Attachment and Student Success During the Transition to College

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We used 2 studies to examine attachment security and college student success. In the 1st study, 85 first-semester students provided information on attachment dimensions and psychological, ethical, and social indices. More anxious students performed worse academically in college than they had in high school and indicated they would be more willing to cheat; they also scored lower on measures of academic locus of control and self-esteem than their peers. Securely attached students reported low levels of depression and anxiety. Findings were supported with regression analysis conducted with controls for attachment avoidance, high school grade-point average, and gender. A 2nd follow-up study showed that college students who had plagiarized papers reported high levels of attachment anxiety. The contribution of attachment theory to academic advising is discussed.

Academic advising is intended to help students be successful in college and to prepare for their next phase in life (National Academic Advising Association, 2003). Therefore, academic advising professionals need to better understand the various factors that affect student success, especially at the critical time in which students enter college and experience a major life transition into adulthood. Because many models of academic advising are rooted in psychological theories (Frost, 1993; Hemwall & Trachte, 2005), we employ the psychological theory of attachment as a framework to better understand student success during the transition to college.

The impact of attachment affects many facets of one's life experiences; however, attachment takes on added significance during various life transitions, including when one begins formal schooling (Matas, Arend, & Sroufe, 1978), leaves the parental home (Bucx & Van Wel, 2008), marries (Davila, Karney, & Bradbury, 1999), and becomes a parent (Wilson, Rholes, Simpson, & Tran, 2007). While many of these transitions share similarities (e.g., psychological and social challenges), the move from high school to college comprises a unique experience as individuals approach adulthood, become more independent, experience changes in social structures, and move out of the parental home. How successfully students handle the transition to college can potentially affect their college success as well as the next transition, which begins at graduation. In this study, we examine college success using an attachment framework.

Attachment theory states that children develop either secure or insecure attachment styles based upon their early interactions with their caregiver (Bowlby, 1969). According to Bowlby (as noted in Bretherton, 1995), children develop specific mental models or schemas for the world and for themselves within the world. These internal working models encourage children to feel that their attachment figure(s) will (or will not) be available if needed, and if available, then they make them feel loved. The strength of the attachment styles was so strong and the effects so enduring that Bowlby believed that an infant's attachment to her or his mother started early in life and exerted lasting effects over the individual's life span (as cited in Waters, Merrick, Treboux, Crowell, & Albersheim, 2000) or as Bowlby stated "from cradle to grave" (Shear & Shair, 2005, p. 254).

Based on mother–infant interactions in the home during the first year of the child's life and in the laboratory procedure called "the strange situation," Ainsworth, Blehar, Waters, and Wall (1978) distinguished several styles of infant behavior and labeled them *secure, insecure avoidant,* and *insecure ambivalent.* Later, other researchers (Hazan & Shaver, 1987) transformed these styles into adult-appropriate self-report patterns of attachment styles that respondents could use to characterize their own relationships with romantic partners. However, soon after these models were developed, Bartholomew and Horowitz (1991) reformulated the three styles of attachment into four, more closely matching Bowlby's perspective of positive and negative views of self and others: Secure attachment is based on positive views of self and others, fearful individuals reflect negative views of self and others, dismissives have a positive view of self and a negative view of others, and preoccupieds

have a negative view of self and a positive view of others. More recently, Brennan, Clark, and Shaver (1998) identified two dimensions of attachment: (a) anxiety related to worry about being abandoned or rejected and (b) avoidance related to one's comfort with emotional closeness.

Study 1: Attachment and Transition to College

According to Bucx and Van Wel (2008), life course transitions give rise to fluctuations or changes in parent–child relationships, which are affected by attachment bonds. During major life transitions, individuals meet with new social and psychological challenges as well as stressors that must be negotiated. Larose and Bernier (2001) discussed three steps for dealing with life occurrences: primary appraisal, defined as "the process of categorizing an encounter and its various facets with respect to its significance for well-being" (p. 97); secondary appraisal, which refers to "the individual's evaluation of his or her resources to deal with a stressful situation (e.g., personal and environmental resources)" (p. 97); and coping, which refers to "the person's cognitive and behavioral efforts to manage demands that are appraised as taxing or exceeding his or her resources" (p. 98). As an individual experiences new life transitions, she or he must undertake further exploration that results in a need for reassurance that the secure base will be available. Additionally, depending upon attachment style, individuals deal with new stressors emerging from life transitions in differing ways; that is, a person may react by dismissing, ignoring, withdrawing from potential threats, or suppressing threat-related thoughts.

Over the course of life, an individual negotiates a number of transitional experiences. The first time a child leaves home for extended socialization experiences is considered a transitional event. Matas et al. (1978) found that, when compared to insecurely attached infants, securely attached children at the age of 18 months were more enthusiastic, cooperative, and better prepared for future social interactions as they transitioned into daycare; avoidant and ambivalent toddlers explored less and thus were less involved in the classroom setting. As they continue through school, students rely less on parental support and more on teacher support, showing an additional shift in their attachment system as they cope with further independence from their parents (Harter, 1996). Additionally, evidence shows that as children grow and develop, they express individually unique attachment styles that affect their development through puberty (Mikulincer & Shaver, 2007).

Adults face life transitions as they leave the parental home, marry, start a family, and so forth (Bucx & Van Wel, 2008). Davila et al. (1999) found that, during the onset of long-term romantic relationships, individuals become more secure as they move toward marriage and as their marriage develops. In terms of the transition to parenthood, Wilson et al. (2007) found that more anxious individuals tend to cope less effectively than do secure individuals. Additionally, as a new family emerges, secure spouses score higher on clinical ratings and self-reported measures of family functioning (Mikulincer & Shaver, 2007). As one's aging parents experience deteriorating health, an adult often must reverse roles from care receiver to caregiver (Bradley & Cafferty, 2001). Furthermore, with advancing age, secure individuals, characterized by positive models of self and others, report less anxiety about death (Besser & Priel, 2008).

While a variety of life transitions affect children and adults, some critical events in the lives of adolescents create especially challenging situations. For example, college students must adjust to a new social and academic environment while simultaneously growing more autonomous in managing their academics and navigating their personal lives (Larose, Bernier, & Tarabulsy, 2005, p. 282). The college years also may bring many unique challenges and stressors (Compas, Wagner, Slavin, & Vannatta, 1986), and attachment style can influence how students react to and are affected by the pressures of college. In some ways, the transition to college resembles the strange situation developed by Ainsworth et al. (1978) because college challenges an adolescent's adaptive strategies and coping mechanisms (Rice, Fitzgerald, Whaley, & Gibbs, 1995).

Higher education administrators face challenges in their charge to produce successful college graduates. Before the role of attachment can be examined in the postsecondary context, success measures must be defined. Most research on college student success focuses on academics. Svanum and Bigatti (2009) stated that college success has been defined as performance in a specific class or a collection of courses, college retention, or (less commonly) degree attainment. Lounsbury, Fisher, Levy, and Welsh (2009) stated that a student's cumulative grade-point average (GPA) is often viewed as the most important measure of college student performance. Other researchers suggest that college success

encompasses more than just a high GPA. Wolf-Wendel, Ward, and Kinzie (2009) stressed the importance of student involvement, engagement, and integration into the campus as a whole. As discussed by Reich and Siegel (2002), life at a university offers students a social environment in which to experience intellectual, moral, and social-emotional exploration such that they will face new academic, psychological, and ethical experiences.

Secure individuals are better prepared than less secure peers for the academic (Aspelmeier & Kerns, 2003; Larose et al., 2005; Mikulincer & Shaver, 2007), psychological (Frey, Beesley, & Miller, 2006; Muris, Mayer, & Meesters, 2000; Wei, Russell, & Zakalik, 2005), ethical (Albert & Horowitz, 2009; Mikulincer & Goodman, 2006; Van Ijzendoorn & Zwart-Woudstra, 1995), and social challenges and rigors (Laible, 2007; Larose & Bernier, 2001) that they will encounter in college. Individuals unable to form or maintain secure attachment bonds face a more difficult transition, putting them at risk for attrition. To understand the effects of attachment, we recruited a group of incoming freshmen to participate in our study of the relationship between attachment and college success as measured by academic, psychological, ethical, and social indices.

Methods

Participants. Study 1 was conducted using 85 incoming first-year college students—21 males (24.7%) and 64 females (75.3%). The average age was 18.26 (SD = 0.99) years. In terms of ethnicity, 22 participants self-reported as Hispanic (25.9%), 18 as Caucasian (21.2%), 20 as Asian (23.5%), 8 as African American (9.4%), 7 as Asian-Pacific Rim (8.2%), 4 as Middle Eastern (4.7%), and 6 classified themselves as other (7.1%).

Materials. In addition to answering demographic questions, the participants completed the following surveys: the *Relationship Structure* (RS) questionnaire (Fraley et al., 2006) consisting of 40 questions on a 7-point Likert scale used to measure attachment avoidance and anxiety, a four-paragraph relationship questionnaire (Bartholomew & Horowitz, 1991), and a categorical scale (Hazan & Shaver, 1987) used to assess attachment style based on questions regarding student life (e.g., "How interested would you be to engage in a political debate?" "How interested would you be to read a book not required for your courses?"), student activities (e.g., "Are you planning to join any fraternities/sororities?" "Are you planning to join any student groups?"), and questions regard-

ing academic cheating behavior (e.g., "How willing would you be to cheat to help a friend?" "How willing would you be to cheat to get a good grade?"); *Beck's Anxiety Inventory* (Beck, Epstein, Brown, & Steer, 1988) consisting of 21 questions on a 4-point Likert scale; *Beck's Depression Inventory* (Beck, Ward, Mendelson, Mock, & Erbaugh, 1961), including 21 questions on a 4-point Likert scale; the *Rosenberg Self-esteem Scale* (Rosenberg, 1965) consisting of 10 questions on a 5-point Likert scale; and the *Academic Locus of Control Scale* (Trice, 1985) made up of 28 questions on a 5-point Likert scale. Additionally, participants gave permission to allow access to their academic records (including GPA, credits attempted/earned, choice of major, high school GPA, and SAT scores).

Procedure. We sent participation invitations to approximately 800 incoming freshmen who had registered university e-mail addresses during their first semester of enrollment (October). All participants were asked to complete each questionnaire in the survey. Students needed approximately 30 minutes to complete the entire survey.

Statistical analysis. For this study, we used t tests as well as correlational and regression analyses. We used the results to determine whether significant differences ($p < .05$, two-tailed) characterized various aspects of student success as it relates to attachment security/insecurity.

Results

One of the major limitations of this study revolves around the sample size. Although 800 students were sent the request to participate in the survey, 85 responded for a return rate of approximately 10.5%. A further examination of the 800 potential student participants showed that, except in terms of gender, the sample of respondents may adequately represent the population as indicated by their similar demographics (see Table 1). Although the gender information does not closely follow that of the larger population, research in attachment indicates that gender is not a good predictor of attachment styles (Mikulincer & Shaver, 2007).

To provide a well-rounded view of attachment theory influence on student success, we used both categorical (four paragraphs) and continuous (RS questionnaire) attachment assessments. When discussing levels of attachment anxiety and avoidance, we refer to continuous variables, but when discussing specific attachment styles

Table 1. Demographic comparison of sample and populations

Characteristic	Population	Sample
Age (years)	18.1	18.3
Gender		
Male	45%	25%
Female	55%	75%
Ethnicity		
African American	18.8%	9.4%
Asian	25.0%	31.7%
Latino/a	18.9%	25.9%
White/Caucasian	28.2%	21.2%
Other	9.1%	11.8%

(secure vs. insecure), we refer to categorical variables.

Attachment and academic success. We calculated correlations among attachment anxiety and attachment avoidance (as measured with the RS questionnaire) with various academic measurements, including four high school measures: final high school GPA as well as math SAT, verbal SAT, and total SAT scores (see Table 2). We found a significant relationship between high school GPA and attachment avoidance ($r = .267$, $p = .021$). In addition, we found a significant negative correlation between students' total SAT scores and attachment anxiety ($r = -.261$, $p = .024$). We also looked at correlations of attachment anxiety and avoidance with academic indices following the students' first semester at college: credits attempted, credits completed, GPA, and GPA credits (completed credits that count toward a student's GPA). These analyses did not result in any significant correlations. However, we conducted additional examinations using students' high school GPAs and their first-semester college GPAs. Students with relatively high scores of attachment anxiety performed worse academically in college than they had in high school ($r = .312$, $p = .007$). In addition, students showing high indications of attachment avoidance attempted more credits in their first semester compared to their peers with low scores of attachment avoidance: $t(1,72) = 2.626$, $p = .011$.

Attachment and academic cheating. Students responded to the following questions: "How willing would you be to cheat to get a good grade?" and "How willing would you be to cheat to help a friend?" Students who scored high on attachment anxiety were more likely to agree to both statements: willing to cheat to get a good

Table 2. Correlational measurements of attachment avoidance and anxiety and academic measurements, $N = 74$

Measures	Avoidance	Anxiety
High School GPA	.267[*]	.195
Math SAT	.184	.071
Verbal SAT	.033	−.064
Total SAT	.067	−.261[*]
1st semester credits attempted	.142	−.066
1st semester degree credits	.217	.111
1st semester GPA	.077	−.048
1st semester GPA credits	.013	−.216
High school GPA – College GPA	.133	.312[**]

Note. *$p < .05$. **$p < .01$.

grade ($r = .406$, $p = .000$) and willing to cheat to help a friend ($r = .298$, $p = .008$).

Attachment and psychological health. We used four psychological measurements to analyze locus of control, anxiety, depression, and self-esteem (see Table 3). Results indicate that securely attached individuals were less anxious ($t[1,64] = 2.383$, $p = .020$) and less depressed ($t[1,60] = -1.693$, $p = .096$) than insecure individuals (see Figure 1). Students who reported higher levels of attachment avoidance or attachment anxiety also scored higher on scales of depression: $r = .552$, $p = .000$ and $r = .510$, $p = .000$, respectively. Students who scored higher in attachment avoidance or in attachment anxiety scored lower on measures of academic locus of control: $r = -.397$, $p = .001$ and

Table 3. Correlational analysis of attachment avoidance and anxiety and psychological measurements, $N = 67$

Psychological Measures	Attachment Measures	
	Avoidance	Anxiety
Locus of control	−.397[**]	−.310[**]
Anxiety	.287[*]	.076
Depression	.552[**]	.510[**]
Self-esteem	.451[**]	−.427[**]
Use hard drugs	.221	.460[**]
Use light drugs	.221	.324[**]
Drink to get drunk	.140	.358[**]

Note. *$p < .05$. **$p < .01$.

Figure 1. Comparison of attachment security and levels of anxiety and depression for secure and insecure groups
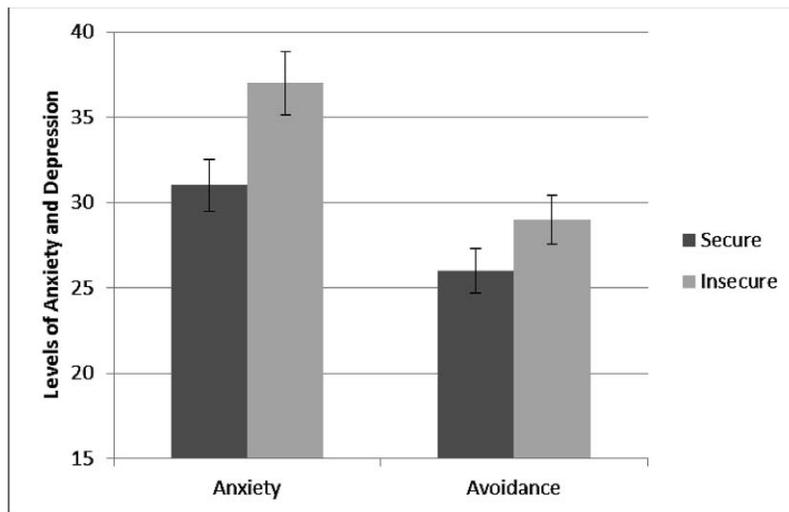
$r = −.310, p = .008$, respectively. Students who scored higher in attachment avoidance scored higher on items of overall general anxiety ($r = .287, p = .020$) as measured by the *Beck Anxiety* scale. Similarly, those who scored higher in attachment anxiety scored lower on measures of self-esteem: $r = −.427, p = .000$.

In addition, as previous research has shown (Mikulincer & Shaver, 2007), we found a strong relationship between attachment and psychological health as measured by drug and alcohol use. According to our results, students who reported higher attachment anxiety stated that they were more likely to use hard drugs ($r = .460, p = .000$) and light drugs ($r = .324, p = .008$) than those with lower attachment anxiety. Students with higher attachment anxiety also reported that they were more likely to "drink to get drunk" ($r = .358, p = .003$).

Locus of control was also highly correlated with a number of academic, psychological, and ethical variables. Academically, students with high scores on locus of control measures performed better academically in college compared to high school (as per GPA) ($r = .372, p = .001$), and they earned higher GPAs in their first semester at college ($r = .396, p = .001$) and completed more credits ($r = .278, p = .017$) than those who scored low on locus of control measures. Psychologically, students who scored high on locus of control also scored higher on levels of self-esteem ($r = .482, p = .000$) and

lower on measurements of anxiety ($r = −.289, p = .013$) and depression ($r = −.400, p = .001$). Results of the study of ethical variables show that students who scored low on locus of control items also indicated that they would be more willing to cheat to get a good grade ($r = .400, p = .000$) and cheat to help a friend ($r = .304, p = .009$) than participants who scored high on locus of control statements.

We conducted a regression analysis to examine the influence of attachment anxiety and attachment avoidance on first-semester college GPA while accounting for locus of control, high school GPA, and gender. The results indicate that attachment anxiety exerts a significant effect on students' academic success during the transition from high school to college. This model accounts for 31% of the variance (see Figure 2).

Attachment and socialization. Several questions asked if the participants were currently members of or were planning to join a fraternity or sorority or any other student group. Using correlational analysis, we found no significant correlations between student responses to involvement questions and measures of attachment anxiety or avoidance (see Table 4).

Study 1 Discussion

Attachment and academics. Previous research showed a strong correlation between attachment security and overall academic achievement (Larose et al., 2005). Specifically, Aspelmeier and Kerns

Figure 2. Regression analysis of the influence of attachment anxiety, attachment avoidance, locus of control, high school GPA, and gender on first semester college GPA
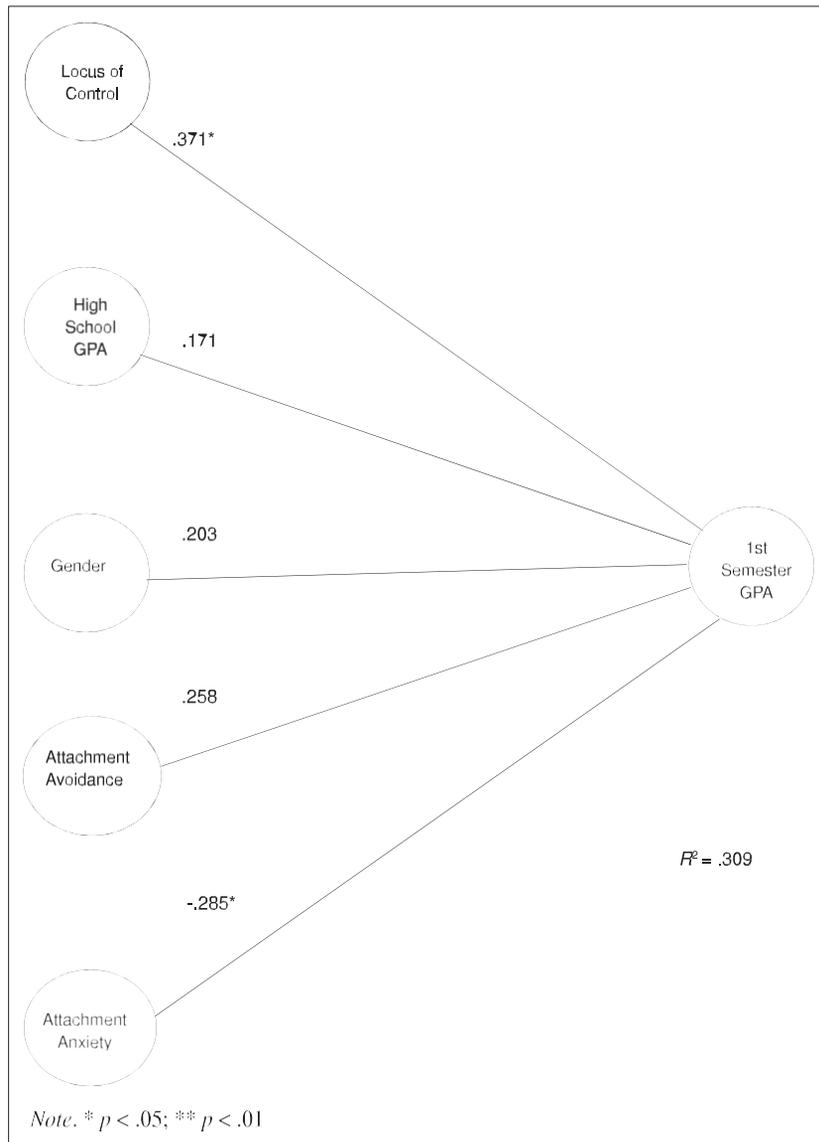
(2003) found that securely attached individuals report greater feelings of academic competence, preoccupied students show more general-trait anxiety, and dismissive students are less organized and are unfocused on academic matters.

Our results expand upon the literature on the relationships between attachment and academic success of students prior to entering college. We found correlational evidence showing that students in high school who were more avoidant performed better than students who were less avoidant. Although this finding may counter the general hypotheses on attachment security and academic success, it may reflect a situation in which avoidant high school students may have declined opportunities to interact with others in sports, extracurricular activities, social get-togethers, and the like, and therefore, they may have focused more of their free time on academic pursuits and interests. In addition, the results

Table 4. Correlational analysis of attachment avoidance and anxiety and student involvement

Questions on Involvement		Measures	
		Avoidance	Anxiety
Do you belong to a fraternity or sorority?	*r*	−.055	−.121
	n	77	77
If no, are you planning on joining a fraternity or sorority?	*r*	−.190	.000
	n	38	38
Do you belong to any student groups on campus?	*r*	−.191	−.062
	n	77	77
If no, are you planning to join any student groups on campus?	*r*	−.235	.012
	n	30	30

Note. *$p < .05$.***$p < .01$.

show that students who are more anxious scored lower on the SAT than students who were less anxious. Although their effectiveness in predicting academic success is debatable, SAT scores are a common measurement used for postsecondary admission (Camara & Echternacht, 2000).

Although the results from the current study seem to indicate that students who scored high in attachment anxiety during their first college semester earned lower GPAs in that semester than they had in high school, we found no significant difference in first-semester college GPA between secure and insecurely attached students. However, the first-semester GPA may not always be the best indicator of success because freshmen may be receiving additional support to ensure retention at the institution: While students are traversing their most difficult transitional period during the first semester of their freshman year, many colleges closely monitor them and devise specialized programs (e.g., special advising sessions, first-year seminars, intrusive academic advising practices, etc.) to assist them with academic studies.

Attachment and psychological health. The results involving psychological health support previous research that shows a relationship between secure attachment and overall psychological health in college students (Frey et al., 2006). As students transition to college, they face many individual challenges that may create anxiety about upcoming events (classes, leaving home, fitting in, etc.). Insecurely attached individuals tend to handle the anxiety and stress less aptly than secure individuals (Mikulincer & Shaver, 2007). Those with insecure (ambivalent) styles may feel that their attachment needs remain unmet, and thus they experience more loneliness than others, and these negative feelings may lead to depression and lowered self-esteem (Mikulincer & Shaver, 2007). This inability to navigate the transition and deal with stressors may also lead to feelings of helplessness.

Individuals with high levels of anxiety and depression and low self-esteem may turn to drug use as a means of escape (Vungkhanching, Sher, Jackson, & Parra, 2004). Drug and alcohol use by college students is often associated with a need to either fit in (peer pressures) or escape from one's self. Studies show that securely attached individuals were less likely to report consumption of large amounts of alcohol (Brennan & Shaver, 1995), while individuals classified as insecure were more likely to engage in alcohol use "to cope with a troubled relationship" (Levitt, Silver, & Franco, 1996).

Attachment and academic cheating. According to the results from our study, students who scored high on attachment anxiety were more likely to endorse statements advocating cheating to get a good grade and to help a friend. Students may feel pressure to succeed to make their parents proud, and they may be willing to help a friend to seek or receive peer approval. Although not much research has shown analysis of attachment and ethical behavior in the college classroom, experiments have been used to analyze other types of unethical behavior. For example, Van Ijzendoorn and Zwart-Woudstra (1995) found that security of attachment was related to high levels of moral reasoning among college students. Albert and Horowitz (2009) found a strong relationship between attachment and ethical reasoning within the marketplace. Insecure individuals are also more likely to be unfaithful in romantic relationships (Mikulincer & Goodman, 2006).

Attachment and socialization. Many students must deal with separation from their previous social networks including those established with friends, family members, and romantic partners as they explore their new social connections in college. Securely attached individuals are more comfortable exploring and knowing that they can return to a secure base. According to Larose and Bernier (2001), as compared to insecure adolescents, secure

adolescents show greater ego-resilience and social competence, acceptance, and integration within peer groups than do their insecure peers. Additionally, Laible (2007) found that secure adolescents may exhibit more social competence than insecure adolescents because of the emotional skills they have learned in close relationships, including empathy, emotional expressiveness, and emotional awareness. Although our results did not support a relationship between attachment styles and the intent to socialize through formal student groups, they do not negate the possibility that more securely attached students develop strong informally established relationships.

Study 2: Attachment and Ethics

Study 1 shows that attachment affects various aspects of student success during transition. In Study 2, we further examined the relationship between attachment and ethical behavior at college. Through Study 1, we found a relationship between attachment and students' willingness to cheat. We designed Study 2 to look at unethical behavior within the college setting.

Ethical reasoning has been related to a number of factors, including age, gender, religion, value and belief systems, and moral character (Albert & Horowitz, 2009). Attachment theory provides a framework through which one looks at self and others and as such offers a unique perspective on ethical reasoning. Prior to formulating attachment theory, Bowlby (1944) reported on *affectionless thieves*, a group of adolescents who had grown up with one or more separations from their attachment figures and who subsequently developed into delinquents who lacked concern for others. In fact, so closely related is attachment theory to ethical behavior that Levy and Orlans (2000) suggested that children with attachment disorders show a propensity for typically defined unethical behaviors including lying, cheating, and stealing. It is theorized that individuals who are more insecurely attached will engage in more unethical reasoning as displayed through a variety of unethical behaviors involving moral reasoning, business practices, romantic fidelity, and academic integrity.

Although the literature on the relationship between attachment and moral reasoning is not extensive, it shows evidence supporting the role of attachment style. Moral reasoning dilemmas depend on many factors that parallel attachment theory. According to Kohlberg (1984) and Van Ijzendoorn and Zwart-Woudstra (1995), moral dilemmas depend on empathy and perspective taking as well as autonomy and trust in others. Reimer (2005) found that motivation to act morally lies within one's willingness to support and have confidence in one's self. In addition, Sims (2002) found that individuals who did not care much about others' wishes and expectations also tend to engage in unethical decision making. According to attachment theory, role playing, empathy, trust, and positive view of and confidence in oneself are all traits of security.

Van Ijzendoorn and Zwart-Woudstra (1995) surveyed college students with measures of attachment and moral reasoning. They found no correlation between moral reasoning and the three separate attachment styles (secure, ambivalent, avoidant) in terms of level of moral development. They theorized that their college sample was too homogeneous (i.e., most college students were within the conventional level of moral development). However, they looked at the differences between attachment styles as they relate to Kohlberg's (1984) framework of Type A (the need to act morally based on authoritarian mandates) and Type B (the need to act morally based on fairness and universality) sublevels, and they found that secure individuals were more likely to engage in Type B than Type A moral reasoning. They argued that Type B moral reasoning allows individuals to properly balance individual rights with societal demands; secure individuals balance individuals' rights between partners as well as consider the partnership itself.

According to Study 1, students with high attachment anxiety indicated that they would be more willing to cheat to get a good grade and to help a friend. Because students responded to a hypothetical question, we used Study 2 to examine behavior within a university setting in which all students who commit plagiarism are required, as part of their sanction, to enroll in a workshop on plagiarism. Attendees serve as an appropriate population because they were being held responsible for unethical behaviors.

Methods

Participants. We conducted Study 2 with 52 participants studied over 5 consecutive semesters. The sample consisted of 22 males (42.3%) and 30 females (57.7%). The average age was 20.9 ($SD =$ 2.704) years. In terms of ethnicity, 17 participants were Asian (33.3%), 7 Hispanic (12.82%), 5 African American (10.3%), 5 Middle Eastern (10.3%), 5 Caucasian (10.3%), and 3 Asian-Pacific

Figure 3. Group comparison of measures of attachment anxiety and attachment avoidance
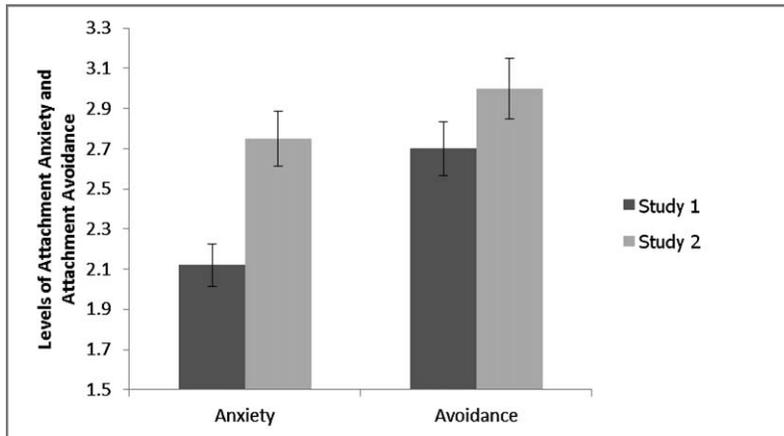
Rim (5.1%). Nine classified themselves as other (18.0%) and 1 refused to answer.

Materials. In addition to answering demographic questions, participants completed surveys including the ECR-R questionnaire (Fraley et al., 2006), which consists of 36 questions on a 7-point Likert scale used to measure attachment avoidance ($\alpha = .92$) and attachment anxiety ($\alpha = .95$), and the four-paragraph relationship questionnaire of Bartholomew and Horowitz (1991).

Procedure and statistical analysis. All students found responsible for committing plagiarism at the university must participate in a three-part workshop on academic integrity. During the last session, students were asked to complete the survey. This group of students was compared to the sample group from Study 1 in terms of levels of attachment anxiety and avoidance. The entire survey took approximately 10 minutes to complete. For this study, we used t tests to find significant differences ($p < .05$) between the group of students who plagiarized and the group from Study 1.

Results

Using the ECR-R survey (a continuous measurement), we found that students from the plagiarism group were significantly more anxious ($t[1,112] = 2.446$, $p = .016$) but not more avoidant than the group analyzed in Study 1 (see Figure 3).

Study 2 Discussion

The results from Study 2 support the findings from the limited previous research on the relationship between ethics and attachment. Albert and Horowitz (2009) developed an ethical

beliefs (EB) questionnaire that they used to assess one's feeling of ethical fairness within the marketplace. The EB consisted of 16 statements of varying ethical transgressions in which participants rated the statements about a behavior on a 5-point Likert scale depicting degrees of right or wrong. Researchers compared EB responses to each respondent's attachment style.

Results showed that secure individuals ranked more of the questionable behaviors as being unethical, followed by preoccupied and fearful individuals (not significantly different from one another), and then dismissives, who demonstrate the least ethical reasoning. Accordingly, the combination of bold entitlement (positive view of self) and least concern for consequences regarding others (negative view of others) leads to unethical reasoning. Although the specifics of the Albert and Horowitz (2009) study vary considerably from those of Study 1, we determined that more anxious, not more avoidant, students were taking the plagiarism workshop.

Infidelity manifests another unethical behavior. According to Mikulincer and Goodman (2006), insecure individuals are more likely to cheat on their spouse/significant other. Research by Mikulincer and Shaver (2007) showed that avoidant individuals hold themselves in high regard and therefore reason that through cheating they can share more of themselves with others. Duba, Kindsvatter, and Lara (2008) demonstrated that insecure-anxious individuals, who have a negative view of themselves, are more likely to cheat because they need high levels of attention, approval, and support from others. According to

Platt, Nalbone, Casanova, and Wetchler (2008), parents who engage in infidelity are more likely to have children who also participate in extra-dyadic relationships.

Attachment has also been found to be related to unethical reasoning regarding physical and emotional abuse of children. According to Howe, Dooley, and Hinings (2000), parents with avoidant behaviors express frustration when their baby demands extensive attention and care. Avoidant individuals unable to fully reciprocate the infant's needs may become irritable and may commit physical and emotional abuse. Parents with anxiety or ambivalence lack synchronicity with their baby's needs and are prone to becoming neglectful and disorganized. Unable to notice or fully satisfy their baby's needs, these parents may allow a baby to cry continuously.

Although individuals, cultures, and societies may differ in ethical or unethical considerations, one's mental models of self and others clearly affect moral development and ethical reasoning. Depending upon their attachment styles, individuals develop specific mental models that affect their ethical reasoning about the degree of right and wrong in specific contexts. While all people have the capacity of achieving high levels of moral development, they rely upon relationships between self and others to help develop greater levels of moral reasoning (Parikh, 1980). Individuals develop schemas for seeing themselves and others and determining ways their actions will be perceived. Research shows that more insecurely attached individuals tend to engage in more unethical behaviors as displayed through an assortment of indicators, including moral reasoning, business practices, academic dishonesty, and infidelity. According to Watson, Battistich, and Soloman (1998), various communities use attachment theory to build a school community that is nurturing and sensitive to develop highly ethical students.

General Discussion

Postsecondary academic advisors continually focus on assisting at-risk students to be more successful while transitioning to and through the college experience. The results of Studies 1 and 2 show that attachment security is related to the academic, psychological, and ethical success of college students. Although several different models of advising (Walsh, 2003) offer appropriate means for working with at-risk students, intrusive advis-

ing proves the best for insecurely attached students (Heisserer & Parette, 2002).

According to Varney (2007, p. 11), "Intrusive advising involves intentional contact with students with the goal of developing a caring and beneficial relationship that leads to increased academic motivation and persistence." This relationship could not only serve as a one-stop resource for students, but it can dually serve as a secure base for students with attachment needs.

As previously stated, insecure and anxious individuals are troubled by rejection and abandonment and tend to be unsure about whether or not their attachment figure will be attentive and responsive. Therefore, an academic advisor's primary goal involves establishing a sense of availability. The ability to decipher a student's needs, whether through academic support, psychological assistance, or as a sounding board, comprise crucial skills for assisting students with an anxious and insecure attachment style. Advisors must reciprocate this student's needs and make him or her feel good about collegiate pursuits.

In times of need, insecure avoidant individuals tend to pull back and disengage from others. They have developed schemas that indicate feelings of mistrust such that they only comfortably rely on themselves. To work with these students, an academic advisor must establish trust through consistent communications and maintained availability. An avoidant student benefits from being able to contact the advisor via different means and modes (e-mail, social media, and in-person, etc.) when needed as well as from fulfilled expectations for a reasonable response to queries. In addition, an advisor may need to undertake intrusive and persistent means when working with an insecurely avoidant student, who will not quickly reach out or share concerns. However, in this case, the advisor needs to determine when to provide greater psychological space for the comfort of the avoidant advisee.

In addition to giving advisors a better idea about ways to work with students, attachment theory also supports the administrative advising model in which advisors work with a specific group of advisees from enrollment through graduation. This delivery method allows advisors and advisees to build bonds from day one and better ensures that advisors offer consistent communication in line with their personal knowledge of students' needs.

As a result of the formation of a caring and nurturing relationship, an advisor serves as a secure base that a student feels comfortable

accessing in a time of need. By having this relationship with advisees, the advisor demonstrates care about them and their success, which engenders in students a more positive view of self, and by proving a positive support and source of encouragement, advisors help advisees develop a more positive view of others. With the implementation of an intrusive advising model, advisors can develop a close, trusting relationship in which students feel the kind of care that moves them toward a more secure attachment style (Mikulincer & Shaver, 2007) and thus a more successful academic career (Heisserer & Parette, 2002).

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