

THE ROLE OF PARENTING AND ATTACHMENT IN IDENTITY STYLE
DEVELOPMENT

by

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ABSTRACT

Due to the significant relationships between parenting style, attachment, and identity formation found in previous literature, this study investigated the possibility of attachment playing a mediational role in the relationship between parenting and identity style. A total of 264 students from two high schools participated in this study. Although not mediational, significant relationships between maternal responsiveness, attachment, and the normative identity style were found. An outstanding and unexpected finding of this study was that the attachment and responsiveness measurements, although thought to be assessing different variables, are now suspected to be looking at constructs that are almost one-in-the-same. Extending to practical applications, the results of this study could be used to aid programs focused on fostering positive youth development by emphasizing parental interaction, warmth, and support.

DEDICATION

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INTRODUCTION

Adolescents are unique in the sense that they must face one of the most daunting tasks one will ever experience in their lifetime. They must devise an answer to the overwhelming question: who am I? Some willingly deal with these issues, others avoid the task all together, some develop a clear sense of who they are and what they want, whereas others remain ambivalent. In any case, many studies have shown that the formation of a reasoned, sound, and carefully constructed identity is conducive to mental soundness, psychological/physical health, and general well-being (e.g., Schwartz, 2010; Waterman, 2007). The categorical classification of identity-seeking individuals has been formulated into two distinct paradigms outlining separate constructs related to identity development (Marcia, 1966; Berzonsky, 1989); however, given this extensive study on identity classification, one might wonder what factors determine such outcomes.

The present study investigated parental influences as related to the attitude one adopts when facing how to form an identity (or lack thereof). Many researchers have looked at the role that various constituents play in identity development, but one of the most promising links lie in the earliest form of socialization: the parent-child relationship. Associations have been established between aspects of child rearing and an adolescent's identity-relevant information processing style (Berzonsky, 2004; Smits et al., 2008; Soenens, Berzonsky, Dunkel, & Papini, 2011). This study sought to further investigate and support the tie between parenting style and identity style to see if exposure to a certain parenting style influences which orientation an adolescent uses to tackle a decision that plays a pivotal role in the rest of his life. More specifically, this study looked at finding a relationship between parenting style and identity styles

in a nonclinical high school-aged population, which, to our knowledge, had not yet been examined. An advantage of looking at the high school population versus the college population is the notable difference in parental pervasiveness. Given that most high school students still live with their parents, parenting style is an integral, and sometimes unavoidable, part of daily interaction. Investigating the relationship between parenting style and identity style in a younger population may yield different results than what has been shown previously in studies using university students.

Furthermore, this study explored the possible existence of a mediating role of attachment in the relationship between parenting and identity style. Research on parenting style and parental attachment has come to the consensus that supportive, responsive, and caring parents yield the most secure attachments (e.g., Kobak & Sceery, 1988; Kerns, Tomich, Aspelmeier, & Contreras, 2000). The results of studies examining how parental attachment and identity status are correlated have resulted in conflicting findings: some studies have shown that attachment predicts identity exploration (characteristic of the moratorium and identity achievement statuses), whereas others have not found this relationship, but rather, that parental attachment encourages identity commitment (characteristic of the foreclosure and achievement statuses) (e.g., Årseth, Kroger, Martinussen, & Marcia, 2009; Hoegh & Bourgeois, 2002; Kroger & Haslet, 1988). Identity status and identity style have also been found to be interrelated: informational processing style is positively correlated with identity achievement and moratorium, normative processing style is positively associated with foreclosure, and diffusive-avoidant processing style is positively related with identity diffusion (Berzonsky, 1989; Berzonsky & Neimeyer, 1994). As far as looking at attachment as a mediating factor, one such study by Quintana and Lapsley

(1987) examined the effects of attachment on parental control and ego identity in undergraduate students. This study found that adolescents that perceived their parents (namely, their father) as high on control reported weak attachment, which in turn, was found to have a weak negative correlation with identity achievement. I have been unable to find any other studies dedicated to finding such a relationship.

All in all, not much research has followed up on how attachment plays a role in the previously noted relationship between parenting styles and identity formation. Due to the literature on relationships between identity status and identity style, parenting and identity style, attachment and identity status, and attachment and parenting, there is cause for inquiry about how attachment plays a role in the formation of identity style because this could help explain how parenting style influences identity development as a whole. Finally, this study is the first to focus on the effect of attachment on the relationship between parenting and the formation of identity styles.

LITERATURE REVIEW

The Identity Crisis

Erik Erikson is most well-known for his work on psychosocial development throughout the life cycle (Erikson, 1950). Erikson proposed that, at various points throughout life, individuals encounter a crisis relative to the social demands of their respective age group. Each stage has two outcomes that fall on either end of a spectrum. On one end of the continuum, there is an adaptive result, in which case, a virtue is learned and healthy development ensues. When the virtue is formed successfully, the individual smoothly transitions on to the next stage in the developmental cycle. On the other end, the virtue is not learned and the result is a maladaptive outlook on the world in terms of the virtue, known as a core pathology. If a core pathology is learned rather than the virtue, hindrance of subsequent developmental stages may result as well as a predisposition toward dysfunction in the social capacity later in life. The psychosocial stages, the approximate age of crisis onset, virtues, and core pathologies are listed in Table 1.

Table 1

Erikson's (1950) Psychosocial Stages of Development

Stage	Approximate Age	Virtue	Core Pathology
Trust vs. Mistrust	Infancy	Hope	Withdrawal
Autonomy vs. Shame and Doubt	Early Childhood	Will	Compulsion
Initiative vs. Guilt	Play Age	Purpose	Inhibition
Industry vs. Inferiority	School Age	Competence	Inertia
Identity vs. Role Confusion	Adolescence	Fidelity	Repudiation
Intimacy vs. Isolation	Young Adulthood	Love	Exclusivity
Generativity vs. Stagnation	Middle Adulthood	Care	Rejectivity
Integrity vs. Despair	Mature Adulthood	Wisdom	Disdain

Of Erikson's psychosocial stages, Identity vs. Role Confusion has received some of the most substantial attention. Between youth and adulthood, Erikson postulated that individuals encountered a sort-of psychological limbo in adolescent years called moratorium (Erikson, 1950). It is during this moratorium that adolescents are supposed to search out for a position within the community where one is recognized as an individual (Erikson 1956). As with the other crises, one may end up at any point along a continuum. When it comes to the identity crisis, the continuum flows from the formation of a concrete sense of identity to identity

diffusion/role confusion. The outcome is dependent on the extent to which an individual has committed to an occupation and ideology (Erikson, 1950, 1956).

Erikson (1950) holds that the successful outcome, the formation of a sense of ego identity, is “the accrued confidence that the inner sameness and continuity prepared in the past is matched by the sameness and continuity of one’s meanings for others, as evidenced in the tangible promise of a ‘career’” (p. 261-262). The ideal sense of ego identity should be a coherent, cohesive, homogeneous entity. The individual’s sense of self, if successfully formed, should be stable across situations and from person to person. Moreover, Erikson (1956) speculated that the ego identity, being comprised of all of our childhood experiences, should appropriately prepare us to deal with challenges that we should expect to face in adulthood.

On the other end of the continuum, one can end up in a diffused, maladaptive category known as role confusion. In his original work, Erikson (1950) suggested that role confusion was characterized by not having made an occupational decision, which causes distress. He goes on to say that lack of a discrete identity leads adolescents on a journey of over-identification with social groups. Although this poorer outcome of the identity crisis is less imminently deleterious than the previous four stages, one could suspect that the failed construction of an identity would considerably handicap the future developmental stages.

It is very important to point out that Erikson did not see identity as a function restricted to the adolescent time period. Identity formation is of particular fascination because it is a continuous development throughout the entire life cycle; it is a cumulative effort. It neither begins, nor does it ever end (Erikson, 1956).

Identity Status and Identity Style

Identity Status. Branching off such a definition proposed by Erikson, Marcia (1964) defined four identity statuses based on the level of identity commitment and the exploration (meaning, the degree to which one has looked at and tested alternative beliefs) that an individual has participated in during the identity journey. The identity statuses he prepared and validated are diffusion, foreclosure, moratorium, and achievement (Marcia, 1966). Marcia decided to retain the term “identity diffusion” because that is what Erikson originally called the maladaptive outcome of the identity crisis. Erikson later changed this term to “role confusion” as his work progressed (as cited in Marcia, 1964, p.12). It is beyond the scope of this study to explain the in-depth differences between the statuses, but it is of particular importance to mention them because they are interrelated to the concept of the identity-processing styles (Berzonsky, 1989; Berzonsky & Neimeyer, 1994).

Waterman (1982) theorized identity status as a mobile effort. He projected that most individuals begin in a state of diffusion, which is characterized by low exploration and low identity commitment. From there, some branch off into moratorium, while others turn to foreclosure, and some remain in the diffusive state. In moratorium, the individual is high in exploration, yet still low in commitment. In foreclosure, the individual has engaged in little explorative behavior, but has found and is highly committed to a certain occupation and/or set of beliefs. Finally, if the individual surpasses moratorium, they move into the state of identity achievement, which is Erikson’s original, successful outcome of the identity crisis (Waterman, 1982; Erikson, 1950). This individual has explored many options and has decided to commit to a coherent collection of beliefs and values, otherwise known as an identity. Waterman’s theory of

“movement” through the identity statuses makes it an insightful adaptation of Erikson’s identity theory and a useful application of Marcia’s (1966) identity statuses.

Identity-processing Style. Identity-processing style is the way in which an individual digests, interprets, and utilizes identity-relevant information (Berzonsky, 1989). Three categories of identity-processing styles have been identified: informational, normative, and diffusive-avoidant. Before making any one commitment, individuals with an informational processing style enthusiastically seek out applicable identity information as self-motivated explorers (Berzonsky, 1989). Individuals adhering to this processing style make decisions swiftly, are conscientious, extroverted, open-minded, are less prone to panic, engage in less avoidance behaviors, rationalize less, and do less buck-passing (Berzonsky, 1992a; Berzonsky & Ferrari, 1996; Dollinger, 1995).

The normative processing style is characterized by the tendency to be easily influenced by others, especially those of particular importance to the individual (e.g., parents, teachers, counselors, peers, etc.) (Berzonsky, 1989). That is, they tend to adopt other’s viewpoints, beliefs, and norms. The normative-processing style has been found to be negatively correlated with openness to experience and alternative beliefs; however, normative individuals are also likely to be the most conscientious, agreeable, and the least neurotic people (Dollinger, 1995). Normative-style individuals will often times misconstrue new information to fit in, or shield against information that conflicts with, the beliefs that they hold (Berzonsky, 1992a).

Finally, diffusive-avoidant individuals are most likely to adjourn the processing and commitment of any identity-relevant information. In other words, they attempt to avoid making definite decisions related to who they are. They put off what is important until circumstantial

factors mandate that a decision must be made (Berzonsky, 1989). They are more likely to make use of an emotion-based coping style and are significantly more likely to be depressed because they are high in neuroticism (Berzonsky, 1992a; Dollinger, 1995). The diffusive-avoidant processing style has been found to be negatively correlated with conscientiousness, agreeableness, openness, and extroversion (Berzonsky, 1992a; Dollinger, 1995). They are the least vigilant decision makers, most prone to panic, and the most likely to engage in avoidance behaviors, rationalization, and buck-passing (Berzonsky & Ferrari, 1996).

Vleioras and Bosma (1995) have demonstrated that the identity styles are moderately correlated with aspects of psychological well-being. The most consistent predictor of well-being was the presence of commitment, which is usually found in those with informational and normative styles. These two styles were also found to be positively associated with personal growth, but only when the styles themselves were inverted, meaning, someone with a high informational approach and a low amount of normative approach would produce the highest scores of personal growth. Those with the diffusive-avoidant style reported in a way that was negatively correlated with scales predicting positive interpersonal relationships, environmental mastery, a sense of a purpose in life, and personal growth. Vleioras and Bosma's findings suggest that the diffusive-avoidant identity style is the least conducive to psychological well-being.

The Relationship between Identity Status and Identity-processing Styles. Identity styles and status seem to be interrelated in the sense that those of a certain status engage in a certain way of processing their identity-relevant information. Those with an informational-processing style have been most closely linked to the moratorium and, more strongly, to the

identity achievement status. Normative individuals have been found to be most likely in foreclosure, and the diffusive-avoidant individual shows the strongest tendencies towards the diffusive status (Berzonsky, 1989; Berzonsky & Neimeyer, 1994).

Parenting Styles

Distinctions between parenting styles were made popular by Baumrind (1971). In this work, she breaks down parenting styles into three distinct categories: permissive/indulgent, authoritarian, and authoritative. Later, a fourth style known as neglectful/uninvolved parenting emerged from the work of Maccoby and Martin (1983). Parents fall into these categories based on the levels of responsiveness and demandingness they display when rearing their children. Responsiveness is usually characterized by warmth and support, whereas demandingness is seen in terms of discipline, intrusive parental behavior, and supervision (Baumrind, 1991).

Indulgent/permissive parents are characterized by high responsiveness, but low demandingness. Permissive parents do not demand of their children or control them psychologically or behaviorally. They are, however, warm and approachable (Baumrind, 1971). Parents allow their child to consult with the family about decisions, do not set the stage for governing future behavior, and allow themselves to be used as a resource for the child to fulfill his wishes and desires (Baumrind, 1968). Interestingly, children that grow up in permissive homes tend to be less self-regulatory, independent, and responsible than their counterparts who were raised by parents that fell into the authoritative or authoritarian category (Baumrind, 1967, 1971).

Opposite of the permissive style is known as authoritarianism. Authoritarians are generally low on responsiveness, but high on demandingness. Authoritarian parents are, for the

most part, emotionally distant and strict (Baumrind, 1971). These parents build extremely structured environments for their children and expect behavior to rigidly align with their beliefs and rules. They value obedience, conformity, and respect and expect the child to take their word for what it is worth without question (Baumrind, 1968, 1971). Children raised in this environment tend to be aloof and wary (Baumrind, 1967).

The third popular style of parenting currently recognized is authoritative. Authoritative parents are high in demandingness, yet also high in responsiveness (Baumrind, 1971). Authoritativeness has long been argued the most beneficial style of parenting. Parents that are authoritative are relatively demanding, but also engage in effective communication with their children, are open to the child's attempts at autonomy, and are rational in their disciplines. They recognize the child as an individual and use effective disciplinary choices to build and set an expectation for future behavior (Baumrind, 1968). Studies have shown that children of authoritative parents grow up to be the most self-regulated and investigative individuals (Baumrind, 1967).

Among the most controversial parenting styles is the neglecting/uninvolved pattern. This parenting style is characterized by low responsiveness and low demandingness. In cases of neglectful parenting, parents are neither receptive nor responsive to their children. They are disconnected from their children and hardly engage in any of the normal, responsible undertakings that most parents take on aside from providing the most basic necessities (Maccoby & Martin, 1983). None of the studies we examined measured the negligent parenting style as a variable related to identity style, most likely due to infrequency or the resistance to disclose such information. That is not to say, however, that this style should be ignored in future research.

Studies have shown that children from neglectful families have the lowest scores of psychological adjustment, lowest academic competence, highest rates of delinquency, and the second highest rates of somatic symptoms (Steinberg, Lambourn, Darling, & Mounts, 1994). Judging by the maladaptive effects of negligent parenting found in Steinberg et al., it may be useful to try and decipher the effects of uninvolved parenting on identity style as well.

The Relationship between Parenting and Identity Style. It's no question that parents have some of the utmost influence on their child's development. Much early socialization occurs as a result of the parent-child interface and many studies have shown that positive parental interaction and relations with children yield the development of a sound identity (e.g., Grotevant & Cooper, 1985).

The link between parental authority, identity styles, and identity commitment was first investigated by Berzonsky (2004). In a sample of university students, he found that normative processing style was most abundant in individuals who had perceived their parents as authoritative. He also found that authoritative parenting was the only style to be negatively correlated with diffusive-avoidant processing. Moreover, authoritative parenting was the only style to significantly foster the informational processing style. A significant amount of normative individuals indicated, as expected, that they had been raised in households conducted in the authoritarian manner. This finding confirmed a side note of Marcia's (1966) study that identified foreclosed individuals as endorsing authoritarian values such as respect for authority and obedience. Further confirming Berzonsky's hypothesis, the diffusive-avoidant style was most prominent among the permissive/indulgent families, but it was also found in individuals from authoritarian households. The fact that Berzonsky found no other significant relationships

associated with indulgent parenting is intriguing. Perhaps different results would be seen in a younger population due to stronger parental influence and increased parent-child interaction.

Of the three identity-processing styles studied by Berzonsky (2004), those with the normative style had the strongest positive correlation with identity commitment, followed closely by individuals with the informational style. Those falling into the diffusive-avoidant style indicated attitudes that were negatively correlated with identity commitment. These findings further reinforce the findings of the Berzonsky (1989) and Berzonsky and Neimeyer (1994) studies, which relate identity style to the formation of Marcia's (1964) ego-identity statuses.

Closely related to the Berzonsky (2004) study is the Smits and colleagues (2008) study examining the correlation between parenting dimensions (support, behavioral control, and psychological control) and identity styles in university students. Their findings suggested that the informational-processing style is positively associated with parental support and, surprisingly, psychological control. Secondly, Smits and colleagues found that when individuals indicated that their mother implemented behavioral control and/or they felt a presence of general parental support, they were more likely to also be of the normative-processing style. That is, maternal behavioral control and parental support were positively associated with the normative identity style. Finally, when examining the diffusive-avoidant style, they found that it was most positively correlated with psychological control and negatively correlated with behavioral control, which supports Berzonsky's (2004) finding that diffusive-avoidant styles were significantly correlated with both authoritarian and permissive styles.

Finally, Soenens and colleagues (2011) examined the relationship between three additional parenting dimensions and identity style in university students. These dimensions

included parental regulation, responsiveness, and autonomy support (also known as democracy). In their study, all three dimensions were positively correlated with an informational-processing style. That is, individuals that engage in informational-processing style reported having parents that were fairly regulatory of their behavior, responsive to their needs, and supported their efforts at autonomy. This supports the findings that parental boundaries, along with expectations that the parents are willing to help the child meet, are crucial to the development of an informational-processing style (Fullinwider-Bush & Jacobvitz, 1993). Soenens and colleagues also found that the most prominent indicator of a normative style was the presence of responsiveness, which supports Berzonsky's (2004) finding that authoritative parents were positively associated with normative individuals. Also positively correlated with normative style (but not significantly after other variables were controlled) was behavioral regulation (Soenens et al., 2011). Finally, diffusive-avoidant style was negatively correlated with all three of the studied dimensions, which mirrors Berzonsky's (2004) findings.

Attachment

Attachment Styles. Bowlby (1969, 1973, 1980) defined the term "attachment" as a profoundly emotional bond between two individuals. Bowlby saw attachment as an internalized phenomenon that occurred in terms of black-and-white feelings about the self and others (as cited in Bartholomew & Horowitz, 1991, p. 226). He theorized that people think of themselves and others in terms of positivity or negativity: they either see themselves as lovable or unlovable, and they see others as either capable or incapable of love. Bowlby (1969, 1973, 1980) went on to suggest that an internal working model develops, in which, individuals develop expectations about how they may be treated by others in later social settings as a result of their experiences in

early social interactions (e.g., parenting). Attachment, therefore, comes as a result of previous interactions with the primary caregiver and serves as a base for personality characteristics to develop later in life (Bowlby, 1969, 1973, 1980). In terms of infancy, Bowlby (1969, 1973, 1980) speculated that attachment was developed as an innate survival device used to gauge when exploration of the environment is safe.

Using Bowlby's (1969, 1973, 1980) theory as a starting point, Mary Ainsworth began building an experiment to test parental attachment in early childhood and infancy. She, along with her colleagues, designed "The Strange Situation," in which, they observed children's patterns of response once their primary attachment figures had exited their immediate proximity (Ainsworth, Blehar, Waters, & Wall, 1978). As a result of their experiment, they identified three styles of attachment in terms of how the child behaved when their attachment figure left, when she returned, and when a stranger was present. The styles of attachment are secure, anxious-resistant, and avoidant. The secure attachment pattern was by far the most common of all the attachment styles. Ainsworth found that children who were securely attached to their caregiver showed a moderate amount of distress upon the figure exiting the room, hesitation when interacting with strangers (especially when their primary attachment figure was no longer in close proximity), and showed positive emotions upon the return of their caregiver. Ainsworth also noted that of the attachment styles, those with a secure attachment explored more when their caregiver stayed nearby, which validates Bowlby's original hypothesis suggesting that security fosters explorative behaviors (Ainsworth et al., 1978; Bowlby, 1969, 1973, 1980). Children with anxious-resistant attachment showed much ambivalence and an array of mixed emotions: they were intensely distraught once their caregiver left the room, showed fear and avoidance of the

stranger despite whether or not their caregiver was present, appeared unable to be placated by the primary attachment figure, and even showed rejecting behaviors (i.e., pushing away) upon figure return. Anxious-resistant children also explored much less than the other two attachment styles. Finally, avoidant children showed the most indifference no matter the conditions. Avoidant children showed a lack of concern when their caregivers left the room, seemed comfortable in the presence of a stranger, apathetic upon caregiver's return, and were unable to be calmed by both the stranger and the primary attachment figure (Ainsworth et al., 1978). Later, a fourth style of attachment, known as disorganized attachment, was described by Main and Soloman (1986) as being a style characterized by mixed emotionality. Children in this category do not display any organized, set, coherent, or consistent pattern of behavioral responses to stress that were previously outlined by Ainsworth and colleagues (1978). Children in this category often seem confused by or afraid of their caregivers.

Studies have shown that attachment styles continue on well after infancy has ended and impact many facets of life once an individual has entered adulthood (e.g., Ainsworth, 1989; Feeney & Cassidy, 2003). One theory of attachment suggests that an adult's romantic attachment style carries over from childhood with almost the same stylistic qualities as the attachment they experienced as a child with their primary caregivers (Shaver & Hazan, 1993). According to Shaver and Hazan (1993), adults can be divided into the same three attachment styles as identified by Ainsworth and colleagues (1978). Adults falling into the secure attachment category have the healthiest relationships, characterized by compassion, helpfulness, minimal jealousy, and a great amount of trust. Those fitting into the anxious attachment style seem almost uncomfortable in close relationships. These individuals desire close, intimate connections, but

are handicapped by their inability to trust which results in clinginess. Finally, the avoidant attachment style tends to avoid close relationships all together.

Another theory of adult romantic attachment draws from Bowlby's original theory on discrete categories between one's perceptions of self and others. Romantic attachment in adulthood was divided into four distinct categories by Bartholomew and Horowitz (1991). According to their results, people fall primarily into one of four categories based on their level of anxiety about themselves and level of avoidance of others. The types Bartholomew and Horowitz distinguished are known as secure, dismissing-avoidant, preoccupied, and fearful-avoidant. Those with a secure attachment style typically feel good about themselves and others (low anxiety/low avoidance). Secure individuals are trusting, comfortable, and enjoy interpersonal relationships. Individuals characterized by the preoccupied attachment style perceive themselves negatively or unworthy of the love and companionship of others. They see others positively and see them as generally trustworthy. This combination of low avoidance and high anxiety predisposes the preoccupied individual to clinginess. Dismissing-avoidant individuals rate themselves very positively; however, they are very individualistic to the point that they are somewhat distrustful of others. Characterized by high avoidance and low anxiety, they tend to rely on themselves more times than not. Finally, the fearful-avoidant individual sees himself as unlovable and others as untrustworthy (high avoidance/high anxiety).

The Relationship between Attachment and Parenting. Decades ago, Harry Harlow (1958) began studying variables involved in how attachment (or in Harlow's words, "love") developed between infants and mothers via his, now, famous macaque monkey studies. In these studies, Harlow and his associates constructed an experiment in which one-day-old monkeys

were exposed to two surrogate mothers, however, only one of these surrogates served as a food source. One group of infant monkeys was assigned to an inanimate wire surrogate mother that “lactated,” which provided the monkeys with their only source of nourishment. A second group of monkeys was assigned to a lifeless, yet warm, terrycloth-lined, lactating surrogate mother. An interesting finding of these monkey studies showed that despite which surrogate was their source of food, the infants much preferred clinging to the mother that offered them a sense of comfort: the terrycloth mother. Often times, the monkeys in the wire surrogate condition would cling to the wire mother solely for the purposes of nourishment, promptly returning to the terrycloth mother after feeding. Monkeys in the terrycloth-supplied nourishment condition almost never unlatched. Although the macaque monkeys have significantly more motor skills at birth than human infants, other factors that are linked to attachment responses are uncannily similar to that of human babies. Harlow inferred from this analogous relationship between infant humans and infant monkeys that being provided with our most instinctual need, food, was not enough to harbor secure bonds with primary caregivers. Harlow’s study could provide basis to the suggestion that negligent parenting (those parents that only provide the most basic needs) would yield the least securely attached individuals.

Interestingly, there is not a lot of research investigating adolescent attachment styles and parenting styles. The reason for this is because nonfamily (i.e., romantic relationships and peers) has a propensity to become more of an influence and focus later in development (Ávila, Cabral, & Matos, 2012). In the studies that have looked at how adolescent/adult attachment styles emerge as a result of parenting style, a clear pattern is observed. Beginning with Quintana and Lapsley (1987), a negative correlation was found between paternal control and secure attachment

styles. Shortly thereafter, Kobak and Sceery (1988) made connections between three types of Bartholomew and Horowitz's attachment styles and family relationships. Individuals characterized by the secure attachment style reported experiencing the smallest amount of personal stress and their families as being very socially supportive. Secure individuals recalled disturbing childhood events with ease, but also remembered their family being there to help them through difficult times. Dismissing-avoidant individuals reported that they were very distant from their families, received little support, had trouble remembering upsetting childhood experiences, felt rejected, uncared for, and lonely. Finally, preoccupied individuals felt love and support from their families- much more so than the dismissing-avoidant individuals; however, these individuals still felt a high level of personal distress (Kobak & Sceery, 1988). The fearful-avoidant attachment style was not examined in Kobak and Sceery's study. Kerns and colleagues (2000) further validated these findings by showing that parental responsiveness is positively correlated with secure attachment styles, yet negatively correlated with the dismissing-avoidant and fearful-avoidant styles.

These results parallel and support Bowlby's (1969, 1973, 1980) hypotheses about how we form interpersonal attachments. Parents that demonstrate love and support for their children create a trusting relationship. This, in turn, sets the stage for their offspring to have secure expectations and attachment styles later in life.

The Relationship between Attachment and Identity Formation. Some studies have found that there is continuity between attachment styles utilized in childhood and those used later on in life (Sroufe, 2005). Furthermore, studies suggest that future attachment with romantic partners reflects the characteristics of attachment styles seen as children (Feeney & Noller,

1990). In other words, even though change is characteristic of development, bottom-line traits remain relatively stable.

Although individuals tend to begin to focus more on romantic attachment as they age, parental attachment remains a precursor to the attachment styles they adhere to as adults (Ávila, Cabral, & Matos, 2012; Feeney & Noller, 1990). That is not to say, however, that parental attachment has any less of an influence on identity as a whole. Samuolis, Layburn, and Schiaffino (2001) found that identity exploration and commitment was positively correlated with maternal attachment, especially for female undergraduates. This relationship was much weaker in the father/male adolescent interaction (Samuolis et al., 2010). Given these interesting results, further research on gender identification and attachment may be warranted. The effects of parental involvement are not without their drawbacks: Ávila, Cabral, and Matos found that if there is too much parental involvement in late adolescence/early adulthood, the identity development process is inhibited in terms of exploration. Individuals dominated by their parents' emotional involvement become socially handicapped, that is, they do not develop the skills necessary for developing intimacy and nonfamily trust. Despite these findings, it has been found that parents play a fundamental role in the development of social skills, which dictates how efficiently individuals will approach and thrive in peer/romantic relationships as adults (Engels, Finkenauer, Meeus, & Deković, 2001).

Some studies have even gone a step further, defining how different attachment figures (i.e., parents vs. peers) relate to different kinds of identity exploration and commitment. Meeus, Oosterwegel, and Vollebergh (2002) found that a strong attachment with parents was positively

correlated with future identity as measured by school commitment. Peers, conversely, influenced relational exploration and commitment, which are present-day concerns of many adolescents.

The Relationship between Attachment and Identity Status. Many studies have been performed to distinguish a relationship between attachment style and identity status, yet much of this work has yielded contradictory outcomes. Hoegh and Bourgeois (2002) found a positive correlation between Bartholomew and Horowitz's (1991) secure attachment and Marcia's (1966) identity achievement and moratorium. Furthermore, Hoegh and Bourgeois found that fearful-avoidant attachment was negatively correlated with identity achievement and positively correlated with identity diffusion. Other studies, for example, Zimmermann and Becker-Stoll (2002), have expanded to look at other attachment styles and have found various results such as secure attachment positively correlates with identity achievement, and dismissing-avoidant attachment predicts identity diffusion.

In a study by Campbell, Adams, and Dobson (1984), researchers looked at the parent-child relationship in terms of emotional attachment and relative independence among undergraduate students. Their results suggest that those with the highest degree of attachment to their parental figures fall into the identity achieved, moratorium, or foreclosure status. The difference, however, is that adolescents in the foreclosure category indicated the most amount of relative dependence on their parents. Campbell, Adams, and Dobson found that the final status, diffusion, was found among individuals that claimed to have the most independence from, and least amount of emotional attachment to, their parents.

Quintana and Lapsley (1987) found that parental attachment was predictive of identity exploration; however, there was no empirical evidence suggesting that attachment was

exclusively related to any of the identity statuses. The only significant finding relating ego identity to parental attachment showed that low levels of attachment led to low levels of identity achievement (Quintana & Lapsley, 1987). Supporting these results, Kroger and Haslet (1988) found that strong parental attachment was found among those in the identity achieved status. These findings agree to some extent, but the overall view regarding identity status and parental attachment is still unclear.

To make sense of this controversy, Årseth and colleagues (2009) took this conflicting information and performed a meta-analysis of 14 studies to look at how romantic attachment style is related to identity status. They identified a moderate-to-weak positive correlation between Bartholomew and Horowitz's secure attachment and identity achievement, and a negative correlation between secure attachment and identity diffusion. They also found that achievement and foreclosure were both positively associated with secure attachment styles and both negatively associated with insecure attachment styles. Moratorium and diffusion were negatively associated with the secure attachment styles and positively associated with insecure attachment styles (i.e., dismissing-avoidant, preoccupied, and fearful-avoidant) (Årseth et al., 2009). These findings brought Årseth and colleagues to the conclusion that secure attachment did not indicate exploration, as once believed because secure attachment was not positively associated with moratorium. If the previous hypothesis was true, Årseth and colleagues would have found moratorium and achievement both positively associated with secure attachment, but this was not the case. This discrepancy is not without a positive note: in finding that both achievement and foreclosure were positively correlated with security, they deduced that secure attachment shares a positive relationship with identity commitment (Årseth et al., 2009). It

should be noted that Årseth and colleagues' correlations were of moderate-to-weak strength at best, so such results should be taken in perspective.

Despite these weak results, this meta-analysis suggests that identity is, indeed, related to attachment if we trace this relation back to Erikson's (1950) model of psychosocial development. Recall that Erikson (1950) postulated that the first psychosocial virtue, trust, is derived from an individual's relationship with his caregivers. Trust is the base on which we form attachment styles, ergo, romantic attachment is essentially derived from this early form of socialization. As noted previously, this connection between child and romantic attachment has been made in a number of studies (e.g., Sroufe, 2005). Romantic attachment is associated with Erikson's (1950) intimacy vs. isolation developmental stage; however, in order to get to that stage, Erikson claims that one must first pass through identity vs. role confusion. Årseth and colleagues' (2009) findings support studies and hypotheses (e.g., Bowlby, 1969, 1973, 1980) that speculate that having a trusting relationship with parents facilitates the commitment aspect of identity formation, which carries over into security and commitment in romantic relationships later in psychosocial development (e.g., Engels et al., 2001; Feeney & Noller, 1990).

Overview, Rationale, and Hypotheses

The Berzonsky (2004) study opened the door to the question of what parental factors influence identity style, which is a central element of identity formation. Few studies have examined this relationship between rearing style and identity style and no study that we are aware of has looked at how the relationship resides in a younger population, namely, high school-aged students. Of the studies that do look at the relationship between parenting and identity styles, university students are the population of choice; however, once an individual

decides to move out and go to college, parental influence is often minimized. At the high school age, individuals are usually beginning to flex their autonomy and figure out who and what they are. Parents, if they do so choose, have a significant impact in their child's daily activities and decisions. Although this study does not delve far into various parental dimensions, we believe in the contributive value of examining the younger population, who are still exposed to their parents on a frequent basis. Finally, and most importantly, this study seeks to determine if the effects of parenting style on identity style are mediated by parental attachment. Often times, these variables are examined two at a time whereas this study aims to investigate all three together. Given the literature on the relationships between factors relating to identity style (i.e., various connections between identity status, parenting style, and attachment), it is surprising that no study has looked at the relationship between parenting styles, attachment, and identity style.

Parenting Style is Related to Identity Style. We predict that we will find results similar to Berzonsky (2004)(i.e., the authoritative parenting style will foster the informational and normative identity processing styles, while inhibiting the diffusive-avoidant style; authoritarian parents will promote both the normative and the diffusive-avoidant identity styles; and indulgent parents will cultivate diffusive-avoidant adolescents). Furthermore, this study will utilize a continuous measure of parental responsiveness and demandingness. Unlike Berzonsky (2004), this study will be able to see the effects of negligent parenting (low responsiveness/low demandingness) on identity style. Given the low parental involvement of the negligent parenting style, we predict that negligent parenting will have a significant negative correlation with the informational identity style, and a significant positive correlation with the diffusive-avoidant identity style.

H1a: Adolescents with parents who use an authoritative parenting style will have significantly higher informational identity style scores and significantly lower diffusive-avoidant identity style scores than those whose parents adhere to one of the other three parenting styles.

H1b: Adolescents with parents who use an authoritarian or authoritative parenting style will have significantly higher normative identity style scores than those whose parents adhere to one of the other two parenting styles.

H1c: Results will be the same for both maternal parenting style and paternal parenting style.

Parenting Style Predicts Attachment. Quintana and Lapsley (1987) found that attachment was significantly and negatively correlated with paternal control in a sample of university students. After reviewing these results, we predict that parenting style will predict the degree of attachment between parents and adolescents. However, due to our emphasis on the high school population, and the relative importance of parents during this time period, we believe that the following correlations will be seen across genders:

H2a: Both maternal and paternal demandingness will significantly and positively predict attachment.

H2b: Both maternal and paternal responsiveness will significantly and positively predict attachment.

Attachment Predicts Identity Development. The degree of attachment found in the parent-child relationship will predict an adolescent's identity style. Specifically, parental attachment will be positively associated with the normative and the informational processing

styles and negatively associated with the diffusive-avoidant processing style. Additionally, Berzonsky (2004) showed that identity commitment was negatively correlated with diffusive-avoidant style. Armed with this knowledge, and branching off of Samuolis and colleagues' (2010) results which showed that female adolescent identity commitment and exploration benefit the most from maternal attachment, we predict that there will be a similar strength, negative correlation between daughter-mother and son-father (i.e., gender-matched) parental attachment and the diffusive-avoidant identity processing style. Despite Samuolis and colleagues' findings, we predict that we will see similar correlations despite gender due to this study's use of a younger population and the increased weight of parental influence during this time in an adolescent's life.

H3a: Mother and father attachment will significantly and positively predict a normative identity style.

H3b: Mother and father attachment will significantly and positively predict an informational identity style.

H3c: Mother and father attachment will significantly and negatively predict a diffusive-avoidant identity style.

Attachment as a Mediating Factor. Due to the research that suggests that identity style relates to identity status (e.g., Berzonsky, 1989; Berzonsky & Neimeyer, 1994), that identity status relates to attachment (e.g., Campbell et al., 1984), and that attachment is correlated with parenting style (e.g., Kerns et al., 2000; Quintana & Lapsley, 1987), it is clear that the role of attachment should be looked at with a more critical eye. Specifically, it is posited in this thesis that parental attachment mediates the relationship between parenting style and identity style. In

other words, parenting style influences attachment which in turn influences identity style. Thus, once we control for the effects of attachment, the relationship between parenting style and identity style will no longer exist.

H4: The effects of parenting style on identity style are mediated by parental attachment (see Figure 1).

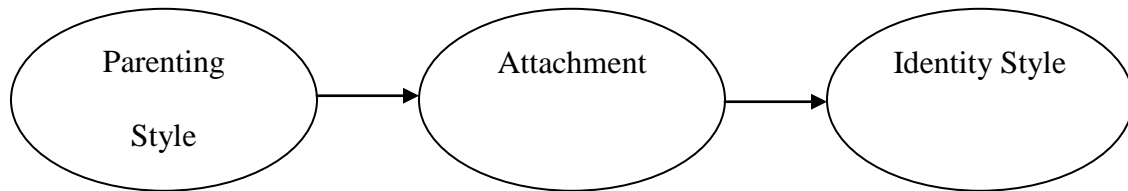


Figure 1. The Relationship between Parenting and Identity Style is Mediated by Attachment

METHOD

Participants

Data from 264 participants was collected from two high schools in the Southeastern United States. No identifying information was collected from the participants other than the following demographics. The sample consisted of 155 female and 109 male participants, with ages ranging between 14 and 19 years ($M_{age} = 16.10$, $SD_{age} = 1.15$). Three of the participants, however, chose not to disclose an age.

Participants included students from all grade levels. In the sample, 12.5% students ($n = 33$) were freshmen (9th grade), 27.3% students ($n = 72$) were sophomores (10th grade), 35.2% students ($n = 93$) were juniors (11th grade), and 24.2% students ($n = 64$) were seniors (12th grade). Two participants did not record a grade standing.

The ethnicities of the students were also recorded. 70.5% of the students ($n = 186$) reported being White, non-Hispanic; 5.7% of the students ($n = 15$) were Black/African-American, non-Hispanic; 8.3% of the students ($n = 22$) reported to be of a Hispanic/Latino heritage; 5.3% of the students ($n = 14$) were of Asian/Pacific Islander descent; 1.1% of the students ($n = 3$) reported being American Indian/Alaskan Native; 6.1% of the students ($n = 16$) reported being a mixture of any of the aforementioned demographics; and finally, 1.1% of the students ($n = 3$) marked “Other” as their ethnicity. Five subjects did not claim an ethnicity.

Presented in Table 2 is family dynamic information, which is meant to display who the adolescents perceived as their primary caregiver(s). This information varied greatly between the participants. No students categorized themselves as having “no primary caregiver” (i.e., they

were an emancipated minor or of age [18] and lived on their own). Four students chose not to disclose caregiver information.

Table 2

Participant Family Dynamics

Category	<i>n</i>	%
Mother and Father	152	57.6
Mother Only	50	18.9
Father Only	5	1.9
Mother and boyfriend/partner/fiancé/step-father	28	10.6
Father and girlfriend/partner/fiancé/step-mother	3	1.1
Mother and father (divorced/separated) engage in co-parenting from separate households	12	4.5
Another legal guardian (e.g., Grandparent(s), Aunt/Uncle, Sibling)	8	3.0
Other	2	0.8

Materials

Students were administered a large battery of paper and pencil surveys to complete on a Scantron bubble sheet. The surveys relevant to the current study are described below:

Demographic Questionnaire. A demographic questionnaire, developed for the purposes of this study, was administered to the students to assess age, grade standing, gender, ethnicity, and family dynamics (i.e., prominent caregivers).

Identity Style Inventory – 3 (ISI-3; Berzonsky, 1992b). The ISI-3 is a 40 item measure used to assess three social-cognitive styles related to identity exploration. Participants were asked to rate how much they agree or disagree with statements associated with how they resolve personal issues and utilize decision-making strategies using a five-point Likert scale ranging from ‘*Strongly Disagree*’ (1) to ‘*Strongly Agree*’ (5). The three styles measured on the ISI include: the informational-style (e.g., “I’ve spent a lot of time and talked to a lot of people trying to develop a set of values that make sense to me.”); the normative-style (e.g., “I’ve more or less always operated according to the values with which I was brought up.”); and the diffusive-avoidant style (e.g., “When I have to make a decision, I try to wait as long as possible to see what will happen.”). Identity commitment is measured using the same Likert scale (e.g., “I know what I want to do with my future.”). After a two-week period, test-retest reliability ($N = 94$) was found to range between .83 and .89 (Berzonsky, 1992b). Reported Cronbach’s alphas were found to be between .64 and .76 (Berzonsky, 1992b). In this study, Cronbach’s alpha for the informational subscale was found to be .71, whereas the normative subscale was measured at .65, and the diffuse-avoidant scale was found to be .72. Convergent validity of the original ISI (which carries over into the revised scales) was found via the consistency amid the identity style scale and scales measuring identity status, and other interpersonal/intrapersonal dimensions (Berzonsky, 1989).

Inventory of Parent and Peer Attachment (Parent Subscale) (IPPA; Armsden & Greenberg, 1987). The IPPA was developed to measure attachment in older adolescents. For this study, only the parental attachment scale was used and participants were asked to complete this measure twice to measure maternal and paternal attachment independently. Each item was reworded to reflect the gender of the parent in question (e.g., “My father accepts me as I am,” “Sometimes I wish I had a different mother.”). For each of the 28 items assessing parental attachment, respondents were required to rate the degree to which each item is true for them on a five-point Likert scale ranging from ‘*Never true*’ (1) to ‘*Always true*’ (5). The items in each of the scales cluster into one of three factors: trust, communication, and alienation. They formed a composite score by adding the total score from the trust and communication scales and then subtracting the total score from the alienation scale. Armsden and Greenberg (1987) reported good internal consistency for the IPPA with Cronbach’s alpha coefficients ranging between .72 and .91 for the sub-scales across both the parent and peer scales. In this study, both the maternal and paternal attachment subscales were found to have the same, very high Cronbach’s alpha, .91.

The Authoritative Parenting Index (API; Jackson, Henriksen, & Foshee, 1998). The API is a 16 item measure used to assess parental responsiveness (e.g., “My parents want to hear about my problems”) and demandingness (e.g., “My parents have rules for me to follow”). For the purposes of this study, the scale was duplicated to measure maternal and paternal influence separately. Changes made to the measure were limited to rewording pronouns/nouns to match the gender in question. Using a four-point Likert scale, participants will be asked to evaluate statements based on how closely their parent matches the description. Responses range from ‘*Not like her/him*’ (1) to ‘*Just like her/him*’ (4). Reported Cronbach’s alpha ($N = 1,715$) was found to

be .85 for the responsiveness subscale, and .77 for the demandingness subscale (Jackson, Henriksen, & Foshee, 1998). The continuous nature of the data provided by the API allowed us some flexibility in scoring. We could leave the data as is, or we could determine cut-off points for both dimensions to place the parents into a parenting style category. To determine parenting style, it was decided that a mean score of 2.5 would be used as a cut-off point. That is, if a parent scored above a mean score of 2.5 on the API's responsiveness scale and under a mean score of 2.5 on the demandingness scale, that parent was placed in the "indulgent" parenting style category. In the present study, it was found that Cronbach's alpha was sufficient, with a score of .88 for the maternal responsiveness subscale, and .80 for the maternal demandingness subscale. Also obtained from the results of this study, Cronbach's alpha was shown to be .87 for the paternal responsiveness subscale and .84 for the paternal demandingness subscale.

Procedure

Students were recruited based upon enrollment in classes at two high schools in central Florida. University of Central Florida International Review Board-approved parental consent forms were given to participating teachers to distribute to their students approximately one week prior to the intended assessment day. Students under the age of 18, who returned a signed parental consent form, were allowed to participate in the study. Those students above the age of 18 (validated by the date of birth shown on their identifications) were allowed to sign for themselves. There was no monetary compensation offered to the participants; however, some of the teachers, out of their own interest, awarded students extra credit for participating in the study. Students not allowed to participate were given an alternative assignment to obtain extra credit points. The students were told that the survey is used to measure factors in identity development

and the survey packet was completed in a group setting. After obtaining both parental consent and participant assent, the students completed the survey anonymously, and were not asked for any identifying information other than their ethnicity, gender, grade standing, and age. A brief set of directions were read to the students and Collaborative Institution Training Initiative-certified proctors stood by to give assistance as needed while they completed the survey packet.

RESULTS

Preliminary Analyses and Descriptive Statistics

A preliminary set of descriptive statistics was performed for each of the scales utilized during the present study. The following analyses set out to describe the overall sample scores, scores by gender, and scores by age.

Parenting Style. In reference to maternal parenting style ($N = 245$), it was found that 12.1% of the sample reported having a negligent mother ($n = 32$), 12.9% of the sample reported information consistent with having an authoritarian mother ($n = 34$), 14.4% reported having an indulgent mother ($n = 38$), and finally, 53.4% of the sample identified their mother as adhering to an authoritative parenting style ($n = 141$). The results of a one-way Analysis of Variance (ANOVA) showed that there were no significant differences between the maternal parenting style groups in regards to age. Also, the results of a Chi-square analysis showed no gender differences between parenting style groups as well.

In terms of paternal parenting style ($N = 198$), it was found that 13.3% of our sample ($n = 35$) described their father as fitting into the negligent parenting style category, 12.5% of students ($n = 33$) reported having an authoritarian father, 23.5% of participants ($n = 62$) reported having an indulgent father, and finally, 25.8% ($n = 68$) identified their father as fitting into the authoritative category. Results of the ANOVA showed no significant differences between the paternal parenting style groups in regards to age. Finally, Chi-square results showed no difference in gender distribution across paternal parenting style groups.

Identity Style. According to the ISI-3, 34.5% ($n = 91$) of students were of the diffuse-avoidant identity style, 30.7% ($n = 81$) were found to be of a normative identity style, and 33.0%

($n = 87$) of the sample were found to have an informational approach. The results of a one-way ANOVA showed a significant difference between the identity style groups in regards to age, $F(2, 253) = 3.59, p = .029$. A Fisher's LSD post hoc test suggested adolescents adhering to an informational identity style were significantly older than those of both the normative style ($p = .027$) and the diffuse-avoidant style ($p = .017$). Finally, a Chi-square analysis showed no significant difference between the identity style groups in regards to gender.

Attachment. Maternal attachment scores ($N = 251$) ranged between -24.00 and $+76.00$ ($M_{MOMattach} = 34.84, SD_{MOMattach} = 22.52$). Results of a Pearson's product-moment correlation analysis showed no significant correlation between maternal attachment and participant age. Finally, a t-test showed no significant difference between genders in their maternal attachment score. Paternal attachment scores ($N = 202$) were found to range between -28.00 and $+78.00$ ($M_{DADattach} = 28.86, SD_{DADattach} = 23.73$). No significant correlation was found between paternal attachment and age. The t-test showed a significant difference between the genders and their paternal attachment scores, $t(200) = 2.83, p = .005$, with male participants reporting greater attachment to their fathers than female participants. Furthermore, maternal and paternal attachment scores showed a significant positive correlation with one another, $r(292) = .53, p < .001$. For a full correlation coefficient matrix, see Table 3.

Table 3

Intercorrelations of all Continuous Variables

Measure	1	2	3	4	5	6	7	8	9	10
1. Age	--									
2. Maternal Response	.03	--								
3. Maternal Demand	-.22**	.23***	--							
4. Paternal Response	.02	.38***	.27***	--						
5. Paternal Demand	-.14*	.25**	.47***	.08	--					
6. Maternal Attach.	-.07	.85***	.32***	.35***	.25***	--				
7. Paternal Attach.	-.02	.42***	.27***	.82***	.17*	.53***	--			
8. Info. Identity	.11	.20**	-.01	.11	.00	.18**	.07	--		
9. Norm. Identity	-.08	.29***	.17**	.16*	.07	.28***	.16*	.18**	--	
10. Diff. Avoid. Identity	-.03	-.16*	-.12	-.11	-.06	-.16*	-.10	-.32***	-.02	--
11. Identity Comm.	.04	.25***	-.15*	.26***	.04	.23***	.19**	.42***	.56***	-.39***

Note: * $p < .05$, ** $p < .01$, *** $p < .001$

Hypothesis 1

To determine if parenting style was related to identity style, a Multivariate Analysis of Variance (MANOVA) was run with participant gender and parenting style as the independent variables and the identity styles as the dependent variables. Results showed that there was a significant main effect for maternal parenting style ($F[9, 696] = 3.60, p < .001$). The informational identity style, $F(3, 232) = 4.62, p = .004$, and the normative identity style, $F(3, 232) = 6.12, p = .001$, were found to be significantly dependent upon maternal parenting style.

A Fisher's LSD post hoc analysis revealed that those with an authoritative mother had significantly higher informational identity style scores than those with a negligent ($p = .010$) or an authoritarian mother ($p = .037$). Furthermore, those with an indulgent mother had significantly higher informational styles than those with a negligent mother ($p = .002$) or an authoritarian mother ($p = .006$). Put more simply, informational style scores of the authoritative and indulgent mother groups than the negligent and authoritarian mother groups. No significant difference was found between the authoritative and indulgent more groups or between the negligent and authoritarian mother groups.

In terms of the normative identity style, those with an authoritative mother had significantly higher normative scores than those with a negligent mother ($p = .001$) or an authoritarian mother ($p = .001$). Finally, those with an indulgent mother had significantly higher normative identity style scores than those with a negligent mother ($p = .033$) or an authoritarian ($p = .048$). As was seen with the informational style, no significant difference in normative identity style frequency was found between indulgent and authoritative mothers, as well as no significant difference was found between the negligent and authoritarian groups.

Hypothesis 2

To determine if parental responsiveness and demandingness could predict their respective attachment scores while controlling for age and sex, a multiple regression analysis was run with age and sex entered on Step 1 and maternal responsiveness and demandingness entered on Step 2 with attachment as the dependent variable. This process was repeated for paternal prediction value. In terms of the maternal regression, results indicated that the overall model was significant ($R^2 = .75$, Adjusted $R^2 = .75$, $F[4, 234] = 175.28$, $p < .001$). At Step 2, the change in R-square was also significant ($\Delta F[2, 234] = 348.46$, $p < .001$; $\Delta R^2 = .75$) with standardized beta coefficients reaching significance for maternal responsiveness ($\beta = .83$, $t = 24.66$, $p < .001$) and maternal demandingness ($\beta = .10$, $t = 3.00$, $p = .003$).

When measuring for paternal effects, results showed that again, the overall model was significant ($R^2 = .70$, Adjusted $R^2 = .70$, $F[4, 187] = 110.51$, $p < .001$). At Step 2, the change in R-square was also significant ($\Delta F[2, 187] = 210.79$, $p < .001$; $\Delta R^2 = .67$) with standardized beta coefficients reaching significance for paternal responsiveness ($\beta = .81$, $t = 20.11$, $p < .001$) and paternal demandingness ($\beta = .11$, $t = 2.71$, $p = .007$).

A one-way Analysis of Variance (ANOVA) showed a significant main effect for maternal parenting style on adolescent attachment score, $F(3,238) = 79.94$, $p < .001$. Fisher's LSD post hoc analysis showed that adolescents who identified their mother as either neglectful or authoritarian felt significantly less attached than adolescents who identified their mother as indulgent or authoritative ($p < .001$). Adolescents who reported their mothers as authoritative reported significantly higher attachment scores ($p < .005$) than adolescents who indicated an indulgent mother. No significant difference was found between the attachment scores of adolescents perceiving their mother as authoritarian or neglectful.

An ANOVA also showed a significant main effect for paternal influences on paternal attachment, $F(3, 190) = 55.61, p < .001$. A Fisher's LSD post hoc analysis for the paternal parenting style showed that adolescents who reported their father as authoritative showed significantly higher attachment scores than those who claimed that their father was negligent ($p = .001$) or authoritarian ($p = .002$). No significant difference in attachment was seen between adolescents with negligent and authoritarian, negligent and indulgent, authoritarian and indulgent, and indulgent and authoritative fathers.

Hypothesis 3

To determine if parental attachment could predict identity style, a multiple regression was performed for each of the identity styles. Participant age and gender were entered in on Step 1 and maternal and paternal attachment scores were entered on Step 2 with identity style as the dependent variable for each of the three regressions performed.

No significant results were seen when the informational identity style and the diffuse-avoidant identity style were the dependent variable; however, when the normative identity style was the dependent variable, results indicated that the overall model was significant ($R^2 = .32$, Adjusted $R^2 = .10, F[4, 186] = 5.36, p < .001$). At Step 2, the change in R-square was also significant ($\Delta F[2, 186] = 9.71, p < .001; \Delta R^2 = .09$) with standardized beta coefficients reaching significance for maternal attachment ($\beta = .31, t = 3.79, p < .001$). No significant findings were produced for the informational or diffuse-avoidant identity style. Additionally, no such significance was found for paternal attachment and any of the identity styles.

Hypothesis 4

Due to the prior hypotheses and literature suggesting significant relationships among parenting, attachment, and identity style development, a mediation regression analysis was performed to examine if the relationship between parenting style and identity style was one that was mediated by parental attachment. To test the final hypothesis, that parenting style predicts identity style development, but this relationship is mediated by parental attachment, a series of multiple regression analyses were conducted. Holmbeck (1997) suggested that three regressions are needed to establish mediation. Following Holmbeck's procedure, in the first regression, variable A (parental responsiveness/demandingness) must significantly predict variable B (parental attachment). In the second regression, variable A (parental responsiveness/demandingness) must significantly predict variable C (identity style). In the third regression both variables A (parental responsiveness/demandingness) and B (parental attachment) are entered on the same step to predict variable C (identity style), but to prove mediation, variable A (parental responsiveness/demandingness) should be less associated with variable C (identity style) than it was in the second regression equation, when variable B (parental attachment) is not controlled for. Furthermore, a significant relationship should still be seen between variable B (parental attachment) and variable C (identity style) in this final regression. Regressions were only completed for the significant relationships found in the prior hypotheses (i.e., maternal responsiveness, maternal attachment, and the normative/informational identity style). For each multiple regression analysis, sex and age were entered on Step 1 with the appropriate predictor variable entered on Step 2.

As tested in Hypothesis 2, in the first regression, maternal responsiveness and demandingness were shown to predict maternal attachment, $R^2 = .75$, Adjusted $R^2 = .75$, $F(4,$

234) = 175.28, $p < .001$. At Step 2, the change in R-square was also significant ($\Delta F[2, 234] = 348.46, p < .001; \Delta R^2 = .75$) with standardized beta coefficients reaching significance for maternal responsiveness ($\beta = .83, t = 24.66, p < .001$) and maternal demandingness ($\beta = .10, t = 3.00, p = .003$).

For the second regression in Holmbeck's (1997) procedure, only maternal parenting style was considered in regards to identity style because no significant impact was seen in Hypothesis 1 with the paternal parenting style. Normative identity style was entered as the dependent variable, results indicated that the overall model was significant ($R^2 = .10, \text{Adjusted } R^2 = .09, F[4, 236] = 6.83, p < .001$). At Step 2, the change in R-square was also significant ($\Delta F[2, 236] = 12.90, p < .001; \Delta R^2 = .10$) with standardized beta coefficients reaching significance for maternal responsiveness ($\beta = .27, t = 4.27, p < .001$). This was not seen in maternal demandingness. When the informational identity style was entered as the dependent variable, results showed that the overall model was significant ($R^2 = .06, \text{Adjusted } R^2 = .05, F[4, 234] = 3.87, p = .005$). At Step 2, the change in R-square was also significant ($\Delta F[2, 234] = 5.07, p = .007; \Delta R^2 = .04$) with standardized beta coefficients reaching significance for maternal responsiveness ($\beta = .21, t = 3.17, p = .002$). Again, no such significance was seen with maternal demandingness. For the maternal impacts on the diffuse-avoidant identity style, although the overall model was significant, $R^2 = .04, \text{Adjusted } R^2 = .03, F(4, 234) = 2.62, p = .035$, maternal responsiveness and demandingness failed to significantly predict the diffuse-avoidant identity style in Step 2.

In the final set of regressions to test for mediation, sex and gender were again entered on Step 1 as controls, and maternal responsiveness and maternal attachment were entered on Step 2. In the first analysis, no significance was found with the diffuse-avoidant identity style as the

dependent variable. In the second analysis, with the informational identity style as the dependent variable, the overall model was significant, $R^2 = .06$, Adjusted $R^2 = .04$, $F(4, 233) = 3.55$, $p = .008$, as well as the change model, $\Delta F(2, 233) = 4.44$, $p = .013$; $\Delta R^2 = .04$. Although the overall and change model were significant, neither maternal responsiveness ($\beta = .19$, $t = 1.49$, $p = .139$), nor maternal attachment ($\beta = .004$, $t = .03$, $p = .978$) predicted the informational identity style after the Step 2 change. Similar results were seen for the normative identity style: an overall significant model was shown, $R^2 = .10$, Adjusted $R^2 = .08$, $F(4, 235) = 6.37$, $p < .001$, as well as a significant change model, $\Delta F(2, 235) = 11.96$, $p < .001$; $\Delta R^2 = .09$, but maternal responsiveness ($\beta = .21$, $t = 1.71$, $p = .089$) and attachment ($\beta = .11$, $t = .86$, $p = .39$) were no longer significant when entered together on this last step. This lack of significance of both predictor variables suggests that the relationship is not mediational in nature.

DISCUSSION

Parenting Style is Related to Identity Style

Parents, being our earliest form of socialization, play an integral part in the way that we learn how to communicate and connect with nonfamily members. Identity, which functions as a social construct, is hypothesized to be relatively dependent upon the social skills we learn as children via our parental interactions. The way in which we view the world, take in information, and synthesize it into our own set of morals and judgments (i.e., the adoption of an identity style) is contingent upon the way that we interact with others on a day-to-day basis. It was thought that identity style would be influenced by parenting style due to prior literature such as Berzonsky (2004), which found that authoritative parenting is related to both normative and informational identity style in their children, authoritarian parenting is related to normative and diffuse-avoidant identity styles in their children, and permissive parenting was related to the diffuse-avoidant identity style in their children. Unlike Berzonsky (2004), the present study utilized a continuous measure of responsiveness and demandingness, which allowed the negligent parenting style to be looked at as well.

It was predicted that there would be similar results for both maternal and paternal parenting style on identity style, but that hypothesis was not supported. Only maternal parenting style was related to identity style, and it was only significant for the informational and normative identity styles. This finding could have been due to a number of reasons, but the most practical explanation could lie in the fact that many more students reported having some kind of maternal figure than a paternal figure. Parenting style was not found to have a significant impact on the diffuse-avoidant identity style in any case. The parenting style dimensions assessed during this

study, responsiveness and demandingness, were shown to have various significant relationships with each of the identity styles regardless of parental gender (see Table 3).

It was also predicted that results would be similar to that of Berzonsky (2004) in the sense that authoritative parenting would be related to adolescent normative and informational identity styles. This conjecture was partially supported. It was found that authoritative mothers elicited significantly more informational adolescents than negligent or authoritarian mothers, but not indulgent mothers. Interestingly, indulgent mothers fostered the informational identity style more so than negligent or authoritarian mothers, just as authoritative mothers. However, no significant difference was observed between the indulgent and authoritative parenting style in terms of informational development.

Such findings directly support the results of Smits and colleagues (2008) and Soenens and colleagues (2011), who found that maternal support was significantly and positively correlated with the informational identity style. Parental regulation was also found to be significantly and positively correlated with the informational identity style in Soenens and colleagues (2011), but maternal behavioral control was shown to be significantly and negatively correlated with the informational style in Smits and colleagues (2008). The results of this study support this prior literature by showing that warmth and support, characteristic of both the authoritative and indulgent parenting styles, fosters informational development. Regulation (i.e., demandingness), characteristic of the authoritative parenting style, was also shown to elicit the informational style to some extent in the present study.

The prediction that authoritative parenting would lead to more normative individuals was also partially supported because those with an authoritative mother had significantly higher

normative scores than those with an authoritarian or negligent mother. However, this was also the case for adolescents with an indulgent mother, which was not predicted. This could perhaps be because of the fact that responsiveness is a characteristic of both authoritative and indulgent parents. Results showed that maternal responsiveness/demandingness and paternal responsiveness were significantly and positively correlated with the normative identity style. Although demandingness is indicative of both the authoritarian and negligent parenting style, this dimension alone was not related to the normative identity style. Responsiveness may have a heavier hand in the relationship between parenting and the normative identity style because of the significance that was found in both the authoritative parenting style (which also has a high demandingness component, but this is possibly offset by having high responsiveness values as well) and the indulgent parenting style. Furthermore, responsiveness was a significant predictor of the normative identity style regardless of parental gender, which adds more support to the importance of warmth in this relationship.

The normative style's positive association with parental support is reflected again both by Smits and colleagues (2008) and Soenens and colleagues (2011), which is consistent with the findings of this study. Adding more support to these results in regards to the authoritative mothers, regulation was also shown to be positively correlated with the normative style in Soenens and colleagues (2011), as was maternal behavioral control in Smits and colleagues (2008). However, no such significance was found between authoritarian parenting and the normative identity style during this study.

Although the results of the present study do not mirror the results of Berzonsky (2004), some themes remain consistent. Authoritative mothering appears to encourage the development

of both the informational and the normative identity style. Most interestingly though are the trends that were seen in regards to the indulgent style. Berzonsky (2004) found that there was a moderate positive correlation between indulgent mothers and the diffuse-avoidant identity style. However, responsiveness and support, the main characteristic of indulgent parents, were found to be significantly and negatively correlated with the diffuse-avoidant identity style in the present study, as was also found by Smits and colleagues (2008), and Soenens and colleagues (2011). Furthermore, demandingness, characteristic of the authoritarian parenting style, only maintained a weak correlation in Smits and colleagues (2008) with the diffuse-avoidant identity style. The differences between this study's results and prior research could perhaps be explained by the age differences in the population assessed. Smits and colleagues (2008), Soenens and colleagues (2011), and Berzonsky (2004) all relied on retrospective accounts of parenting from university students. Here, a younger population was observed, where parental influence was happening in real-time. The retrospective accounts observed in prior literature could have been slightly inaccurate, as they may be influenced by confabulations or other degenerative effects that occur to memories with the passage of time. Moreover, the relationship between parent and child could change in perspective and attitude once the child leaves home. These after effects could have carried over and contaminated the data collected by the previous research on this topic conducted with university students. Many factors could have played into why some results of this study agreed with the prior research whereas others did not. Among these factors, the age gap between the samples, the living situations, and perhaps even some maturity differences could have impacted the results and help explain some of the differences between the results of this study and the results of prior literature.

Parenting Style Predicts Attachment

Although identity development becomes more peer-focused than parent-focused in late adolescence, parents still play a vital role in how adolescents learn how to interact with nonfamily members (Ávila et al., 2012). It was hypothesized that parenting style would predict the degree to which an adolescent felt emotional attachment to his/her parent. Specifically, it was predicted that parental responsiveness (both maternal and paternal) would predict an adolescent's level of attachment to the respective parent. This hypothesis was fully supported by our data analysis: the relationship between attachment and responsiveness is positive and very strong. This finding coincides with other literature that states that parental acceptance, involvement, trust, and communication fosters an adolescent's attachment to their parent (e.g., Gallarin & Alonso-Arbiol, 2012).

It was also predicted that both maternal and paternal demandingness would predict attachment. Despite this hypothesis being supported by our adolescent sample, this finding disagrees with prior literature. Studies such as Quintana and Lapsley (1987) have found that both maternal and paternal control shared a moderate-strength negative association with attachment. In addition to Quintana and Lapsley (1987), the control aspect of parenting has also been shown to share a negative relationship with attachment (Gallarin & Alonso-Arbiol, 2012). As stated previously, the role of parental responsiveness could be larger than what was previously assumed. No significant relationships between attachment and parenting style were found when responsiveness was absent. In authoritativeness, demandingness is present, but so is responsiveness. This equilibrium between demandingness and responsiveness could be necessary for demandingness to also predict attachment. As made evident by the lack of significance

between both the negligent and the authoritarian parenting style in their predictive value of attachment, responsiveness is perhaps used to help in the implication of control.

Attachment Predicts Identity Style

The relationship between attachment and identity formation is still unclear within the field of developmental psychology because previous research has produced conflicting results. Based on the relationships between romantic attachment and identity status, identity status and parental attachment, and identity style and identity status, our hypotheses were formed according to the recurring themes in the literature. It was suspected that parents who provide the most supportive and loving relationships would produce the most securely attached adolescents (see Kerns et al., 2000). These secure adolescents would fall into one of the more adaptive identity statuses, achievement or foreclosure, and would enter such a status using the styles that have been linked to them in prior studies (e.g., Berzonsky & Neimeyer, 1994).

It was predicted that attachment would be positively related to the informational identity style, while negatively related to the diffuse-avoidant identity style. Although this hypothesis was not supported, maternal attachment was found to significantly predict the normative identity style; however, it seems that paternal attachment had no such predictive value. There is little to no literature on how attachment relates to identity style perhaps due to the reasons cited in Ávila and colleagues (2012): nonfamily influence becomes more prominent as individuals age. Peers, rather than parents, become larger factors in identity development in late adolescence. Nonetheless, Berzonsky and Neimeyer (1994) have linked the normative identity style to foreclosure. With that in mind, it can be claimed that the findings of the present study support studies such as Campbell and colleagues (1984), which found that late adolescents in the

foreclosed identity status (and by extension, the normative identity style) reported the strongest emotional attachment to their parents.

Attachment as a Mediating Factor

Because significant relationships were found between parenting and identity style, parenting and attachment, and attachment and identity style in both the present study and prior research, it was hypothesized that the relationship between parenting style and identity style was mediated by perceived parental attachment. Although all of the links had significant support in our results, when maternal responsiveness and maternal attachment were both entered as predictive variables for identity style, neither variable remained significant in the final analysis. Maternal attachment was very close to retaining significance when entered alongside maternal responsiveness in the final prediction analysis, but it failed nonetheless. Although the analyses of this study do not suggest that attachment plays a mediating role, there is a silver lining. Responsiveness and attachment cancelled each other out in the final prediction equation, which was enough to spark interest pertaining to what the true relationship is between the two variables.

This unexpected occurrence, although not the original intent of the present study, was impactful enough to devote our efforts. As will be examined in the following sections, certain statistical anomalies occurred during data analysis that point to measurement error. Attachment and responsiveness, which are supposedly different entities, are suspected to reflect the same construct. Furthermore, only adolescent reports were obtained, which could have given an unclear picture as to the real parenting style taking place at home.

Impact and Contribution

Cautionary Remarks about Utilizing the API's Responsiveness Subscale and the IPPA together in Future Research. As standalone measures, that is, when they are used independently of one another, these tools seem to have good validity. It was, however, very odd that maternal responsiveness and maternal attachment both significantly predicted the normative identity style independently, but when entered together in the final regression analysis, seemed to cancel each other out (i.e., both variables lost significance). Operating under the assumption that parental responsiveness and parental attachment were separate constructs, this finding was odd. After further attention, the two constructs seem to be remarkably similar, leading us to suspect multicollinearity.

The first indicator of multicollinearity was the very strong ($r > .80$), positive correlation between parental responsiveness and its respective gender's attachment (i.e., maternal responsiveness was highly correlated with maternal attachment, as was the case for fathers as well) (see Table 3). Furthermore, Chen, Ender, Mitchell, and Wells (2003) propose that variables with high condition indexes (above 30) and low eigenvalues, both of which were seen in the case of our data, point to significant multicollinearity as well. Such a finding suggests that the two constructs, responsiveness and attachment, which are supposedly different, do not act so statistically.

After more scrutiny, the measures seem to have redundant questions (e.g., "My mother makes me feel better when I am upset" [from the API] and "I tell my mother about my problems and troubles" [from the IPPA]; "My mother listens to what I have to say" [from the API] and "My mother respects my feelings" [from the IPPA]). As will be looked at more deeply in the

following sections, more research should be conducted examining the construct validity of these two measures, particularly when being used simultaneously.

Controlling Third Variable Problems. Using the information provided by this study, researchers should duplicate and expand studies such as Smits and colleagues (2008) and Soenens and colleagues (2011). Their studies could prove to be quite useful because they attempted to define and link specific parenting dimensions, such as autonomy support and behavioral control, to specific facets of identity development. This is a very fruitful avenue due to the many components of parenting styles that we observe in today's day and age. Armed with the knowledge that attachment is largely the result of warmth, which in turn (at least for the mother), appears to foster a normative identity style, future studies could control for attachment or warmth to get a clearer picture of which dimensions truly impact adolescent identity development and which are clouded by confounds.

Family Therapy and Youth Development Programs. One of the greatest impacts of this research is the implications it has for family-based practice. A goal of this project was to create a study that could cross the barrier between basic research into the applied research context. Knowing how parents affect the development of an adolescent's identity means that we can better advise those struggling with identity issues as well as how their parents and other nuclear family members may be able to help them through the process. Furthermore, this study could help programs aimed at promoting positive youth development by demonstrating how pivotal it is for parents to not only play an active, but also positive, fostering role in a child's life. It is apparent from the results of this study that parenting with less warmth (i.e., parents adhering to either a negligent or authoritarian parenting style) is related to adolescents who feel

significantly less attached. Furthermore, this lack of attachment, particularly when felt with maternal figures, may stifle the adoption of prominent figures' morals, values, and codes. This could perhaps explain and help curb direct disobedience and rebellious behavior. By encouraging a loving and supportive environment, adolescents would be more likely to follow the beliefs of their parents, which could provide them with a good foundation to help with the transition into adult life.

Limitations

Survey Length. The survey packet that was utilized to assess the participants was quite lengthy, as it proved to be quite cognitively exhausting to our adolescent participant pool. A consistent piece of feedback that was received from the students was that they tended to lose focus towards the end of the questionnaire. It was through the various addendums made to the measures (i.e., duplicating the IPPA [Armsden & Greenberg, 1987] and API [Jackson et al., 1998] to measure maternal and paternal parental characteristics separately) and adding additional measures for future analyses that increased the length of the questionnaire exponentially.

It was anticipated, however, that this may happen. To combat this, the survey questionnaire was designed in such a way that some of the extra measures were placed towards the end, and the most paramount measures (ISI-3 [Berzonsky, 1992b], IPPA, and API) were placed at the front. It is hard to control for response bias on the part of the participants, but it is believed that making less addendums in future research may be more conducive to retaining focus throughout the entire survey. The main tools of measurement, the ISI-3, API, and IPPA, were of relatively no issue- the three measures totaled merely 83 items in their initial form. Realizing that the survey was very lengthy, the data was assessed as carefully as possible before any

statistical analysis for inconsistent answers and “Christmas-treeing” (i.e., randomly choosing responses). For example, if a participant indicated in the demographic questionnaire that he considered both his mother and his father his primary caregivers, but then indicated that he had no paternal figure later in the survey, his responses were carefully inspected and the data was destroyed if it was found that the responses were not consistent.

Perspective. In the case of our study, as is the case in much of the previous research conducted on this subject, only child data was obtained. This presents a significant problem because the data relies on perceived parental responsiveness and demandingness rather than actual degrees of responsiveness and demandingness. The data may become contaminated due to the attitude-lens (whether it be positive or negative) that these adolescent view their parents’ behavior through. Furthermore, some gestures may be misconstrued on the part of the adolescent, and thus reported inaccurately as such. These biases are hard to control for, however, certain measures can be taken to ensure the accuracy of obtained parenting style such as obtaining multiple reports, which will be examined more closely in the following section. This lack of varying perspectives could also account for why there was much overlap between responsiveness and attachment.

Areas for Future Research

Construct Validity of Responsiveness and Attachment Measures. Because multicollinearity was thought to impact the results of this study, future research should consider examining the relationship between responsiveness and positive attachment more closely. Although it is logical to presume that those who express warmth and support will elicit attachment, the two variables have been used and thought of independently of one another in the

past. We are unaware of another study that uses both the API (Jackson et al., 1998) and the IPPA (Armsden & Greenberg, 1987) in tandem, which explains why this problem has not been an issue for previous research. Now that multicollinearity is suspected, examining the construct validity of these measures is certainly an area that future research should look in to, particularly if one would like to replicate the present study.

Shortening the Questionnaire. One method of shortening the questionnaire, as touched upon above, would be to aggregate the parental data (i.e., measuring parenting characteristics as one cohesive unit instead of maternal and paternal influence separately). A cornerstone of the study of identity style is identifying the way that adolescents take in and process this information (e.g., sorting it in a way that makes sense to them, swallowing it whole as prescribed, or not using it at all). It is possible that measuring parenting style as a homogeneous entity has the potential to be just as accurate as separating the influence by gender because the end result of parenting is the aggregation of standards and morals imposed onto the adolescent by each parent individually via the formation/utilization of identity styles.

On the other hand, aggregating the parent data would eliminate the subtle differences observed by how parental gender affects identity development. It should be noted in future studies that, as seen by the obtained data of this study, one adolescent may experience a myriad of parenting styles. For example, one may have an indulgent mother and an authoritarian father. Parenting constellations have been linked to many outcomes such as higher levels of adaptive emotional adjustment in those adolescents with at least one authoritative parent (McKinney & Renk, 2008) and lower levels of self-esteem in those individuals who have at least one neglectful parent (Milevsky, Schlechter, Klem, & Kehl, 2008). It is variables such as these that affect well-

being that have been linked with identity style and overall development (Vleioras & Bosma, 2005), so observing parenting style concordance is still important.

Besides combining the parenting data on the API (Jackson et al., 1998) and the IPPA (Armsden & Greenberg, 1987), or performing a factor analysis in an attempt to shorten the questionnaires themselves, another method of shortening the questionnaire would be to conduct the survey in two separate parts on two different days. Perhaps the survey could be set up in such a way that identity development and additional variables are measured on one day and the parenting data obtained the next. The biggest issue with splitting up the survey into two different collection periods would be the practicality. Having adolescents commit to something that will take them longer than a day to complete will present an issue if not properly compensated, and having a captive audience for multiple days, such as a classroom, may not be feasible due to stringent curriculum standards. An advantage of this approach would be that internal validity is not threatened because the survey material would be measuring two different areas on two different days. If, for example, the survey was meant to strictly measure aspects of identity, a threat to internal validity may be present due to the possible disclosure of information between the groups of students. As many participants in psychological research tend to do, the students may begin to fall victim to response bias, or try to answer in a socially desirable manner, after hearing what their friends have to say. In this scenario, the researcher runs the risk of data contamination. It is advised that the measures as independent as possible for these aforementioned reasons.

Multiple Reports. As mentioned in the Limitations section, a certain degree of measurement error is present when using only one source of information. One way of increasing

the accuracy of this study would be to examine the parent-child relationship from multiple vantage points. Although the child's perspective is of utmost importance, it can be obscured by perception and other temporal concerns. In future research, studies may want to use a combination of reports (e.g., parent report, clinical interview, and/or observation) to get a clearer picture of the kind of parenting occurring in the household.

Researchers should look into measures that can be used to obtain a parent's perspective of responsiveness and demandingness behaviors. Like the issue with only obtaining the child perspective, a parent's report may be contaminated by biases such as those elicited by social desirability. When used in combination with the child's perspective, responses could be averaged to have an accurate picture of the parenting style being utilized.

Another option available to researchers would be the use of a third-party clinician. This independent rater would be able to clearly observe and look for specific behaviors that the parent displays to obtain an unbiased representation of parenting style. Moreover, the clinician can administer multiple assessments and mediums of data collection including naturalistic observation and controlled surveys/scenarios.

Finally, if given the opportunity to do so, researchers may want to consider a longitudinal study of parenting behavior and its impact on identity development. Although the present study was meant to get an overall picture of how parenting impacts adolescents, it is also correlational in nature, and by no means indicates a casual relationship. Further, parenting behaviors may change over time. Such exposure to varying intensities of warmth and control may also influence the kind of identity style that an adolescent adopts. With the use of longitudinal studies, we may be able to record these (sometimes not so) subtle changes in parenting style and observe how

they may affect their children. Taking baseline measures of psychosocial development at varying stages of life will add consistency, reliability, and control to future research on the parent-child relationship and identity development.

Investigating the Father's Role in Identity Formation. Unlike past research, which has taken an aggregated approach to examining parental influences on identity, a major strength of this study was its ability to tease out the specific roles each parental figure plays in identity style formation. One very surprising outcome of the present study was the seemingly minor role that fathers play in adolescent identity development. While these results support the notion that identity style is dependent upon parenting style, this study has demonstrated that this was only in the case of mothers. Furthermore, it was shown that paternal attachment, demandingness, and responsiveness do not significantly predict any of the identity styles. These results can be attributed to a number of possible confounds; however, one fact remains clear: paternal influences on identity formation should be looked at with a closer eye in future research by focusing efforts on identifying specific variables that may keep fathers from sharing significant relationships with identity constructs.

APPENDIX A: IRB APPROVAL OF HUMAN RESEARCH



University of Central Florida Institutional Review Board
Office of Research & Commercialization
12201 Research Parkway, Suite 501
Orlando, Florida 32826-3246
Telephone: 407-823-2901 or 407-882-2276
www.research.ucf.edu/compliance/irb.html

Approval of Human Research

From: **UCF Institutional Review Board #1
FWA00000351, IRB00001138**

To: **Steven L. Berman and Co-PI: Kaylin A. Ratner**

Date: **October 17, 2012**

Dear Researcher:

On 10/17/2012 the IRB approved the following modifications / human participant research until 10/16/2013 inclusive:

Type of Review: Submission Correction for UCF Initial Review Submission Form
Expedited Review Category # 7

Project Title: Identity and attachment

Investigator: Steven L Berman

IRB Number: SBE-12-08729

Funding Agency:

Grant Title:

Research ID: N/A

The Continuing Review Application must be submitted 30 days prior to the expiration date for studies that were previously expedited, and 60 days prior to the expiration date for research that was previously reviewed at a convened meeting. Do not make changes to the study (i.e., protocol, methodology, consent form, personnel, site, etc.) before obtaining IRB approval. A Modification Form **cannot** be used to extend the approval period of a study. All forms may be completed and submitted online at <https://iris.research.ucf.edu>.

If continuing review approval is not granted before the expiration date of 10/16/2013, approval of this research expires on that date. When you have completed your research, please submit a Study Closure request in iRIS so that IRB records will be accurate.

Use of the approved, stamped consent document(s) is required. The new form supersedes all previous versions, which are now invalid for further use. Only approved investigators (or other approved key study personnel) may solicit consent for research participation. Participants or their representatives must receive a copy of the consent form(s).

In the conduct of this research, you are responsible to follow the requirements of the Investigator Manual.

On behalf of Sophia Dziegielewski, Ph.D., L.C.S.W., UCF IRB Chair, this letter is signed by:

Signature applied by Patria Davis on 10/17/2012 04:12:41 PM EDT

IRB Coordinator

APPENDIX B: INFORMED PARENTAL CONSENT



Identity and Attachment

Informed Consent

Primary Investigator: Steven L. Berman, Ph.D.

Co-Investigator: Kaylin A. Ratner

Investigational Site(s): Seabreeze High School
Flagler Palm Coast High School

How to Return this Consent Form: Please sign this form and have your child return it if you give permission for your child to participate in this study.

Introduction: Researchers at the University of Central Florida (UCF) study many topics. To do this we need the help of people who agree to take part in a research study. You are being asked to allow your child to take part in a research study which will include about 200 people from two different high schools in the Central Florida area. Your child is being invited to take part in this research study because he or she is a high school student.

The person doing this research is Kaylin Ratner of the University of Central Florida Psychology Department. Because the researcher is an undergraduate student, she is being guided by Dr. Steven Berman, a UCF faculty supervisor in Psychology Department.

What you should know about a research study:

- Someone will explain this research study to you.
- A research study is something you volunteer for.
- Whether or not you take part is up to you.
- You should allow your child to take part in this study only because you want to.
- You can choose not to take part in the research study.
- You can agree to take part now and later change your mind.
- Whatever you decide will not be held against you or your child.
- Feel free to ask all the questions you want before you decide.

Purpose of the research study: The purpose of this study is to explore the association between young people's sense of self and their interpersonal relationships. The results of the study may be used to help develop intervention programs aimed at helping teenagers who are struggling with

identity issues. These results may not directly help your child today, but may benefit future students.

What your child will be asked to do in the study: The participating students will be asked to complete a survey containing 220 statements (for example, “I have definitely decided on a career”) to which they will respond by rating how much they agree with each statement on a 1 (strongly disagree) to 5 (strongly agree) scale. The survey is anonymous; students will **not** be asked to write their names on the questionnaires. Results will only be reported in the form of group data. Participation or nonparticipation in this study will not affect the student’s grades or placement in any programs. The student does not have to answer any questions he/she wishes not to answer.

Location: The researcher will go to the participant at his or her school.

Time required: The survey will take approximately 40-minutes to complete and will be administered in the classroom during class time. Students not participating will be allowed to study or read in lieu of completing the survey.

Risks: There are no expected risks for taking part in this study. There are no reasonably foreseeable risks or discomforts involved in taking part in this study.

Benefits: Your child will not benefit directly for taking part in this research, besides learning more about how research is conducted.

Compensation or payment: There is no compensation, payment, or extra credit for your child’s part in this study.

Confidentiality: We will limit the personal data collected in this study. Efforts will be made to limit your child’s personal information to people who have a need to review this information. We cannot promise complete secrecy. Organizations that may inspect and copy your information include the IRB and other representatives of UCF. The survey is anonymous; students will not be asked to write their names on the questionnaires. Results will only be reported in the form of group data.

Study contact for questions about the study or to report a problem: If you have questions, concerns, complaints, or think the research has hurt your child, contact Kaylin Ratner, Undergraduate Honors in the Major Student, Clinical Psychology Program, kratner@knights.ucf.edu or Dr. Berman, Faculty Supervisor, Psychology Department, at (386) 506-4049 or steven.berman@ucf.edu.

IRB contact about you and your child’s rights in the study or to report a complaint: Research at the University of Central Florida involving human participants is carried out under the oversight of the Institutional Review Board (UCF IRB). This research has been reviewed and approved by the IRB. For information about the rights of people who take part in research, please

contact: Institutional Review Board, University of Central Florida, Office of Research & Commercialization, 12201 Research Parkway, Suite 501, Orlando, FL 32826-3246 or by telephone at (407) 823-2901. You may also talk to them for any of the following:

- Your questions, concerns, or complaints are not being answered by the research team.
- You cannot reach the research team.
- You want to talk to someone besides the research team.
- You want to get information or provide input about this research.

APPENDIX C: FLAGLER PALM COAST HIGH SCHOOL (FLAGLER COUNTY, FL) PRINCIPAL APPROVAL



Identity and Attachment

Principal Consent Form

October 24, 2012

Dear Principal Shott,

I am writing this letter to request permission to conduct a study in Mrs. Maryln Tangney's Spanish classes, Ms. Jackie McKeown's psychology classes, and Mr. Clark Walker's IB psychology class. Enclosed is a copy of the survey packet and the parent permission form. I have conducted many surveys much like this one in high school populations without problems or complaints. Feel free to contact me if you have any questions.

My university's Internal Review Board of research has given me provisional permission to conduct this study contingent on your approval which must be submitted to them before I can begin. Therefore, I would greatly appreciate your completing the form below.

Sincerely yours,

Steven L. Berman, Ph.D.
Associate Professor
Department of Psychology
University of Central Florida - Daytona Beach Campus
1200 W. International Speedway Blvd.
Daytona Beach, FL 32114
(386) 506-4049
fax: (386) 506-4098
steven.berman@ucf.edu

+++++
I, Lynette Shott hereby (check one) do / do not
(Print Name)

grant permission to Dr. Steven L. Berman to conduct this study.

Lynette Shott
(Signature)

11-8-12
(Date)

**APPENDIX D: SEABREEZE HIGH SCHOOL (VOLUSIA COUNTY, FL)
PRINCIPAL APPROVAL**



College of Sciences

October 18, 2012

Dear Principal Wallace,

I am writing this letter to request permission to conduct a study in Ms. Julie Wilson's psychology classes as I have done in previous years. Enclosed is a copy of the questionnaire and the parent permission form. The survey is almost similar to the ones I handed out previously with no problems or complaints. Feel free to contact me if you have any questions.

My university's Internal Review Board of research has given me provisional permission to conduct this study contingent on your approval which must be submitted to them before I can begin. Therefore, I would greatly appreciate your completing the form below.

Sincerely yours,

Steven L. Berman
Steven L. Berman, Ph.D.
Associate Professor
Department of Psychology
University of Central Florida - Daytona Beach Campus
1200 W. International Speedway Blvd.
Daytona Beach, FL 32114
(386) 506-4049
fax: (386) 506-4098
sberman@mail.ucf.edu

+++++

I, ROBERT WALLACE hereby (check one) do / do not
(Print Name)

grant permission to Dr. Steven L. Berman to conduct this study.

Robert Wallace
(Signature)

10.31.12
(Date)

College of Sciences
1200 W International Speedway Blvd • Daytona Beach, FL 32114 • 386-506-4009 • FAX 386-506-4098

An Equal Opportunity and Affirmative Action Institution

APPENDIX E: SURVEY

BACKGROUND QUESTIONNAIRE

Please use the Bubble Sheet provided to fill in your background information as follows.

NAME: Leave blank.

SEX: Select MALE or FEMALE

GRADE: Bubble in your grade in school using the following codes:

- (9)=Freshman
- (10)=Sophomore
- (11)=Junior
- (12)=Senior

BIRTHDATE: Leave Blank

IDENTIFICATION NO.:

AB Mark your **Age** under columns labeled “**A**” & “**B**”.

C In the third column labeled “**C**”, mark the ethnic/racial identifier that best describes you:

- (0)= White, non-Hispanic
- (1)= Black, non-Hispanic
- (2)= Hispanic
- (3)= Asian or Pacific Islander
- (4)= Native American or Alaskan Native
- (5)= Mixed ethnicity
- (6)= Other

D In the fourth column labeled “**D**”, please select the option that best describes who your primary caregiver(s) is (are):

- (0)= My mother and father
- (1)= My mother
- (2)= My father
- (3)= My mother and her boyfriend/partner/fiancé/my step-father
- (4)= My father and his girlfriend/partner/fiancé/my step-mother
- (5)= My mother and father (divorced/separated) engage in co-parenting from separate households
- (6)= Another legal guardian (e.g., Grandparent(s), Aunt/Uncle, Sibling)
- (7)= None. I am an emancipated minor OR I am of age (18) and live on my own
- (8)= Other

Thank you. Now please turn the bubble sheet over and go on to the next page of this survey.

ISI - Please decide how much you agree or disagree with each of the following statements, using the following scale. Please bubble in the appropriate letter on the enclosed answer sheet.

A	B	C	D	E
Strongly Disagree	Slightly Disagree	Neutral	Slightly Agree	Strongly Agree

1. Regarding religious beliefs, I know basically what I believe and don't believe.
2. I've spent a great deal of time thinking about what I should do with my life.
3. I'm not really sure what I'm doing in school; I guess things will work themselves out.
4. I've more or less always operated according to the values with which I was brought up.
5. I've spent a good deal of time reading and talking to others about religious beliefs.
6. When I discuss an issue with someone, I try to assume his or her point of view and see the problem from his or her perspective.
7. I know what I want to do with my future.
8. It doesn't pay off to worry about values in advance; I decide things as they happen.
9. I'm not really sure what I believe about religion.
10. I've always had purpose in my life; I was brought up to know what to strive for.
11. I'm not sure which values I really hold.
12. I have some consistent political views; I have a definite stand on where the government and country should be headed.
13. Many times, by not concerning myself with personal problems, they work themselves out.
14. I'm not sure what I want to do with my future.
15. I really know what I want to do with my life, and I won't change my mind.
16. I've spent a lot of time reading and trying to make sense out of political views.
17. I'm not really thinking about my future now; it's still a long way off.
18. I've spent a lot of time and talked to a lot of people trying to develop a set of values that make sense to me.
19. Regarding religion, I've always known what I believe and don't believe. I never really had any serious doubts.
20. I'm not sure what I want to do when I get out of school.
21. I've known since high school what I'm going to do with my life.
22. I have a definite set of values that I use to make personal decisions.
23. I think it's better to have a firm set of beliefs than to be open-minded.
24. When I have to make a decision, I try to wait as long as possible to see what will happen.
25. When I have a personal problem, I try to analyze the situation in order to understand it.
26. I find that it's best to seek out advice from professionals (e.g., clergy, doctors, lawyers) when I have problems.
27. It's best for me not to take life too seriously; I just try to enjoy it.
28. I think it's better to have fixed values than to consider alternative value systems.
29. I try not to think about or deal with personal problems for as long as I can.
30. I find that personal problems often turn out to be interesting challenges.
31. I try to avoid personal situations that will require me to think a lot and deal with them on my own.
32. Once I know the correct way to handle a problem, I prefer to stick with it.
33. When I have to make a decision, I like to spend a lot of time thinking about my options.
34. I prefer to deal with situations where I can rely on social norms and standards.
35. I like to have the responsibility for handling problems in my life that require me to think on my own.
36. Sometimes I refuse to believe a problem will happen, and things just work themselves out.
37. When making important decisions, I like to have as much information as possible.
38. When I know a situation is going to cause me stress, I try to avoid it.
39. To live a complete life, I think people need to get emotionally involved and commit themselves to specific values and ideals.
40. I find it's best for me to rely on the advice of close friends or relatives when I have a problem.

IDS - To what degree have you recently been upset, distressed, or worried over any of the following issues in your life? (Please select the appropriate response, using the following scale).

A **B** **C** **D** **E**
None At **Mildly** **Moderately** **Severely** **Very**
All **Severely**

- 41. Long term goals? (e.g., finding a good job, being in a romantic relationship, etc.)
- 42. Career choice? (e.g., deciding on a trade or profession, etc.)
- 43. Friendships? (e.g., experiencing a loss of friends, change in friends, etc.)
- 44. Sexual orientation and behavior? (e.g., feeling confused about sexual preferences, intensity of sexual needs, etc.)
- 45. Religion? (e.g., stopped believing, changed your belief in God/religion, etc.)
- 46. Values or beliefs? (e.g., feeling confused about what is right or wrong, etc.)
- 47. Group loyalties? (e.g., belonging to a club, school group, gang, etc.)
- 48. Please rate your overall level of *discomfort* (how bad they made you feel) about all the above issues as a whole.
- 49. Please rate how much uncertainty over these issues as a whole has interfered with your life (for example, stopped you from doing things you wanted to do, or being happy)
- 50. How long (if at all) have you felt upset, distressed, or worried over these issues as a whole? (Use rating scale below)

Never or less than a month	1 to 3 months	3 to 6 months	6 to 12 months	More than 12 months
A	B	C	D	E

BSI 18 - Below is a list of problems people sometimes have. Read each one carefully and mark the option that best describes **HOW MUCH THAT PROBLEM HAS DISTRESSED OR BOTHERED YOU DURING THE PAST 7 DAYS INCLUDING TODAY**.

A **B** **C** **D** **E**
Not at all **A little bit** **Moderately** **Quite a bit** **Extremely**

- 51. Faintness or dizziness
- 52. Feeling no interest in things
- 53. Nervousness or shakiness inside
- 54. Pains in heart or chest
- 55. Feeling lonely
- 56. Feeling tense or keyed up
- 57. Nausea or upset stomach
- 58. Feeling blue
- 59. Suddenly scared for no reason
- 60. Trouble getting your breath
- 61. Feelings of worthlessness
- 62. Spells of terror or panic
- 63. Numbness or tingling in parts of your body
- 64. Feeling hopeless about the future
- 65. Feeling so restless you couldn't sit still

A	B	C	D	E
Not at all	A little bit	Moderately	Quite a bit	Extremely

- 66. Feeling weak in parts of your body
- 67. Thoughts of ending your life
- 68. Feeling fearful

IPPA Maternal - The following statements describe things you may either agree with or disagree with. **In this section, please answer in terms of your MOTHER’S BEHAVIOR ONLY.** If your parents are domestic partners, please assign one parent to be the “mother” and the other parent to be the “father” regardless of gender. Please keep this designation consistent in all gender-specific items throughout the survey packet.

- 69. Choose one:
 - A. My mother is deceased, or I have little-to-no contact with her. **(skip questions 70-97)**
 - B. I have a mother figure in my life. **(continue to answer questions 70-97)**

In the bubble sheet provided, please mark the letter that shows how much you believe a statement is true about your mother using the following scale:

A	B	C	D	E
Never	Rarely	Sometimes	Often	Always
True	True	True	True	True

- 70. My mother respects my feelings.
- 71. I feel that my mother is successful as a parent.
- 72. I wish I had a different mother.
- 73. My mother accepts me as I am.
- 74. I have to rely on myself when I have a problem to solve.
- 75. I like to get my mother’s point of view on things that I am concerned about.
- 76. I feel it’s no use letting my feelings show.
- 77. My mother can sense when I’m upset about something.
- 78. Talking over my problems with my mother makes me feel ashamed or foolish.
- 79. My mother expects too much from me.
- 80. I get upset easily at home.
- 81. I get upset a lot more than my mother knows about.
- 82. When we discuss things, my mother considers my point of view.
- 83. My mother trusts my judgment.
- 84. My mother has her own problems, so I don’t bother her with mine.
- 85. My mother helps me to understand myself better.
- 86. I tell my mother about my problems and troubles.
- 87. I feel angry with my mother.
- 88. I don’t get much attention at home.
- 89. My mother encourages me to talk about my difficulties.
- 90. My mother understands me.
- 91. I don’t know whom I can depend on these days.
- 92. When I am angry about something, my mother tries to be understanding.
- 93. I trust my mother.
- 94. My mother doesn’t understand what I’m going through these days.
- 95. I can count on my mother when I need to get something off my chest.
- 96. I feel that no one understands me.
- 97. If my mother knows something is bothering me, she asks me about it.

IPPA Paternal - The following statements describe things you may either agree with or disagree with. **In this section, please answer in terms of your FATHER’S BEHAVIOR ONLY.** If your parents are domestic partners, please assign one parent to be the “mother” and the other parent to be the “father” regardless of gender. Please keep this designation consistent in all gender-specific items throughout the survey packet.

98. Choose one:

- A. My father is deceased, or I have little-to-no contact with him. **(skip questions 99-126)**
- B. I have a father figure in my life. **(continue to answer questions 99-126)**

In the bubble sheet provided, please mark the letter that shows how much you believe a statement is true about your father using the following scale:

A	B	C	D	E
Never	Rarely	Sometimes	Often	Always
True	True	True	True	True

- 99. My father respects my feelings.
- 100. I feel that my father is successful as a parent.
- 101. I wish I had a different father.
- 102. My father accepts me as I am.
- 103. I have to rely on myself when I have a problem to solve.
- 104. I like to get my father’s point of view on things that I am concerned about.
- 105. I feel it’s no use letting my feelings show.
- 106. My father can sense when I’m upset about something.
- 107. Talking over my problems with my father makes me feel ashamed or foolish.
- 108. My father expects too much from me.
- 109. I get upset easily at home.
- 110. I get upset a lot more than my father knows about.
- 111. When we discuss things, my father considers my point of view.
- 112. My father trusts my judgment.
- 113. My father has his own problems, so I don’t bother him with mine.
- 114. My father helps me to understand myself better.
- 115. I tell my father about my problems and troubles.
- 116. I feel angry with my father.
- 117. I don’t get much attention at home.
- 118. My father encourages me to talk about my difficulties.
- 119. My father understands me.
- 120. I don’t know whom I can depend on these days.
- 121. When I am angry about something, my father tries to be understanding.
- 122. I trust my father.
- 123. My father doesn’t understand what I’m going through these days.
- 124. I can count on my father when I need to get something off my chest.
- 125. I feel that no one understands me.
- 126. If my father knows something is bothering me, he asks me about it.

API Maternal - The following is a collection of common parental characteristics as indicated by other students. Please use the following scale to indicate how closely your parents align with each statement. **In this section, please answer in terms of your MOTHER’S BEHAVIOR ONLY.** If your parents are domestic partners, please assign one parent to be the “mother” and the other parent to be the “father” regardless of gender. Please keep this designation consistent in all gender-specific items throughout the survey packet.

127. Choose one:

- A. My mother is deceased, or I have little-to-no contact with her. **(skip questions 128-143)**
- B. I have a mother figure in my life. **(continue to answer questions 128-143)**

In the bubble sheet provided, please mark the letter that shows how closely the statement matches your mother using the following scale:

A	B	C	D
Not like her	Somewhat like her	Mostly like her	Just like her

- 128. My mother is always telling me what to do.
- 129. My mother makes rules without asking me what I think.
- 130. My mother makes me feel better when I am upset.
- 131. My mother is too busy to talk to me.
- 132. My mother listens to what I have to say.
- 133. My mother likes me just the way I am.
- 134. My mother tells me when I do a good job on things.
- 135. My mother wants to hear about my problems.
- 136. My mother is pleased with how I behave.
- 137. My mother has rules that I have to follow.
- 138. My mother tells me times [when] I must come home.
- 139. My mother makes sure I tell her where I am going.
- 140. My mother makes sure I go to bed on time.
- 141. My mother asks me what I do with my friends.
- 142. My mother knows where I am after school.
- 143. My mother checks to see if I do my homework.

API Paternal - The following is a collection of common parental characteristics as indicated by other students. Please use the following scale to indicate how closely your parents align with each statement. **In this section, please answer in terms of your FATHER’S BEHAVIOR ONLY.** If your parents are domestic partners, please assign one parent to be the “mother” and the other parent to be the “father” regardless of gender. Please keep this designation consistent in all gender-specific items throughout the survey packet.

144. Choose one:

- A. My father is deceased, or I have little-to-no contact with him. **(skip questions 145-160)**
- B. I have a father figure in my life. **(continue to answer questions 145-160)**

In the bubble sheet provided, please mark the letter that shows how closely the statement matches your father using the following scale:

A	B	C	D
Not like him	Somewhat like him	Mostly like him	Just like him

- 145. My father is always telling me what to do.
- 146. My father makes rules without asking me what I think.
- 147. My father makes me feel better when I am upset.
- 148. My father is too busy to talk to me.
- 149. My father listens to what I have to say.
- 150. My father likes me just the way I am.
- 151. My father tells me when I do a good job on things.
- 152. My father wants to hear about my problems.

A	B	C	D
Not like him	Somewhat like him	Mostly like him	Just like him

- 153. My father is pleased with how I behave.
- 154. My father has rules that I have to follow.
- 155. My father tells me times [when] I must come home.
- 156. My father makes sure I tell him where I am going.
- 157. My father makes sure I go to bed on time.
- 158. My father asks me what I do with my friends.
- 159. My father knows where I am after school.
- 160. My father checks to see if I do my homework.

ECR - The following statements concern how you feel in romantic relationships. We are interested in how you **generally experience relationships, not just in what is happening in a current relationship**. Respond to each statement by indicating how much you agree or disagree with it. Please write your rating on the Bubble Sheet, using the following rating scale:

A	B	C	D	E
Strongly Disagree	Slightly Disagree	Neutral	Slightly Agree	Strongly Agree

- 161. I prefer not to show how I feel deep down.
- 162. I worry about being abandoned.
- 163. I am very comfortable being close to romantic partners.
- 164. I worry a lot about my relationships.
- 165. Just when my partner starts to get close to me I find myself pulling away.
- 166. I worry that romantic partners won't care about me as much as I care about them.
- 167. I get uncomfortable when a romantic partner wants to be very close.
- 168. I worry a fair amount about losing my partner.
- 169. I don't feel comfortable opening up to romantic partners.
- 170. I often wish that my partner's feelings for me were as strong as my feelings for him/her.
- 171. I want to get close to my partner, but I keep pulling back.
- 172. I often want to merge completely with romantic partners, and this sometimes scares them away.
- 173. I am nervous when partners get too close to me.
- 174. I worry about being alone.
- 175. I feel comfortable sharing my private thoughts and feelings with my partner.
- 176. My desire to be very close sometimes scares people away.
- 177. I try to avoid getting too close to my partner.
- 178. I need a lot of reassurance that I am loved by my partner.
- 179. I find it relatively easy to get close to my partner.
- 180. Sometimes I feel that I force my partners to show more feeling, more commitment.
- 181. I find it difficult to allow myself to depend on romantic partners.
- 182. I do not often worry about being abandoned.
- 183. I prefer not to be too close to romantic partners.
- 184. If I can't get my partner to show interest in me, I get upset or angry.
- 185. I tell my partner just about everything.
- 186. I find that my partner(s) don't want to get as close as I would like.
- 187. I usually discuss my problems and concerns with my partner.
- 188. When I'm not involved in a relationship, I feel somewhat anxious and insecure.
- 189. I feel comfortable depending on romantic partners.

A	B	C	D	E
Strongly Disagree	Slightly Disagree	Neutral	Slightly Agree	Strongly Agree

190. I get frustrated when my partner is not around as much as I would like.
 191. I don't mind asking romantic partners for comfort, advice, or help.
 192. I get frustrated if romantic partners are not available when I need them.
 193. It helps to turn to my romantic partner in times of need.
 194. When romantic partners disapprove of me, I feel really bad about myself.
 195. I turn to my partner for many things, including comfort and reassurance.
 196. I resent it when my partner spends time away from me.

EPSI - The following statements describe things you may either agree with or disagree with. In the bubble sheet provided, please mark the letter that shows how much you agree or disagree that a statement is true of you or not true of you.

A	B	C	D	E
Never True	Rarely True	Sometimes True	Often True	Always True

197. I change my opinion of myself a lot.
 198. I've got a clear idea of what I want to be.
 199. I feel mixed up.
 200. The important things in life are clear to me.
 201. I've got it together.
 202. I know what kind of person I am.
 203. I can't decide what I want to do with my life.
 204. I have a strong sense of what it means to be male/female.
 205. I like myself and am proud of what I stand for.
 206. I don't really know who I am.
 207. I work keep up a certain image when I'm with people.
 208. I don't really feel involved.
 209. I get embarrassed when someone begins to tell me personal things.
 210. I'm ready to get involved with a special person.
 211. I'm warm and friendly.
 212. It is important to be completely open with my friends.
 213. I keep what I really think and feel to myself.
 214. I think it's crazy to get too involved with people.
 215. I care deeply for others.
 216. I'm basically a loner.
 217. I have a boyfriend/girlfriend who is a close friend of mine as well as a close romantic partner.
 218. I prefer not to show too much of myself to others.
 219. Being alone with other people makes me feel uncomfortable.
 220. I find it easy to make close friends.

REFERENCES

- Ainsworth, M. S. (1989). Attachments beyond infancy. *American Psychologist*, 44(4), 709-716.
- Ainsworth, M., Blehar, M. C., Waters, E., & Wall, S. (1978). *Patterns of attachment: A psychological study of the strange situation*. Oxford England: Lawrence Erlbaum.
- Armsden, G. C., & Greenberg, M. T. (1987). The Inventory of Parent and Peer Attachment: Individual differences and their relationship to psychological well-being in adolescence. *Journal of Youth and Adolescence*, 16(5), 427-454.
- Årseth, A. K., Kroger, J., Martinussen, M., & Marcia, J. E. (2009). Meta-analytic studies of identity status and the relational issues of attachment and intimacy. *Identity: An International Journal of Theory and Research*, 9(1), 1-32.
- Ávila, M., Cabral, J., & Matos, P. (2012). Identity in university students: The role of parental and romantic attachment. *Journal of Adolescence*, 35(1), 133-142.
- 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(2), 226-244.
- Baumrind, D. (1967). Child care practices anteceding three patterns of preschool behavior. *Genetic Psychology Monographs*, 75(1), 43-88.
- Baumrind, D. (1968). Authoritarian vs. authoritative parental control. *Adolescence*, 3(11), 255-272.
- Baumrind, D. (1971). Current patterns of parental authority. *Developmental Psychology*, 4(1, Pt.2), 1-103.
- Baumrind, D. (1991). The influence of parenting style on adolescent competence and substance use. *The Journal of Early Adolescence*, 11(1), 56-95.

- Berzonsky, M. D. (1989). Identity style: Conceptualization and measurement. *Journal of Adolescent Research, 4*(3), 268-282.
- Berzonsky, M. D. (1992a). Identity style and coping strategies. *Journal of Personality, 60*(4), 771-788.
- Berzonsky, M. D. (1992b). *Identity Style Inventory (ISI-3): Revised version*. Unpublished measure, Department of Psychology, State University of New York, Cortland, NY.
- Berzonsky, M. D. (2004). Identity style, parental authority, and identity commitment. *Journal of Youth and Adolescence, 33*(3), 213-220.
- Berzonsky, M. D., & Ferrari, J. R. (1996). Identity orientation and decisional strategies. *Personality and Individual Differences, 20*(5), 597-606.
- Berzonsky, M. D., & Neimeyer, G. J. (1994). Ego identity status and identity processing orientation: The moderating role of commitment. *Journal of Research in Personality, 28*(4), 425-435.
- Bowlby, J. (1969). *Attachment and Loss: Vol. 1. Attachment*. New York, NY: Basic Books.
- Bowlby, J. (1973). *Attachment and Loss: Vol. 2. Separation*. New York, NY: Basic Books.
- Bowlby, J. (1980). *Attachment and Loss: Vol. 3. Loss*. New York, NY: Basic Books.
- Campbell, E., Adams, G. R., & Dobson, W. R. (1984). Familial correlates of identity formation in late adolescence: A study of the predictive utility of connectedness and individuality in family relations. *Journal of Youth and Adolescence, 13*(6), 509-525.
- Chen, X., Ender, P., Mitchell, M., & Wells, C. (2003). *Regression with SPSS* [Web book]. Retrieved from <http://www.ats.ucla.edu/stat/spss/webbooks/reg/chapter2/spssreg2.htm>

- Dollinger, S. (1995). Identity styles and the five-factor model of personality. *Journal of Research in Personality, 29*(4), 475-479.
- Engels, R. E., Finkenauer, C., Meeus, W., & Deković, M. (2001). Parental attachment and adolescents' emotional adjustment: The associations with social skills and relational competence. *Journal of Counseling Psychology, 48*(4), 428-439.
- Erikson, E. H. (1950). *Childhood and Society*. New York, NY US: W W Norton & Co.
- Erikson, E. (1956). The problem of ego identity. *Journal of The American Psychoanalytic Association, 4*, 56-121.
- Feeney, B. C., & Cassidy, J. (2003). Reconstructive memory related to adolescent-parent conflict interactions. *Journal of Personality and Social Psychology, 85*, 945-955.
- Feeney, J. A., & Noller, P. (1990). Attachment style as a predictor of adult romantic relationships. *Journal of Personality and Social Psychology, 58*(2), 281-291.
- Fullinwider-Bush, N., & Jacobvitz, D. B. (1993). The transition to young adulthood: Generational boundary dissolution and female identity development. *Family Process, 32*(1), 87-103.
- Gallarín, M., & Alonso-Arbiol, I. (2012). Parenting practices, parental attachment and aggressiveness in adolescents: A predictive model. *Journal of Adolescence, 35*, 1601-1610.
- Grotevant, H. D., & Cooper, C. R. (1985). Patterns of interaction in family relationships and the development of identity exploration in adolescence. *Child Development, 56*(2), 415-428.
- Harlow, H. F. (1958). The nature of love. *American Psychologist, 13*(12), 673-685.

- Hoegh, D. G., & Bourgeois, M. J. (2002). Prelude and postlude to the self: Correlates of achieved identity. *Youth & Society, 33*(4), 573-594.
- Holmbeck, G. M. (1997). Toward terminological, conceptual, and statistical clarity in the study of mediators and moderators: Examples from the child-clinical and pediatric psychology literatures. *Journal of Consulting and Clinical Psychology, 65*(4), 599-610.
- Jackson, C., Henriksen, L., & Foshee, V. A. (1998). The Authoritative Parenting Index: Predicting health risk behaviors among children and adolescents. *Health Education & Behavior, 25*(3), 319-337.
- Kerns, K. A., Tomich, P. L., Aspelmeier, J. E., & Contreras, J. M. (2000). Attachment-based assessments of parent-child relationships in middle childhood. *Developmental Psychology, 36*(5), 614-626.
- Kobak, R., & Sceery, A. (1988). Attachment in late adolescence: Working models, affect regulation, and representations of self and others. *Child Development, 59*(1), 135-146.
- Kroger, J., & Haslett, S. J. (1988). Separation-individuation and ego identity status in late adolescence: A two-year longitudinal study. *Journal of Youth and Adolescence, 17*(1), 59-79.
- Maccoby, E. E., & Martin, J.A. (1983). Socialization in the context of the family: Parent-child interaction. In E. M. Hetherington (Ed.) & P. H. Mussen (Series Ed.), *Handbook of child psychology: Vol. 4. Socialization, personality and social development* (pp.1-101). New York: Wiley.

- Main, M., & Soloman, J. (1986). Discovery of an insecure-disorganized/disoriented attachment pattern. In T. B. Brazelton & M. W. Yogman (Eds.), *Affective development in intimacy*. Norwood, NJ: Ablex.
- Marcia, J. (1964). Determination and construct validity of ego identity status. *Dissertation Abstracts*, 25.
- Marcia, J. E. (1966). Development and validation of ego-identity status. *Journal of Personality and Social Psychology*, 3(5), 551-558.
- McKinney, C., & Renk, K. (2008). Differential parenting between mothers and fathers: Implications for late adolescents. *Journal of Family Issues*, 29(6), 806-827.
- Meeus, W., Oosterwegel, A., & Vollebergh, W. (2002). Parental and peer attachment and identity development in adolescence. *Journal of Adolescence*, 25(1), 93-106
- Milevsky, A., Schlechter, M., Klem, L., & Kehl, R. (2008). Constellations of maternal and paternal parenting style: congruity and well-being. *Marriage and Family Review*, 44(1), 81-98.
- Quintana, S. M., & Lapsley, D. K. (1987). Adolescent attachment and ego identity: A structural equations approach to the continuity of adaptation. *Journal of Adolescent Research*, 2(4), 393-409.
- Samuolis, J., Layburn, K., & Schiaffino, K. M. (2001). Identity development and attachment to parents in college students. *Journal of Youth and Adolescence*, 30(3), 373-384.
- Schwartz, S. J., Forthun, L. F., Ravert, R. D., Zamboanga, B. L., Umaña-Taylor, A. J., Filton, B. J., & ... Hudson, M. (2010). Identity consolidation and health risk behaviors in college students. *American Journal of Health Behavior*, 34(2), 214-224.

- Shaver, P. R., & Hazan, C. (1993). Adult romantic attachment: Theory and evidence. In D. Perlman & W. H. Jones (Eds.), *Advances in personal relationships* (Vol. 4). London: Kingsley.
- Smits, I., Soenens, B., Luyckx, K., Duriez, B., Berzonsky, M., & Goossens, L. (2008). Perceived parenting dimensions and identity styles: Exploring the socialization of adolescents' processing of identity-relevant information. *Journal of Adolescence*, *31*(2), 151-164.
- Soenens, B., Berzonsky, M. D., Dunkel, C. S., & Papini, D. R. (2011). The role of perceived parental dimensions and identification in late adolescents' identity processing styles. *Identity: An International Journal of Theory and Research*, *11*(3), 189-210.
- Sroufe, L. (2005). Attachment and development: A prospective, longitudinal study from birth to adulthood. *Attachment & Human Development*, *7*(4), 349-367.
- Steinberg, L., Lamborn, S. D., Darling, N., & Mounts, N. S. (1994). Over-time changes in adjustment and competence among adolescents from authoritative, authoritarian, indulgent, and neglectful families. *Child Development*, *65*(3), 754-770.
- Vleioras, G., & Bosma, H. A. (2005). Are identity styles important for psychological well-being?. *Journal of Adolescence*, *28*(3), 397-409.
- Waterman, A. S. (1982). Identity development from adolescence to adulthood: An extension of theory and a review of research. *Developmental Psychology*, *18*(3), 341-358.
- Waterman, A. S. (2007). Doing well: The relationship of identity status to three conceptions of well-being. *Identity: An International Journal of Theory and Research*, *7*(4), 289-307.

Zimmermann, P., & Becker-Stoll, F. (2002). Stability of attachment representations during adolescence: The influence of ego-identity status. *Journal of Adolescence*, 25(1), 107-124.