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Deception detection accuracy: The effects of suspicion and antisocial personality traits

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DECEPTION DETECTION ACCURACY: THE EFFECTS OF SUSPICION AND ANTISOCIAL PERSONALITY TRAITS

by

Barbara T. Schoephoerster

A thesis submitted in partial fulfillment
of the requirements for the degree of

Master of Arts

in

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Department of Psychology
University of Nevada, Las Vegas
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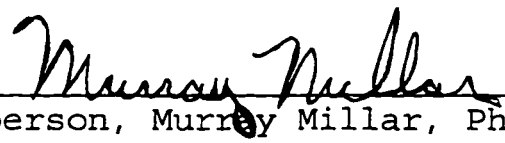
The thesis of Barbara T. Schoephoerster for the degree of M.A. in Psychology is approved.



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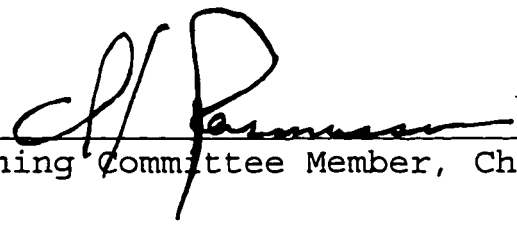

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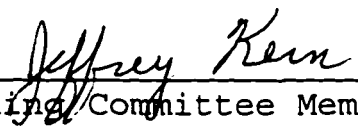

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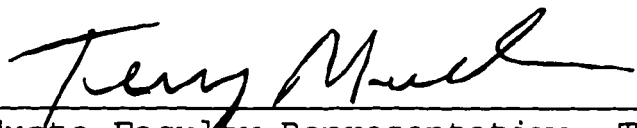

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ABSTRACT

Previous research has indicated that moderate levels of suspicion will enhance deception detection accuracy. This study hypothesized that combining state suspicion and trait suspicion (i.e. antisocial personality traits) in order to create a moderate level of suspicion overall would produce a higher detection accuracy than would be found among individuals who were not suspicious. Participants consisted of 133 UNLV undergraduates, who completed the Antisocial subscale of the Millon Clinical Multiaxial Inventory-II. Participants were assigned to a no suspicion or moderate suspicion condition, viewed a videotape of persons being truthful or deceptive, judged videotape actors as being truthful or untruthful, and rated their own degree of suspicion. Results did not confirm the original hypothesis, but did indicate that persons high in antisocial traits were more suspicious than those low in such traits, and subjects not primed to be suspicious made more veracity judgments than those who were primed to be suspicious.

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CHAPTER 1

INTRODUCTION

Deception can be defined as any intentional verbal or nonverbal act performed for the purpose of directing another away from the "truth", as conceptualized by the deceiver (Riggio & Friedman, 1983). Essentially every person has deceived another at some point in their lives, whether it involved an exaggeration of truth, a statement of only partial truth, a simple white lie, or a boldfaced lie of serious magnitude (Ford, King & Hollender, 1988). Deception lies embedded in nearly every type of interpersonal relationship, occurring among friends, family members, lovers, colleagues, and strangers (Zuckerman, DePaulo & Rosenthal, 1981). The impact of such deception may potentially affect occupational, familial, social, and psychological functioning.

A large body of research has examined the ability of humans to detect deception, and found that in general, human accuracy in detecting deception is

low. Prior studies have reported accuracy scores seldom above 65 percent, with 50 percent being the chance level. Accuracy scores for individual studies include the following: Harrison et al., 1978, 62 percent; Kraut & Poe, 1980, 46 percent; Lavrakas & Maier, 1979, 54 percent; Maier & Janzen, 1967, 61 percent; Maier & Thurber, 1968, 72 percent; and Matarazzo et al., 1970, 59 percent.

Obviously, there exists many circumstances when an individual is better off deciphering the truth than being deceived, particularly when the sender is acting in a way that will be harmful, insulting, or otherwise damaging to the receiver (DePaulo et al., 1984). The ability to detect deception becomes increasingly important when it can be used to prevent such harmul actions. Therefore, discovering the true effects of influential variables in deception detection is not only a matter of theoretical importance, but also of practical importance. Several factors play an important role in an individual's ability to detect deception, including the interpretation of behavioral cues that are leaked by the deceiver, as well as detector experience, familiarity, age, personality, and level of suspicion.

Behavioral Correlates of Deception

Behavioral correlates of deception have often been examined in deception research. There are several factors that may cause a deceiver to produce cues that lead to his or her detection. Four main factors include emotion, arousal, control, and cognitive processing (Zuckerman et al., 1981).

Two emotional states generally associated with lie telling include guilt and anxiety (e.g., Knapp et al., 1974; Kraut, 1980). Since guilt and anxiety are both negative emotions, persons engaging in deception may manifest negative behaviors associated with such emotions. For example, facial and vocal cues may become less pleasant (Zuckerman et al., 1981), and negative statements are often made more often. Another indicator of anxiety is the use "adaptors" (Ekman & Friesen, 1972), which are behaviors designed to satisfy some self-need, such as scratching or grooming. In order to minimize the negative experience of lie telling, an individual may attempt to dissociate himself or herself from the lie by making fewer self-references, or by becoming withdrawn or evasive. This is indicated by attempting to change the conversation, decreasing eye

contact, and increasing the distance from the individual being deceived.

A second major factor contributing to a deceiver's behavioral manifestations is that of psychophysiological arousal (e.g., Lykken, 1974; Podlesny & Raskin, 1977; Waid & Orne, 1981). Such arousal may produce increased heart rate, increased sweat production, pupil dilation, and increased blood pressure. Davis (1961) suggests that the arousal occuring during deception can be explained by three possibilities: the conditioned response theory, the punishment theory, and the conflict theory. The conditioned response theory suggests that telling a lie produces an autonomic response because in the past, lying has been conditioned to negative consequences. Punishment theory explains the increased autonomic responsivity by linking it to anticipated punishment if the lie is detected. The conflict theory claims the enhanced autonomic response results from a consequence of conflicting truth and lie telling tendencies. Assuming that deception does evoke increased arousal, a review of studies by Zuckerman et al. (1981) suggests that aside from psychophysiological arousal, deception is also associated with increased eyeblink rate,

increased voice pitch, and a large number of speech errors and hesitations.

A third factor related to the behavioral cues of deception is attempted control. Such controlled behavior may appear rehearsed, planned, and lacking in spontaneity (Zuckerman et al., 1981). Additionally, individuals engaging in deception may "try too hard", and thus produce a performance that is too smooth or excessive (Knapp et al., 1974). Furthermore, if deceivers are unable to control all channels simultaneously, discrepancies are likely to occur; for instance, face and voice or face and body expressions may appear to convey different messages (Zuckerman et al., 1981). Such channel effects in the detection of deception specifically refer to the modes by which cues to deception are "leaked" by the deceiver, and subsequently used by the detector in deciding whether or not deception is occuring. The facial channel includes facial cues above the neck, the body channel includes cues from the neck down, the face and body channel includes cues examined from only a partial view of the upper body, and the speech channel includes examinations of deceivers' unaltered speech (Zuckerman et al., 1981). Ekman and Friesen (1969a) found that when individuals used facial cues

while attempting to detect deception, their accuracy was actually lower than detection attempted without the use of facial cues. A review of studies by Zuckerman et al. (1981) found that when body cues become available to the detector, accuracy does increase, and when speech cues become available, accuracy increases even more. Comparing face, body, and speech cues as single channels reveals the following order of detection accuracy in standard deviation units: speech (1.09), body (.43), and face (.05) (Zuckerman et al., 1981).

A variable that may influence a deceiver's attempted control and arousal, and thereby affect his or her manifestations of behavioral cues is that of motivation. The evidence relating to the effects of motivation on a deceiver is, however, inconclusive. A highly motivated deceiver may try harder and therefore be more successful at deceiving, or the increased motivation could produce increased anxiety which may interfere with successful deception (e.g., DePaulo, Davis, & Lanier, 1980). Alternatively, the less motivated liar may not do well at masking the deceptive information, but he or she may be less likely to leak deception cues (Zuckerman et al., 1981). This suggests that the relationship between

deception ability and motivation may be curvilinear, with optimum performance at an intermediate level, where deceivers are somewhat motivated to successfully lie, but not too highly aroused where they will leak deception cues (Zuckerman et al., 1981).

Finally, cognitive factors influence a deceiver's behavior by causing more cues to leak as cognitive complexity increases. Quite obviously, creating a lie, much less the details of a lie, is more difficult than telling the truth. A deceiver must create a message that contains no logical inconsistencies or contradictions of what the detector may already know (Zuckerman et al., 1981). Thus, individuals are expected to require more time to prepare deceptive messages as opposed to truthful ones. Goldman-Eisler (1968) found that subjects who are required to make cognitively complex statements take more time to begin responding and hesitate more when speaking. Increased pupil dilation (Kahneman, 1973) and decreased accompanying hand movements (Ekman & Friesen, 1972) have also been found to occur when an individual communicates cognitively complex messages. Assuming that lie telling is indeed a cognitively complex task, the aforementioned

behaviors should occur with increased frequency when a person engages in deception.

Reasons for Low Accuracy

Although lie telling is associated with certain behaviors, often such cues are interpreted the wrong way or are not even noticed (Riggio & Friedman, 1983). A review of studies by Zuckerman et al. (1981), indicates that persons are perceived as being more deceptive when they shift their posture more, smile less, gaze less, take longer to answer a question, and speak slower. Accordingly, none of these behaviors are associated with actual deception in a statistically significant manner (Zuckerman et al., 1981). On the other hand, perceivers also tend to judge others as being more deceptive when the messages are filled with errors and hesitations, and delivered in a high-pitched tone of voice, all of which are associated with actual deception (Zuckerman et al., 1981). The lack of perfect correspondence between actual cues to deception and perceived cues to deception has important implications for both truth-tellers and liars (DePaulo et al., 1984). First, perhaps simply telling the truth is not sufficient if one wants to be perceived as being honest. Certain individuals may have to make a

conscious effort at appearing honest by changing their normal behavioral cues. Second, liars who wish to effectively deceive others need only be aware of cues that others may perceive as signs of deception, rather than cues that really are associated with deception (DePaulo et al., 1984).

Conversely, for detectors of deception, actual cues are obviously more important that perceived cues to deception. An important step in training individuals to become more accurate at detecting deception would be educating them of the discrepancies between perceived and actual cues to deception. Increasing awareness of such discrepancies would call attention to common judgmental errors (DePaulo et al., 1984), and should therefore improve detection accuracy. It is unlikely, however, that detectors will learn of such discrepancies through their own experience, since it's probably unlikely that they will receive accurate evidence that the sender is actually telling a lie (DePaulo et al., 1984). Even if such feedback is available, receivers may selectively focus on and remember those behaviors that were parallel with their own "theory" of how people act when they're lying (e.g., Anderson, Lepper, & Ross, 1980). In the

laboratory, however, it is possible to draw subjects' attention to possible revealing sources of cues to deception, and to directly test such effects on detection accuracy. DePaulo, Lassiter, and Stone (1982) performed a study in which subjects were divided into groups, each of which was instructed to pay attention to specific cues. Subjects in one group were told to pay particular attention to words. Subjects in another group were given a booklet that suggested they pay particular attention to tone of voice. The third group was instructed to attend to visual cues, while a control group was given no special instructions. All subjects then watched videotapes of senders who were both telling the truth and lying. The attend-to-tone subjects had the best performance on the subsequent lie detection task, performing significantly better than controls, and followed closely by the attend-to-words group. The attend-to-visual subjects did no better than controls on the detection task. This study suggests that prompting subjects to take advantage of particular cues to deception can improve lie detection accuracy.

Experience and Detection Accuracy

Although behavioral cues serve as important factors in the detection of deception, experience in

detection seems to play a less prominent role. Kraut and Poe (1980) examined differences in detection accuracy on the basis of experience by setting up mock customs examinations. They evaluated the differences between experienced customs inspectors and laypersons in their decisions to search travelers, some of whom were "smugglers". Using verbal and nonverbal cues, the subjects were to identify those individuals they believed were smugglers, as evidenced by their decision to search those travellers. It was found that customs inspectors were no more accurate than laypersons in deciding which travellers to search. Additionally, customs inspectors who had made the largest number of seizures in the previous year were no more accurate in deciding who to search than the less successful ones. Similarly, Hendershot and Hess (1982) conducted a study in which undergraduates and police detectives observed interrogations of students who had or had not committed a mock crime, and found that the detectives were no more accurate than undergraduates in their judgments of innocence or guilt.

Ekman and O'Sullivan (1991) examined differences in detection accuracy among various occupational

groups. A videotape consisting of ten people either lying or telling the truth was shown to 509 individuals. These included members of the U.S. Secret Service, Central Intelligence Agency, National Security Agency, Federal Bureau of Investigations, Drug Enforcement Agency, California police officers and judges, as well as working adults, psychiatrists, and college students. Subjects were to correctly differentiate deceivers from non-deceivers after viewing the videotape. It was found that only the Secret Service agents were significantly more accurate than the others in detecting deception.

Publicness of Interactions

Another factor that influences deception detection accuracy is the publicness of the interaction. Several investigators have suggested that people tend to act differently in public versus private situations; specifically, people tend to control their behavior more carefully in public situations (Zuckerman et al., 1981). Ekman & Friesen (1969b) proposed the term "display rules" for the norms that control appropriate public behavior. In deceptive communication, public (face-to-face) situations offer a special advantage to the deceiver, who can change his or her deceptive strategy

according to the perceiver's reactions (Krauss et al., 1976). Thus, it appears that deceiving another individual is easier and detecting such deception is more difficult in a public interaction. Krauss et al. (1976) had deceivers and interviewers interact either face-to-face or by an intercom system. Deception detection accuracy was higher in the intercom condition, particularly when interviewers could observe deceivers' faces. Since the deceivers in the intercom condition knew that their voices were being monitored but did not know they were being observed, they may have controlled their voices while neglecting to control their facial expressions (DePaulo, 1980). In another study that examined cue leakage in public and private interactions, Feldman et al. (1979) found that when subjects were asked to lie about their taste of a sample beverage, they experienced greater leakage of their true opinion in the private condition than in the public condition. On a related note, Buller et al. (1991) found that conversational participants attributed more truth to interviewees than observers did. The experiment was designed to compare deception detection skills of conversational (face-to-face) participants and observers of such interactions. Each of fifty

observers viewed videotaped interactions between an interviewer (conversational participant) and two interviewees. Conversational participants were found to be less accurate than observers in the detection of deception. It appears that detection accuracy is higher when the detector and deceiver do not engage in face-to-face, direct contact (Zuckerman et al., 1981).

Age and Deception Detection

Detector age is another variable that may influence deception detection accuracy. Children are generally not as adept as adults in detecting deception because understanding the concept of deception is a process that develops over the course of the elementary school years. It takes time for children to realize that people's overt expressions do not always coincide with their internal states (DePaulo et al., 1984). Deception detectors must also learn defining features of a lie: it is a message that the deceiver knows is false, and it is designed to mislead (DePaulo et al., 1984). Additionally, children must learn behavioral cues to deception and learn to recognize when those cues are occuring. Even when nonsubtle cues are presented to children, considerable difficulties remain in their

ability to detect deception (Winner, Rosenstiel, & Gardner, 1976). Inconsistencies between different aspects of a message (i.e. verbal versus nonverbal) are often not apparent to children, and even when they are, the tactics used to resolve such discrepancies are very different than those used by adults (DePaulo et al., 1984). Children's difficulty in resolving inconsistent cues has sometimes been attributed to their limited capacity to process information, and to their increased willingness to accept adults' statements as true and credible (DePaulo et al., 1984). Skepticism about the credibility of adults' statements does increase with age (Ackerman, 1983). There is also evidence that suggests that throughout adolescence, individuals are continually gaining new skills, experience, and strategies that facilitate lie detection accuracy, such as cultural, social, and interpersonal knowledge (DePaulo et al., 1984). DePaulo, Jordan, Irvine, and Laser (1981) tested deception detection abilities in sixth-, eighth-, tenth-, and twelfth-graders and college students. Results showed a linear increase in detection accuracy as age increased.

Familiarity and Deception Detection

Another variable related to detection accuracy is the degree of familiarity between receivers and senders. Miller et al. (1986) suggested that having truthful baseline information may be necessary for accurate deception detection, since much deceptive behavior is idiosyncratic. Thus, it is expected that as individuals become more familiar with each other, or as a relationship develops, the ability to detect deception should increase. For instance, Knapp (1984) hypothesized that detection accuracy would be higher between intimates than between friends, and higher between friends than between acquaintances. Yet research supporting this hypothesis is limited. Two general procedures have been used in studies examining the effects of baseline information on judgments of truthfulness (Stiff et al., 1992). One such procedure involves exposing observers to samples of a target's truthful behavior, and thereby experimentally manipulating familiarity. Brandt, Miller, and Hocking (1980a, 1980b, 1982) performed several studies that utilized this procedure, which basically defines "familiarity" as exposure to different amounts of truthful information. In one of these studies (1980b), Brandt et al. compared

detection accuracy of observers who had not seen a videotape of the target's truthful behavior to the accuracy of observers who had viewed the videotape three times. Results did show a significant positive effect for familiarity (65.6 percent mean accuracy in the familiarity condition as compared to 42 percent mean accuracy in the no-familiarity condition). In another study (1982), Brandt et al. showed the videotape of targets' truthful behavior either two, one, or zero times to observers before veracity judgments were made. Results showed that subjects who had viewed the baseline videotape once or twice were significantly more accurate than those subjects who had not seen the videotape. A similar third study (1980a) by Brandt and associates examined individuals who had seen a truthful videotaped segment zero, one, three, or six times. Across the first three conditions, detection accuracy increased with familiarity; however, subjects who had viewed the segment six times were only slightly more accurate than subjects who had not seen the segment at all. Overall, the Brandt, Miller, and Hocking studies offer some evidence that increased familiarity increases deception detection accuracy.

The second general procedure for studying familiarity and detection accuracy examines familiarity in the context of natural relationship development. Comadena (1982) compared the accuracy of friendship dyads and married couples in detecting lies about both emotional and factual material. It was found that spouses were significantly more accurate at detecting deception than friends, regardless of the type of lie. Miller et al. (1981) examined detection accuracy between spouses, close friends, and strangers concerning truthful or deceptive responses to a videotape. Interestingly, it was found that friends were significantly more accurate than spouses or strangers when judging emotional material, and that spouses, strangers, and friends were no different in their ability to detect deception relating to factual material. In general, studies which have investigated the influence of familiarity on deception detection accuracy have not found strong evidence for the presumed increase in detection accuracy between individuals with a high degree of familiarity.

Suspicion and Detection Accuracy

A number of studies have investigated the effects of suspicion on deception detection

accuracy. While it is often assumed that situationally-induced suspicion will improve an individual's ability to detect deception, previous research has produced mixed results.

Toris and Depaulo (1985) set up a mock interview situation, in which applicants acted either honestly or dishonestly in presenting themselves as introverts or extroverts. Some interviewers were primed to be suspicious, whereas the others were not. No significant relationship between suspicion and accuracy in detecting deception was found. However, subjects who were primed to be suspicious were more likely to judge their partner as being deceptive.

Similar results were found by Stiff, Kim, and Ramesh (1992) in studying the effects of suspicion on deception detection accuracy between relational partners. One partner was assigned the role of interviewee, who was either truthful or deceptive regarding his or her emotional reaction to a video. The other partner was given the role of interviewer, who was either primed or not primed to be suspicious. Following the video presentation, the interviewer made judgments regarding his or her partner's truthfulness regarding the emotional reaction. Although increased suspicion lead to greater

judgments of deception, it did not improve accuracy in detecting deception.

McCornack and Levine (1990) argued that the "all-or-none" approach to operationalizing suspicion may not be sufficient in discovering its true effect on detecting deception. Prior studies using a prime/no prime suspicion manipulation have found no effect for suspicion on accuracy, perhaps because the true relationship is non-linear. Individuals who are not primed to be suspicious are likely to perceive all messages as truthful (McCornack & Parks, 1986), whereas individuals who are highly suspicious are likely to perceive all messages as deceptive (Levine & McCornack, 1989). Thus, a comparison between the two groups should find no differences in accuracy, because all judgments will be affected by the respective bias. Consequently, McCornack and Levine (1990) hypothesized that individuals who are moderately suspicious will be more accurate than those who are minimally suspicious and those who are highly suspicious. The results were consistent with the hypothesis, indicating considerable curvilinearity.

Personality Characteristics Influencing Detection Accuracy

Although prior research has found that on average persons do not detect deception at better than chance levels, large individual differences do exist. That is, some subjects perform better than others. This suggests that there may be certain types of persons that have a superior ability to detect deception. Prior research on deception and individual differences has often focused on such variables as gender and self-monitoring.

McCornack and Parks (1990) evaluated detection accuracy among 55 premarital dyads. Subjects viewed 12 videotaped segments of their relational partner, who lied in half the segments and told the truth in the other half. Differences in detection accuracy were found for couples of different levels of intimacy, as well as for gender; women were consistently more accurate than men in discerning truth that lies within deception. Hall (1984) also found that women were more successful at decoding non-verbal cues to deception than men. Additionally, Maier and Lavrakas (1976) and DePaulo and Rosenthal (1979) found higher detection rates for female detectors. However, DePaulo et al. (1980) and

Hocking et al. (1979) found detection accuracy to be lower for female detectors than for male detectors.

A few studies have examined self-monitoring in conjunction with ability to detect deception. A self-monitoring scale developed by Snyder (1974) not only measures the ability to control expressive behavior, but also measures sensitivity to the social behavior of others. Thus, high self-monitors should possess a superior ability to detect deception because they are more adept at "reading" the social behavior of others. A summary of studies indicates an increased accuracy in detecting deception among high self-monitors versus low self-monitors, but Zuckerman et al. (1981) states that this finding is not reliable (mean = .04, combined z = 1.13).

Antisocial Personalities and Detection

The present study examines the possibility that individual differences in antisocial personality traits affect the ability to detect deception. Individuals who manifest a large number of antisocial personality traits could potentially be diagnosed with Antisocial Personality Disorder. According to the DSM-IV (American Psychiatric Association, 1994), these individuals generally disregard and violate the rights of others, as demonstrated by a failure to

conform to social norms regarding lawful behavior, a reckless disregard for the safety of self or others, lack of remorse, consistent irresponsibility regarding major personal obligations, aggressiveness, impulsivity, and deceitfulness, as indicated by repeated lying, conning others, or using aliases (American Psychiatric Association, 1994). These persons are notorious for lying in order to avoid punishment, gain rewards, manipulate others, and sometimes for no reason at all (Doren, 1987). For some of these individuals, lying becomes the normal mode of interaction with others. They are skillful liars, who take pride in their ability to tell outrageous lies in a convincing manner (Wells, 1988). Some antisocial individuals live their lives as impostors, surviving by constantly telling one fantastic lie after another. They are "willing to go to great lengths to achieve the ultimate deception" (Wells, 1988, p. 847). Cleckley's (1982) classic description of antisocial behavior also recognizes constructs of untruthfulness and insincerity, as does nearly every description of antisocial persons.

There is good reason to believe that antisocial individuals are generally suspicious of others because they frequently deceive others. These

persons are often interested in others in terms of how they can be used, and may have a tendency to project their own dishonest motives onto other people. They are aware of their own corrupted honesty, and therefore assume that everyone else acts as they do (Field, 1986). Assuming that antisocial individuals do not generally trust others, it logically follows that they are generally suspicious of others. Support for this can be found in a study conducted by Ekselius et al. (1994), who studied the trait of suspicion in association with various personality disorders. Evidence for the existence of trait suspicion was found for antisocial individuals.

Present Study

The present study investigated the effects of primed suspicion and the effects of antisocial personality traits (i.e. trait suspicion) on deception detection accuracy. It was hypothesized that the levels of antisocial personality traits and the levels of primed suspicion would interact. Individuals low in antisocial personality traits who were primed to be moderately suspicious and individuals high in antisocial personality traits who were not primed to be suspicious were expected to manifest a superior ability to detect deception than

individuals in all other groups. Persons low in antisocial personality traits who were not primed to be suspicious were expected to possess poor deception detection accuracy because previous research has indicated that low levels of suspicion lead persons to perceive most messages as being truthful (Kraut & Higgins, 1984). The lack of trait suspicion and primed suspicion were expected to produce biased judgments in the direction of truthfulness, thus lowering overall accuracy. Persons high in antisocial personality traits who were primed to be moderately suspicious were also expected to possess poor deception detection accuracy because research has indicated that individuals who are highly suspicious are likely to perceive most messages as being deceptive (Levine & McCornack, 1989). The combination of trait suspicion and primed suspicion was expected to produce biased judgments in the direction of deception, thus lowering overall accuracy. Alternatively, individuals low in antisocial personality traits who were primed to be moderately suspicious were expected to possess a moderate level of suspicion overall, due to the absence of trait suspicion and presence of primed suspicion. Individuals high in antisocial

personality traits who were not primed to be suspicious were also expected to possess a moderate level of suspicion overall, due to the presence of trait suspicion and absence of primed suspicion. These latter two groups possessing moderate levels of suspicion were expected to manifest a superior ability to detect deception than individuals in all other groups.

Additionally, it was hypothesized that veracity judgments of individuals who were low in antisocial personality traits and low in suspicion would, in general, be more truthful than veracity judgments of individuals in the other groups, regardless of the actual accuracy of those judgments. This was hypothesized because individuals who possess low levels of suspicion are likely to perceive most messages as being truthful (Kraut & Higgins, 1984). Conversely, veracity judgments of individuals who were high in antisocial personality traits and who were primed to become moderately suspicious were expected to be more deceptive than veracity judgments of individuals in the other groups, regardless of the actual accuracy of those judgments. This was reasoned because individuals who are highly

suspicious are likely to perceive most messages as being deceptive (Levine & McCornack, 1989).

CHAPTER 2

METHOD

Subjects

Participants consisted of 133 college undergraduates (47 men and 86 women) attending the University of Nevada, Las Vegas. The mean age of participants was 22.7 years. The sample was 67% Caucasian, 12% Asian, 9% Hispanic, 7% African-American, and 5% other. Participation allowed students to fulfill course requirements in an introductory psychology course.

Apparatus

Materials used included a 45-item antisocial personality scale (Millon, 1990), three videotapes comprised of eight segments, and a brief adjective checklist to assess deception detection accuracy. The antisocial personality scale was composed of all items that comprise the Antisocial subscale (Scale 6A) of the Millon Clinical Multiaxial Inventory-II (MCMI-II; Millon, 1990; see Appendix I). The items relate to various antisocial dispositional traits,

including one item directly associated with deceiving: "Frankly, I lie quite often to get out of trouble". The median base rate score for psychiatric patients on this scale is 60, and the median base rate score for "normal" individuals is 35.

Internal consistency for nonclinical subjects on Scale 6A has been found to be approximately .88 (Millon, 1987). Support for the external validity of Scale 6A has been measured by the classification efficacy associated with DSM-III-R (American Psychiatric Association, 1987) diagnosed Axis II disorders. Positive predictive power for the MCMI-II was found to lie at 68%, negative predictive power at 98%, and overall diagnostic power at 97% (Millon, 1987). External validity of Scale 6A has also been supported by the Millon Personality Diagnostic Checklist (MPDC) Descriptive Phrases associated with this scale. These phrases have received a significantly greater endorsement by clinicians in describing patients with Antisocial Personality Disorder than the combined endorsement average for all other scales (Millon, 1987). The MPDC phrases for scale 6A that are directly related to deception, and thus highly relevant to the present study, include the following: *lies for purpose of harming*

others, disregards the truth and repeatedly lies, interpersonal conduct: *untrustworthy and unreliable,* self-image: *perceived as shallow and lacking in genuineness.*

Three color videotapes were constructed, each containing eight different segments, four of which were "truth conditions" and four of which were "lie conditions". Each segment presented a different individual, or "actor". Actors included four males and four females. Each video segment contained 45 - 60 seconds of verbalization between the experimenter and actor, who was either truthful or deceptive in describing a prior job that he or she has held. Several male and female actors recruited from UNLV introductory psychology courses were filmed, each in two conditions, a "truth" condition and a "lie" condition, providing a total of 24 video segments. The truth condition consisted of each actor responding to questions posed by the experimenter concerning a job he or she has held within the last ten years. Actors listed several jobs they had held, and one was randomly chosen for them to describe. The experimenter elicited information regarding how old the actors were at the time of employment, how long the employment lasted, what their job duties

were, and whether they liked or disliked the job and why. The actors were given no time to practice the job description prior to the filming session.

The lie condition consisted of actors describing a fictitious job assigned to them by the experimenter. They were instructed to try to convince the viewer that they had actually held the job by answering questions posed by the experimenter concerning the following points: how old they were at the time of employment, how long the employment lasted, what their job duties were, and whether they liked or disliked the job and why. The actors were given no time to practice the job description prior to the filming session.

Half of the actors were randomly chosen to participate in the truth condition first, and the remaining half participated in the lie condition first. Each actor was filmed from the waist up, in a sitting position, with the camera placed directly in front of them; the experimenter was not visible. The same camera angle was used for each actor, as well as a standardized backdrop. Additionally, each actor completed the antisocial personality scale (Millon, 1990). After all actors were filmed, eight were randomly chosen to appear on the videotapes. Three

tapes were then constructed, each with eight segments, presenting the actors in different order and different conditions (i.e. truth or lie condition).

A final stimulus material presented to subjects was a dichotomous adjective checklist to assess various subject perceptions of the actors on videotape. All subjects received a handout containing an adjective checklist for each video, pertaining to various actor personality characteristics (see Appendix II). Accurate deception detection was assessed according to subject response to the "truthful/untruthful" item, and its correspondence with actual truth or deception. This item appeared randomly among the other adjectives.

Pretest of Stimulus Materials

A pretest of fourteen participants was conducted in order to determine if the suspicion manipulation would be effective. Seven subjects were given the low suspicion instructions: "This is a study designed to evaluate first impressions. You will see a series of individuals on videotape, and after each segment, you will be asked to describe the person you just saw by responding to the attached adjective checklist". Seven subjects were given the moderate

suspicion instructions: "This is a study designed to evaluate first impressions. You will see a series of individuals on videotape, and after each segment, you will be asked to describe the person you just saw by responding to the attached adjective checklist. As you view the tape, keep in mind that the people you see may not be completely truthful in what they're saying" (McCornack & Levine, 1990). After viewing the videotape and completing the adjective checklist, subjects were asked to rate their degree of suspicion on a scale from 1 (no suspicion) to 9 (extreme suspicion). It was found that subjects who were given instructions designed to evoke moderate suspicion did manifest a higher level of suspicion (mean = 5.71) than subjects given instructions designed to evoke no suspicion (mean = 3.14). A one-way analysis of variance found the difference between means to be significant, F, $(1,12) = 6.567$, $p = .02$. Had the different instructions indicated no effect on suspicion, a new method of inducing suspicion would have been developed. Since the suspicion manipulation proved to be effective, pretest data was also used as subject data.

Procedure

Following the development of the stimulus materials, 121 subjects were recruited under the cover story that they would be participating in a study designed to evaluate first impressions. All subjects completed the antisocial personality scale before viewing the videotape. A median split based on subject antisocial personality traits scores (median = 29) was used to create the high and low antisocial categories[1].

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[1] The statistical analyses performed on the data were originally conducted using extreme groups for the antisocial variable; the 40 subjects obtaining the highest scores were to comprise the high antisocial category, and the 40 subjects obtaining the lowest scores were to comprise the low antisocial category. All analyses performed using this division of the antisocial variable revealed nonsignificant results. That is, differences between the high and low antisocial categories were nonsignificant when suspicion, veracity judgments, and deception detection accuracy were examined. There are several plausible explanations for this finding.

One possibility is that the use of the aforementioned "extreme groups" were not extreme enough to find differences between the two categories. Perhaps the gap between the high and low groups was simply not wide enough. This explanation is possible, but not likely considering the fact that several statistical analyses performed using a median split, obviously entailing less extreme groups, yielded significant differences between high and low antisocials along the variables of suspicion and veracity judgments.

Another possible explanation is that the true relationship between varying levels of antisocial personality traits and suspicion, veracity judgments, and/or detection accuracy is curvilinear. It is likely that a highly complex relationship exists between these variables that would require examining the antisocial variable in 1/3's, and comparing all three groups, rather than just the extremes. For instance, individuals in the middle antisocial category could manifest more suspicion than individuals in the high or low antisocial categories.

The most plausible explanation for the lack of statistical significance between the two antisocial groups is that the sample size was too small. Perhaps a sample size

Since subjects were likely to demonstrate a truth bias and assume that actors were being truthful, three variations of the original videotape were used, each presenting the same actors in opposite conditions and in different order. In this way, if subjects did have extremely high or low accuracies for certain conditions, it could be determined whether this was due to a truth bias or to the actors themselves being too easy or difficult to detect. Actors that produced average accuracy scores under 25% or over 75% were to be seen as too difficult or too easy to detect, respectively. These cutoffs were to control for floor and ceiling effects, and were to provide an adequate range for subject accuracy comparison. Actor segments that were found to be too easy or too difficult were to be discarded, and the "backup" actor segments were to be utilized. It was found that the original actors were appropriate, creating subject accuracy scores between 25% and 75%. Additionally, a three-factor analysis

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of 180 would have been large enough to allow ample power to reveal a significant difference between the top one-third and bottom one-third subjects.

Regardless of the true reason(s) behind the lack of significance using extreme groups divided by one-thirds, it seemed inappropriate to terminate the statistical analyses at this point, so further analyses were performed using a median split of the antisocial variable. The results and discussion sections therefore concern results found with the latter division of the antisocial variable.

of variance (high/low antisocial vs. high/low suspicion vs. videotape) found that the use of different videotapes did not significantly affect subject accuracy.

Suspicion Manipulation

Subjects were randomly assigned to either a low suspicion condition or a moderate suspicion condition. In the low suspicion condition, subjects received the following instructions prior to viewing the videotape: "This is a study designed to evaluate first impressions. You will see a series of individuals on videotape, and after each segment, you will be asked to describe the person you just saw by responding to the attached adjective checklist."

In the moderate suspicion condition, subjects received the following instructions prior to viewing the videotape: "This is a study designed to evaluate first impressions. You will see a series of individuals on videotape, and after each segment, you will be asked to describe the person you just saw by responding to the attached adjective checklist. As you view the tape, keep in mind that the people you see may not be completely truthful in what they're saying" (McCornack & Levine, 1990).

After receiving the instructions, subjects viewed the videotape, which randomly presented each actor. After each segment, participants were allotted two minutes to complete the adjective checklist (see Appendix II). At the end of the session, a manipulation check was included to determine if subject suspicion varied as a function of the appropriate experimental condition (i.e. different instructions). Subjects were asked to rate their degree of suspicion on a scale from 1 (no suspicion) to 9 (extreme suspicion). Finally, subjects were debriefed as to the actual intentions and nature of the research.

CHAPTER 3

RESULTS

A number of statistical analyses were conducted. First, effectiveness of the suspicion manipulation was determined for the entire study, for both trait suspicion (i.e. antisocial personality traits) and state suspicion. Second, veracity judgments were analyzed in order to ascertain if the suspicion manipulation and/or level of antisocial personality traits affected subjects' judgments of truthfulness. Finally, deception detection accuracy was investigated to determine if subject suspicion and/or level of antisocial personality traits affected actual detection accuracy.

Half of the total subjects participated in the study in a moderate suspicion condition, and half participated in a low suspicion condition. All subjects completed the antisocial personality traits scale (Millon, 1990). The lowest antisocial score

obtained was 3, the highest score was 58, the median was 29, and the mean was 29.719, SD = 10.63. A near-perfect normal disribution was obtained for the antisocial variable.

Suspicion Manipulation

Subject suspicion was examined in the context of state suspicion and trait suspicion (i.e. antisocial personality traits). It was hypothesized that individuals high in antisocial personality traits would be more suspicious than individuals low in antisocial personality traits, and individuals in the moderate suspicion condition would be more suspicious than individuals in the low suspicion condition. When scores from the 9-point suspicion scale were analyzed in a 2(high vs. low suspicion) x 2(high vs. low antisocial traits) ANOVA, the expected main effects were obtained. These two expected effects were found to be significant; Antisocial, F, (1, 117) = 7.424, p = .007; Suspicion, F, (1, 117) = 8.473, p = .004 (see Figure 1). No significant interaction between antisocial personality traits and suspicion was found.

Veracity Judgments

Veracity judgments were analyzed in order to ascertain if antisocial personality traits and/or

state suspicion affected subjects' judgments of truthfulness, irrespective of actual detection accuracy. Veracity judgments were computed by summing the number of times each subject circled the "truthful" item in the adjective checklist handout, thus subjects could receive a maximum of eight total veracity judgments. It was hypothesized that individuals low in antisocial personality traits and low in suspicion would have more judgments of truthfulness than individuals in the other groups. Conversely, individuals high in antisocial personality traits and individuals who were primed to be moderately suspicious were expected to have fewer judgments of truthfulness than individuals in the other groups. Subjects who were primed to be moderately suspicious had a mean veracity level of 6.183, SD = 1.48; subjects who were not primed to be suspicious had a mean veracity level of 6.885, SD = 1.34. An analysis of variance found a significant main effect for suspicion, with those individuals who were primed to be moderately suspicious manifesting a significantly higher number of judgments of deception than individuals who were not primed to be suspicious, F, (1,117) = 8.08, p = .005. The main effect for antisocial personality traits was

nonsignificant, as was the interaction between suspicion and antisocial personality traits.

When gender was examined in conjunction with suspicion condition and antisocial personality traits using a 2 (high vs. low suspcion) x 2 (high vs. low antisocial traits) x 2 (male vs. female) ANOVA, a three-factor interaction was found, F, (1, 113) = 8.332, p= .005 [2]. For males, as suspicion went from "low" to "moderate", veracity judgments tended to decrease for individuals low in antisocial personality traits, and stayed the same for individuals high in antisocial personality traits, F, (1,113) = 2.91, p= .09 (see Figure 2). For females, as suspicion went from "low" to "moderate", veracity judgments tended to decrease for individuals high in antisocial personality traits and stayed the same for individuals low in antisocial personality traits, F, (1, 113) = 6.33, p= .01 (see Figure 3).

Deception Detection Accuracy

Deception detection accuracy was assessed according to subject response to the "truthful/untruthful" item on the adjective checklist, and its correspondence with actual truth

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[2]It should be noted that gender was also added to the other analyses reported, but in these analyses it was not involved with any significant effects.

or deception. Subjects received one point for correctly responding to each video segment, thus each subject could receive a maximum of eight points for the entire videotape. Each subject's total number correct was divided by eight to obtain their video accuracy score. The minimum score received by any subject was 25%, the maximum score was 100%, and the mean score of all subjects was 54%, similar to the findings of many other studies conducting deception research (i.e. Lavrakas & Maier, 1979, 54 percent; Matarazzo et al., 1970, 59 percent).

Subject detection accuracy was examined in order to determine if suspicion and/or antisocial personality traits affected subject detection accuracy. It was hypothesized that individuals low in antisocial personality traits who were primed to be moderately suspicious and individuals high in antisocial personality traits who were not primed to be suspicious would manifest a superior accuracy in detecting deception than individuals in all other groups. Persons low in antisocial personality traits who were not primed to be suspicious and persons high in antisocial personality traits who were primed to be moderately suspicious were expected to possess poor deception detection accuracy in relation to

individuals in the other groups. When accuracy scores were analyzed in a 2 (high vs. low suspicion) x 2 (high vs. low antisocial traits) ANOVA, the main effects for antisocial personality traits and suspicion were nonsignificant, as was the interaction between suspicion and antisocial personality traits.

CHAPTER 4

DISCUSSION

Suspicion Manipulation

The suspicion manipulation was found to be effective, causing those individuals in the moderate suspicion condition to manifest a significantly higher level of suspicion than those individuals in the no suspicion condition. This finding replicates that found by McCornack and Levine (1990), when using the same instructions to induce a moderate level of suspicion, they also found the manipulation to be effective.

The more interesting finding concerning suspicion is the confirmation of the hypothesis that persons high in antisocial personality traits would manifest higher levels of suspicion than persons low in antisocial traits. One explanation for this "trait suspicion" concerns the "projection" rationale. Since antisocial individuals are notorious for lying, and they frequently use, con,

and deceive others, they may have a tendency to project their own deceitfulness onto other people (Field, 1986). An individual who assumes others are generally dishonest is an individual who tends to be distrustful of other people, which by definition, constitutes one who is suspicious of others. In sum, persons high in antisocial personality traits frequently deceive others, project this behavior onto other people, and therefore are distrustful and suspicious of others.

Another reason why individuals high in antisocial traits may be suspicious of others is that many of them have come from "broken, impoverished homes and have experienced some form of parental loss and rejection..." (Hare, 1970, p. 109). Depending on the severity of the situation, growing up in an unstable, unpredictable environment would tend to create a certain level of distrust in a person, not only for the environment in general, but also for people in general. Having learned that the environment is unstable and people cannot be trusted, it logically follows that antisocial individuals would generally be wary of their surroundings and suspicious of other people. The finding of trait suspicion in the present study replicated that found

by Ekselius (1994), who also discovered evidence for the existence of trait suspicion for antisocial individuals.

Further, the main effects found for suspicion condition (i.e. state suspicion) and antisocial personality traits (i.e. trait suspicion) on reported subject suspicion level seem to support an additive relationship between various types of suspicion (see Figure 1). This also provides support for McCornack and Levine's (1990) criticism of the "all-or-none" approach to operationalizing suspicion. The present study and McCornack and Levine's (1990) study both provide support for the existence of various levels of suspicion, that it should not be conceptualized simply by its existence or nonexistence. It seems that a complex interplay between person variables and situation variables can modify a person's overall level of suspicion. Future researchers should perhaps consider dealing with suspicion in a different manner, rather than operationalizing it dichotomously.

Veracity Judgments

One of the original hypotheses regarding veracity judgments was supported in the present study. It was hypothesized that veracity judgments

of those who were low in suspicion would be more truthful than veracity judgments of those who were moderately suspicious. A significant difference was found between the two suspicion conditions, in support of the aforementioned hypothesis. This provides additional support that the suspicion manipulation worked well, causing individuals in the moderate suspicion condition to have fewer judgments of veracity than individuals who were not primed to be suspicious. This finding is similar to that found by Toris & DePaulo (1985) and Stiff, Kim, and Ramesh (1992), in that primed suspicion produces fewer judgments of truthfulness.

It was also hypothesized that persons high in antisocial traits would have fewer veracity judgments than persons low in antisocial traits. This was reasoned on the basis of the existence of trait suspicion in persons high in antisocial personality traits; it was expected that individuals who were trait suspicious would make fewer veracity judgments than individuals who were not trait suspicious. This main effect, however puzzling, was not significant, and thus failed to support the hypothesis.

A possible reason for the lack of significant differences in veracity judgments between individuals

high and low in antisocial personality traits is that perhaps in this experimental situation, trait suspicion was just simply not as powerful in affecting subject judgments as was state suspicion (or lack of). Perhaps the situation was more likely to dictate cognitions/behavior than were underlying personality traits. In forming veracity judgments, several factors come into play, including personality of the detector, personality of the deceiver, and factors concerning the situation under which the deception occurs. Without a reason to believe the actors would be lying, persons high in antisocial traits could have been more influenced by the situation (i.e. "This is just a psychology experiment...") than by an underlying trait of suspicion (i.e. "I wonder if these people are lying..."). Therefore, although these individuals felt suspicious of the actors, perhaps they did not feel strong enough about their suspicion to judge the actors as being untruthful.

Gender was found to have no significant main effect on veracity judgments, consistent with results found in other studies (see Zuckerman, et al., 1981; McCornack & Parks, 1986; Stiff et al., 1992). However, a significant interaction was found between

gender, suspicion, and antisocial personality traits (see Figures 2 and 3). As suspicion increased for low antisocial males, veracity judgments decreased; as suspicion increased for high antisocial females, veracity judgments decreased. As suspicion increases, veracity judgments should, in theory, decrease for all subjects, not just low antisocial males and high antisocial females. So the peculiar finding is that veracity judgments stayed the same as suspicion increased for high antisocial males and low antisocial females.

A possible reason for this finding with females is that women who are low in antisocial personality traits may be more trusting than men who are low in such traits, and therefore, even when primed to become suspicious, such women do not make fewer veracity judgments. Perhaps these women are so lacking in trait suspicion that it would take a stronger suspicion manipulation to increase their judgments of deception.

A possible explanation for this finding with males is that men who are high in antisocial personality traits may be less influenced by or more oppositional towards the instructions designed to decrease their veracity judgments than their female

counterparts. Since these men did not exhibit a floor effect with veracity judgments, it is not the case that they were so highly suspicious that they couldn't make fewer veracity judgments. This finding makes the interaction very difficult to explain.

Deception Detection Accuracy

None of the original hypotheses concerning detection accuracy were supported. That is, suspicion, antisocial personality traits, and the interaction between the two had no effect on actual detection accuracy. There are several possible explanations for the lack of significant differences in accuracy between individuals with various levels of suspicion.

It has often been hypothesized in deception research that suspicious individuals become more attentive to cues that should enhance their deception detection success (Toris & DePaulo, 1985). One possible reason this did not occur in the present study is that such cues to deception may not have been attended to by the subjects. A main reason for this is that subjects may not have been motivated to correctly detect deception (Zuckerman et al., 1981). To illustrate, subjects were not even aware of the actual nature of research until they were debriefed.

They were under the impression they were participating in a study designed to evaluate first impressions, so they weren't necessarily looking for cues to deception, and consequently didn't find them. Subjects also may not have been highly motivated to detect deception accurately because they had no real incentive to; participants were not rewarded in any way for correctly ascertaining deception.

Another possible reason suspicious subjects did not successfully utilize leaked cues is that perhaps they relied on false cues to deception. There exists several discrepancies between actual cues to deception and perceived cues to deception, such as when the deceiver shifts posture often, smiles less, gazes less, takes longer to answer a question, and speaks slower (Zuckerman et al., 1981). Subjects who viewed such cues as being actual cues to deception would have more than likely incorrectly assessed deception, thereby lowering overall accuracy.

Assuming individuals high in antisocial personality traits are more suspicious than those low in antisocial personality traits, the aforementioned reasons could also be used as possible explanations for the lack of significant differences between the antisocial groups. Putting this aside, another

possible reason no group differences were found is that we really weren't looking at groups that were extreme enough when divided by the median split to demonstrate an effect for the antisocial variable. But even when the subjects were divided into one-thirds, no effect was found for extreme groups along the antisocial variable. Consider the possibility that an effect for this variable cannot be found within a student population. In other words, running more subjects and examining more extreme groups may not find an effect, either. Perhaps a significant effect would only be found for true antisocial individuals (i.e. those diagnosed with Antisocial Personality Disorder), not just those high in antisocial personality traits.

Along with the main effects for suspicion and antisocial personality traits, the interaction between these variables proved to be nonsignificant as well. One reason that has already been discussed concerns subject failure to successfully utilize deception cues, thereby producing no effect for suspicion on accuracy. A second possible explanation is that the relationship between trait suspicion, assuming it exists for those high in antisocial personality traits, and state suspicion is very

complex. Although it may be additive in nature, assigning weights to each is clearly an imprecise, subjective task. Additionally, deception detection itself is very complex, requiring substantial interplay between person variables and situation variables; accurately pinpointing how much effect one factor had versus another is a highly convoluted process.

Methodological weaknesses of this study include a non-representative sample, reliance on a self-report antisocial measure (MCMI-II), and the use of only two levels of state suspicion. The sample chosen for the study consisted solely of University of Nevada, Las Vegas undergraduates. It was hoped that among such individuals, a large spread of antisocial scores would be obtained. Although the spread seemed appropriate, the maximum score obtained on the antisocial measure was 58, just below the median base rate score for psychiatric patients on this scale. Although the aim of the study was not necessarily to utilize truly antisocial individuals, the sample could have been at least more representative of such persons.

Additionally, reliance on the self-report measure, the MCMI-II, may not have elicited complete

honesty from participants. Subjects may have felt uncomfortable about responding truthfully to some of the items (see Appendix I), and therefore may have prevented us from obtaining a true picture of antisocial traits within the sample.

Another methodological weakness includes the reliance on only two levels of state suspicion. Three levels of primed suspicion may have provided a more complete picture of the effects of state suspicion on reported suspicion level, veracity judgments, and deception detection accuracy. It also may have shed more light on the relationship between trait suspicion and state suspicion.

In summary, this study replicates previous studies regarding the finding of evidence for trait suspicion among persons high in antisocial personality traits, the lack of effect for suspicion on deception detection accuracy, and the overall finding that humans are relatively poor detectors of deception. One suggestion for future research includes using a larger sample size, which would allow the possibility of finding significant differences between persons of differing age and ethnicity. Such differences could possibly be found when examining antisocial scores, trait suspicion,

veracity judgments, and/or detection accuracy. Additionally, in light of the widespread occurence and substantial impact of deception on personal interactions, a paramount direction for future research lies in improving human ability to detect deception.

APPENDIX I

PERSONALITY TRAITS SCALE

GENDER:_____ AGE:_____ RACE:_____

INSTRUCTIONS: Please answer the following questions TRUE or FALSE. If you agree with a statement or feel that it describes you, answer TRUE. If you disagree with a statement or feel that it does not describe you, answer FALSE. Please try to answer every question.

1. I always follow my own ideas rather than do what others expect of me.

2. As a teenager, I got into lots of trouble because of bad school behavior.

3. Sometimes I can be pretty rough and mean in my relations with my family.

4. I know I'm a superior person, so I don't care what people think.

5. I will often do things for no reason other than they might be fun.

6. If my family puts pressure on me, I'm likely to feel angry and resist doing what they want.

7. I protect myself from trouble by never letting people know much about me.

8. Other people get more angry about bothersome things than I do.

9. Under no circumstances do I ever let myself be tricked by people who say they need help.

10. In the past I've gotten involved sexually with many people who didn't matter much to me.

11. I am a very agreeable and submissive person.

12. My own "bad temper" has been a big cause of my troubles.

13. I don't mind bullying others to get them to do what I want.

14. I like to flirt with members of the opposite sex.

15. I strongly resent "big shots" who always think they can do things better than I can.

16. If someone criticized me for making a mistake, I would quickly point out some of that person's mistakes.

17. I've done a number of stupid things on impulse that ended up causing me great trouble.

18. I never forgive an insult or forget an embarrassment that someone caused me.

19. I am the sort of person that others take advantage of.

20. I always try hard to please others, even when I dislike them.

21. I quickly figure out how people are trying to cause me trouble.

22. I've always had less interest in sex than most people do.

23. Since I was a child, I have always had to watch out for people who were trying to cheat me.

24. When things get boring, I like to stir up some excitement.

25. I have an alcohol problem that has made difficulties for me and my family.

26. I don't see anything wrong with using people to get what I want.

27. Punishment never stopped me from doing what I wanted.

28. I ran away from home as a teenager at least once.

29. I don't know why, but I sometimes say cruel things just to make others unhappy.

30. I speak out my opinions about things no matter what others may think.

31. When someone in authority insists that I do something, I'm likely to put it off or do it poorly on purpose.

32. I use my charm to get the attention of other people.

33. I feel pretty aimless and don't know where I'm going in life.

34. I've been unfairly punished by the law for crimes I never committed.

35. I don't blame anyone who takes advantage of someone who allows it.

36. I've changed jobs more than three times in the last couple of years.

37. My use of so-called illegal drugs has led to family arguments.

38. There are members of my family who say I'm selfish and think only of myself.

39. Frankly, I lie quite often to get out of trouble.

40. My parents often told me that I was no good.

41. On occasion I have had as many as ten or more drinks without becoming drunk.

42. I used to be really restless, traveling around from place to place with no idea of where I would end up.

43. I get very irritated if someone demands that I do things his way rather than my own.

44. People who I admired greatly at first have often become real disappointments to me later.

45. I'm the kind of person who can walk up to anyone and tell him or her off.

Note. From the Millon Clinical Multiaxial Inventory-II, by T. Millon, 1990, Minneapolis, MN: National Computer Systems, Inc.

APPENDIX II

ADJECTIVE CHECKLIST

INSTRUCTIONS: Please circle one number in each pair of adjectives that most accurately describes the person in the video you just saw.

unassertive	1	2	assertive
anxious	1	2	relaxed
truthful	1	2	untruthful
enthusiastic	1	2	unenthusiastic
unemotional	1	2	emotional
confident	1	2	unconfident
unhappy	1	2	happy
extroverted	1	2	introverted

APPENDIX III

FIGURES

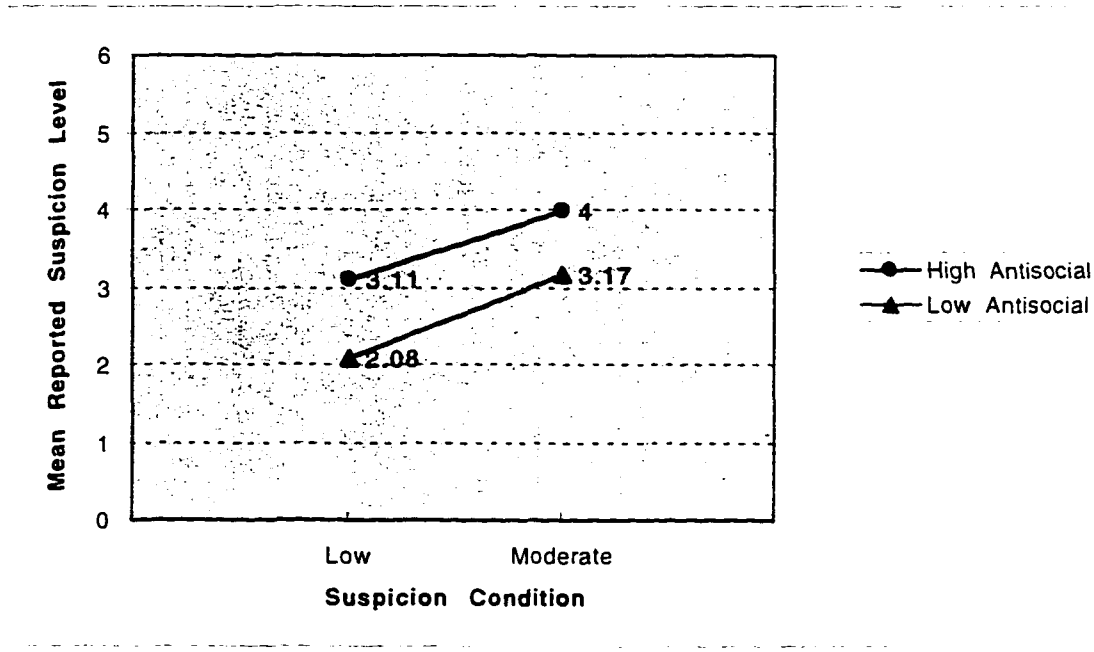

Figure 1. Mean repeated suspicion level for subjects high and low in antisocial traits in the low and moderate suspicion conditions.

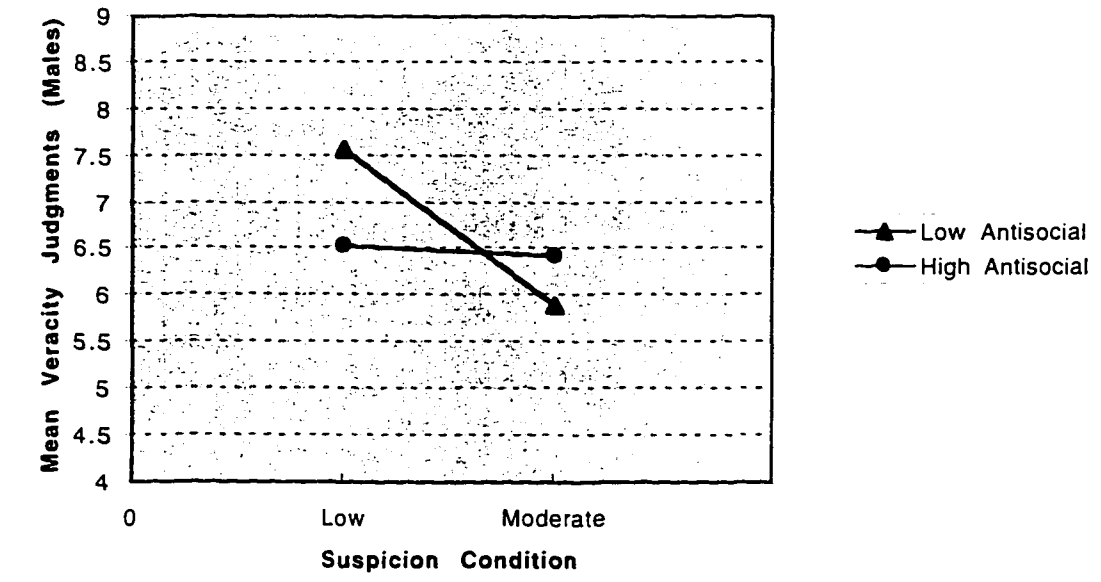

Figure 2. Mean veracity judgments for males high and low in antisocial traits in the low and moderate suspicion conditions.

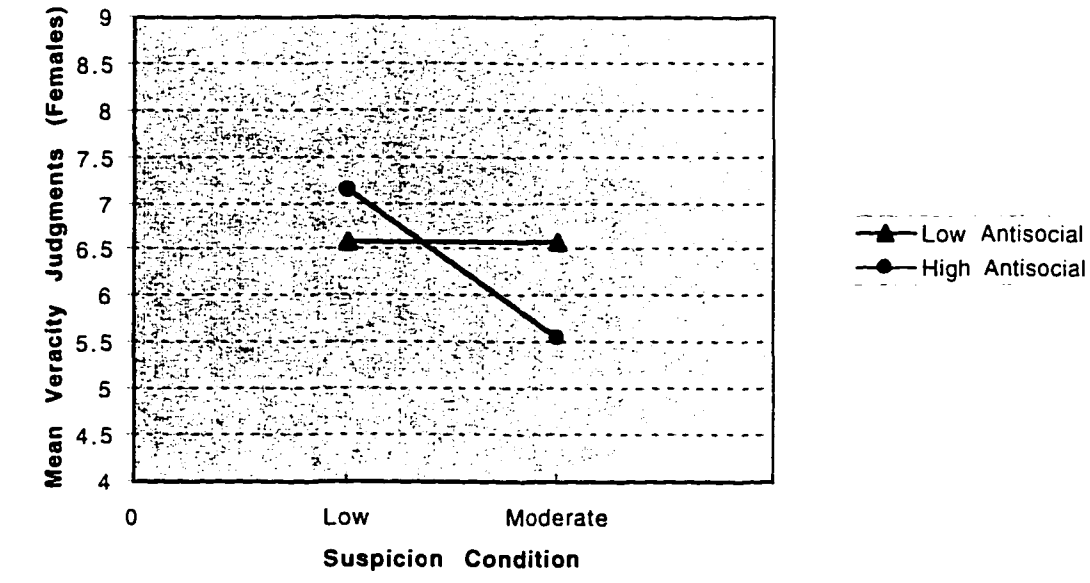

Figure 3. Mean veracity judgments for females high and low in antisocial traits in the low and moderate suspicion conditions.

APPENDIX IV

HUMAN SUBJECTS PROTOCOL FORM

DATE: September 21, 1995

TO: Barbara Schoepherster (PSY)
M/S 5030

FROM: Dr. William E. Schulze, Director
Office of Sponsored Programs (X1357)

RE: Status of Human Subject Protocol Entitled:
"Individual Differences in the Detection of Inaccurate Information"

OSP #113s0995-056e

The protocol for the project referenced above has been reviewed by the Office of Sponsored Programs, and it has been determined that it meets the criteria for exemption from full review by the UNLV human subjects Institional Review Board. Except for any required conditions or modifications noted below, this protocol is approved for a period of one year from the date of this notification, and work on the project may proceed.

Should the use of human subjects described in this protocol continue beyond a year from the date of this notification, it will be necessary to request an extension.

cc: M. Millar (PSY-5030)
OSP File

Office of Sponsored Programs
4505 Maryland Parkway • Box 451037 • Las Vegas, Nevada 89154-1037
(702) 895-1357 • FAX (702) 895-4242

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