

1-1-2017

## The Implications of Attachment Orientation and Personality Pathology for Detecting Deception

Madeline Luedke

Pepperdine University, [madelineluedke@gmail.com](mailto:madelineluedke@gmail.com)

---

### Recommended Citation

Luedke, Madeline (2017) "The Implications of Attachment Orientation and Personality Pathology for Detecting Deception," *Global Tides*: Vol. 11 , Article 7.

Available at: <http://digitalcommons.pepperdine.edu/globaltides/vol11/iss1/7>

This Social Sciences is brought to you for free and open access by the Seaver College at Pepperdine Digital Commons. It has been accepted for inclusion in Global Tides by an authorized editor of Pepperdine Digital Commons. For more information, please contact [josias.bartram@pepperdine.edu](mailto:josias.bartram@pepperdine.edu).

The Implications of Attachment Orientation and  
Personality Pathology for Deception Detection

Madeline Luedke

Pepperdine University

### The Implications of Attachment Orientation and Personality Pathology for Deception Detection

Humans' ability to detect deception was progressively seen as an evolutionary advantage (Wright, Berry, & Bird, 2012). Deception can be defined as an individual's concerted effort to induce trust of truth of word in another individual despite the deceiver's awareness that the provided information is false (Sweeney & Cece, 2014). Though various research suggested that individuals' accuracy in detecting lies was only slightly greater than chance, 54% (Levine, 2014), there has been little conclusive research indicating that specific populations have a significantly greater chance at distinguishing truth from lies (Levine, 2014; Wright et al., 2012)

The human face has often been studied as a factor that contains cues to deceptive statements. Kinetic variables in the human face are essential for societal functioning and interpersonal connection. Specifically, the upper constructs of the face have been shown to elicit hidden negative emotional states through micro-expressions (Duran, Dale, Keller, Street, & Richardson, 2013). Furthermore, it has been evidenced that there was generally a higher detection accuracy in emotionally-based lies as opposed to unemotional lies, which is related to these subtle expressions (Warren, Shurtler, & Bull, 2009).

Previous research has focused on individual differences for ability to recognize these distinct facial cues. In a broader sense, this aptness was studied as a factor in individuals' hypersensitivity towards threats and dangers in social and interpersonal environments, which led to the proposal of the social defense theory (SDT) — an extension of attachment theory (Ein-Dor & Perry, 2013). SDT posited that this adaptive ability was constructed within individuals who experienced attachment anxiety concerning the proximity of a caregiver. This ability in turn, led

to hyper-vigilance and increased sensitivity to the presence of danger, for which SDT considered deceit as a mild social threat (Ein-Dor & Perry, 2013). Researchers have found that this innate quality develops at a very young age in order to assess the reliance of care and is considered a socially adaptive advantage (Gadea, Alino, Espert, & Salvador, 2015).

This theory similarly has its implications on empathetic accuracy—or the precision with which we infer the thoughts and feelings of an individual (Ickes, 1993; Ickes, Stinson, Bissonnette, & Garcia, 1990). Empathetic accuracy has been a critical component of understanding the responsible factors in determining the individual differences for lie detection ability. When a receiver was informed of the possibility of deception, research has shown that empathetic accuracy was somewhat lowered overall; however, there was moderate support that those who are readily “suspicious” to lies and are accurate as a result, have the highest empathetic accuracy (DesJardins & Hodges, 2015). The research evidenced a co-varying relationship between deception detection and empathetic accuracy, and that interpersonal sensitivity may serve as a common underlying process. Researchers sought to understand the individual differences in empathetic accuracy, with results indicating a need for further research concerning lower levels of empathetic accuracy and individuals with impaired interpersonal functioning in relation to isolative or avoidant personality traits (Ickes et al., 2000).

In other regards, the personality dimension concerning this distinct reading ability from an adaptive functioning perspective has been explored (Bornstein, 2012). It was found that individuals with higher interpersonal anxiety and related traits exhibited hyper-awareness regarding accessibility to care and comfort, which indicated paradigm validity concerning the associated attachment orientation research (Ein-Dor & Perry, 2013). The comorbidity between

attachment anxiety and dependent personality disorder has been attributed to findings indicating those with the cluster C pathology—characterized by anxiety and fear—are better at detecting lies (Gadea et al., 2015). In regards to accuracy in detecting the legitimacy of a person's statements when sharing an emotional experience [false or true], it was found that those with cluster C pathological traits were the most accurate and individuals categorized by cluster B pathological traits—characterized by interpersonal disregard and manipulation—were the least accurate (Friedman, Oltmanns, & Turkheimer, 2007). Further focus on emotionality as a factor for deception detection has been studied, indicating that those with higher pathological scores, and therefore decreased emotional processing ability, have a significantly lower accuracy rate for assessing lies (Peace & Sinclair, 2012). Other studies have indicated higher accuracy ratings in deception detection in individuals with a depressive affect and self-reports of low self-esteem, possibly due to the heightened presence of emotional-reasoning in daily life (Friedman et al., 2007).

The present study aimed to address the implications of individual differences in detecting deception for emotionally-based reports, specific to romantic relationships. Earlier research has indicated the assumption that individuals' interpersonal approach was the underlying factor for the few conclusive results surrounding person variance. For the relationship between attachment orientation and deceit accuracy I predict that first, attachment anxiety, as previous studies have indicated (Ein-Dor & Perry, 2013; Gadea et al., 2015; Vrij & Verschuere, 2013), should serve as a predictor for greater accuracy. Furthermore—in assuming this to be true—to counterbalance these greater than chance responses, I predict that second, secure attachment should then be associated with lower levels of accuracy in detecting deceit. In regards to personality and the

evidenced support of pathology as a determining factor, each dimension of the American Psychological Association's trait model inventory (2013) inventory was reasoned to be associated with a positive or negative (in relation to the mean) accuracy ranking.

Negative affect is primarily characterized by emotional lability, anxiousness, and separation insecurity (American Psychological Association, 2013). These traits suggest that persons who experience emotions intensely, seek close relationships for fear of abandonment, and tend to ruminate. Those with a negative affect are generally suggestible, sensitive, and approval seeking (Krueger, Skodol, Livesly, Shrout, & Huang, 2007). Due to this pressing need to engage with others and receive acceptance, those with a negative affect have more exposure to deceit and are more likely to engage in lying behavior (Elaad & Reizer, 2015). The relationship between offering and recognizing deceit founds the first prediction for personality correlations that negative affect would positively associate with detection accuracy.

Detachment is comprised of withdrawal, anhedonia, and intimacy avoidance (American Psychological Association, 2013). These inhibitive characteristics are comprised of reluctance towards involvement with others, common feelings of boredom and emptiness, and preference for and comfort in self-exclusion (Krueger et al., 2007). This indifferent or apathetic approach towards socialization leads to reduced analytical ability in assessing and appropriately responding to interpersonal situations. Furthermore, this lack of concern due to the irrelevancy of significant individuals in a more detached person's life leads to a reduced ability to detect or merely focus awareness on interpersonal deceit (Elaad & Reizer, 2015). This apathy contributes to the second prediction that detachment would negatively correlate with detection accuracy.

Antagonism has primary contributing factors of manipulation, deceitfulness, and

grandiosity (American Psychological Association, 2013). These traits indicate a preoccupation with self, ingratiating for self-gain, and lack of regard for others (Krueger et al., 2007). Research indicates that those who often engage in lying behavior have a tendency to become skilled at it due to practice effect, and lying ability is correlated to detection ability (Friedman et al., 2007). However, those with antagonist traits are utterly consumed with themselves, which leads to a decrease in focus on others to allow for the gain of knowledge relating to deceitful clues (Freidman, 2014). Therefore, the third prediction would be that antagonistic traits are negatively correlated to deception detection.

Disinhibition is constructed of traits such as irresponsibility, impulsivity, and distractibility (American Psychological Association, 2007). This dimension is characterized by low self-awareness, decreased attention to detail, and difficulty learning from the surrounding world (Kruger et al., 2007). This decreased need for cognition so forth grounds the fourth prediction that disinhibition will be associated with a decreased ability to accurately detect deceit (Elaad & Reizer, 2015).

This study will utilize emotion-based simulated lies reported by *sending* participants videos of emotion-based, truthful accounts to assess the prevalence of the 3 attachment orientations and 4 personality dimensions regarding *detecting* participants' ability to accurately detect deceit.

## Method

### Participants

**Senders.** The participants volunteered to participate following a presentation on the purpose of this study in a clinical meeting for an adolescent residential treatment center in

Southern California. The seven certified mental health counselors and/or licensed clinical therapists consisted of 1 male and 6 females ( $M_{age} = 27.43$ ,  $SD_{age} = 13.18$ ). The sending group was 42.9% Hispanic, 28.6% White, 14.3% Black or African American, and 14.3% Asian or Pacific Islander. Participant sexual orientation ranged on a spectrum. Four were in a current romantic relationship and 3 were not.

**Receivers.** Convenience sampling was utilized to recruit 30 participants consisting of 11 males and 19 females ( $M_{age} = 25.33$ ,  $SD_{age} = 9.05$ ). The majority of participants were White (60%), followed by Hispanic (20%), Asian or Pacific Islander (13.3%), and Black or African American (6.7%). A social media post with a link to the survey was used to advertise this experiment.

## Measures

### **Predictor variables.**

**Attachment.** Attachment orientation was assessed using portions of the Relationship Scale Questionnaire (RSQ), a 16-item questionnaire measuring the extent to which an individual expresses the romantic-attachment style prototypes of fearful, dismissing, preoccupied, and secure (Griffin & Bartholomew, 1994). For example, an item assessing fearful was: "I worry that I will be hurt if I let myself become too close to others." An example of an item that measured dismissing was: "I prefer to not have other people depend on me." An example of an item that measured preoccupied was: "I feel that others are reluctant to get as close as I would like." An example of an item that measured secure was: "I find it easy to get emotionally close to others." Items were scored using a 4-point Likert scale ranging from 1 (strongly disagree) to 4 (strongly agree). Individual scores for subscales ranged from 4 to 16 for fearful, 8 to 16 for dismissing, 7



to 16 for preoccupied, and 7 to 16 for secure, with very high scores indicating the presence of the assessed dimension. Reliability analyses of this data set indicated the fearful subscale had strong internal consistency ( $\alpha = .86$ ), the dismissing subscale had questionable internal consistency ( $\alpha = .60$ ), the preoccupied subscale had good internal consistency ( $\alpha = .73$ ), and the secure subscale had poor internal consistency ( $\alpha = .59$ ).

These prototypes constructed the attachment orientations of interest: **anxious** ([fearful + preoccupied] – [dismissing + secure]), **avoidant** ([fearful + dismissing] – [preoccupied + secure]), and **secure** (secure). Individual scores ranged from  $-14$  to  $8$  for anxious ( $M = -0.20$ ,  $SD = 5.28$ ) and  $-12$  to  $10$  for avoidant ( $M = -0.93$ ,  $SD = 6.03$ ) with higher scores indicating a tendency for the particular attachment style.

Table 1

*Relationship Styles Questionnaire Items*

Dimension	Items
Fearful	<ol style="list-style-type: none"> <li>1. I find it difficult to depend on other people.</li> <li>2. I worry that I will be hurt if I allow myself to become too close to others.</li> <li>3. I find it difficult to trust others completely.</li> <li>4. I am somewhat uncomfortable being close to others.</li> </ol>
Dismissing	<ol style="list-style-type: none"> <li>5. It is very important for me to feel independent.</li> <li>6. I am comfortable without close emotional relationships.</li> <li>7. It is very important for me to feel self-sufficient.</li> <li>8. I prefer not to have other people depend on me.</li> </ol>

Preoccupied	9. I want to be completely emotionally intimate with others. 10. I worry that others don't value me as much as I value them. 11. I find that others are reluctant to get as close as I would like. 12. I feel at ease when I have close relationships.
Secure	13. I find it easy to get emotionally close to others. 14. I am comfortable having other people depend on me. 15. I am comfortable depending on other people. 16. I am optimistic about my future relationships.

---

*Note.* Bartholomew, K. & Horowitz, L. M. (1991). Attachment styles among young adults: A test of a four- category model. *Journal of Personality and Social Psychology*, 61, 226-244. This material is in the public domain and can be reproduced without permission by researchers and by clinicians for use with their patients.

**Personality.** Personality was assessed utilizing the Personality Inventory for DSM-V-Brief Form (PID-V-BF) (American Psychological Association, 2013), a 16-item questionnaire measuring the degree to which an individual exhibits the traits of negative affect, detachment, antagonism, and disinhibition. For examples, an item assessing negative affect was: "I worry often." An example of an item assessing detachment was: "I'm not interested in making many friends." An example of an item measuring antagonism was: "I crave attention." An example of an item measuring disinhibition was: "I often act on impulse." Items were scored using a 4-point Likert scale ranging from 1 (strongly disagree) to 4 (strongly agree). Each trait dimension consisted of 4 questions. Individual responses for negative affect ranged from 6 to 15 ( $M = 10.10$ ,  $SD = 2.70$ ). Individual responses for detachment ranged from 5 to 15 ( $M = 9.63$ ,  $SD = 2.62$ ). Individual responses for antagonism ranged from 4 to 15 ( $M = 9.10$ ,  $SD = 2.66$ ). Individual responses for disinhibition ranged from 4 to 15 ( $M = 9.50$ ,  $SD = 2.42$ ). Reliability analysis revealed fairly questionable internal reliability for the dimensions, negative affect ( $\alpha = .61$ ), detachment ( $\alpha = .66$ ), antagonism ( $\alpha = .59$ ), and disinhibition ( $\alpha = .59$ ).

Table 2

*Personality Inventory for DSM-V Brief Form Items*

Dimension	Items
Negative Affect	<ol style="list-style-type: none"> <li>1. I'm not good at planning ahead.</li> <li>2. I worry often.</li> <li>3. I get emotional easily, often for very little reason.</li> <li>4. I fear not having someone to love me.</li> </ol>
Disinhibition	<ol style="list-style-type: none"> <li>5. People would describe me as reckless.</li> <li>6. I often act on impulse.</li> <li>7. I keep to myself.</li> <li>8. Others see me as irresponsible.</li> </ol>
Detachment	<ol style="list-style-type: none"> <li>9. I'm stubborn in my ways, even if they don't always work.</li> <li>10. I steer clear of romantic relationships.</li> <li>11. I'm not interested in making many friends.</li> <li>12. I prefer to not to get close to many people.</li> </ol>
Antagonism	<ol style="list-style-type: none"> <li>13. I'm not very bothered if I hurt others' feelings.</li> <li>14. I crave attention.</li> <li>15. I sometimes use charm to get what I want.</li> <li>16. I would consider cheating if the benefits were worth it.</li> </ol>

*Note.* From Krueger RF, Derringer J, Markon KE, Watson D, Skodol AE. Copyright © 2013 American Psychiatric Association. All Rights Reserved. This material can be reproduced without permission by researchers and by clinicians for use with their patients.

***Deceit Detection.*** Deceit detection accuracy scores were obtained by summing the correct responses for each receiving participant. Individual scores ranged from 0 to 7 ( $M = 4.37$ ,  $SD = 1.85$ ).

### **Stimuli**

Deception research using the sender/receiver design often utilized recorded videos and sanctioned lies of senders (Miller & Stiff, 1993; Park & Levine, 2001; Vrij, 2000). For this study, audio-video recordings of senders were recorded and imbedded into the survey completed by receivers. The time length of clips ranged from 17-51 seconds.

Each sender responded to 5 questions: (1) What is your current partner's name; (2) How long have you been in a relationship; (3) What do you like most about your partner; (4) What is one thing that bothers you about your partner; and (5) Can you share about your first kiss?

### **Procedure**

**Senders.** To increase ecological validity, data were collected in an environment familiar to the subjects; therefore, the interviewing occurred in the main office of the facility at which the senders work. Each sender met individually with the Principle Investigator. Upon arrival, each were informed they were to participate in a mock interview concerning their current relationship, and were told to either lie or respond truthfully in response to the questions being asked. The 4 participants in a current relationship were asked to answer truthfully, and the 3 who were currently not in a relationship were asked to lie. Participants gave informed consent to participate in research and consent to be video-taped.

Seven audio-visual clips of deceitful and truthful accounts from *senders* were created and administered to the *receiving* participants.

**Receivers.** The receivers completed the self-report questionnaire via SurveyMonkey. Receivers were presented the informed consent and acknowledged their agreement to participate by clicking the "yes" button in order to continue. Receiver participants completed the PID-V-BF and RSQ. Following this, receivers were shown the 7 sender audio-visual clips. After each clip respondents were asked to indicate their level of agreement with the statement: "I believe the subject is lying." Receivers chose a response of either (1) I agree, or (2) I disagree. Lastly, demographics of gender, age, and racial or ethnic background were collected.

### Results

Spearman's Rho analyses were conducted to determine the relationship between personality and attachment dimensions and accuracy in detecting deception. Individuals each received an accuracy score ranging from 0 (none correct) to 7 (all correct). No significant results were found in support of the hypotheses. However the direction of the relationships favored the hypotheses for attachment orientations, anxiety,  $r = .32$ ,  $p = .09$ ; secure,  $r = -.35$ ,  $p = .06$ . The proposed directional relationship was supported for antagonism,  $r = -.12$ ,  $p = .54$ ; and disinhibition,  $r = -.33$ ,  $p = .08$ ; but not for negative affect,  $r = -.07$ ,  $p = .70$ ; and detachment,  $r = .03$ ,  $p = .90$ .

Table 3

*Means, Standard Deviations, and Intercorrelations for Scores on Personality and Attachment Dimensions, and Deceit Accuracy*

Measures	<i>M</i>	<i>SD</i>	1	2	3	4	5	6	7
1. Anxiety	-0.20	5.28							
2. Avoidance	-0.93	6.03	.45*						
3. Secure	11.10	2.11	-.63*	-.88•					
4. Neg Affect	10.10	2.66	.33	-.31	.05				
5. Detachment	9.63	2.69	.46*	.66*	-.68*	-.04			
6. Antagonism	9.10	2.66	-.18	-.01	.01	.03	.28		
7. Disinhibition	9.50	2.42	-.01	.29	-.05	.11	.45*	.63*	
8. Deceit	4.37	1.85	.32	.25	-.35	-.07	.03	-.12	-.33

*Note.* \* $p < .05$

Multiple regression was conducted for exploratory analyses to investigate how well scores for personality and attachment dimensions predict accuracy in deception detection. Enter method for variable entry was used. It was found that the assessed dimensions accounted for 26% of the variance in deception detection accuracy,  $R^2 = .41$ ,  $R^2_{ADJ} = .26$ ,  $F(6, 23) = 2.71$ ,  $p = .04$ .

Table 4

*Regression Analysis Summary for Personality and Attachment Variables*

Variable	<i>B</i>	SE <i>B</i>	$\beta$	<i>t</i>	<i>p</i>
Anxious	0.19	0.09	.52	1.99	.06
Secure	-0.25	0.24	-.29	-1.05	.30
Neg Affect	-0.09	0.13	-.14	-0.71	.48
Detachment	-0.16	0.17	-.22	-0.91	.37
Antagonism	0.22	0.15	.32	1.48	.15
Disinhibition	-0.24	0.17	-.31	-1.42	.17

**Discussion**

The results in regards to attachment orientation were as expected and provide further support for attachment anxiety as a factor of individual difference for deception detection. However, no previous research could be found that evidenced secure attachment as a debilitating factor for accuracy. Results by Ein-Dor and Perry (2013) found a relationship between attachment anxiety and an innate ability to detect deceit, though other styles of attachment did not have significantly related ability. The results from this study could be attributed to the

human's natural "truth bias" (Peace & Sinclair, 2012). Another contributing factor could be that those who are psychologically healthy tend to view others in a more positive light which could lead to a reluctance in believing others are lying, therefore impacting accuracy ratings (Friedman et al., 2007).

Though personality factors were deemed nonsignificant, each dimension was found to follow the hypothesized direction, with the exception of detachment. This may be due to the conceptualization of the detachment dimension having involved distorted beliefs and perceptions present for avoiding rejection and hurt, which is similar to the foundation of attachment anxiety (Caso, Gnisci, Vrij, & Mann, 2005). Therefore, the directional reflection of the two individual differences of focus can gain stronger supportive evidence for the oppositional defiance of the particular personality domain hypothesis.

There are few additional factors that could be found to contribute to the slight direction for certain personality dimensions. Those with negative affect and depressive symptoms have a heightened sensitivity to interpersonal communication due to a desire to please others, causing increased attentiveness during interactions (Friedman et al., 2007). Forgas and East (2008) concluded that the related skepticism may serve to counterbalance truth bias to evidence higher deception detection accuracy.

Individuals with antagonist or self-centered traits are more likely to become bored with tasks as well as demonstrate less respect for others, which could lead to decreased motivation in completing the assessment to their greatest ability (Friedman et al., 2007). These apathetic tendencies may account for the empathetic inaccuracy—and so forth deception detection inability—existent within narcissistic individuals (Zarins, 2014). Additionally, personality

pathology categorized by the erratic and emotional cluster involves symptomatology of jealous behavior which leads to distorted and inaccurate perceptions of others (Friedman et al., 2007).

The comorbidity of personality dimensions and attachment orientations shown in Table 4 may attribute the lack of findings due to the counterbalance effect. These results have been evidenced in many of the previous studies referenced, providing further support that distinguishing individual differences for lie detection is a difficult task, and requires vast amount of continuing research. The overall accuracy rating for detection tasks was 62.43% which falls closely under the evidenced findings that there is an overall greater than chance accuracy rate of 64% for identifying lies or truths based on responses to emotional stimuli (Warren et al., 2009).

### **Limitations**

Various limitations affected this study and can be improved upon for future research. The study did not include usage of facial detection software to indicate specific facial cues in relation to deception. The Micro Expression Training Tool (METT) analyzes faces in a video clip and indicates the micro-expressions that are presented and the associated emotion, which could be utilized to support the relationship between micro-expressions and emotional lies. This tool increases the reliability for the basis in which participants choose their response for the belief that a sender was lying or being truthful. Furthermore, the METT would allow for discussion on the impact of facial cues as a factor for individual differences in the ability to detect deceit (Warren et al., 2009).

Generalized estimating equations (GEE) have been suggested for use by researchers because it could model the accuracy in detecting both truth and lies. GEE utilization would have proved highly beneficial to provide percentages for accuracy, with 50% being chance (Hu,



Wang, & Qu, 2015). Temporal reliability could have improved if this technology assisted data collection on two separate occasions. This would support the implications of possible results.

Research conducted by Griffin and Bartholomew (2014) concluded that deception detection in college-age students has a greater accuracy. Taking these findings into account, the unrestricted age parameters for receivers can lead to reassessing the non-spurious validity of this experiment's measures.

Paradigm validity is another factor to be considered. Previous studies have reported the pivotal implications of cognitive load, and feelings of guilt and anxiety for deceit and accuracy (Caso et al., 2005; van't Veer, Stel, & van Beest, 2014; Vrij & Verschuere, 2013; Walczyk, Igou, Dixon, Tcholakian, 2014). This experiment failed to incorporate this realm, which could have increased validity in determining the authenticity in lies produced and relayed by the sending subjects. Though no scientific and methodological measures were utilized to measure the length of response latency for subjects interviewed, research conducted by Walczyk, Roper, Seeman, and Humphrey (2003) recorded longer lengths for liars, whereas this experiment seemingly produced the opposite. In addition, previous research has found no significant relationship between security and detecting deceit (Ein-Dor & Perry, 2013; Gadea et al., 2015).

Though the determined lying senders had to produce spontaneous statements that fairly-often are constructs of interpersonal conversation which in turn increased ecological validity, the deceitful statements are still sanctioned. This has erupted as a threat to validity in responses to previous research, though literature presented by Feeley (2014) indicated that individuals failed to recognize differences in verbal and behavioral cues between sanctioned and unsanctioned lies. This indicates possible limitations, though a defense against it is in place.

Lastly, the restriction in regards to sample size respectively limits the realm of results that could potentially be attained. The calculated power for this set was too low due to sample size, which curtailed the analyses and results. Theoretically, the ability to collect an unrestricted random sample would be ideal.

### **Future Direction**

The findings surrounding attachment security and lower accuracy scores indicate a realm in need of further discovery. The tendency for humans to naturally not have an apt for lying could serve as a gateway to further understanding its relevance and purpose from an evolutionary perspective, as opposed to the commonly researched societal perspective.

Continuous findings that attachment anxiety and deception detection have a positive relationship can provide a foundation for assessing other contributing factors specific to this population. Understanding the role of ethnicity and attractiveness of the sender may prove to be relevant, due to previous findings of these variables' impacts (Porter, Campbell, and Stapleton, 2002).

In regards to the studied component of facial expressions as deceptive cues, future researchers may choose to look at how this prevalence is either enhanced or diminished for emotionally-constructed lies and truths.

### **Conclusion**

The concept of human deception has posed various questions to theorists regarding its societal purpose and the nature of this craft. These vaguely answered core questions have led to decreased progress in distinguishing individual difference for detecting the presence of deception. The adaptive perspective has allowed for the discovery of social apprehension and

interpersonal dependence as identified factors for increased ability in accurately determining lies. This study has provided additional support to previous research that evidenced attachment anxiety as a variable for significantly higher ratings, as well as provided results for the secure attachments negative association with detection accuracy. The broad personality components, consistent with previous research, indicate only slight directional relations for this accuracy, though continue to pose as nonsignificant. Individual differences for deception detection will continue to spike the interest and borrow time from researchers due to its prevailing significance in today's society.

## References

- American Psychiatric Association. (2013). *Diagnostic and statistical manual of mental disorders: DSM-5*. Washington, D.C: American Psychiatric Association.
- Bornstein, R. F. (2012). From dysfunction to adaptation: An interactionist model of dependency. *Annual Review of Clinical Psychology*, 8(1), 291-316. doi: 10.1146/annurev-clinpsy-032511-143058
- Caso, L., Gnisci, A., Vrij, A., & Mann, S. (2005). Processes underlying deception: an empirical analysis of truth and lies when manipulating the stakes. *J. Invest. Psychol. Offender Profiling* 2, 195–202.
- Desjardins, N. M., & Hodges, S. D. (2015). Reading between the lies: Empathetic accuracy and deception detection. *Social Psychological and Personality Science*, 6(7), 781-787. doi: 10.1177/1948550615585829
- Duran, N. D., Dale, R., Kello, C. T., Street, C. N., & Richardson, D. C. (2013). Exploring the movement dynamics of deception. *Frontiers in Psychology*, 4(140). doi: 10.3389/fpsyg.2013.00140
- Ein-Dor, T., & Perry, A. (2013). Full House of Fears. *Journal of Personality* 82(2), 83-92. doi: 10.1111/jopy.12035
- Elaad, E., & Reizer, A. (2015). Personality correlates of the self-assessed abilities to tell and detect lies, tell truths, and believe others. *Journal of Individual Differences*, 36(3), 163-169.

- Feeley, T. H. (2014). Exploring sanctioned and unsanctioned lies in interpersonal deception. *Communication Research Reports* 13(2), 164-173. doi: 10.1080/08824099609362083
- Forgas, J. P., & East, R. (2008). On being happy and gullible: Mood effects on skepticism and the detection of deception. *Journal of Experimental Social Psychology*, 44(5), 1362-1367.
- Friedman, N. W., Oltmanns, T. F., Turkheimer, E. (2007). Interpersonal perception and personality disorders: Utilization of a thin slice approach. *Journal of Research in Personality*, 41(3), 667-688. doi: 10.1016/j.jrp.2006.07.004
- Gadea, M., Alino, M., Espert, R., & Salvador, A. (2015). Deceit and facial expression in children: The enabling role of the “poker face” child and the dependent personality of the detector. *Frontiers in Psychology*, 6(1), 108-119. doi: 10.3389/fpsyg.2015.01089
- Griffin, D., & Bartholomew, K. (1994). Models of the self and other: Fundamental dimensions underlying measures of adult attachment. *Journal of Personality and Social Psychology*, 67(3), 430-445.
- Hu, J., Wang, P., & Qu, A. (2015). Estimating and identifying unspecified correlation structure for longitudinal data. *Journal of Computational and Graphical Statistics*, 24(2), 455-476. doi: 10.1080/10618600.2014.909733
- Ickes, W. (1993). Empathic accuracy. *Journal of Personality*, 61, 587-610.
- Ickes, W., Buysse, A., Pham, H., Rivers, K., Erickson, J. R., Hancock, M., ... Gesn, P. R. (2000). On the difficulty of distinguishing “good” and “poor” perceivers: A social relations analysis of empathetic accuracy data. *Personality Relationships*, 7, 219-234.

- Ickes, W., Stinson, L., Bissonnette, V., & Garcia, S. (1990). Naturalistic social cognition: Empathic accuracy in mixed-sex dyads. *Journal of Personality and Social Psychology*, *59*, 730-742.
- Krueger, R. F., Skodol, A. E., Livesley, W. J., Shrout, P. E., & Huang, Y. (2007). Synthesizing dimensional and categorical approaches to personality disorder: Refining the research agenda for DSM-V Axis II. *International Journal of Methods in Psychiatric Research*, *16*(1), 65-73. doi: 10.1002/mpr.212
- Levine, T. R. (2010). A few transparent liars. *Human communication research*, *36*(1), 2-24. doi: 10.1111/j.1468-2958.2009.01366.x
- Miller, G. R., & Stiff, J. B. (1993). *Deceptive communication*. Newbury Park, CA: Sage Publications.
- Park, H. S., & Levine, T. R. (2001). A probability model of accuracy in deception detection experiments. *Communication Monographs*, *68*, 201-210.
- Peace, K. A., & Sinclair, S. M. (2012). Cold-blooded lie catchers? An investigation of psychopathy, emotional processing, and deception detection. *The British Psychological Society*, *17*, 171-191.
- Porter, S., Campbell, M. A., & Stapleton, J. (2002). The influence of judge, target, and stimulus characteristics on the accuracy of detecting deceit. *Canadian Journal of Behavioural Science*, *34*(3), 172-185.
- Sweeney, D. C., & Ceci, S. J. (2014). Deception detection, transmission, and modality in age and sex. *Frontiers in Psychology*, *5*, 1-27. doi:10.3389/fpsyg.2014.00590

- Van't Veer, A. E., Stel, M. & Beest, I. v. (2014). Limited capacity to lie: cognitive load interferes with being dishonest. *Journal of Judgment and Decision Making*, 9(3), 199-206.
- Vrij, A. (2000). *Detecting lies and deceit: The psychology of lying and the implication for professional practice*. West Sussex, UK: John Wiley and Sons.
- Vrij, A., & Verschuere, B. (2013). Lie detection in a forensic context. doi: 10.1093/OBO/9780199828340-0122
- Walczyk, J. J., Igou, F. P., Dixon, A. P., & Tcholakian, T. (2013). Advancing lie detection by inducing cognitive load on liars: A review of relevant theories and techniques guided by lessons from polygraph-based approaches. *Frontiers in Psychology*, 4(14). doi: 10.3389/fpsyg.2013.00014
- Walczyk J. J., Roper K. S., Seemann E., & Humphrey A. M. (2003). Cognitive mechanisms underlying lying to questions: response time as a cue to deception. *Applications of Cognitive Psychology*, 17, 755–744. doi: 10.1002/acp.91
- Warren, G., Schertler, E., & Bull, P. J. (2009). Detecting deception from emotional and unemotional cues. *Journal of Nonverbal Behavior*, 33, 59-69. doi: 10.1007/s10919-008-0057-7
- Wright, G. R., Berry, C. J., & Bird, G. (2012). “You can’t kid a kidder”: Association between production and detection of deception in an interactive deception task. *Frontiers in Human Neuroscience*, 6(87). doi: 10.3389/fnhum.2012.00087
- Zarins, S. (2014). *Tell a tale and watch a narcissist fail: Narcissism and lie detection via*

*email.* (Unpublished master's thesis). University of Michigan, Ann Arbor.

Table 1

*Relationship Styles Questionnaire Items*

Dimension	Items
Fearful	5. I find it difficult to depend on other people. 6. I worry that I will be hurt if I allow myself to become too close to others. 7. I find it difficult to trust others completely. 8. I am somewhat uncomfortable being close to others.
Dismissing	9. It is very important for me to feel independent. 10. I am comfortable without close emotional relationships. 11. It is very important for me to feel self-sufficient. 12. I prefer not to have other people depend on me.
Preoccupied	13. I want to be completely emotionally intimate with others. 14. I worry that others don't value me as much as I value them. 15. I find that others are reluctant to get as close as I would like. 16. I feel at ease when I have close relationships.
Secure	17. I find it easy to get emotionally close to others. 18. I am comfortable having other people depend on me. 19. I am comfortable depending on other people. 20. I am optimistic about my future relationships.

*Note.* Bartholomew, K. & Horowitz, L. M. (1991). Attachment styles among young adults: A test of a four-category model. *Journal of Personality and Social Psychology*, 61, 226-244. This material is in the public domain and can be reproduced without permission by researchers and by clinicians for use with their patients.



Table 2

*Personality Inventory for DSM-V Brief Form Items*

Dimension	Items
Negative Affect	5. I'm not good at planning ahead. 6. I worry often. 7. I get emotional easily, often for very little reason. 8. I fear not having someone to love me.
Disinhibition	9. People would describe me as reckless. 10. I often act on impulse. 11. I keep to myself. 12. Others see me as irresponsible.
Detachment	13. I'm stubborn in my ways, even if they don't always work. 14. I steer clear of romantic relationships. 15. I'm not interested in making many friends. 16. I prefer to not to get close to many people.
Antagonism	17. I'm not very bothered if I hurt others' feelings. 18. I crave attention. 19. I sometimes use charm to get what I want. 20. I would consider cheating if the benefits were worth it.

*Note.* From Krueger RF, Derringer J, Markon KE, Watson D, Skodol AE. Copyright © 2013 American Psychiatric Association. All Rights Reserved. This material can be reproduced without permission by researchers and by clinicians for use with their patients.

Table 3

*Means, Standard Deviations, and Intercorrelations for Scores on Personality and Attachment Dimensions, and Deceit Accuracy*

Measures	<i>M</i>	<i>SD</i>	1	2	3	4	5	6	7
1. Anxiety	-0.20	5.28							
2. Avoidance	-0.93	6.03	.45*						
3. Secure	11.10	2.11	-.63*	-.88*					
4. Neg Affect	10.10	2.66	.33	-.31	.05				
5. Detachment	9.63	2.69	.46*	.66*	-.68*	-.04			
6. Antagonism	9.10	2.66	-.18	-.01	.01	.03	.28		
7. Disinhibition	9.50	2.42	-.01	.29	-.05	.11	.45*	.63*	
8. Deceit	4.37	1.85	.32	.25	-.35	-.07	.03	-.12	-.33

\* $p < .05$

Table 4

*Regression Analysis Summary for Personality and Attachment Variables*

Variable	<i>B</i>	SE <i>B</i>	$\beta$	<i>t</i>	<i>p</i>
Anxious	0.19	0.09	.52	1.99	.06
Secure	-0.25	0.24	-.29	-1.05	.30
Neg Affect	-0.09	0.13	-.14	-0.71	.48
Detachment	-0.16	0.17	-.22	-0.91	.37
Antagonism	0.22	0.15	.32	1.48	.15
Disinhibition	-0.24	0.17	-.31	-1.42	.17

