, and the original and revised version of the IPT intend to measure perceptual accuracy in nonverbal communication through audiovisual measures. Measurements of interpersonal sensitivity have also been established by using self-reports and informant ratings (Ambady et al., 2001; Archer et al., 2001; Bernieri, 2001; McIntire et al., 1999). These will be described more thoroughly further out in this thesis.

Choosing a Selective or a Holistic Approach to Measure Interpersonal Sensitivity?

The underlying mechanisms of determining accuracy in perception and understanding of interpersonal processes have undergone rigid and extensive research. Consensus, especially regarding the proper choice of measurement *instrument* has been somewhat unclear, both in reference to expectations of how interpersonal sensitivity is influenced by various communicative channels (e.g., facial expressions, proxemics, kinesics, gaze and vocal expressions of affect), as well as stimulus used to measure these influences. Above, the brief descriptions of a selection of performance based test previously used in this field of interpersonal psychology clearly indicate discrepancies regarding these issues. The basic test stimuli of the DANVA allow for measurements using both visual and audio cues, but these are not contextually framed, nor spontaneously elicited. Whereas the PONS also uses a combination of communicative channels to present stimuli, drawbacks of the test concerns the use of only *one* communicator (i.e., encoder), the test's lack of ability to assess specific emotions and finally, the restrictions of not being able to freely match appraised affect to a situation that the observer chooses for him or her self. The last disadvantage is a result of forcing the participant to choose from a pre-determined frame of correspondent situations for the affect that has been appraised (Nowicki & Duke, 2001). The design of the MSCEIT holds some of the same disadvantages as those mentioned above. Stimuli are presented entirely through posed and visual communicative cues i.e., pictures of facial expressions and abstract designs and landscapes, and these are taken out of a contextual setting.

Whereas previous research literature in the field of nonverbal behaviour to a large extent has focused on separate analyses of the structure and impact of communicative channels, there is reason to believe that a holistic measurement approach (i.e., an approach encompassing several communicative channels as well as a variety of stimuli expressed through these) would be more advantageous when conducting research in the field of interpersonal sensitivity. We do, after all, rely on a large set of nonverbal communicative

stimuli when interpreting the behaviour of other people, and a holistic approach would appear to resemble our everyday interpretations more accurately than a selective approach which merely captures parts of these stimuli. There is also reason to believe that in order to measure accuracy in perceptive and interpretative processes regarding others behavioural expressions, one would preferably select a method which portrays stimuli resembling those expressed in real life. As we have seen, not all instruments used to assess interpersonal sensitivity seem to focus on such a holistic and authentic approach, giving rise to the question of validity of such instruments. Whereas the performance based instruments mentioned above clearly present the researcher with a broad variety of approaches (e.g., audio- and video clips, judgments of posed and non posed photographs, judgments of people in staged and non staged settings) for measuring the construct of interpersonal sensitivity, the methodological frameworks of the DANVA, the PONS and the MSCEIT do not seem to portray nonverbal stimuli as authentically as the IPT. Impediments of non- contextual settings, disadvantages of using solely one encoder, restrictions regarding using solely one, or just a few, communicative channel(s) and the fact that pictures are posed rather than spontaneous, illustrate plausible issues regarding the ecological validity of these instruments. The design of the IPT-15 however, allows for interpretations of naturally occurring behaviour within contextual frames. Further, using multiple stimuli channels allows the decoder to make judgments based on several emotional cues, rather than concentrating on, for example, facial- or vocal expressions alone. The Interpersonal Perception Task (Costanzo & Archer, 1989) thus seems to be the instrument most accurately portraying nonverbal communicative stimuli as it appears in our daily life. Due to the methodological advantages mentioned above, I chose to assess the validity of the revised version of the IPT, the IPT-15 (Costanzo & Archer, 1993). In the next section, the design of the IPT-15 will be presented, as well as relevant results from previous studies using this instrument.

The Interpersonal Perception Task-15 (IPT-15)

The Design of the IPT-15

The Interpersonal Perception Task -15 (Costanzo & Archer, 1993) was designed to measure accuracy in interpersonal perception via verbal and nonverbal cues. The IPT-15 is an audiovisual instrument, and has most commonly been used as a measure of interpersonal sensitivity (Archer, Costanzo, & Akert, 2001). The original instrument, the IPT (Costanzo & Archer, 1989), contains thirty video clips of people interacting in a variety of situations, whereas the latest revision of the instrument, the IPT-15, contains a selection of fifteen of

these thirty scenes. The video sequences are taped in real life situations depicting short sequences of social interactions. There are several encoders throughout the clips presenting the participant with a broad range of informational cues to interpret. Some of the clips contain only one encoder, whilst other clips contain up to four encoders. Some of the clips present the participant with facial and vocal expressions alone, whilst other clips present the participant with both facial action as well as proxemic (i.e., the structure and use of space) and kinetic (i.e., body movements) information. Although the IPT-15 contains both nonverbal and verbal cues, the latter are not informative in the sense that the decoder will be able to draw conclusions based on *what* is being said. Rather, the decoder is expected to interpret implicit messages communicated through vocal expressions of affect, i.e., *how* the information is being communicated. Assessing interpersonal sensitivity using this test therefore concentrates on the subject's skills and abilities in *interpreting emotional states* and *expressive behaviours*, rather than drawing conclusions based on the verbal content itself.

The IPT-15 represents five aspects of interpersonal communication; deception, intimacy, status, kinship and competition. In each scene, one of these dimensions is depicted and the participant is asked to answer a question concerning the interpretation of the scene. For example, in one of the scenes two men are discussing the game of racquetball they just played. The corresponding question to the scene is "Who won the racquetball game?" In another scene, a man and a woman are discussing future travelling plans and the corresponding question to this scene is "What is the relationship between the man and the woman?" For each scene, the participant has to choose one multiple-choice alternative presented on the answering sheet. Each clip lasts from approximately half a minute up to almost two minutes. The highest score attainable is 15, indicating correct interpretation of all scenes.

Reliability and Validity

In the IPT-15, the "best" fifteen scenes from the original thirty scenes version are chosen, i.e., for all these scenes, accuracy rates have been found to be substantially above chance in contrast to the original version where accuracy for two of the scenes were found to be below what would be expected by chance (Costanzo & Archer, 1993). The IPT-15 is less difficult than the original version and the somewhat shorter administration length (20 minutes compared to the original length of 40 minutes) makes it more convenient to use in studies where multiple measures are of interest to the researcher (as in the present study). Test-retest reliability was assessed using a sample of 52 students who were given the task twice with a

test-retest interval of five weeks and resulted in a retest reliability coefficient of .73, just slightly higher than in the original version; .70 (Costanzo & Archer, 1989). Assessing the construct validity, Costanzo and Archer also reached conclusions regarding significant correlations between test scores and peer ratings of interpersonal sensitivity and social skills. The internal consistency of the IPT-15 however, has often proven to be very low (Costanzo & Archer, 1993; Iizuka, Patterson, & Matchen, 2002; Patterson, Foster, & Bellmer, 2001). Low internal consistency has been explained by the limited number of items (15) which are used to measure judgement accuracy across an broad range of interpersonal dimensions (i.e., deception, intimacy, status, kinship and competition). The IPT-15's low internal consistency has been suggested preventing generalisations regarding overall accuracy in judging nonverbal cues (Horgan & Smith, 2006). Horgan and Smith (2006) further state that results derived from this task would appear to be relevant for the five dimensions stated earlier in this passage, whereas interpreting nonverbal cues within other domains might require different measurement approaches. One should have this in mind when interpreting results derived from the IPT-15.

Previous Research Results from Studies Using the IPT-15

The extensive use of the IPT-15 have lead to both indications of culture bound differences in judgment accuracy (Iizuka et al., 2002), the impact of gender incongruent purpose goals upon judgment accuracy (Horgan & Smith, 2006), correlations between the IPT-15 and other tests measuring cue perception and interpretation such as the DANVA (Nowicki & Duke, 1994) and Matsumoto and Ekman's JACFEE (McIntire et al., 1999), correlations between results from the IPT-15 and the self-report questionnaire of social skills, the SSI (Riggio, 1989), as well as relations between judgment accuracy of the IPT-15 and informant ratings of social skills (Archer et al., 2001) and social sensitivity (Costanzo & Archer, 1989). Whereas the utilisation of the IPT-15 clearly has contributed to the knowledge of relations between the construct of interpersonal sensitivity and other related constructs, as well as the impact of several other factors upon judgment accuracy, research results have not always supported the link between instruments used to measure the concept of interpersonal sensitivity. For example, a correlational study using the IPT-15, the DANVA and the JACFEE proved no evidence of correlations between measures of interpersonal accuracy (McIntire et al., 1999), and calls into question the validity of these tests, as well as the rationale of using this measurement approach when assessing skills and abilities related to the concept. Further, Riggio (1989) found no evidence of correlations between self-reports of

social skills and measures of interpersonal sensitivity using the IPT (Costanzo & Archer, 1989). Plausible explanations of such weak relations between performance measures and self-reports will be presented in the next section.

Whereas the design of IPT-15 seems to hold several methodological advantages compared to resembling instruments, the confounding results mentioned above give rise to one particular question: Does the IPT-15 actually assess skills and abilities related to the construct of interpersonal sensitivity, and if so, how do one assess the validity of this instrument? As many researchers before me (Costanzo & Archer, 1993; McIntire et al., 1999; Riggio, 1989) I chose to assess the validity of the IPT-15 using a multiple measurement approach. Following the definition of interpersonal sensitivity, the IPT-15 appears to assess skills and abilities related to perception and interpretation which are essential components of the construct. Assessing behavioural responses however, appear to require a different approach. Using two additional methods; self-reports and informant ratings of interpersonal sensitivity, I expected to be able to assess such behavioural responses. The first method; gathering data through self-reports of interpersonal sensitivity, will be described in the section below.

Using Self-reports to Assess Interpersonal Sensitivity

Self-report inventories are common in psychological research and are often used as criterion measures when trying to assess the validity of measures of specific skills or abilities. However, the underlying apprehension of people being accurate when judging their own abilities has often proven to be misleading, leading researcher to question the validity of such informative sources. Whereas one would assume that people in general are their own best judges when providing information regarding themselves, previous studies examining the relation between self-reports, performance measures and informant ratings of interpersonal skills have yielded inconclusive results. Such inconsistencies will be discussed below.

Self-reports Versus Performance-based Measures of Interpersonal Sensitivity

Although self-reports have been most commonly used to measure emotional states, and previous research results have demonstrated fairly weak correlations between self-reports and performance based measures of nonverbal sensitivity, Riggio and Riggio (2001) suggest that self assessment of interpersonal sensitivity has a great deal of potential. The advantages of using self-reports to assess interpersonal skills as opposed to performance based measurements are several. Self-reports are easier to administer and develop, they present

researchers with the opportunity of capturing a broad range of constructs related to the concept of interest, and also allow the respondents to focus on both meta-knowledge of communicative skills as well as behavioural responses to communicative cues in social situations (Riggio & Riggio, 2001). Self-reports measurements of personality traits, for example, have shown to be a highly advantageous method due to the unique perspective individuals possess regarding their own inner experiences and states. This perspective presents the individual with a chance to communicate information inaccessible to an observer, who often relies on situational rather than personal cues (Funder & Colvin, 1996).

Although self-reports have shown to be advantageous with regards to several aspects of the research process, self-assessments of individual skills and abilities have received a fair amount of criticism through out the research literature. One of the major criticism questions the degree to which people are actually aware of their own skills and abilities related to the concept of interest, and how accurately they are able to report these (Riggio & Riggio, 2001). Ickes (1993) states that people in general rarely receive explicit feedback regarding nonverbal communication skills, and that the feedback individuals receive from friends, family or other acquaintances, might not always be accurate. As a result of such lack of explicit feedback, people are largely unaware of their skills in decoding facial expressions, judging vocal and paralinguistic cues etc., which are all highly essential to the construct of interpersonal sensitivity.

Whereas Riggio and Riggio (2001) and Ickes (1993) suggest that the lack of meta-knowledge might be one potential reason for incongruence between self-reports and performance based measures of interpersonal sensitivity, the effects of response biases have also contributed to the ambiguity of using self-reports to assess interpersonal skills. Self-report biases, particularly social desirability, have proven to affect the individual's estimate of interpersonal skills and has been suggested as playing a significant role in explaining incongruence between self-reports and performance based measures of interpersonal sensitivity (Riggio & Riggio, 2001). As in the present study where interpersonal skills are assessed using both self-reports and performance measures, results from correlational analyses should be interpreted with both potential biases and the potential lack of meta-knowledge in mind.

Previous studies exploring the relation between performance-based measures and self-reports of interpersonal sensitivity and related constructs, have shown evidence of

incongruence between the two measurement approaches. Weak correlations have been registered between test scores from the PONS (Rosenthal et al., 1979) and self-reports of interpersonal sensitivity. Whereas evidence of such weak correlations was explained as products of social desirability, Funder and Colvin (1996) added to the list of biases suggesting low or zero correlations due to dispositional and situational attributes of behaviour. McIntire, Danforth, & Schneider (1999) further present fairly weak correlations between the performance based tests DANVA (Nowicki & Duke, 1994), the IPT-15 (Costanzo & Archer, 1993) and the self-report questionnaire of social skills, the SSI (Riggio, 1989) which also suggests discrepancies between self-assessed skills and actual abilities. Another study investigating behavioural patterns in social interaction further demonstrated the superior accuracy of observational measures as opposed to self-report inventories in such interactions, suggesting others to be better predictors of behaviour than one self (Kenny, 1994). In a recent study, Brackett, Rivers, Shiffman, Lerner and Salovey (2006) demonstrated results similar to those mentioned above. In their study exploring the relation between emotional abilities and social functioning, self-ratings of emotional intelligence and performance measures of emotional intelligence were not strongly correlated, adding to the list of studies failing to show significant relationships between the two measurement approaches.

The somewhat contradictory research results presented in the passage above stress the need of conducting additional studies in order to establish the true value of self-report measures. Several questions need to be addressed in order to gain a fuller understanding of how to circumvent the fallacies of inferring erroneously when using self-reports in psychological research. Is there reason to believe that the ways in which we perceive ourselves and others have little to do with the actual reality as observed by others or assessed through performance based tests? Should one assume that the origin of non-existent correlations between performance and self-assessed abilities habituates in methodological drawbacks of the instruments being used, or as an incapability of individual appraisal of such abilities? Or should one simply infer that people's awareness of their own abilities depend on the nature of these, some being better suited to assess through self-report inventories than others? One way of evaluating the construct validity of self-reports designed to measure interpersonal sensitivity is to explore whether scores obtained through such a method correlate significantly with behavioural assessments of the same skills and abilities. Informant raters may serve as a useful source in assessing such behavioural skills and abilities. In the present study, informant ratings of interpersonal sensitivity were used to assess the validity of

scores from the IPT-15, as well as to examine congruence between self- and peer estimates of interpersonal skills. Both positive and negative aspects of utilising self-reports to assess interpersonal sensitivity have been presented in this section. Corresponding advantages and drawbacks of using informant ratings will be presented in the section below.

Informants as an Additional Source of Information

So far we have seen that both performance based tests (such as the IPT-15), as well as self-reports can contribute to the process of assessing interpersonal sensitivity. Relations between the two methods have not always proven to be significant however, stressing the need for utilising additional methods when measuring skills and abilities related to the construct. Informant reports can be used as a method for validating both performance based tests and self-reports, where significant correlations can provide researchers with information of the relation between test scores, self assessed skills or abilities, and predictions of past, present and future behaviour. One of the advantages of using informant ratings in psychological research is that this method can provide researcher with data that would not be attainable using performance based tests or self-reports alone. Several researchers have used peers, spouses or other types of informants in validating standardized measures of interpersonal sensitivity, but the results, as we shall see, are far from congruent. The ability to perceive and interpret emotional information is essential for successful social functioning, but nevertheless useless if unaware of how to use this information to function adequately when interacting with other people. In the present study, informant-ratings of interpersonal sensitivity were used to assess the validity of the IPT-15 by investigating how individuals actually respond to their social environment, i.e., how they really behave with, and towards others. Execution of proper responses in the social arena is, as we have learned, one important aspect of interpersonal sensitivity and essential to establish in order to assess the validity of this instrument.

Are Informant Ratings Valid Sources of Information?

Whereas Vazire's (2006) study focuses on a different construct than in the present study, i.e., how informant reports can be used in *personality* assessment, her research do accentuate the importance of using this method for improving assessment validity. Vazire (2006) describes informants as providing researchers with both rich and valid assessments and wishes to challenge outdated beliefs amongst researchers of the burden of using such informational sources. The use of informant reports might be employed as separate

informational resources, but might also in combination with data from other sources (e.g., performance tests or self-assessments) provide information about the validity of such measures. Whereas self-ratings might suffer from a vast variety of biases distorting valid predictions of behaviour, skills and abilities, and where performance based tests might present researchers with issues regarding ecological and construct validity, informant reports enable researchers to investigate whether there is a relation between assessments based on performance tests, self-reported and observed behaviour. Informant reports do, however, also present researchers with several challenges regarding the validity of such measures. For example, informant reports might suffer from lack of validity due to honesty issues when rating friends, colleagues or family members. Fearing that one's judgements will be available to those whom one has evaluated might incline informants to alter their ratings in order to present the participants in a more favourable manner (Vazire, in press). Avoiding such biased ratings can be obtained by making informants' responses unavailable to the participants which might lead to more truthful peer-judgements. In the current study, informant anonymity was guaranteed to avoid biases of this nature.

What Results have Previous Studies Using Peer-ratings Yielded?

Previous studies examining the relation between peer-ratings and performance measures have yielded varying results. Assessing construct validity of the original version of the IPT (Costanzo & Archer, 1989; Hodgins & Zuckerman, 1990) as well as validity studies of the revised version, the IPT-15 (Costanzo & Archer, 1993) have yielded significant correlations between test scores and ratings of social sensibility by peers. In another validity study using the Profile of Nonverbal Sensitivity; Rosenthal et al. (1979) asked twenty-two married couples to complete the test as well as rate their spouse on items related to interpersonal sensitivity or sensitivity to nonverbal communication. In contrast to Costanzo and Archer's (1989) results however, near zero or negative correlations between test scores and self-ratings was presented. However, ratings by spouses proved to be moderately high and positive in relation to test performance. Further, in a study conducted by Wymer and Penner (1985) the relationship between self- and peer ratings of a variety of personality and social skill constructs were explored. Results indicated that those who scored high on the scales measuring these constructs, were also evaluated as being more skilled in corresponding arenas by their peers, supporting the relation between performance and informant ratings regarding such skills.

The Effect of Moderators

One should, however, not overlook the fact that there are several moderators to take into consideration when assessing the validity of informant reports. One such moderator is the relation between the individual who is being judged, and the one judging him or her. Ickes' (1993) review of previous attempts in establishing the degree to which closeness between participants influences empathic accuracy, clearly indicates that inferences of other's emotional states are dependent upon the knowledge one possesses about the individual one is making inferences about. In a study exploring the effect of relational factors upon judgments of personality traits, results supported the hypothesis of such a relational moderator influencing the relationship between the sense of the self and opinions from significant others (Funder & Colvin, 1988). Whereas Funder and Colvin (1988) found strong evidence regarding the superior accuracy in judging personality traits amongst closer acquaintances than amongst people who did not know each other at all, a study conducted by Carney and Harrigan's (2003) yielded different results. Using the performance test DANVA (Nowicki & Duke, 1994) self-report inventories, and peer-ratings of emotional sensitivity, these researchers found no relations between performance measures and rated sensitivity amongst participating friends, giving rise to the question of the construct validity of test and/or the validity of using peer-ratings as an informational source.

For most people, it would appear to be easier to judge a close acquaintance's sensitivity to others' emotional expressions, than judging these abilities in a total stranger. Whereas strangers' judgments of emotional expressions often are based on first impressions with no references to previous responses or knowledge of the individual's personal background, friends have the opportunity of observing behaviour manifested over an extended time frame where contextual and situational influences help shape a more accurate representation of the individual (Colvin, Vogt, & Ickes, 1997). Colvin et al., (1997) further stress that judging whether or not a friend's behaviour is empathic also relies on discussions where the individual being observed has the opportunity to explain and elaborate on his or her own behaviour. Based upon these assumptions, one should find stronger relations between informant judgements, self-reports and performance measures of interpersonal sensitivity amongst close acquaintances than amongst strangers. In Carney and Harrigan's (2003) study (which was mentioned above) however, the lack of correlation between tests scores and peer-ratings questions the validity of the DANVA, that is, that the DANVA actually measures interpersonal sensitivity. However, the lack of such correlations could also be a result of the

participants and informants not knowing each other well enough for assessments of such personal skills. One should also consider the fact that although participants and informants know each other fairly well, non-existent correlations between these measurement approaches might indicate components of the concept being too difficult for informants to judge.

Choosing a Multiple Measurement Approach

Similar to the inconclusive results regarding the relation between self-reports and performance measures of interpersonal sensitivity and related constructs, research results exploring the relation between informant reports and performance based measures of interpersonal sensitivity have also been somewhat unclear. With the purpose of assessing the validity of scores from the IPT-15, the question of what actually represented valid data arose. Should one rely on results derived from the IPT-15 alone? Should one have faith in the fact that people are superior connoisseurs in judging their own abilities? Should one rely on ratings from people close to the individual when assessing measurement accuracy, or should one simply take all these informational sources into account when trying to assess how sensitive people are to other's nonverbal expressions?

A multi-method assessment appears to be the optimal approach when conducting scientific research in the field of interpersonal psychology. Researchers do, however, rarely utilise the combination of the entire scope of methods, both due to the fact that this is expensive, time consuming as well as ineffective (Vazire, 2006). The present study, however, took advantage of such a multiple measurement approach in order to assess the validity of scores from the IPT-15. As stated earlier, no golden standard for assessing the validity of performance based tests seems to exist. To assess the validity of scores from the IPT-15, an attempt to capture as many aspects of interpersonal sensitivity as possible was made. In addition to the test itself, subjective judgements from the participants were established through self-reports and informant ratings represented external judgements of whether the participants were considered to be interpersonally sensitive or not. Congruence between these two measurement approaches is discussed in the section below.

Self-Peer Rating Congruence

As both subjective and others estimates of skills and abilities related to the concept of interpersonal sensitivity seem to be valuable when predicting successful social interactions, the way in which these measurement approaches relate to each other seems important to clarify. Whether there is congruence between subjective and others estimates appear to

depend on the characteristics of, and relation between, the individuals being judged (i.e., the targets) and ones judging him or her (i.e., the raters). In a study of accuracy in personality judgments, results indicated that raters who were socially skilled obtained higher levels of accuracy when rating others, than raters who did not exhibit these skills (Letzring, 2005). Clarifying this phenomenon, Letzring (2005) states that behaving in a warm and friendly manner might elicit genuine responses where interactants feel comfortable to present themselves as who they really are. Accuracy thus seems to depend on both the interpreter being a good judge, and the individual being subjected to these judgments feeling at ease with revealing personal information. Although not all close friends are socially skilled, one might expect that expressions of warmth and friendliness increase as one get to know each other better and that accuracy rates of interpersonal judgements might increase along with the change in nature of the relation. Other researchers have argued that socially skilled people show less self-peer rating congruence than those who are not socially skilled (Wymer & Penner, 1985). This might seem a bit awkward, especially with regards to Letzring's (2005) hypothesis stated above, but the argument is based on the qualities socially skilled people exhibit when presenting them selves to the social world. Wymer and Penner (1985), while referring to several previous studies, suggest that "socially skilled people, in essence, present different images of themselves to different people", and as a result, "they will provide less valid self reports and more varied images to the peers who would rate them" (Wymer & Penner, 1985, p. 1004). Other researchers have claimed the opposite, i.e., that socially skilled people should display higher levels of congruence between self-reports and peer-ratings than those who are not socially skilled. This particular argument is based on the notion that self-reports often tap the respondents view of how other people see him or her, and that people who are socially skilled are good at catching such cues (Wymer & Penner, 1985) This latter argument is also supported by describing socially skilled people's superior ability of presenting consistent images to peers, which increase the self-peer rating congruence.

Whereas Wymer and Penner (1985) have suggested that the target's social skills influence peer-rating congruence, other researchers have focused on input factors affecting behaviours in both the sender and receiver of nonverbal messages (Friedman, 2001). Friedman states that the ability to interpret behavioural nonverbal cues are dependent on a wide variety of factors including individual skills, motivation and situation, as well as personality, attention, and cognitive coding processes. With regards to such a broad scope of dimensions influencing the ways in which we perceive others and are being perceived

ourselves, it is clear that even people who know each other well might fail in judging nonverbal behavioural cues. Taken together, previous research seems to indicate a broad range of factors influencing the congruence between subjective and others appraisals. In the present study, interpreting the relation between self- and peer ratings of interpersonal sensitivity was not perceived as the primary aim. However, analysing such relations was still important to be able to establish significant relations among measures, and was therefore included in the statistical analyses.

Before presenting the current study, a brief presentation of why measures of intelligence, personality and facial recognition were included in the study will be provided.

Intelligence, Personality and Emotion Recognition; How do These Construct Relate to Interpersonal Sensitivity?

Intelligence and personality are two well established concepts in psychological research. Both concepts have been used to establish how individual differs from each other, but research has also focused on how these differences relate to the individual's total functioning. Whereas constructs aligning to interpersonal sensitivity (e.g., emotional intelligence and social intelligence) have undergone rigid and extensive research with regards to both intelligence and personality, relations between these two construct and interpersonal sensitivity have not received the same amount of attention in psychological research. The presents study sought to explore, first and foremost, how personality traits and intelligence were related to performance-based measures of interpersonal sensitivity. However, by controlling for intelligence and personality, important information regarding the incremental validity of the IPT-15 was expected, i.e., if the IPT-15 did in fact measure skills and abilities that were not assessable using personality inventories and/or intelligence tests. As previous research have demonstrated significant relationships between empathic accuracy and intelligence (Davis & Kraus, 1997), expectations of similar results regarding the relation between intelligence and interpersonal sensitivity, were made explicit. Assessments of personality traits and relations between these and performance measures of interpersonal sensitivity were explorative rather confirmative of nature.

Relations Between Intelligence and Concepts Related to Interpersonal Sensitivity

If the concept of interpersonal sensitivity is to be considered portraying *specific* skills and abilities, one should be able to demonstrate the predictive value of such skills and abilities per se, i.e., in addition to predictions of personality traits and intelligence measures. It is

difficult to find previous studies where relations between interpersonal sensitivity and intelligence have been established. There is, however, an abundance of studies exploring the relation between intelligence and similar constructs such as emotional and social intelligence, but unfortunately, these have yielded contradictory results. For example, emotional intelligence has been suggested meeting the most essential criteria for a standard intelligence predicting parental warmth and support as well as life satisfaction (Mayer, Caruso, & Salovey, 2000). Mayer et al., (2000) further state that emotional intelligence can be assessed through the use of the MSCEIT (Mayer et al., 2002) which is, as mentioned earlier, a performance based test designed to measure perception, use, understanding and management of emotions. Others claim the opposite, arguing that there is no evidence supporting predictions of socially important outcomes of emotional intelligence when controlling for personality and intelligence, and that utilising MSCEIT to measure emotional intelligence is useless (Brody, 2004).

The concept of social intelligence appears to be subjected to the same controversies. In a study of the relation between cognitive performances of academic intelligence and social intelligence, no significant correlations were found to support the associations between these concepts. Further, the social intelligence performance measures did not predict effective social functioning (assessed by peer reports) in this study (Weis & Süß, 2005). However, in a multiple meta-analysis study examining the relation between various individual characteristics (e.g., intellectual functioning, cognitive style, adjustment, social sensitivity, interpersonal orientation) and empathic accuracy, significant correlations between intelligence (including indices of IQ, general knowledge, school performance, and mental alertness/attention) and empathic accuracy were found (Davis & Kraus, 1997). This study also yielded results showing significant correlations between social intelligence (constituting one dimension of social sensitivity) and accuracy as well as between peer-ratings of social sensitivity and empathic accuracy.

The research literature is filled with resembling contradictions regarding the nature of concepts related to interpersonal sensitivity. Interpreting these require thorough analyses regarding both conceptualizing of constructs as well as the methods and instruments used to measure these. Since previous research results have yielded positive correlations between empathic accuracy and intelligence (Davis & Kraus, 1997), similar results demonstrating positive relationships between intelligence and interpersonal sensitivity were expected in the present study.

Relations Between Personality and Concepts Related to Interpersonal Sensitivity

The field of personality, as the field of intelligence, is concerned with individual differences and the ways in which these differences effect people's overall functioning. As important as it is to establish individual difference for understanding past and present behaviour as well as for predicting future behaviour, so are establishing significant relations to other concepts predicting successful individual outcomes. Although personality has been investigated in relation to several other constructs resembling that of interpersonal sensitivity, no such correlational studies have described the relation between personality and the construct of interpersonal sensitivity as it has been conceptualized and measured in the present study.

Several studies have explored the relation between personality traits and skills in decoding nonverbal information. Some of them have demonstrated extroverts being more skilled in this particular area of interpersonal communication than introverts (Akert & Panter, 1988; Funder & Harris, 1986). Other studies have failed to demonstrate significant relationships between extraversion and decoding abilities (Rosenthal et al., 1979). Some researchers have focused on the effect of target and rater characteristics upon accuracy in judging nonverbal behaviour, where results have indicated nonverbal cues expressed by extraverted people being more accurately judged than such cues expressed by less outgoing individuals (Ambady et al., 1995) Whereas the studies above have sought to assess relations between decoding abilities (which are essential to the concept of interpersonal sensitivity) and personality traits, results presented in a more recent study exploring the relation between emotional abilities and social functioning, might be more relevant to the present study. In this study, two dimensions of personality; Extraversion and Openness to experience, were found to be significant predictors of the total scores of self-rated emotional intelligence, assessed by the Self-rated Emotional Intelligence Scale (SREIS; Brackett et al., 2006). After statistically controlling for personality, however, self estimates of emotional intelligence were unrelated to social competence (i.e., responses to positive events happening to roommates or close friends) for the entire sample (Brackett et al., 2006).

As evidence seem to suggest, interpretations of the effect of personality traits upon concepts such as emotional intelligence and the ability to code nonverbal cues (which are all related to interpersonal sensitivity) seem to vary heavily depending upon the nature of the study. In the present study, personality measures were included to explore whether scores from the Big Five Inventory (John, Donahue, & Kentle, 1991) would be able to predict scores on the IPT-15, and also to investigate the incremental validity of the IPT-15 by controlling for

personality and intelligence. The final section before presenting the current study will give a brief rationale to why measures of facial recognition were included in the present study.

Facial Recognition and Interpersonal Sensitivity

There are no previous studies exploring the relationship between the IPT-15 and the instrument used to assess skills in facial recognition in the present study; the Micro-Expressions Training Tool (METT; Ekman, 2003). This makes the current study the first of this kind. Whereas one of the initial phases in understanding the social world would appear to be the recognition of a particular emotion when it appears, the subsequent step of interpretation seems equally important in social interactions. Whereas interpretation might presuppose correct recognition, assessing recognition ability in itself might not be sufficient to infer an overall interpersonal sensitivity. Several researchers have stressed the impact of contextual information in emotion recognition, indicating that recognition in fact is dependent upon the situation (Striano & Liskowski, 2004; Tanaka-Matsumi, Attivissimo, Nelson, & D'Urso, 1995). Further, where recognition is dependent upon the situation, it might be the case that one is dealing with interpretation rather than purely recognising. One might further assume that accuracy in judging facial expressions are relevant to the construct of interpersonal sensitivity as long as both processes (recognising and interpreting) are taken into account. Ignoring one of these processes will allow for analyses of separate procedural influences, but will probably not be enough to infer an overall interpersonal sensitivity. Given the suggestion of a sequential interpretation process for judging emotional states in others, as well as the importance of situational cues, scores obtained from the instrument used to assess facial recognition; the METT (Ekman, 2003), would not come to be considered as an overall measure of interpersonal sensitivity, but rather as one component of the construct contributing to the overall score. Positive correlations between the METT and the IPT-15 were expected, suggesting a significant relationship between facial recognition of emotions and perceptual accuracy in social interactions. Before describing the present study, an outline of expected results will be presented below.

The Present Study

Since the present study was a replication of Costanzo and Archers's (1993) study of construct validity using peer-ratings, similar correlations between scores from the IPT-15 and peer-ratings of interpersonal sensitivity were expected. Significant positive correlations between IPT-15 scores obtained through the Micro-Expressions Training Tool were also

expected as recognition of emotional expressions of affect was thought to represent an essential component of interpersonal sensitivity. Positive correlations between intelligence and IPT-15 scores were also expected since previous research results have indicated a significant relationship between the construct of empathic accuracy (which closely aligns to interpersonal sensitivity) and intelligence.

Due to previous inconsistencies regarding the relation between self-reports and performance measures of interpersonal sensitivity, as well as regarding the relation between self-reports and informant ratings of interpersonal sensitivity, predictions of significant correlations between these measures were not made explicit. The same was the case for personality measures which were examined from an exploratory point of view. The theoretical background which constitutes the basis for the present study has now been described in great detail. I will now move on to present the core components of this study, starting with the method section below.

METHOD

Participants

A total of 54 students were recruited at the Department of Psychology, University of Oslo, and completed the materials for the present study. The participants ($n = 54$) were primarily female (79.6%) and the vast majority of the participants (92.6%) were enrolled in various psychology classes at the Department of Psychology. All participants were students at the University of Oslo. The participants ranged in age from 18 years to 37 years ($M = 25.0$, $SD = 4.89$).

A total of 122 acquaintances of the participants were also recruited by the participants themselves, after having been requested to do so by as a part of the project. The informants ranged in age from 16 years to 67 years ($M = 30.5$, $SD = 11.3$). The vast majority of them were women (69%) and had listed “friend” ($n = 65$) as their relation to the participant. The students participating in the study at the university will, from this moment on, be referred to as “participants”. Their friends, family members, girlfriends and boyfriends etc., who also contributed to the data set, will be referred to as “informants”.

Measures

The Interpersonal Perception Task-15 (IPT-15). The features of the IPT-15 (Costanzo & Archer, 1993) were described in great detail in the introduction and will therefore not be further illustrated in this section. However, a total of three questions were added to the

original answering sheet asking the participants to estimate of the number of correct answers they thought they would achieve (0-15), their overall comprehension of the information that had been communicated in the 15 scenes (on a four point scale ranging from “Not very well” to “Very well”) and their last English grade. Subjective estimates of the number of correct answers on the IPT-15 were included to investigate the relation between confidence and actual performance. The overall comprehension of the scenes as well as the participants’ English grades, were included to circumvent erroneous interpretations of results (e.g., poor performance results due to poor English skills).

Self-report measurements of interpersonal sensitivity. Participants’ self estimates were assessed by using a variety of statements related to the interpersonal sensitivity concept. Evaluating all statements from The Tromsø Social Intelligence Scale, TSIS, (Silvera, Martinussen, & Dahl, 2001), seven statements from the “social information processing” subscale seemed to portray skills and abilities related to the concept of interpersonal sensitivity most accurately, and were included in the questionnaire with the intention of capturing the participants’ perceptive skills in social interactions. For example “I can understand other people’s feelings” and “I can often understand what others really mean through their expression, body language, etc.” were two of these seven statements included in the self-report. Further, seven statements drawn from the two subscales of “emotion perception” and “emotion management” presented in the Self-Rated Emotional Intelligence Scale (Brackett, Rivers, Shiffman, Lerner, & Salovey, 2006) were chosen to represent the participants’ ability to perceive expressive affect as well as their ability to respond appropriately to emotional cues in their social surroundings. The statement “I am aware of the nonverbal messages other people send” is an example from the subscale of emotion perception, and “I am the type of person to whom others go when they need help with a difficult situation” represents one statement from the emotion management subscale included in the self-report. Finally, all four statements used by Costanzo and Archer (1993) to establish construct validity of the IPT-15 were included in the self-report questionnaire. These statements represented emotion perception and interpretation, as well as responsiveness to emotional cues of affect. In the 18-item self-report questionnaire, respondents were asked to estimate the degree to which each statement described them on a scale from 1 (“passer ikke”) to 7 (“passer helt”) with higher scores indicating higher overall evidence of interpersonal sensitivity. Only the end points were labelled semantically. The complete self-report questionnaire is presented in Appendix A.

Informant ratings of interpersonal sensitivity. The informant rating questionnaire was similar to the self-report questionnaire described in section above. All statements included in the former questionnaire, were also included here. Some minor adjustments were made by altering the statements to fit the informants' judgments regarding the participants' skills and abilities related to the construct of interpersonal sensitivity. Informants were asked to estimate the degree to which each statement described the participant, who had provided him or her with the questionnaire, on a scale from 1 ("passer ikke") to 7 ("passer helt"). As in the self-report inventory, higher scores indicated higher overall judgments of interpersonal sensitivity. Further, three questions establishing the relation between participants and informants were included. The intention of doing so was to investigate plausible effects of relational factors up on judgments of interpersonal sensitivity. The complete informant questionnaire is presented in Appendix B .

The Micro-Expressions Training Tool (METT). In this study, individual measures of facial recognition ability were established by using the Micro-Expressions Training Tool, METT, (Ekman, 2003). The METT, intentionally designed as a training tool to improve recognition of facial expressions of emotions, builds up on the Japanese and Caucasian Brief Affect Recognition Test (JACBART; Matsumoto et al., 2000) and provides researchers with individual measures of skills in recognizing emotional expressivity by judging photographs. The METT is a visual tool comprising a set of 56 pictures. Each picture corresponds to one of the seven emotions of anger, sadness, happiness, fear, disgust, contempt and surprise. These seven emotions are equally distributed through out the 56 pictures, eight pictures representing each emotion. Four pictures expressing each emotion are depicted by Japanese posers and the remaining four are expressed by Caucasians. Neutral facial expressions embed each one of the emotional expressions, where the latter is presented to the participant during a very brief period of time (1/25th of a second). The participants' task is to identify the emotional expression, and to choose one out of the seven emotions mentioned above that correspond with the expression in the picture. In between presentations of these pictures, there is pause which is regulated by the person conducting the study. The pause in the present study was approximately five seconds, and during this pause, participants are given the chance to choose and register the correct expression in the booklet. The highest score attainable is 56, indicating correct recognition for all expressions.

Verbal intelligence (OAN). "Ordanalogier"(OAN) was developed by Harald Engvik in 1986 and is an intelligence test measuring a particular stream of intelligence; the comprehension of relations between words. OAN has been utilised as an aiding tool for employers in various recruitment processes and is standardized for potential employees participating in these. OAN has been subjected to numerous evaluations. In 1992, split-half reliability was estimated to .84 using a large sample (n=1670) of job-seekers. In 1987, split-half reliability was estimated to .87 using a smaller sample of students. Factor analysis has yielded results indicating OAN to be an excellent measure of general intelligence (g) as well as demonstrating significant correlations to other intelligence tests measuring both crystallized and fluid intelligence (H. Engvik, personal communication, Mars 17, 2008).

The verbal intelligence tests OAN comprises 30 tasks, printed on a sheet of paper. Previous to each task, participants are presented with a word pair, related to each other in a specific way, for example, "hand-glove". The participants' task is to determine the relation between these two words, and to then pair two subsequent words, chosen from a five word list, representing the corresponding relation (in this example, foot-shoe). Restrictions regarding the use of time is set to seven minutes, and no participants, whether they finish the complete set of tasks or not, are allowed to use more time than this. The highest score attainable is 30, indicating correct matches on all items.

The test is at present being utilised in a Norwegian consultant firm specialized in the areas of executive search, leader evaluation and selection. Due to liability factors, additional item examples will not be illustrated in this thesis, nor will the test be included in the appendix.

The Big Five Inventory (BFI). The Big Five Inventory (John, Donahue, & Kentle, 1991) was selected to assess personality characteristics among the participants. The design of the inventory allows for efficient assessment of the five dimensions of Openness, Agreeableness, Conscientiousness, Extraversion and Neuroticism, and uses short phrases describing trait adjectives typical for the characteristics of each dimension. All statements in the BFI start with the sentence "I See Myself as Someone Who..." and ends with traits adjectives corresponding to the dimension it intends to measure. For example "I See Myself as Someone Who... *Is talkative*" (representing the dimension of Extraversion), or "I see myself as someone who... *Gets nervous easily*" (representing the dimension of Neuroticism). Similarly to the response alternatives in the self-report questionnaire, participants were asked to estimate the degree to which each statement described them on a scale from 1 ("passer

ikke”) to 7 (“passer helt”). As in the self-report questionnaire, only the end points were labelled semantically. The five scores obtained from the BFI-44 are averages of the group of statements measuring each factor.

Investigating reliability of the BFI scales, results from U.S. and Canadian samples have yielded alpha coefficients ranging from .75 to .90 and three-month test-retest reliability coefficients ranging from .80 to .90 (John & Srivastava, 1999). Results from a study using the Norwegian translation of the BFI (n = 389) yielded alpha coefficients ranging from .75 to .84 (Engvik & Føllesdal, 2005). Further, John and Srivastava (1999) have proven evidence of both convergent and divergent validity in relation to other measurements using the Big Five taxonomy, as well as with ratings from peers. In the present sample, Cronbach’s alpha coefficients ranged from .67 to .90 (n = 54).

Procedure

Recruitment of participants took place at the department of Psychology, University of Oslo. All students at the Department of Psychology were informed about the possibility of participating in the study via e-mail. Students were also recruited during psychology lectures where several lecturers granted me a few minutes to present the study. In addition, pamphlets were handed out to the students as well as posted on several information boards at the institute. In order to appeal to as many students as possible, the promise of providing the students with a personality profile as well as the chance of winning gift certificates from one of the major record stores in Oslo was presented during the recruitment.

Data was collected during four different occasions. Students were gathered in two different locations; a seminar room or an auditorium where they were spread out to ensure privacy while completing the tasks. After having given a brief presentation of the structure of the study in which the students were about to participate, all respondents were acquainted with the booklet in front of them, containing the five different tasks. Guidelines, communicated through me and via a Power Point presentation at a screen in front of the room, provided the students with information previous to each task. The students were also informed about their possibility to withdraw from the study at any time during the course of their participation.

First, students provided self-estimates of interpersonal skills related to the concept of interpersonal sensitivity. The participant used approximately 10 minutes to finish this task.

Secondly, students completed the Interpersonal Perception Task-15 (Costanzo & Archer, 1993). The task took about 15 minutes to complete and was administered in English. Next, the students were presented with the third task; emotion recognition. The computer based program Micro-Expressions Training Tool (Ekman, 2003) was utilised and facial expressions were presented on a big screen in front of the room. This task took approximately ten minutes to complete. After having finished the third task, participants were presented with the fourth assignment; the verbal intelligence test (OAN). The participants were not allowed to use more than precisely seven minutes to complete this task, and when this time had passed, all participants were asked to turn the page to ensure that no one continued writing. The last task was to complete the Big Five Inventory (John et al., 1991). Due to the self-assessment of personality characteristics being the final task, participants were free to use as much time as they felt necessary to complete this section. Nearly all participants completed this task within ten minutes.

The five tasks presented above were completed within approximately 50 minutes. All participants had, during the introduction of the session as well as during the recruitment, been informed about an additional assignment in which they were not to participate themselves. This sixth assignment was to be completed by (preferably) three of their closest acquaintances to which the participants were to hand out one questionnaire each. These questionnaires were practically identical to the ones they had completed as task number one that same day, but were slightly modified and rephrased in order to find out how these informants rated the participants on the same skills and characteristics as they recently had rated themselves. All participants were provided with three envelopes, each containing one questionnaire. These questionnaires, when completed by friends, family, colleagues or other forms of acquaintances, were to be put in a pre-paid and addressed envelope and sent back to me at the Department of Psychology. In order to receive as many truthful answers as possible, the participants were asked to inform their acquaintances about the total anonymity in answering the questions

RESULTS

Descriptive Statistics

Descriptive statistics for the entire sample is presented in Table 1. In the present sample, the mean performance score on the IPT-15 was 10.00 ($SD = 1.39$) which is slightly higher than Archer and Costanzo's (1993) reported mean score of 9.86 ($SD = 2.13$) and also considerably higher than the chance level of 6.33 items. Mean and standard deviation for female participants were: $M = 10.1$, $SD = 1.30$ and for male participants; $M = 9.6$, $SD = 1.78$. An independent t -test showed that there was no significant difference between female and male scores on the IPT-15 ($t = -.96$, $df = 51$, $p = .34$, two tailed).

Table 1
Descriptive statistics for tests and methods used in the present study

	Minimum	Maximum	M	SD
IPT-15	6.00	13.00	10.00	1.39
SRIS	3.11	6.17	5.23	.59
IRIS	3.72	6.72	5.44	.70
METT	17.00	52.00	34.50	7.81
OAN	8.00	25.00	18.48	3.49
O	3.00	6.70	5.03	.92
C	2.56	6.67	4.67	.94
E	2.13	6.75	4.54	1.10
A	3.67	6.78	5.23	.67
N	2.00	6.38	4.07	.99

Note. IPT-15 = The Interpersonal Perception Task-15; SRIS = Self-reported interpersonal sensitivity; IRIS = Informant ratings of interpersonal sensitivity; METT = Micro-Expressions Training Tool; OAN = Ordanalogier; O = Openness; C = Conscientiousness; E = Extraversion; A = Agreeableness.

In self-reports of interpersonal sensitivity, male participants rated themselves slightly higher ($M = 5.45$, $SD = .30$) than female participants ($M = 5.17$, $SD = .63$). However, this difference did not prove to be significant ($t = .16$, $df = 50$, $p = .88$, two tailed). Female informants rated the participants slightly higher than male informants (female; $M = 5.47$, $SD = .73$, male; $M = 5.36$, $SD = .63$). The highest informant ratings were obtained through spousal ratings ($n = 2$, $M = 5.92$, $SD = .98$) who reported between 5 and 10 years of acquaintanceship. The lowest scores were registered by colleagues of the participants, ($n = 2$, $M = 4.42$, $SD = .35$) reporting to have known the participant between one and five years. The average number of correct answers on the METT (Ekman, 2003) were not significantly different with regards to gender ($t = -1.46$, $df = 51$, $p = .15$) and nor were scores obtained from the verbal intelligence tests (OAN) ($t = -.25$, $df = 51$, $p = .80$).

Conducting an Exploratory Factor Analysis

To decide whether the items in the informant and self-report questionnaires were to be arranged in one single scale or several scales, an exploratory factor analysis was conducted. Due to the participant sample of students being too small ($n = 54$), the factor analysis was only conducted with measures derived from the informant questionnaire ($n=116$). Since extracted factors were expected to be correlated rather than independent, the use of an oblique factor solution (principal components, promax rotation) was found to be more adequate than an orthogonal one. In the initial solution, four factors with an Eigenvalue above 1 were found. However, the decision of using two factors was based on factor interpretability. These two factors explained 51 percent of the variance. The correlation between the two factor was strong ($r = .67$) indicating a significant relationship between them. With the exception of one item (i.e., statement) all items had strong loadings (i.e., loadings above .35) from one of the two factors. The factors were labelled *interpersonal perception and interpretation* (Factor 1) and *interpersonal responsiveness* (Factor 2). Table 2 reports the factor loadings of the items. The abbreviations IPI (interpersonal perception and interpretation) and IR (interpersonal responsiveness) will be used to facilitate further reading.

As factor loadings reported in Table 2 suggest, all items taken from the social information processing subscale (TSIS; Silvera et al., 2001), one (out of two) items selected from Costanzo and Archer's (1993) validity study as well as two (out of three) items selected from the subscale of emotion perception (SREIS; Brackett et al., 2006) loaded on Factor 1 (*interpersonal perception and interpretation*). Items describing behavioural aspects related to the construct of interpersonal sensitivity (item 8-11), taken from the subscale of emotion management (SREIS; Brackett et al., 2006) all loaded on Factor 2 (*interpersonal responsiveness*). So did the two items illustrating responsiveness to others feelings (item six) and skills in dealing with other people (item seven). Item nine did not meet criteria (i.e., loadings above .35) and was discarded in further analyses.

Table 2

Factor loadings from the exploratory factor analysis of the 18-item informant questionnaire

	Factor 1	Factor 2
13. Denne personen vet hvordan hans/hennes handlinger vil få andre til å føle seg	.78	.42
18. Vedkommende kan ofte forstå hva andre egentlig mener gjennom deres blikk, kroppsspråk og lignende	.78	.58
4. Denne person er flink til å tolke andres ikke-verbale atferd riktig	.76	.46
17. Vedkommende kan forutsi hvordan andre vil reagere på hvordan han/hun oppfører seg	.75	.36
14. Denne person kan forstå andre menneskers følelser	.74	.54
2. Denne personen er oppmerksom på de ikke-verbale signalene andre sender ut	.72	.55
3. Denne personens umiddelbare oppfatning av hva andre føler er ofte riktig	.71	.51
16. Vedkommende kan ofte skjønne hva andre prøver å formidle, uten at det behøves å si noe	.70	.65
15. Vedkommende kan forstå andres ønsker	.66	.48
12. Denne person kan forutsi andre menneskers oppførsel	.60	.53
10. Dersom en bekjent er i dårlig humør kan denne personen betrygge vedkommende og raskt få ham eller henne til å føle seg bedre	.43	.76
6. Denne person responderer på andres følelser	.56	.76
11. Vedkommende er en person andre går til når de trenger hjelp i en vanskelig situasjon	.49	.74
7. Denne person er flink til å håndtere andre mennesker	.68	.72
5. Denne person er var overfor andres følelser	.51	.71
1. Denne personen kan oppfatte de følelser en annen opplever ved i iaktta deres ansiktsuttrykk	.48	.68
8. Denne person kjenner mange måter å få andre personer i et bedre humør	.41	.66
9. Denne personen er ikke særlig flink til å få andre som er lei seg eller sinte, til å føle seg bedre	.15	.31
Eigenvalue	7.3	1.34
Explained variance	43.5	7.6

Note. Factor loadings are sorted by size and not by appearance in the questionnaire. Numbers prior to each statement represent the sequential order in which they were presented. Question 1-3 and 8-11 are taken from the Self-Rated Emotional Intelligence Scale (Brackett et al. 2006) Question 4-7 are statements used to assess construct validity of the IPT-15 (Costanzo & Archer, 1993). Question 12-18 are taken from the Tromsø Social Intelligence Scale (Silvera, Martinussen, & Dahl, 2001). Norwegian translations of the statements, with the exception of statements selected from the Tromsø Social Intelligence Scale, were provided to me by my supervisor (H. Føllesdal, personal communication, January, 2008).

In order to establish the relation between informant ratings and self-reports of interpersonal sensitivity based on the two scales of IPI, and IR, a correlational analysis of scores derived from the two scales was performed. I was also interested in exploring the degree to which the two these scales correlated with the remaining measures used in the study. These are presented in Table 3 in the next section.

Intercorrelations among Measures

Pearson's correlations for measures used in the present study, as well as estimates of reliability (Cronbach's α and KR-20) are presented in Table 3. As the pattern of correlations presented in Table 3 demonstrates, several correlations were not in line with expectations. The scores on the IPT-15 did not correlate with any of the other measures, contradicting the main hypothesis as well as disclaiming all plausible relations regarding remaining measures. The assessment of reliability for the IPT-15 yielded a KR-20 coefficient of -.41 which clearly indicated why no significant correlations were found. In order to investigate the relations

among items in the IPT-15, an inter-item reliability analysis was performed. The correlation matrix showed that the vast majority of items in the IPT-15 were not only extremely weakly correlated, but also negatively correlated. Not even the items designed to measure the same aspects (i.e., deception, intimacy, status, kinship and competition) of interpersonal sensitivity showed to correlate positively. The analysis also showed that deletion of items would not increase reliability. The IPT-15 inter-item correlation matrix is presented in Appendix C.

Table 3
Intercorrelations among measures in the present study

	1	2	3	4	5	6	7	8	9	10	11	12
1. IPT-15	-.41											
2. METT	.26	.85										
3. OAN	.10	.13	a)									
4. O	-.14	-.25	.07	.82								
5. C	-.10	-.15	-.13	-.04	.83							
6. E	-.04	-.19	-.05	.13	.33*	.90						
7. A	-.26	.01	-.25	.06	.36**	.49**	.67					
8. N	.16	-.03	-.08	.07	.22	.52**	.53**	.81				
9. IR-IPI	-.05	.17	.16	.11	.19	.18	.41**	-.32*	.90			
10. IR-IR	.12	.06	.09	-.08	.10	.26	.31*	-.17	.71**	.84		
11. SR-IPI	-.01	-.17	-.18	.29*	.16	.36**	.30*	-.30*	.24	.30*	.78	
12. SR-IR	-.16	-.13	-.09	.40**	.19	.52**	.38**	-.34*	.23	.23	.65**	.77

Note. IPT-15 = The Interpersonal Perception Task-15; METT = Micro-Expressions Training Tool; OAN = Ordanalogier; O = Openness; C = Conscientiousness; E = Extraversion; A = Agreeableness; N = Neuroticism IR-IPI = Scores from the scale of *Interpersonal Perception and Interpretation (F1)* obtained through informant ratings; IR-IR = Scores from the scale of *Interpersonal Responsiveness (F2)* obtained through informant ratings; SR-IPI = Scores from the scale of *Interpersonal Perception and Interpretation* obtained through self-reports; SR-IR = Scores from the scale of *Interpersonal Responsiveness* obtained through self-reports. Values on the diagonal are Cronbach's alpha or KR-20 coefficients for each measure. a) NB: The reliability of the verbal intelligence test (OAN) was not obtained. Questions regarding reliability should be directed to Harald Engvik, the Department of Psychology, University of Oslo.
* $p < .05$. ** $p < .01$

In order to further investigate plausible explanations for the low reliability of the IPT-15, a split half reliability analysis was performed. Mean scores for each item was calculated, and the items were divided into two different groups, each group representing the same degree of difficulty based on item-means. The correlation between these two groups of items was -.14 which further supported the tests lack of reliability. To further explore the relations between the IPT-15 and the remaining measures used in the study was meaningless. Replicating evidence of construct validity in line with Costanzo and Archer's (1993) validity assessment of the IPT-15 was not possible due to the lack of reliability of the test.

Contradicting the second hypothesis, no significant correlations were observed between performance measures of interpersonal sensitivity, assessed by the IPT-15, and METT scores. The same was the case for the relation between scores from the METT and self- and informant ratings of interpersonal sensitivity. However, significant positive correlations were observed between self-reports of IPI, IR and Extraversion, $r(54) = .36, p <$

.01; $r(54) = .52, p < .01$, IPI, IR and Openness $r(54) = .29, p < .05$; $r(54) = .40, p < .01$ and IPI, IR and Agreeableness $r(54) = .30, p < .05$; $r(54) = .38, p < .01$. Significant negative correlations were also observed between self-reports of the two scales of IPI and IR and Neuroticism $r(54) = -.30, p < .05$; $r(54) = -.34, p < .05$. These results suggest personality factors influencing meta-perception and/or vice versa. Ratings from informants correlated positively with the personality dimension of Agreeableness on the IPI and IR scales; $r(54) = .41, p < .01$; $r(54) = .31, p < .05$. Ratings from informants also correlated negatively with Neuroticism on the IPI scale; $r(54) = -.32, p < .05$. These results suggest that participants, who were considered to be agreeable and emotionally stable, received higher sensitivity ratings from their peers. Significant positive correlations were also demonstrated *between* the two scales of IPI and IR in informant as well as self-reports of interpersonal sensitivity. Total scores from IPI and IR obtained through informant ratings were significantly correlated, $r(116) = .71, p < .01$, and so were total scores from IPI and IR obtained through self-reports $r(54) = .65, p < .01$. These results indicate significant relations between the two aspects of interpersonal sensitivity, both when rated by participants and informants.

In order to establish the degree to which informants had agreed on their estimates of participants' interpersonal sensitivity, an additional analysis was conducted with the intention of obtaining an estimate of interrater reliability. For each participant, a maximum of three informants gave their ratings how interpersonally sensitive they considered the participant to be. In order to examine interrater agreement, an intraclass reliability analysis was performed. Conceptually, intraclass correlations range from zero to one. Correlations approaching one indicate few discrepancies in the ratings of a target, i.e., high agreement among raters (Shrout, 1993). Correlations approaching zero indicate the opposite, i.e., low agreement among raters. The intraclass coefficient for informant ratings on the IPI scale was quite low, $\alpha = .30$, and proved not to be significant ($p = .13$). However, the intraclass correlation for informant ratings on the IR scale yielded a reliability coefficient of $\alpha = .48$ which was significant ($p = .017$). Interpretation of the intraclass coefficients in the present study suggest that raters did agree with each other regarding participants' interpersonal responsiveness, i.e., their expressive sensitivity, but not on how skilled the participants were considered to be with regards to perceptual and interpretative social skills.

DISCUSSION

The aim of the present study was to provide validity evidence for the IPT-15 by replicating a previous study where peer-ratings of interpersonal sensitivity were found to predict scores on this performance based test. However, contradicting the main hypothesis, correlational results were not consistent with the original study (Costanzo & Archer, 1993), and did not support expectations of meaningful relations between ratings from peers and the scores on the IPT-15.

Since the reliability of the IPT-15 proved to be significantly below that of what one would accept for drawing any meaningful conclusions based on obtained scores, several correlational analyses were discarded. Intentions of exploring the relation between the IPT-15 scores and self- as well as informant reports of interpersonal sensitivity, facial recognition, personality and intelligence were not possible due to the lack of reliability for the test. The main purpose, which was to assess the validity of scores from the IPT-15, was therefore not possible in the present study. However, although not the focal points in the present study, several additional measures yielded both significant and non significant results with regards to their relation to each other. These will be discussed briefly and will hopefully, to some extent, be able to contribute to our understanding of how constructs in the field of psychology are related.

Does the IPT-15 Yield Valid Measures of Interpersonal Sensitivity?

As mentioned in the introduction of this section, the aim of the present study was to assess the validity of scores from the IPT-15. Since the present study was a replication of a previous study where peer-ratings of interpersonal sensitivity predicted scores on the IPT-15, similar results were expected. Whereas the producers of the IPT-15 have suggested that “individuals judged by peers as more sensitive to other people tend to have higher accuracy scores on the IPT-15, that is, performance on the IPT-15 is related to social skills important in everyday life (Costanzo & Archer, 1993, p. 5), no support for the relation between the scores on the IPT-15 and peer-judgements was provided in the present study. The lack of reliability for the test did not only inhibit validity assessment of scores from the IPT-15, it also prevented investigations of relations between test scores and additional measures. The lack of reliability for the IPT-15, both in the present study, as well as in all previous studies described in this thesis, give rise to the question: If the IPT-15 is not able to provide scores with acceptable reliability, why has it been used in several previous studies with the purpose of

exploring relations between test scores and other constructs. And further, despite researchers awareness of the tests lack of reliability; several scientific articles have been published where significant relations between the scores from both the original and revised version of the IPT-15 and other measures have been demonstrated (Costanzo & Archer, 1989, 1993; Hodgins & Zuckerman, 1990; Iizuka et al., 2002; Patterson et al., 2001).

The tests low internal consistency has often been explained as a result of the diversity of scene included in the test, as well as the low number of items (15) which is suggested to influence the “effective reliability” (Costanzo & Archer, 1993, p. 5). Following such suggestions, one would expect the original version (which contains 30 items) of the IPT-15 to prove higher reliability. This notion has been supported in a reliability study using the original version, the IPT (Costanzo and Archer, 1989), where reliability was estimated as .52. However, reliability estimates of a 28-item version of the IPT yielded a reliability coefficient of merely .21 (Hodgins & Zuckerman, 1990), questioning the influence of number of items as being the sole contributor to low “effective reliability”. Thus, establishing the degree to which reliability varies along with the number items, as well as with the intercorrelations between these, should be further explored in order to be able draw conclusions based on such assumptions.

To assess the validity of the IPT-15, the producers (Costanzo & Archer, 1993) asked peers to judge the degree to which four statements were accurate in describing their fellow students. Obtained scores were combined into a single interpersonal sensitivity score, which was positively correlated with scores on the IPT-15. However, if peer-rating scores are suggested to reflect an overall measure of important social skills when the IPT-15 does not (as suggested by low internal consistency), is this performance test really suitable for such relational analyses? If the IPT-15 does not reflect an *overall* measure of perceptual accuracy in social situations, and establishing accuracy within other domains of interpersonal sensitivity might require different measurement approaches, should assessment of the tests validity be performed using *overall* scores obtained through other measures (such as peer-ratings)? Further, if low internal consistency is a result of scene diversity, one would at least expect scenes depicting the same areas of social interaction (i.e., deception, intimacy, status, kinship and competition) to be positively correlated. I have found no previous studies demonstrating evidence of such positive inter-item correlations, and nor did the present study. Whereas the IPT-15 has been used most commonly as a measure of interpersonal sensitivity, one might question using scores obtained from this test to infer people’s *general* social skills

and abilities. Rather, if the five aspects do not correlate, maybe it would be wiser to utilise the IPT-15 as a measure of *specific* skills and abilities. Both Costanzo and Archer (1993) and Horgan and Smith (2006) have emphasized impediments of the tests weak internal consistency and the difficulties of generalizing results derived from the IPT-15 to general skills in interpreting nonverbal cues. Other researchers have argued that low internal reliability should not be used to discount the validity of the tests ability to measure nonverbal sensitivity due to the multidimensional nature of abilities in decoding nonverbal cues (Hodgins & Zuckerman, 1990). A study conducted by Hodgins and Zuckerman's (1990) yielded significant relationship between IPT scores and the quality of dyadic interaction, and was suggested to support evidence of validity due to results of significant relations *despite* low reliability. If similar correlations had been obtained in the present study, this would have supported the possibility of assessing social skills with an instrument showing low internal reliability. This however, was not the case in the present study.

The present study, in which the primary aim was to explore the relation between scores on the IPT-15 and peer-ratings, suddenly took an unexpected turn. Whereas this study was conducted primarily with the intention of replicating previous evidence of validity, additional questions such as “do the IPT-15 tap into domains that are measurable with the novel items in the self-report- and informant questionnaire used in the present study” and “do measures of facial recognition ability predict scores on the IPT-15”, were considered contributing to the predictive value of the IPT-15. Unfortunately, there was no possibility of answering these questions based on results from this study.

Studying the design of the IPT-15 even closer, I came to notice several other issues which puzzled me. Zebrowitz (2001) speaks of contextual factors influencing interpretation of behaviours. Interpretative processes regarding the expressive behaviours of others are, according to the research literature, not to be analysed identically since different cues account for different interpretations depending on both situational and personal factors. The tasks in the IPT-15 ask participants to judge nonverbal cues expressed by complete strangers. Performance measures of interpersonal sensitivity using the IPT-15 are thus based on both contextual and personal cues that are fairly different from measures of interpersonal sensitivity assessed through the self-reports in the present study. In the self-report questionnaire, participants were asked to estimate the degree to which several statements portraying perceptual, interpretative and behavioural aspects of interpersonal sensitivity described them as individuals. Without previous scientific theories supporting the following

statement, one might suggest that when grading oneself with regards to interpersonal skills, one rate such skills with regards to those with whom one interacts with most frequently, e.g., friends, family members and other close acquaintances. Results yielding positive correlations between these two measurement approaches might therefore suggest people being equally skilled in judging strangers and close acquaintances, contradicting several studies in which contextual as well as personal factors have proven to affect judgement accuracy (Colvin, Vogt, & Ickes, 1997; Funder & Colvin, 1988).

Further, whereas the IPT-15 is designed to measure accuracy of skills in *nonverbal* communication and social perception, only one of the original statements used to assess the validity of the test, specifically asks the informants to rate their peers regarding such nonverbal skills. In the present study, the informant questionnaire were expanded by selecting additional items semantically similar to those used in Costanzo and Archer's (1993) validation study. In this questionnaire, these items were specifically selected to portray nonverbal skills and abilities in order to be able to capture a boarder range of cognitive and behavioural aspects related to the construct of interpersonal sensitivity. Unfortunately, low reliability of the IPT-15 in the present study prevented analyses of the effect of these additional statements.

The Relation Between IPT-15 and METT Scores

The present study can not contribute with significant results regarding the relation between scores obtained from the IPT-15 and scores obtained from the METT. Positive correlations were expected since emotion recognition was considered representing an important component of interpersonal sensitivity, but again, the lack of reliability for the IPT-15 prevented such analyses. The relation between participants' skills in judging facial expressions of affect did not correlate significantly with either self- or informant reports of interpersonal sensitivity. These results might indicate that skills in recognising micro-expressions of affect are highly difficult to estimate, both when people estimate their own recognition skills as well as when estimating others. These results might also indicate that the design of the self-report and the informant report questionnaire was not suitable for capturing such skills, and that if they would have been designed differently, i.e., focusing more specifically on emotion recognition, positive correlations might have been obtained. The questionnaires in the present study only contained two statements asking specifically for subjective and informant estimates of emotion recognition, and one might suggest that for both participants and informants, these might have been evaluated within contextual frames.

As stated earlier, several researchers have stressed the impact of contextual information when judging emotional expressions (Striano & Lickowski, 2004; Tanaka-Matsumi et al., 1995). The METT clearly does not measure recognition of facial expressions in relation to contextual information, which again, might explain the lack of correlation between the measures mentioned above.

The IPT-15 does not explicitly require participants to recognise the seven emotions depicted in the METT, but as interpersonal sensitivity probably presupposes general skills in recognising emotional expressions, one would not be entirely unreasonable to expect significant relations between the two tests. However, in order to be able to draw conclusions regarding the relation between pure recognition skills and interpersonal sensitivity, performance tests assessing such relations must be valid and reliable. This, unfortunately, was not the case in the present study, and therefore, no conclusions regarding the relation between these constructs will be drawn. Future studies might gain from exploring this relation with contextual cues in mind, as skills in both emotion recognition and interpersonal sensitivity clearly are dependent upon the social surrounding in which such skills are being expressed.

Interpreting the Relation Between Self-reports and Informant Ratings of Interpersonal Sensitivity

As the primary aim of the present study was unachievable, analyses of the remaining measures, and relations between these, came to receive more attention than originally planned. As stated earlier in this thesis, these additional relations were not the focal point in the present study, and the theoretical background for drawing scientifically valid conclusions based on present results was insufficient. Nevertheless, analyses of such relations were important to discuss for creating a broader understanding of how methods and instruments used to measure psychological constructs are intertwined.

The intention of assessing interpersonal sensitivity using several methods and measures was to explore whether scores from the IPT-15 would relate to additional aspects of the construct of interpersonal sensitivity. Where Costanzo and Archer's (1993) assessment of validity was based on an interpersonal sensitivity score established by using merely four statements, the present study sought to expand this original scale by including 14 statements which were assumed to measure additional aspects of the same construct. By including additional statements describing both cognitive and behavioural aspects of interpersonal sensitivity, expectations of being able to establish whether the relation between these aspects was measurable with the IPT-15, was anticipated. Again, due to the lack of reliability for the

test, no such relations were possible to assess, and evaluations of the extent to which the expanded questionnaires were able to predict performance based measures of interpersonal sensitivity were not attainable. If, however, the IPT-15 had proven to be reliable, the degree to which these additional items would be able to predict performance measures of interpersonal sensitivity and vice versa, could have been established.

Research results discussed previously in this thesis have focused mainly on the relation between performance measures of interpersonal sensitivity and self-reports and informant-ratings of corresponding skills and abilities, and not the relation between the two latter. Where self-report measures have been criticized for being both biased (Riggio & Riggio, 2001) and distorted due to individual's lack of meta-knowledge (Ickes, 1993), and informant ratings are considered being influence by several moderators, the relations between subjective and informant estimates of interpersonal sensitivity clearly present researchers with intriguing aspects in interpersonal psychology. In the present study, significant correlations were observed between the participants' reports of interpersonal perception and interpretation (IPI) and informant ratings of interpersonal responsiveness (IR). These results indicate agreement among raters and participants regarding some aspects of interpersonal sensitivity. However, whereas one might have expected correlations between raters and participants on the same scales, i.e., that participants and informants would have estimated cognitive and behavioural aspects of interpersonal sensitivity with greater similarities, this was not the case in the present study. Reason for such incongruence is somewhat unclear. One plausible explanation for such results might be that the scales of IPI and IR were developed using informant data. Due to the small sample size of participants ($n = 54$), no corresponding factor analysis was performed using self-report measures of interpersonal sensitivity. If the sample of participants had been larger, an exploratory factor analysis could have been conducted to investigate whether two similar interpretable factors would emerge. If so, one could have explored whether these factors would have correlated differently with the two factor based scales derived from informant ratings in the present study. The present results does however, indicate that there is a partial agreement between raters and participants but in order to further explore such relations, one might suggest increasing the sample size of participants in order to investigate whether this has an effect upon self-peer ratings.

Whereas results from the present study demonstrated significant correlations between the participants' scores on the IPI scale and informant scores on the IR scale, no significant correlations were observed between the remaining self-report and informant measures.

Individual differences with regards to social skills have been suggested to influence self-peer rating congruence but it is difficult to establish the degree to which these could have affected self-peer correlations in the present study. Wymer and Penner (1985) argue that self-peer rating incongruence could be a result of individuals being skilled in presenting various self-images to other people, and one might hence argue that the students participating in the present study are socially skilled, i.e., that they have been good at presenting different images of themselves to their raters. One might also hypothesise that the partial lack of self-peer congruence in the present study was a result of the participants' *lack* of social skills. As Wymer and Penner (1985) state, self-peer rating congruence could be interpreted as a result of the target being skilled in presenting an accurate self-image to those around him or her, and therefore achieving higher degree of congruence than those who are poor at presenting such self-images. In the present study, this would imply participants *not* being socially skilled, i.e., not being able to present truthful self-images to their raters. This is, of course, an entirely hypothetical statement which cannot be supported by any measures obtained in the present study.

As evidence seems to suggest, there are numerous factor which could explain why self and others ratings of interpersonal skills do don't correspond with each other. The degree to which variations in social skills influenced the congruence between self-peer ratings in the present study is hard to say. According to Friedman (2001) additional factors such as motivation, attention, personality and cognitive coding processes might influence the ways in which we interpret the nonverbal behaviours of other. The degree to which such factors influenced measures in the present study is not entirely clear. Measures of motivation or attention were not established for either participants or informants, and could therefore not be concluded to have influenced congruence in either direction. Personality traits, however, were established for the participants and will be discussed in the section below.

To round up, perhaps partial incongruence in the present study can be explained with the help of Ickes' (1993) suggestion of people not being fully aware of their own nonverbal communication skills, and hence, their incapability of reporting such skills accurately. As stated earlier however, the relation between participant and informant ratings of interpersonal sensitivity was not the primary focus of the present study. Without being able to offer satisfying arguments to why the present study yielded evidence of only partial self-peer rating congruence, I propose that future studies focus on the nature of such relations in order to establish how various factors influence agreements, both *between* targets and raters, as well as

among raters. As results from the present study demonstrated, raters agreed with regards to the items in the IR scale, but not with regards to the items in the IPI scale. This is not totally unexpected since expressive behaviour is probably easier to detect than cognitive aspects of the construct of interpersonal sensitivity. However, in order to gain a fuller understanding of how the informants had rated the participants' cognitive skills, perhaps the relation *between* informants will be able to yield valuable information. This will be for future studies to explore. I will now move on to briefly discuss how measures of personality and intelligence were interpreted in the present study.

Discussing Relations Between Intelligence, Personality and Interpersonal Sensitivity

As stated earlier, the purpose of including measures of personality and intelligence in the present study was to explore whether such factors would work as predictors of interpersonal sensitivity, assessed by the performance based test IPT-15. Measures of intelligence and personality were also included with the intention to explore the incremental validity of the IPT-15, i.e., if scores from the IPT-15 would be able to predict interpersonal sensitivity when controlling for intelligence and personality. I will not repeat myself in explaining why no such relations were assessed. However, by focusing on the relation between the additional methods used to assess interpersonal sensitivity, and their relations to intelligence and personality, one might be able to contribute to the understanding of how these constructs are related. These will be discussed in the sections below.

Intelligence

The verbal intelligence test was thought to contribute to our understanding of how performance based measures of intelligence and interpersonal sensitivity is related. The verbal intelligence test was also included with the intention of exploring whether the IPT-15 would be able to predict interpersonal sensitivity after controlling for intelligence and personality. For obvious reasons, such measures were not obtainable in the present study. However, whereas intelligence has been demonstrated to correlate positively with empathic accuracy, and empathic accuracy closely aligns to the concept of interpersonal sensitivity, results demonstrating positive correlations between intelligence and informant ratings of interpersonal sensitivity were expected (as performance measures and informant ratings of interpersonal sensitivity were expected to correlate positively). The results from the present study did, however, not provide evidence of such positive correlations, i.e., the informants' estimates of interpersonal sensitivity did not show to be related to the participants' intelligence. The lack of such a relationship contradicts the second hypothesis which was

based on findings from Davis and Kraus (1997) meta-analyses. In order to be able to interpret such deviant results, thorough analyses of the methods and instruments used in their study, and differences and/or resemblances to the instruments and methods used in the present study, should be performed. Since establishing the relation between informant ratings of interpersonal sensitivity and intelligence was not the aim of the present study, I have chosen to leave such analyses unexplored. Such analyses are, however, important for future researchers to focus upon, since evidence seems to suggest a possible relationship between intelligence and interpersonal sensitivity.

Personality

The intention of including measures of personality was to establish whether significant relationships between personality traits and interpersonal sensitivity, assessed by the IPT-15, were obtainable. As with intelligence, personality measures were also included to explore the incremental validity of the IPT-15. Again, the lack of reliability for the IPT-15 prevented analyses of this nature. However, significant correlations were observed between the personality dimensions of Openness, Extraversion, Agreeableness, Neuroticism and self-ratings of interpersonal sensitivity. These relations might indicate personality traits being important factors in contributing to subjective appraisals of interpersonal relations. These results also partly supports Brackett et al.'s (2006) study demonstrating Extraversion and Openness to new experiences being significant predictors of self-rated emotional intelligence. Interpretations of the present results seems to indicate that people who score high on the personality dimensions mentioned above, appear to be more socially skilled than those who score low on these traits, at least according to themselves. These are of course subjective estimates and can not be said to represent "true" social skills or abilities. Referring to Ickes (1993) who argues that people in general are fairly unaware of their social skills due to the lack of explicit feedback, one could suggest that the significant relations between self-assessed interpersonal sensitivity and personality traits observed in the present study might be a result of people actually giving their friends and family feedback on such skills. It is not unreasonable to expect that extraverted, agreeable, emotionally stable and outgoing people display their social skills and abilities more expressively than those scoring low on these traits, and thus, get more feedback regarding these. As a result of explicit feedback, one might suggest that people become more aware of their skills in the social arena, which in turn might lead to higher self-estimates of these. There is also reason to believe that being open, agreeable, extraverted and emotionally stable are personality traits that are closely tied to the

construct of interpersonal sensitivity with regards to other social aspects. In order to be interpersonally sensitive, it is not unreasonable to expect that people should be in tune with their social environment, i.e., that they are aware of, and participates in the social arena. One might therefore suggest that people who exhibit the personality traits above are more inclined to seek such arenas where skills and abilities related to the construct of interpersonal sensitivity are expressed and developed. Results in the present study also demonstrated positive correlations between informants' estimates of the participants' interpersonal sensitivity and Agreeableness and Neuroticism. Again, one might suggest that individuals who are both agreeable and emotionally stable possess and exhibit interpersonal skills that are perceivable to others.

As mentioned earlier, since establishing the influence of personality traits upon self-estimates of interpersonal sensitivity did not constitute the primary aim, I will not go into deeper analyses of such relations at this point. However, I would like to stress the necessity of conducting studies similar to the present study. In order to establish how different personality traits influence performance measures of interpersonal sensitivity, one should preferably utilise a test which is both reliable *and* valid. Further, finding the optimal solution for establishing the relationship between interpersonal sensitivity and personality might require other measures that are more suitable for assessing such a relation. Whether it is by using performance based tests, informant ratings or other types of measures will be for future studies to establish. The scores from the IPT-15 could unfortunately not contribute to such knowledge in the present study.

Implications for Future Research

Due to the lack of reliability for the IPT-15 in the present study, several analyses regarding the relation between psychological constructs were discarded. This, unfortunately, prevented this study from contributing to our knowledge of the relation between performance based, self-assessed and informant ratings of interpersonal sensitivity. With regards to the IPT-15, future research should be aimed towards identifying the relationship among the five theoretical dimensions of the task, as well as to establish whether assessments of these represent predictive values of an overall successful social functioning. And further, if to accept the explanations of low reliability as a result of scene diversity, an absolute criterion should involve positive correlations between scenes depicting the same dimensions. Future studies should aim to explore such intercorrelations in order to establish whether the scenes are, in fact, related or not. Future studies should also aim to identify, not only the relationship

between the present dimensions, but also their relationship to *additional* dimensions. If the IPT-15 is to be considered measuring interpersonal sensitivity (which it most commonly have been used as a measure of) there might be reason to believe that expanding the scope of scenes, including social interaction representing other dimensions, might yield a more accurate measure of how people perceive and interpret social cues in every day life. Perhaps an alternative IPT-15 measurement design will be more successful in assessing interpersonal skills and abilities than the original design was able to in the present study?

With regards to self- and informant ratings of interpersonal sensitivity, there is reason to believe that the interpretative process people engage in when judging the expressive behaviours of others, differ with regards to the nature of their relation. On order to assess the validity of scores for any performance based tests using self- or peer-ratings, it is important to assess the validity of such measures. That is, when operating with several raters in psychological research (such as in the present study), future studies might benefit from establishing the relation, not only between target and rater, but also the *between* rates since this relation might influence the congruence between self- and peer estimates and might confound, rather than confirm the value of such measures. One should also aim to design self-report inventories in a way that minimizes the risk of biased responses which in turn, also might lead to greater self-peer rating congruence.

The only way one can establish the true predictive value of measures in psychological research is to utilise instruments and methods that are both valid and reliable. As demonstrated in the present study, the lack of reliability distorted the main purpose which was to assess the validity of scores from the IPT-15. For future research, and for ensuring meaningful contributions to this, and other, research fields, reliability and validity of methods and instruments should be absolute criteria. As demonstrated in the present study, such criteria were not fulfilled leaving this particular field of interpersonal psychology for future researchers to explore.

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APPENDIX

APPENDIX A

The self-report questionnaire used in the present study

Oppgave 1: Vennligst besvar spørsmålene nedenfor

Alder:

Kjønn: Mann Kvinne

Student: Fag: _____

Jobber:

Annet:

Forsøk å angi hvor godt hver påstand under passer for å beskrive deg som person. Svar så ærlig som mulig:

		Passer ikke				Passer helt		
		1	2	3	4	5	6	7
1.	Jeg kan oppfatte de følelser en annen opplever ved å iakttå deres ansiktsuttrykk	1	2	3	4	5	6	7
2.	Jeg er oppmerksom på de ikke-verbale signalene andre sender ut	1	2	3	4	5	6	7
3.	Min umiddelbare oppfatning av hva andre føler er ofte riktig	1	2	3	4	5	6	7
4.	Jeg er flink til å tolke andres ikke-verbale atferd riktig	1	2	3	4	5	6	7
5.	Jeg er var overfor andres følelser	1	2	3	4	5	6	7
6.	Jeg responderer på andres følelser	1	2	3	4	5	6	7
7.	Jeg er flink til å håndtere andre mennesker	1	2	3	4	5	6	7
8.	Jeg kjenner mange måter å få andre personer i et bedre humør	1	2	3	4	5	6	7
9.	Jeg er ikke særlig flink til å få andre som er lei seg eller sinte, til å føle seg bedre	1	2	3	4	5	6	7
10.	Dersom en bekjent er i dårlig humør kan jeg betrygge vedkommende og raskt få ham eller henne til å føle seg bedre	1	2	3	4	5	6	7
11.	Jeg er en person andre går til når de trenger hjelp i en vanskelig situasjon	1	2	3	4	5	6	7
12.	Jeg kan forutsi andre menneskers oppførsel	1	2	3	4	5	6	7
13.	Jeg vet hvordan mine handlinger vi få andre til å føle seg	1	2	3	4	5	6	7
14.	Jeg kan forstå andre menneskers følelser	1	2	3	4	5	6	7
15.	Jeg kan forstå andres ønsker	1	2	3	4	5	6	7
16.	Ofta kan jeg skjønne hva andre prøver å formidle, uten at det behøves å si noe	1	2	3	4	5	6	7
17.	Jeg kan forutsi hvordan andre vil reagere på hvordan jeg oppfører meg	1	2	3	4	5	6	7
18.	Jeg kan ofte forstå hva andre egentlig mener gjennom deres blikk, kroppsspråk, og lignende.	1	2	3	4	5	6	7

APPENDIX B

The informant rates questionnaire used in the present study

Forespørsel om å delta i forskningsprosjekt

Jeg er mastergrad student ved universitetet i Oslo og holder på med min masteroppgave i personlighetspsykologi. Hensikten med oppgaven er å finne ut i hvilken grad ulike tester måler mellommenneskelig sensitivitet.

Din venn er deltaker i dette forskningsprosjektet og har gjennomgått noen tester som måler mellommenneskelig sensitivitet. En viktig del av prosjektet er at tre bekjente gir sin vurdering av hver deltaker. Derfor ber jeg om din hjelp. Det er frivillig å delta, men jeg setter stor pris på om du tar deg tid til å fylle ut spørsmålene på dette arket og returnere det til meg i den ferdigfrankerte konvolutten som arket lå i. Det hele vil ta deg kun et par minutter.

Din venn vil ikke få vite hva du eller andre har svart om han eller henne. Opplysningene vil heller ikke bli koblet til din venns navn. Spørreskjemaene er kun påført en kode for at jeg skal vite hvilke skjemaer som hører sammen.

Først ber jeg deg angi din relasjon til din venn (kryss eventuelt av i flere ruter):

Kjæreste	<input type="checkbox"/>	Venn	<input type="checkbox"/>
Ektefelle	<input type="checkbox"/>	Arbeidskollega	<input type="checkbox"/>
Familie	<input type="checkbox"/>	Annet _____	

Hvor godt kjenner du denne personen?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Ikke særlig godt	Ganske godt	Godt	Svært godt

Hvor lenge har du kjent denne personen?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Under 1 år	Mellom 1 og 5 år	Mellom 5 og 10 år	Over 10 år

Forsøk å angi hvor godt hver påstand under passer for å beskrive denne personen. Svar så ærlig som mulig:

	Passer ikke					Passer helt
1. Denne personen kan oppfatte de følelser en annen opplever ved å iaktta deres ansiktsuttrykk	1	2	3	4	5	6 7
2. Denne personen er oppmerksom på de ikke-verbale signalene andre sender ut	1	2	3	4	5	6 7
3. Denne personens umiddelbare oppfatning av hva andre føler er ofte riktig	1	2	3	4	5	6 7
4. Denne person er flink til å tolke andres ikke-verbale atferd riktig	1	2	3	4	5	6 7
5. Denne personen er var overfor andres følelser	1	2	3	4	5	6 7
6. Denne personen responderer på andres følelser	1	2	3	4	5	6 7
7. Denne personen er flink til å håndtere andre mennesker	1	2	3	4	5	6 7
8. Denne personen kjenner mange måter å få andre personer i et bedre humør	1	2	3	4	5	6 7

- | | | | | | | | | |
|-----|--|---|---|---|---|---|---|---|
| 9. | Denne personen er ikke særlig flink til å få andre som er lei seg eller sinte, til å føle seg bedre | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 10. | Dersom en bekjent er i dårlig humør kan denne personen betrygge vedkommende og raskt få ham eller henne til å føle seg bedre | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 11. | Vedkommende er en person andre går til når de trenger hjelp i en vanskelig situasjon | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 12. | Denne personen kan forutsi andre menneskers oppførsel | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 13. | Denne personen vet hvordan hans/hennes handlinger vi få andre til å føle seg | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 14. | Denne personen kan forstå andre menneskers følelser | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 15. | Vedkommende kan forstå andres ønsker | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 16. | Vedkommende kan ofte skjønne hva andre prøver å formidle, uten at det behøves å si noe | | | | | | | |
| 17. | Vedkommende kan forutsi hvordan andre vil reagere på hvordan han/hun oppfører seg | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 18. | Vedkommende kan ofte forstå hva andre egentlig mener gjennom deres blick, kroppsspråk, og lignende | 1 | 2 | 3 | 4 | 5 | 6 | 7 |

Vennligst putt arket i den ferdigfrankerte konvolutten som dette arket lå i og legg den i en postkasse så raskt som mulig. Innlevert skjema er et samtykke i at opplysningene kan brukes i dette forskningsprosjektet.

Tusen takk for hjelpen!

Camilla Lindwall – Mastergrad student i psykologi

APPENDIX C

The IPT-15 inter-item correlation matrix

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1.															
2.	-.14														
3.	-.01	-.03													
4.	-.03	.15	-.18												
5.	.04	-.08	-.06	.10											
6.	.17	-.09	-.07	-.03	.07										
7.	.26	-.12	-.09	-.04	-.14	.02									
8.	.00	-.16	.17	.14	-.23	.11	.10								
9.	.24	-.16	-.30	-.07	.07	-.14	.08	-.11							
10.	-.21	.03	-.12	-.12	.06	.07	-.20	.00	-.17						
11.	-.03	-.03	-.16	.12	-.06	-.26	.03	.23	-.03	-.09					
12.	-.18	.19	-.06	.00	-.03	-.07	-.03	-.12	-.07	-.04	.04				
13.	-.11	.19	.13	-.05	-.12	-.11	-.31	.16	.02	.08	-.01	-.02			
14.	.00	.13	-.07	.13	-.10	-.14	.17	-.06	.03	.17	.01	-.22	.07		
15.	-.09	.01	-.09	-.12	.09	.02	-.11	-.24	-.13	.05	-.14	.09	-.15	-.03	

Note. Numbers 1-15 represent the questions corresponding to each of the 15 scenes in the IPT-15. Number 4, 10 and 15 are questions corresponding to deception scenes; 2, 9 and 13 correspond to intimacy scenes; 3, 7 and 11 correspond to status scenes; 1, 6 and 14 correspond to kinship scenes and 5, 8 and 12 correspond to the competition scenes.