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Adult Attachment and the Perception of Interpersonal Dynamics

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## ABSTRACT

This thesis investigates the influence of individual attachment styles on the perception of interpersonal behavior via Contemporary Integrative Interpersonal Theory framework. The research extends existing attachment studies by employing Continuous Assessment of Interpersonal Dynamics (CAID) methodology, generalizing attachment to unknown targets, and analyzing perceptions as a third-party viewer. Two hypotheses were formulated regarding communion perception in anxiously and avoidantly attached individuals, alongside a third hypothesis addressing covariation perception between dominance and warmth and an exploratory goal regarding agency perception in those anxiously and avoidantly attached. Data were collected from undergraduate students (N = 188) through the Experiences in Close Relationship-Short Form (ECR-Short Form) questionnaire and CAID coding training sessions. Results from linear regression analyses did not support the hypotheses, indicating a lack of significant relationship between attachment style and perception of communion, agency, or covariation. The findings suggest that attachment framework may not be pertinent when individuals perceive interactions as third-party observers or lack a personal relationship with the targets. This study highlights the nuanced role of attachment in shaping interpersonal perceptions and the importance of considering contextual factors in understanding attachment dynamics.

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## **Chapter 1**

### **Introduction**

This thesis will begin with an overview of the essential elements of attachment theory: its origins in infant attachment theory, evolution into adult attachment theory, framework that drives the present research, and measurements. Secondly, Contemporary Integrative Interpersonal Theory (CIIT) and its key concepts of agency and communion will be introduced. This section will continue with the synthesis of these two theories, discussing the impact of attachment differences on interpersonal perception, and conclude with the present research's goals and hypotheses.

### **Attachment Theory**

Originally conceptualized in the 1970s to explain the results of Ainsworth's strange situation studies, attachment theory posits that humans, met with varying degrees of attention and care as an infant, develop lifelong, internal models of interpersonal relationships that reflect their early experience of caretaker support, or lack thereof (Bartholomew & Horowitz, 1991). The study recruited pairs of infants and caregivers and sought to observe the behavioral differences between infants when separated from their caregivers in an unfamiliar situation and the behavioral differences once reunited their caregivers. Researchers ultimately identified three distinct behavioral patterns displayed by the infants in the study. Infants of the first type, *secure*, felt comfortable exploring their new environment, sought contact with their caretaker if distressed, and allowed themselves to be comforted by the caretaker until they were comfortable to return to exploration. *Anxious-resistant* infants displayed ambivalence toward their caretaker-

hesitant to explore the environment, distressed upon separation, yet inconsolable upon reunion.

*Avoidant* infants showed little regard toward their caretaker whatsoever and focused primarily on the toys in the environment (Bartholomew & Horowitz, 1991; Daniel, 2006).

As introduced, attachment theory regards these individual differences in behavior as consequences of early attachment figure (most commonly parent) responsiveness and reliability (Shaver & Mikulincer, 2022). Humans are born with an *attachment behavioral system* that motivates them to reduce anxiety through connection with a supportive attachment figure. The nature of this connection, however, is highly variable. Readily available attachment figures that provide a secure base in times of need, for example, foster an environment in which an individual feels comfortable exploring, allowing them to develop a sense of security and self-efficacy. Unavailable attachment figures, however, do not foster this environment, leading an individual to doubt their own worthiness, distrust others' intentions, and, ultimately, adopt unhealthy affect-regulation strategies (Shaver & Mikulincer, 2022).

In the decade following Ainsworth's publications, Bowlby expanded upon attachment theory by extending the framework past infancy and into an individual's entire lifespan (Shaver & Mikulincer, 2022). Adult attachment theory expects that infant attachment patterns are applied to all future relationships outside of the family as an individual internalizes them, learning to expect certain behaviors of others and react accordingly (Bartholomew & Horowitz, 1991). Internal working models can be operationalized with two questions: *Will my attachment figure be responsive to calls for support?* and *Am I worthy of a response?* (Bartholomew & Horowitz, 1991). The four combinations of answers to these questions are what distinguish Bowlby's four categories of adult attachment. The first classification, secure, describes people who trust others' responsiveness and have a personal sense of worthiness. In close relationships, a secure person feels comfortable with intimacy and trusts their partner's intentions. Preoccupied, the second



category, encompasses individuals with a sense of personal unworthiness that strive for self-acceptance via the acceptance of others who they view in a positive light. Fearful-avoidant individuals have a sense of personal unworthiness, as well, along with the expectation that others are rejecting. This leads them to avoid close relationships out of a fear of rejection. The final category, dismissive avoidant, describes those with a positive self-view and negative view of others. Dismissive-avoidant individuals seek to maintain a sense of invulnerability by avoiding close relationships and the associated potential for disappointment (Bartholomew & Horowitz, 1991).

Contemporary studies and measures of attachment theory have converged primarily upon a two-dimensional conceptualization of attachment (Daniel, 2006). The two dimensions, avoidance and anxiety, can be likened to the previously discussed views of self and other at the core of the typological approach. Avoidance measures an individual's distrust of a relationship partner and tendency to maintain emotional distance. Avoidance is facilitated through *deactivating strategies* which suppress an individual's drive to seek proximity with others (Shaver & Mikulincer, 2022). Anxiety measures a person's self-doubt and worries that a partner won't be available and supportive. In contrast to avoidance, attachment anxiety employs *hyperactivating strategies* in persistent pursuit of gaining more attention and care from a partner (Shaver & Mikulincer, 2022). Ultimately, a person's attachment style can be characterized by a unique combination of anxiety and avoidance. A person can be high in anxiety, high in avoidance, high in both, or high in neither. This paper will conduct data collection and analysis following this dimensional approach.

## Contemporary Integrative Interpersonal Theory

Contemporary Integrative Interpersonal Theory (CIIT) is rooted in Harry Stack Sullivan's 1953 Interpersonal Theory which assumes that the most important expressions of personality occur in dynamic, interpersonal interactions (Pincus et al., 2020). These interpersonal interactions refer to real, in-person interactions and any mental representations of hypothetical interactions (Hopwood et al., 2013). CIIT is currently in its fifth generation and provides an empirically validated model of personality structure for measuring variables and testing hypotheses regarding personality (Pincus et al., 2020).

CIIT framework is structured around two orthogonal concepts: *agency* and *communion* (Pincus et al., 2020). Agency refers to an individual's self-differentiating behavior and strivings for control in an interaction. It is measured on a spectrum ranging from submissive to dominant (Pincus et al., 2020). Communion refers to an individual's unifying behavior and striving for intimacy in an interaction. Communion is measured on a spectrum ranging from cold to warm (Pincus et al., 2020). The Interpersonal Circumplex (IPC) is the union of these two concepts, presenting agency along its vertical axis and communion across its horizontal axis. The IPC presents agency as increasing from the bottom to the top of the circumplex; highly submissive behavior (e.g. total compliance and surrender) is mapped at the very bottom of the circumplex, neutral behavior (e.g. neither submitting to nor exerting control over interaction partner) is mapped at the center of the circumplex, and slightly dominant behavior (e.g. giving directions without exerting total tyrannical force) is mapped slightly above the center. Communion is presented as increasing from the left side to the right side of the circumplex; slightly cold behavior (e.g. disagreement, standoffish-ness) is mapped slightly left of center, neutral behavior (e.g. moving neither towards intimacy and agreement nor away from it) is mapped in the center,

and highly warm behavior (e.g. physical intimacy) is mapped at the far right of the circumplex (Pincus et al., 2020).

The synthesis of these two axes and their varying intensities provides a comprehensive model of any interpersonal disposition. Extroverted, engaging behavior, for example, can be described as warm-dominant behavior and is, therefore, mapped onto the top, right quadrant of the circumplex. Aloof, disengaged behavior, alternatively, can be decomposed into cold/submissive behaviors and can be mapped in the lower, left quadrant of the circumplex. Agency/communion framework and the IPC are presented in Figure 1.

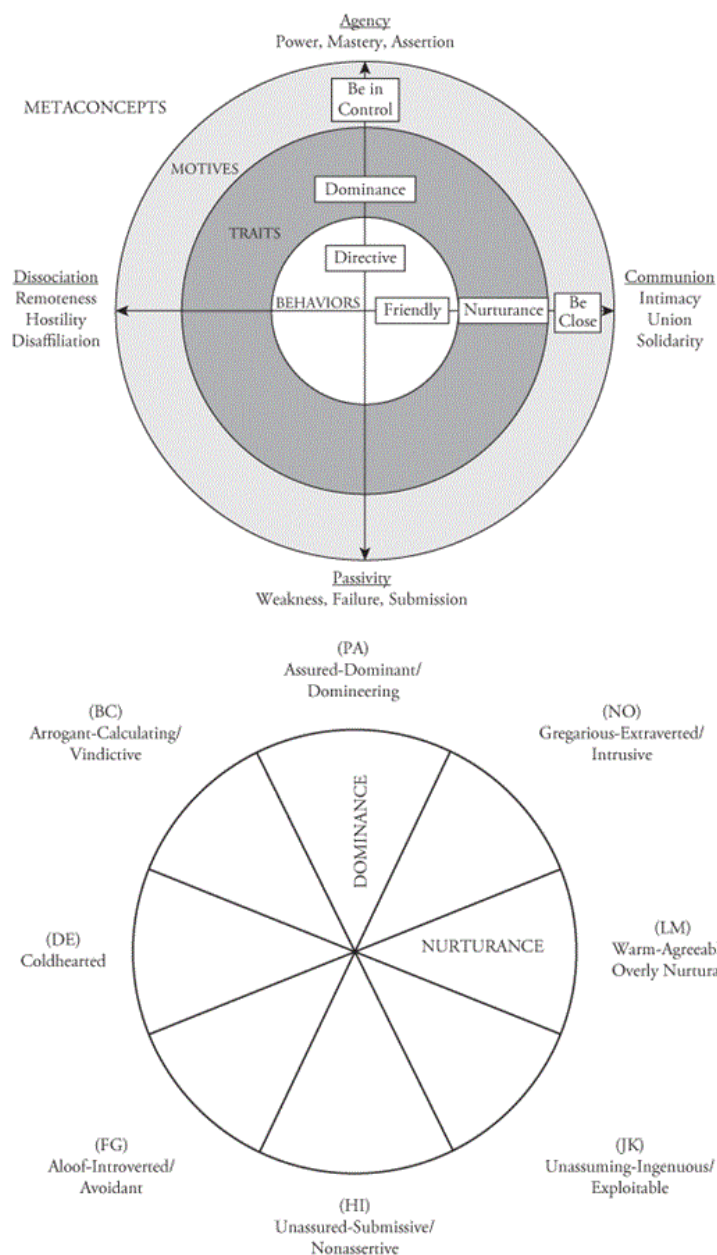


Figure 1. Agency and communion framework (top); interpersonal circumplex (bottom)

## Synthesizing Attachment and Interpersonal Theory

Another assumption of CIIT is that an individual's perceptions of agency and communion in self and others are a key psychological characteristic (Pincus et al., 2020). Personality pathology has, in fact, been increasingly defined as a disorder of perceiving and, consequently, relating to others (Roche et al., 2013). This is, again, rooted in Sullivan's original interpersonal theory, specifically the notion of interpersonal schemas that cause people to focus their attention and interpret cues based on previous interpersonal experiences. By engaging in these patterns of focus and interpretation, individuals learn to expect how certain interactions will unfold and regulate their behavior accordingly (Florsheim & McArthur, 2009). Through the synthesis of these internalized experiences and selected external factors, a person attributes meaning to a situation (Hopwood et al., 2013). Sullivan refers to the phenomenon of a person's schema conflicting with an objective interpretation of a situation as *parataxic distortion* (Pincus et al., 2020).

Working attachment models are prime examples of schemas that can distort perceptions of interpersonal situations and lead to parataxic distortion. When forming new impressions of others, people use their personal experience to go beyond the information explicitly given in a situation (Andersen & Cole, 1990). Research has shown that schemas of significant others (i.e. those with whom one has an attachment bond) are among the most easily accessible and therefore powerful when it comes to forming new connections (Andersen & Cole, 1990). As people enter social interactions with certain attitudes and mental representations acquired in past interactions, they transfer these attitudes onto new interaction partners (Andersen & Cole, 1990; Brumbaugh & Fraley, 2006).

As published by Shaver and Mikulincer in 2022, attachment models shape a person's cognitive-motivational predispositions, ultimately guiding their interaction goals, beliefs about others' dispositions, and mental scripts of how the interaction will unfold (Mikulincer & Shaver, 2022). More specifically, with respect to interaction goals, securely attached individuals strive for closeness during interactions, as their interactions with their attachment figure have taught them that intimacy is rewarding. Conversely, those high in avoidance strive for distance from an interaction partner to reduce their discomfort that comes with intimacy. Those high in anxiety, driven by their fear of rejection, are ambivalent about intimacy seeking (Mikulincer & Shaver, 2022). Regarding mental representations of others as influenced by attachment-related cognitive predispositions, those securely attached have a generally positive view of others while those insecurely attached generally hold negative views and doubts about trustworthiness (Mikulincer & Shaver, 2022). The third predisposition discussed by the authors relates to people's mental scripts of how interactions tend to unfold. *Secure-base scripts*, as held by those securely attached, follow a pattern along the lines of, "If I am distressed, I can approach a significant other for help. They will be supportive, I will feel relieved, then I can return to other activities." Studies of attachment-related differences have found that highly anxious people are less likely to include relief and return to other activities in their script. Highly avoidant people, on the other hand, are less likely to include help-seeking and benefiting from others' support in their script (Mikulincer & Shaver, 2022). Through these three top-down schematic processes, people bias the social information they acquire to fit existing expectations and dismiss any information contrary to expectations (Mikulincer & Shaver, 2022).

There is robust empirical evidence illustrating the impairments in perception ability that insecure attachment facilitates. A study on attachment in a group therapy training program found adverse effects of insecure attachment on a therapist's capacity for reflective functioning and,

therefore, their cognitive empathy and ability to decode people's emotional states (Leitemo et al., 2020). A different study, also in a group therapy context, found that securely attached patients demonstrated high levels of behavioral complementarity in interactions and, therefore, their ability to decode interaction partners' behavior and react accordingly (Maxwell et al., 2012). Research on the attribution of meaning to ambiguous situations has shown that people with insecure attachment exhibit a hostile attribution bias when interpreting innocuous stimuli (Collins & Feeny, 2004; Mikulincer, 1998). Insecurely attached people have shown lower perception capabilities in non-ambiguous situations designed to study description of others' emotions (Fraley et al., 2006; Horowitz et al., 1993).

### **Present Study**

This thesis seeks to explore the effects of an individual's attachment style on their perception of interpersonal behavior using a Contemporary Integrative Interpersonal Theory lens. The present research seeks to extend current attachment research in three ways. Firstly, there is limited research on attachment using Continuous Assessment of Interpersonal Dynamics (CAID) methodology. This methodology will be discussed further in depth in the next section. Secondly, this study generalizes attachment beyond romantic partners, family members, and other significant relationship figures and seeks to apply it to unknown targets. Finally, participants will be directed to record their interpersonal behavioral perceptions as a third-party viewer, rather than as a participating interactant.

The first hypothesis addresses communion perception in those anxiously attached. I hypothesize that individuals high in attachment anxiety will a) perceive both warm and cold behavior in higher intensities than individuals low in attachment anxiety will and b) interpret

neutral behavior as colder than individuals low in attachment anxiety would. Attachment theory literature refers to anxiously attached people's tendency to employ a *hyperactivating strategy*, through which they pay increased attention to distressing stimuli and are constantly monitoring for signs of abandonment (Shaver & Mikulincer, 2002). I expect this strategy to be a key mechanism behind highly anxious perceptions of behavior, specifically the over perception of coldness as hypothesized. There is ample empirical evidence supporting this hypothesis as well. Event-contingent recording (ECR) data from participants regarding their perception of an interaction partner and consequent affect found that participants high in attachment anxiety had a stronger negative affect in response to those they perceived as cold, illustrating their hypersensitivity to coldness (Sadikaj et al., 2011). Regarding the hypothesized hypersensitivity to warmth, another study, which presented participants with "morph movies" of a person's facial expression shifting from neutral to some emotive state, found that highly anxious participants perceived the onset of emotion sooner than other participants (Fraley et al., 2006). These findings suggest that anxiously attached people are just as sensitive to positive emotional stimuli as they are to negative. Similarly, a different study found that when learning about new people, those anxiously attached required less evidence than the other participants before making judgements, positive or negative (Zhang & Hazan, 2002). Again, these results support anxiously attached people's eagerness to view others positively and hypervigilance to signs of possible rejection. Another ECR study that focused on individuals' momentary, conscious goals during interpersonal interactions concurs on this perceptual duality, finding that highly anxious people had the most inconsistent (e.g. avoid distance/coldness while also not approaching closeness/warmth with interaction partner) yet intense goals among study participants (Locke, 2008). As previously stated, and in support of part b) of Hypothesis 1, studies have also indicated



hostile attribution bias in anxious participants through their tendency to attribute malevolence to ambiguous situations (Collins & Feeny, 2004; Mikulincer, 1998).

Hypothesis 2 addresses communion perception in those high in avoidance. I expect that individuals high in attachment avoidance will a) perceive both warm and cold behavior in lower intensities than individuals low in attachment avoidance will and b) interpret neutral behavior as colder than individuals low in attachment avoidance will. While highly anxious attachment styles are manifested in hyperactivating strategies, highly avoidant styles are manifested in *deactivating strategies*. When a person employs deactivating strategies, they deflect any distressing stimuli and attachment-related thoughts (Shaver & Mikulincer, 2002). Many of the studies discussed in support of Hypothesis 1 also examined highly avoidant attachment and offer support for Hypothesis 2. The ECR data from participants regarding their perception of an interaction partner and consequent affect found that participants high in attachment avoidance had a weaker affect in response to either warm or cold behavior, illustrating a lack of sensitivity to communal behaviors (Sadikaj et al., 2011). In a test of ability to describe new people, those high in avoidance demonstrated a lower ability than other participants (Horowitz et al., 1993). The authors attributed this incapacity to their tendencies to distance themselves from others and consequent vague internal representations of others (Horowitz et al., 1993). Similarly, research has shown that highly avoidant individuals are less attentive to emotional events and, therefore, encode less of the available information (Fraley et al., 2000). In the study of evidence needed to evaluate new people, those avoidantly attached required more behavioral evidence to make positive judgements or disconfirm negative ones (Zhang & Hazan, 2002). This finding relates to the notion that insecurely attached individuals tend to attribute hostility to ambiguous situations (Collins & Feeny, 2004; Mikulincer, 1998). It's important to clarify, however, that while in

anxiously attached people this bias stems from a diminished sense of self-worth, while in avoidantly attached people, this bias stems from a distrust of others.

Hypothesis 3 addresses both the communion and the agency axes of the interpersonal circumplex, predicting that individuals high in anxiety will perceive a greater covariation between dominance and warmth than individuals high in avoidance. Conceptually, agency and communion are orthogonal, yet pathological personality traits have been found to be associated with individual differences in covariation perception (Roche et al., 2013). In a study on the association between levels of interpersonal dependency, narcissistic grandiosity, and covariation perception, results suggested that as levels of interpersonal dependency increased, so did their linking of dominance/warmth. As levels of narcissistic grandiosity increased, however, this linking of dominance/warmth weakened (Roche et al., 2013). Attachment theory describes highly anxious individuals as seeking validation and connection from others as a means of easing anxieties about their own self-worth. This behavior reflects high interpersonal dependency and, likely, the conflation of warmth/dominance associated with it. Highly avoidant individuals, on the other hand, share attitudes with those high in narcissistic grandiosity with respect to their high senses of self-worth and diminished appraisals of others' worthiness. Additionally, those with dismissing attachment styles (i.e. those high in avoidance) have been found to perceive warm-dominant behavior as overly controlling (Florsheim and McArthur, 2009). For these reasons, I expect weak covariation in warmth/dominance as perceived by those high in attachment avoidance.

Existing research on attachment styles and agentic perception is limited. Therefore, the final goal of this study is to explore the relationship between levels of attachment anxiety/avoidance and perception of dominance/submission, or lack thereof.

## **Chapter 2**

### **Methods**

This study is a subset of a larger study conducted to standardize an efficient training curriculum in the Continuous Assessment of Interpersonal Dynamics (CAID). CAID is a method for the empirical measurement of interpersonal processes in which observers continuously assess the agentic and communal behaviors displayed by a member of a video-taped interacting dyad (Hopwood et al., 2020; Sadler et al., 2009). This assessment was conducted via Dual Axis Rating and Media Annotation (DARMA) software. DARMA software synchronizes media playback with the continuous recording of two-dimensional measurements (Girard & Wright, 2017). Users control a joystick to manipulate the location of a behavioral marker on DARMA's circumplex half of the interface for a real-time assessment of the behaviors being exhibited simultaneously on the media playback half of the interface. In this study, the two dimensions on the interface's circumplex are agency and communion, measured on a range of -1000 to +1000 on either axis with +/-1000 reflecting the most extreme behaviors on either side of the dimensions. DARMA software captures the coordinates of the behavioral marker every 0.5 seconds and returns time-series data following the conclusion of each video played on the media playback half of the interface. Each participant's time-series data for each video will be referred to as their "code" for that video.

### **Participants**

Participants for this study were undergraduate students recruited from the psychology subject pool. Participants were compensated with class credit in exchange for their participation.

This subject pool is convenient as well as distinctly applicable to this study due to the notable relevance of attachment framework in early adulthood as individuals are increasingly exposed to potential new relationships (Goldstein et al., 2019). 200 participants were recruited for the study. Data from the first 11 participants was excluded from analysis as the study protocol was still being finalized during their sessions. Data from 1 additional participant was excluded because they left the session early. Ultimately, data from 188 participants is to be included in further analysis. Participant demographic information is presented in Table 1.

**Table 1. Participant demographics**

<b>Demographic</b>	<b>Mean (SD) / %</b>
Age <sup>1</sup>	18.70 (1.06)
Gender <sup>1</sup>	Female = 76.06%
	Male = 23.40%
	Transgender male = 0.53%
Ethnicity/Race <sup>1,2</sup>	African American/African = 15.43%
	Asian = 13.30%
	American Indian or Alaska Native = 2.13%
	Caucasian = 67.55%
	Hispanic or Latino = 12.23%
	Native Hawaiian or Pacific Islander = 1.60%
	Middle Eastern or North African = 1.06%
	Other = 0.53%
Year in school <sup>1</sup>	Freshman = 68.09%
	Sophomore = 17.55%
	Junior = 10.11%

	Senior = 0.53%
	Fifth year = 0.53%

1.  $N = 188$
2. Totals add up to more than 100%, as participants were able to select multiple categories

### **Procedure**

Over this study, up to four participants at a time engaged in an undergraduate research assistant-led coding training session. Participants were instructed to provide demographic information and complete a battery of questionnaires via Qualtrics experience management software. Among these questionnaires was the Experiences in Close Relationship Scale - Short Form (ECR-Short Form) to assess attachment styles (Wei et al., 2007). This scale is a 12-item version of the 1998 Experiences in Close Relationship Scale that retains the same psychometric properties. The scale presents 6 Likert scale-style items to measure anxiety and 6 Likert scale-style items to measure avoidance. The minimum score on either dimension is 7 and the maximum is 42. A percentile of 50 on either dimension represents typical, healthy attachment while anything higher suggests attachment-related difficulties (Wei et al., 2007).

Following participant completion of the Qualtrics survey, research assistants then gave a presentation on interpersonal theory by introducing agency, communion, the synthesis of agency/communion, the interpersonal circumplex, and behavioral cue examples. Once this theoretical framework was established, research assistants introduced DARMA software and CAID coding. The remainder of the training session consisted of participants watching, coding, and reviewing codes for a prescribed set of videos showcasing dyadic interactions.

Contrary to the larger study's goal of training participants to become objective CAID coders, this study seeks to capture participants' instinctual, subjective perceptions of behavior

and the individual differences that influence these perceptions. To account for this, metrics of codes that were completed prior to the first “code review” step of the study protocol will be primarily used in analysis.

## **Chapter 3**

### **Results**

In all, 1,333 codes were completed by participants including 892 codes by participants that took part in 4-hour training sessions ( $M = 9.01$  codes per participant) and 441 codes by participants that took part in 2-hour training sessions ( $M = 4.96$  codes per participant). Analyses were conducted on one video’s set of participant codes at a time to maintain independence between data points.

#### **Attachment anxiety and communion perception**

The effect of attachment anxiety on communion perception was assessed using three videos: “Gloria & Rogers 1 – Therapist”, “Prevacation 2 – Client”, and “Meichenbaum & Richard 4 – Client”. These three videos feature warm, cold, and neutral communal behavior, respectively, determined by grand means of expert codes. “Gloria & Rogers” was coded by participants in the 4-hour session ( $N = 97$ ) prior to any corrective code review discussions. “Prevacation 2” was coded by participants in the 2-hour session ( $N = 85$ ) prior to any corrective code review discussions. “Meichenbaum & Richard” was coded by participants in both sessions ( $N = 184$ ) but, notably, after participants had already engaged in corrective code review discussions. Simple linear regression was used to model participant mean communion codes as a

function of their anxious attachment score on the ECR-Short Form for the warm, cold, and neutral communion videos separately. At a significance level of  $p=0.05$ , none of the models suggested significance. Models are presented in Table 2.

**Table 2. Regression of mean communion codes as predicted by anxious attachment**

	<i>Dependent variable:</i>		
	(Warm)	(Cold)	(Neutral)
ECR_anxiety	-3.793 (2.570)	-2.457 (1.889)	-0.525 (0.652)
Constant	358.422*** (64.098)	62.592 (48.675)	63.009*** (16.606)
Observations	97	85	184
R <sup>2</sup>	0.022	0.020	0.004
Adjusted R <sup>2</sup>	0.012	0.008	-0.002
Residual Std. Error	168.195 (df = 95)	119.193 (df = 83)	59.462 (df = 182)
F Statistic	2.178 (df = 1; 95)	1.692 (df = 1; 83)	0.647 (df = 1; 182)

*Note:*

\* $p<0.1$ ; \*\* $p<0.05$ ; \*\*\* $p<0.01$

### **Attachment avoidance and communion perception**

The effect of attachment avoidance on communion perception was assessed using the same three videos: "Gloria & Rogers 1 – Therapist", "Prevacation 2 – Client", and "Meichenbaum & Richard 4 – Client". Simple linear regression was used to model participant mean communion codes as a function of their avoidant attachment score on the ECR-Short Form for the warm, cold, and neutral communion videos separately. At a significance level of  $p=0.05$ , none of the models suggested significance. Models are presented in Table 3

**Table 3. Regression of mean communion codes as predicted by avoidant attachment**

	<i>Dependent variable:</i>		
		com_mean	
	(Warm)	(Cold)	(Neutral)
ECR_avoid	-3.457 (2.397)	1.464 (1.937)	-0.245 (0.631)
Constant	325.333*** (43.759)	-23.450 (35.552)	54.296*** (11.611)
Observations	97	85	184
R <sup>2</sup>	0.021	0.007	0.001
Adjusted R <sup>2</sup>	0.011	-0.005	-0.005
Residual Std. Error	168.280 (df = 95)	119.989 (df = 83)	59.543 (df = 182)
F Statistic	2.080 (df = 1; 95)	0.571 (df = 1; 83)	0.151 (df = 1; 182)

*Note:*

\*p<0.1; \*\*p<0.05; \*\*\*p<0.01

### **Attachment anxiety/attachment avoidance and covariation perception**

The effect of attachment anxiety and attachment avoidance on covariation perception was assessed using “Good Will Hunting 1 – Therapist”. Because there was no literature suggesting contextually dependent differences in covariation perception among varying attachment styles, only this single stimulus was used for analysis as opposed to stimuli categorized by context. This video was coded by participants in both sessions ( $N = 188$ ) prior to participant engagement in corrective code review discussions. Simple linear regression was used to model participant code covariation between warmth/dominance as a function of their anxious and avoidant attachment scores on the ECR-Short Form. At a significance level of  $p=0.05$ , none of the models suggested significance. Models are presented in Table 4.



**Table 4. Regression of warmth/dominance covariation as predicted by attachment**

	<i>Dependent variable:</i>	
	covar	
ECR_anxiety	0.005 (0.003)	
ECR_avoid		0.0001 (0.003)
Constant	-0.677*** (0.072)	-0.564*** (0.051)
Observations	188	188
R <sup>2</sup>	0.014	0.00001
Adjusted R <sup>2</sup>	0.009	-0.005
Residual Std. Error (df = 186)	0.263	0.265
F Statistic (df = 1; 186)	2.699	0.001

*Note:* \*p<0.1; \*\*p<0.05; \*\*\*p<0.01

### **Attachment anxiety/attachment avoidance and agency perception**

The effect of attachment anxiety and attachment avoidance on agency perception was explored using “Good Will Hunting 1 – Therapist”. Because there was no literature suggesting contextually dependent differences in agency perception among varying attachment styles, only this single stimulus was used for analysis as opposed to stimuli categorized by context. This video was coded by participants in both sessions ( $N = 188$ ) prior to participant engagement in corrective code review discussions. Simple linear regression was used to model participant code agency means as a function of their anxious and avoidant attachment scores on the ECR-Short

Form. At a significance level of  $p=0.05$ , none of the models suggested significance. Models are presented in Table 5.

**Table 5. Regression of mean agency codes as predicted by attachment**

	<i>Dependent variable:</i>	
	agen_mean	
ECR_anxiety	-0.908 (1.325)	
ECR_avoid		-0.114 (1.286)
Constant	133.138*** (33.598)	112.893*** (23.657)
Observations	188	188
R <sup>2</sup>	0.003	0.00004
Adjusted R <sup>2</sup>	-0.003	-0.005
Residual Std. Error (df = 186)	122.426	122.578
F Statistic (df = 1; 186)	0.470	0.008
<i>Note:</i>	* $p<0.1$ ; ** $p<0.05$ ; *** $p<0.01$	

## **Chapter 4**

### **Discussion**

The goal of this research was to determine if individual differences in attachment anxiety and/or attachment avoidance influence a third-party viewer's perception of agency and/or communion while evaluating a dyadic interaction. After completing the ECR-Short Form to measure levels of attachment anxiety and avoidance, participants were instructed in interpersonal theory and CAID methodology then directed to code the interpersonal behaviors showcased in a series of video-taped interactions. Analyses were conducted using linear regressions between ECR score and average agency/communion coordinates for each participant.

The results do not provide support for my hypotheses. I had hypothesized that individuals high in attachment anxiety would a) perceive both warm and cold behavior in higher intensities and b) interpret neutral behavior as colder while individuals high in attachment avoidance would a) perceive both warm and cold behavior in lower intensities and b) also interpret neutral behavior as colder. Additionally, I predicted that individuals high in anxiety will perceive a greater covariation between dominance and warmth than individuals high in avoidance. My final goal of this study was to explore the relationship between levels of attachment anxiety/avoidance and perception of dominance/submission. Results suggest that there is no significant relationship between ECR score and average agency/communion coordinates and, therefore, no relationship between attachment style and interpersonal behavior perception. There was no evidence to suggest a relationship between attachment and covariation perception, either.

This lack of a significant relationship between attachment style and interpersonal perception suggests that attachment framework is not particularly relevant to an individual when there is a level of disconnect between the individual and the target they perceive. Disconnect

may be characterized by perceiving an interaction as a third-party viewer and/or by the lack of relationship with a target. These disconnecting factors were mostly not present in the previous studies that yielded significant results, as the majority placed participants in direct contact with perception targets. In accordance with foundational attachment theory literature, these previous studies demonstrated that attachment governs relationships and is a mechanism through which people navigate their personal interactions. In the present study, however, perception targets had no impact whatsoever on participants. Participants were not in the interaction, had no control over the interaction, and did not personally know the interactants. Because there was nothing prompting personal relationship-related discomfort, there was no need for attachment strategy activation.

Methodological limitations may also explain the insignificant results. As mentioned, the video in which the coding target displayed neutral behavior, “Meichanbaum & Richard”, was coded after participants had already engaged in corrective code review discussion. The corrective code review procedure was implemented to teach participants to code objectively, rather than in a way governed by their personal biases. This implies that the data collected from the neutral behavior video may not accurately reflect the true variation in subjective perception of neutral behavior, ultimately yielding insignificant results.

Another limitation of this study is the lack of generalizability resulting from the undergraduate student sample used in data collection. All the participants were of a similar age, had received at least some college education, and, likely, come from similar backgrounds that encourage and allow for higher education. These factors result in a rather homogeneous sample, the analyses of which may not be applicable to different populations.

In conclusion, while this study did not yield significant findings linking attachment styles to interpersonal perception in third-party observation contexts, it contributes to a deeper

understanding of the nuanced relationship between attachment and social cognition. Future research could explore alternative methodologies that address the disconnected nature of the present study. One avenue for this could involve participant coding of pre-recorded video tapes of themselves in an interaction. Through the review of real, experienced interactions, participants may experience stronger attachment activation as they reflect on any goals or discomforts they experienced that may have altered their perception of their interaction partner. Additionally, investigating the role of other individual differences in conjunction with attachment styles may provide a more comprehensive understanding of how individuals interpret and navigate social interactions. Despite the current study's limitations, its findings underscore the need for continued exploration into the mechanisms underlying attachment and its influence on perception in various interpersonal contexts.

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