College Women and Their Parents:

A Validation Study of the Parental Intrusiveness versus Appropriate Concern Scale

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Abstract

The two studies herein assessed four types of validity of Brown's (2004) Intrusiveness/ Appropriate Concern Scale for use with college women about their parents. Item and factor analysis from 54 college women in the first study were used to create a refined measure (the Parental Intrusiveness versus Appropriate Concern Scale; PIAC), and to established face and content validity. In the second study, 151 college women completed measures of psychological control, parenting styles, and attachment status to determine the construct validity of the PIAC scale, while criterion validity was assessed using measures of self-efficacy, locus of control, interpersonal guilt, and college adjustment. Construct validity was generally supported and criterion validity was somewhat supported for the Intrusiveness subscale. The construct validity was moderately supported for the Appropriate Concern subscale, and the criterion validity for this scale was mildly supported for mothers, but not fathers.

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According to Steinberg (1999), the "social redefinition" that occurs during adolescence profoundly impacts a person's development and behavior. During adolescence, people redefine their personality, behavior, and their role in society. For adolescents, probably the most significant social redefinition occurs in the family. Adolescents must take on new roles and they sometimes have to establish a new, more mature identity, despite familial conflicts with such changes.

College is a time when social redefinition in one's family is paramount. It is a time when one's social abilities are tested, one's academic abilities are challenged, and one's abilities to cope with several significant changes are stressed. These adolescents, who are becoming new adults, may question their ability to function independently in an environment that demands a new level of self-reliance (Steinberg, 1999). Often the student no longer lives with her parents, and is, in a very real sense, mature and psychologically autonomous. However, this new adult is often financially dependent on her parents, potentially making her feel less autonomous (Steinberg, 1999). Such a paradoxical situation might cause these new adults to question their status. Am I an adult, or am I still an adolescent?

How students answer this question may depend on their relationship with their parents both throughout childhood and as college begins. Many researchers

speculate that students come to college having gained from their familial relationships different beliefs about their ability to handle new and challenging situations (Brown, 2004; Mattanah, Hancock, & Brand, 2004; Morray & Shilkret, 2002; Seibel & Johnson, 2001; Shilkret & Vecchiotti, 1997). In fact, research has found that "few forces are as significant as [one's] family, influencing development of identity, autonomy, and achievement" (Steinberg, 1999, p. 135).

However, before expanding on the possible differences among college students' beliefs about their ability to handle challenging situations, it is important to understand how parents might feel as their children leave for college. As a parent, it is difficult to see one's adolescent move away from home (as often happens). Parents may also wonder what their roles are while their children are in college (Steinberg, 1999). It is easy to imagine that some parents adjust well to the change by allowing their children a degree of autonomy and exhibiting appropriate concern while still supporting their child financially. It is also easy to imagine that some parents do not adjust as well to this change, perhaps becoming intrusive or controlling of their children's autonomy. Barber and Harmon (2002) speculated that some parents may behave "in ways that protect or insure their own (parental) position in the family, and specifically their position in relationship to [their children]" (22). A parent whose child is in college may be tempted to become intrusive in order to ensure a continuing parental position.

Using similar reasoning as Barber and Harmon (2002), researchers at Mount Holyoke College (Brown, 2004; Morray & Shilkret, 2002) hypothesized

that differences in the way parents react to their children going to college could account for some of the variation in college adjustment among students. Connecting this train of thought to adolescents' questions about their adult status, one can speculate that parents' conceptions of their children's adult status might enhance or detract from students' beliefs about their ability to handle new situations.

However, it is probably not as simple as saying that parents who think their children are still adolescents also think they are dependent, and therefore would have children who do not adjust well to college. This may not be the case at all. For instance, if both parent and student feel that the student is dependent, the student may adjust very well to college, using the parent as a secure base to explore her college environment. It seems more likely that a mismatch between parents and students' beliefs about dependence would result in poorer college adjustment. Along this line of reasoning, parents who see their children as still dependent may frustrate students who feel mostly autonomous. This type of relationship might be associated with poorer adjustment to college. Similarly, students who still feel dependent but have parents who feel otherwise might adjust poorly to college due to inadequate parental support.

For researchers at Mount Holyoke (Brown, 2004; Morray & Shilkret, 2002), this mismatch between parents and their children was studied from the perspective of intrusive parenting (to be described shortly). A parent who views a child as dependent may seem intrusive to a child who feels autonomous. These

researchers speculated that perceived intrusiveness would have a negative impact on college adjustment. Therefore, they investigated parental intrusiveness versus appropriate parental concern as it relates to college adjustment.

Intrusiveness and appropriate concern are related to research about parental control. There are two types of parental control that have been researched extensively: behavioral control and psychological control (see Barber, 2002 for a review). Behavioral control is parental behavior that constrains a child's behavioral autonomy through punitive or authoritarian means, while psychological control is parental behavior that controls a child's psychological autonomy with behaviors such as manipulation of the love relationship and constraining a child's self-expression (Barber, 1996). Research has generally found that behavioral control at moderate levels can have positive effects on children, such as minimizing externalizing behavior (delinquency, etc.). On the other hand, psychological control often has negative effects, including increasing risk for internalizing behavior (depression, anxiety, etc.; Barber, 1996).

I argue that although moderate to high levels of psychological control will have negative effects throughout development, continued behavioral control will have negative effects when children enter college. For example, a father who orders his college student to be in her room before midnight will certainly irritate his child. Continuing behavioral control will undoubtedly have negative influences on a student's ability to adjust to college. The combined behavioral and psychological parental behaviors that constrain a child's autonomy in college

are what I call intrusiveness. Similarly, Brown (2004) defined parental intrusiveness as "a pattern of parental behaviors that are manipulative, needy, and inconsiderate of a child's [autonomy]" (p. 3). In short, intrusive parents impede on a student's behavioral and psychological autonomy.

However, there are some differences between intrusiveness and the control variables, especially psychological control. First, intrusiveness is different than psychological and behavioral control because intrusive parents may not intentionally use their intrusive behavior to control their children. Second, consistently high psychological control interferes with a child's development of identity, making it difficult to separate from the parent, whereas intrusiveness does not interfere as severely with individuation. For intrusive behavior to be experienced as intrusive by a child, the child must be a separate individual to some extent. If a child does not feel separate from her parent, intrusive behavior might be well received and seem appropriate. Therefore, intrusiveness would likely have less severe effects than psychological control on development.

Parental appropriate concern is behavior that maintains a moderate to low level of behavioral control and a low level of psychological control. Parents who use appropriate concern exhibit an appropriate amount of control over their children, which demonstrates to their children a high amount of concern and support without constraint or neglect. Thus, parents who use appropriate concern create relationships with their children that do not result in either extensive separation or dependence, but instead result in interdependence.

To explore intrusiveness and appropriate concern as they related to college women, Morray and Shilkret (2002) developed a measure originally based on the Permeability of Boundaries scale (Oliver, Aries, & Batgos, 1989). Oliver et al.'s (1989) scale included items about maternal involvement in personal appearance, property, space, thoughts, and relationships. Morray and Shilkret added seven items about maternal involvement in college to these original areas of involvement, making the scale more applicable to the college student's experience.

These researchers also divided the items into two subscales: Intrusiveness and Appropriate Concern. They hypothesized that maternal intrusiveness would predict greater difficulty adjusting to college, while appropriate concern would predict more success (Morray & Shilkret, 2002). They found maternal intrusiveness predicted more difficulties with academic adjustment, personal-emotional adjustment, and overall college adjustment as measured by the Student Adaptation to College Questionnaire (SACQ; Baker & Siryk, 1989). But, maternal Appropriate Concern was not significantly correlated with any college adjustment subscales.

Morray and Shilkret (2002) hypothesized that there should be a positive finding for appropriate concern in terms of college adjustment. They interpreted the lack of findings for appropriate concern as evidence that the wording of some items in the Appropriate Concern subscale were open to interpretational differences. For example, the item, "My mother inquires about my social

activities at college" was on the Appropriate Concern subscale, but the word "inquires" could make the item seem intrusive or appropriate depending on one's interpretation of it while completing the survey.

In response to suggestions made by these researchers, Brown (2004) changed the wording of some Appropriate Concern items and expanded the two subscales in an attempt to balance the number of items (see Appendix A for the full scale). When a principal axis factor analysis with *promax* rotation was performed on the Intrusiveness/ Appropriate Concern scale (Brown, 2004), allowing only two factors, Brown found factors that could clearly be named "intrusiveness" and "appropriate concern." Thus, the changes to Morray and Shilkret's (2002) scale seemed to create a more robust scale with two distinct subscales.

When Brown (2004) correlated her revised Appropriate Concern subscale with college adjustment, she found significant positive correlations with women's Academic Adjustment and Personal-Emotional Adjustment. Thus, she found evidence that appropriate concern is positively related to college adjustment, unlike Morray and Shilkret (2002).

Although Brown's (2004) scale correlated significantly with several variables (college adjustment, Baumrind's parenting styles, and self-efficacy), the measure's validity has not yet been established. It is important to assess the validity of psychological instruments because validating a measure makes the instrument's range of practical use more clearly defined. Thus, the current studies

assessed the validity of Brown's scale for use with college women about their parents. Four kinds of validity were assessed in two studies. The first study was designed to assess face and content validity, and to refine and reduce the items in Brown's Intrusiveness and Appropriate Concern subscales with factor analysis. The second study assessed the construct and criterion validity of the new scale refined in the first study.

FIRST STUDY

In Brown's (2004) factor analysis of the Intrusiveness and Appropriate Concern subscales she found eight items that did not load onto their respective factors. One intrusive item, "My mother treats me like a personal friend," actually loaded onto the opposite subscale (Appropriate Concern). Brown's data suggested that students did not view all items on the Intrusiveness and Appropriate Concern subscales as Brown intended them to be viewed. In other words, there were items that lacked face validity.

Face validity is defined as the extent to which an untrained person could infer what a scale measures after completing it (Nunnally & Bernstein, 1994). In the first study I conducted an item analysis and assessed the face validity of all items, giving special attention to those that did not load correctly in Brown's (2004) factor analysis. I modified the rating scale of Brown's Intrusiveness/ Appropriate Concern scale and asked a group of college women to rate the degree of intrusiveness or appropriate concern of the parental behaviors described in Brown's scale items. I essentially took a poll of college women to see if my definitions and examples of intrusiveness or appropriate concern were similar to theirs.

Furthermore, to ensure the scale was not missing any major intrusive or appropriate concern behaviors, content validity was assessed. Content validity is defined as the extent to which a scale captures the behaviors that are included in the underlying construct (Nunnally & Bernstein, 1994). A construct is the "real-

world" variable that a survey tries to measure. Thus, after rating all the items for their degree of intrusiveness or appropriate concern, students were asked to supply behaviors they felt were intrusive or appropriate but were not included in the scale. This method helped determine if all major types of parental behavior that students found intrusive or that demonstrated appropriate concern were included in Brown's (2004) scale.

Method

Participants. Fifty-four female students from Mount Holyoke College were recruited for the first study. The sample included approximately 23% first-years, 21% sophomores, 28% juniors, and 26% seniors. No other demographic information was collected for this study. Most participants were recruited from psychology classes and were offered research participation credit to be used toward completion of a class requirement. Some participants were recruited by word-of-mouth and through flyers posted on campus; those that participated were entered into a raffle for a $50 gift certificate to the campus bookstore.

Of these 54 participants, 7 were dropped from the analysis. Four participants were dropped because they were not traditionally-aged college women (i.e., 17-23). These participants would likely have different views of intrusive or appropriate parental behaviors because many of these women were either mothers themselves or were not financially dependent on their parents. Three participants were also dropped because they obviously misused the rating scale. For example, one student rated all 49 paternal behaviors as "9's", while indicating that her father "[didn't] do this." The students were not asked if their parents performed the behavior, but, instead, they were asked if the behavior was intrusive or appropriate.

Materials. Brown's (2004) Intrusiveness/ Appropriate Concern scale was used; however, the 5-point Likert scales were modified to 9-point scales (1 = Intrusive, 9 = Appropriate) in order to assess face validity. The scale was

changed to a 9-point scale to allow slightly more variance, essentially helping identify only those items that were rated most strongly as either intrusive or appropriate. Forty-nine identical items were included for mothers and fathers, and participants were asked to rate the total 98 parental behaviors in terms of their degree of intrusiveness or appropriateness. A question was also added to the end of the scale asking participants to supply parental behaviors they considered intrusive or demonstrating appropriate concern that were not included in the scale. This question was used to establish the major types of parental behavior participants found missing from the measure (i.e., content validity). See Appendix B for this scale with the modified rating system.

Procedure. Each participant read and signed a consent form. Participants were given the modified Intrusiveness/ Appropriate Concern scale and asked to read the directions before completing it. Upon completion of the scale participants were given a debriefing statement and were thanked for their participation.

Results and Discussion

Item Analysis

Data from the first study were used to assess face and content validity. First, an item analysis was performed. Items were checked for several characteristics typical of *bad* items as defined by DeVellis (1991). These characteristics included lack of clarity, excessive length, and the presence of double-barreled or two-part statements.

A double-barreled item is a statement that includes two or more ideas, so that answering affirmatively on the item could refer to answering affirmatively on one or more ideas within the entire statement (DeVellis, 1991). One can see why this is not ideal for scale items. For example, the hypothetical item, "My mother never listens to me, making me very angry with her," would be difficult for participants to answer if they agreed with the first idea (never listens) but not with the second (makes me angry). One can imagine that analyzing such items also becomes more complicated.

The item analysis revealed no items that were unclear, or too long. Four items were considered double-barreled (6, 23, 25, 27) and were thus flagged for possible elimination from the scale. However, these items were only eliminated if they correlated poorly with the factors from factor analyses or if they lowered the scale's internal consistency. Thus, in the end the reliability of an item was more important in terms of item selection than was the item analysis.

Factor Analysis

Before presenting the factor analysis results, a brief explanation of factor analysis procedures would be helpful. Factor analysis is a valuable tool for scale developers because it groups items together that covary, and thus should be related to the same underlying variable (DeVellis, 1991). A factor is a group of items that seem to be closely related to the same underlying variable. The higher an item "loads" onto a factor, the stronger the relationship between the item and the underlying variable the factor represents. A factor "loading" is the correlation between an item and the factor. The closer the correlation is to -1 or 1, the stronger the relationship to the factor, or underlying variable. Sometimes researchers use value suppression, asking the computer to show only those item loadings that are at or above a .30 correlation. However, factor analysis cannot identify the underlying construct; the researcher must identify the construct based on the items that load onto the factor. Thus, factor names are subjective, and may be interpreted differently across researchers.

Second, a factor analysis extracts many factors but not all are considered salient factors. There are two main ways to determine which factors are "salient"; the eigenvalue rule and the scree plot analysis (DeVellis, 1991). An eigenvalue is the proportion of the overall variance of a subscale explained by each factor. Using the eigenvalue rule one chooses only those factors as salient that have eigenvalues that explain more variance than the average amount one item on the scale explains. When eigenvalues are greater than one it means that the items in

the factor covary more than would be expected from an average item. However, using the eigenvalue rule often generates too many salient factors and is therefore not typically used in analysis (DeVellis, 1991). The scree plot analysis, on the other hand, is more widely used and usually identifies a good number of salient factors (DeVellis, 1991). A scree plot is a graph that plots the factors in order of the amount of variance that they explain. The goal is to determine where the elbow, or the "bend" in the graph is by sight (see *Figure 1*).

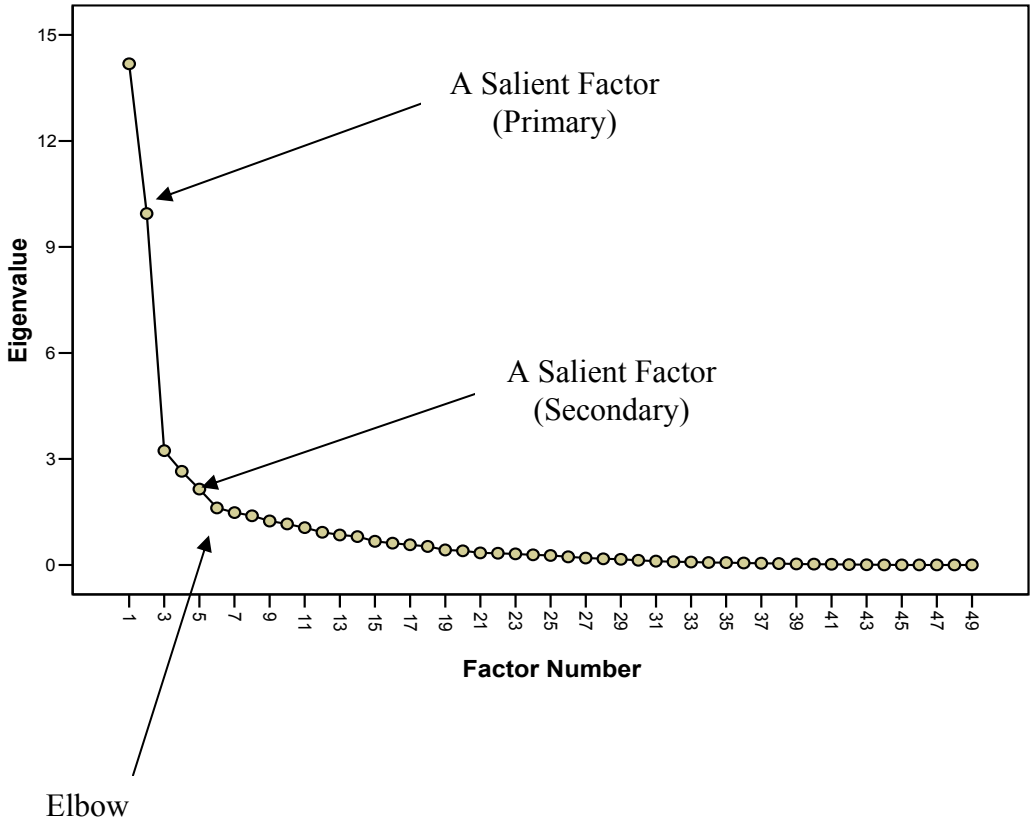

Figure 1. An example scree plot to demonstrate finding the "elbow" when using the scree plot analysis to determining salient factors, which are those factors above the elbow. There are five salient factors here, two primary and three secondary.

Once one has determined where the elbow is, one retains the factors above it and discards the factors below it. Using the scree plot analysis, one retains only those factors that explain the most amount of variance (DeVellis, 1991). Usually, after a scree plot analysis is conducted a researcher will limit the factor extraction to the amount of factors that were salient.

A final relevant concept in factor analysis is rotation. A researcher can perform factor rotation as a way to create the simplest division of items into clearer categories, or a simple structure (DeVellis, 1991). Imagine a spread of marbles on the floor. Depending on the way one looks at the marbles by walking around them in a circle, one might see a clearer grouping of marbles from one side rather than another. In factor analysis with rotation, the computer rotates the data to find the clearest division of items into the number of factors requested for extraction. Therefore, if one requests two factors be extracted, the computer will find the clearest separation of items into these two factors, minimizing the number of items that load onto both factors at the same time.

Brown's (2004) research showed that Intrusiveness and Appropriate Concern seem to be independent of each other. Due to this information I used *varimax* rotation, which is the most widely used orthogonal rotation method. Orthogonal rotation works from the assumption that one's factors are independent of each other and do not share variance (DeVellis, 1991).

Mother Data

I performed a series of factor analyses on the Intrusiveness/ Appropriate Concern scale (Brown, 2004) for mothers. A principal components factor analysis with *varimax* rotation and a loading value suppression of .30 was performed, extracting 11 factors. The scree plot suggested two primary and two secondary factors were salient; thus, a second identical factor analysis was performed that limited the factors extracted to four. The first and second factors (the primary factors) from this second factor analysis were comprised of mostly Intrusiveness subscale items and Appropriate Concern subscale items, respectively, and were therefore considered "intrusiveness" and "appropriate concern" factors.

The third factor, comprised of 16 items, seemed to suggest a construct or underlying variable that could be named, "the presence or lack of instrumental support." For example, this factor included items such as, "My mother expresses her opinion on my career choices" and, "My mother is interested in reading papers I have written for school." The fourth and final factor extracted in the second factor analysis, comprised of 14 items, seemed to be an "emotional support" factor. Examples of items that loaded highly onto this factor were, "My mother is happy for me when I accomplish something on my own that I am proud of" and, "If I have exciting news, my mother is interested in hearing about it." However, these two factors each only predicted 10% of the variance, and they seemed to have a position on the scree plot that indicated less salience as they

were closer to the elbow. Therefore, they were judged as relatively insignificant factors for potential additional subscales.

Interestingly, it is conceptually sound that instrumental support and emotional support could be constructs within the appropriate concern parenting style or pattern. In fact, these two support factors were comprised of mostly Appropriate Concern items. Twelve of sixteen items on the instrumental support factor were from the Appropriate Concern subscale (in order of loading; 3, 9, 39, 42, 6, 1, 27, 34, 36, 48, 12, and 18). Example items were, "My mother is interested in reading papers I have written for school" and, "If I do poorly on a major academic test, my mother is appropriately concerned." The items originally from the Intrusiveness subscale that loaded onto the instrumental support factor in a positive direction were 44, 38, 40, and 35. Examples items were, "My mother expresses her opinion on my career choices," and "My mother is involved in my course selections at school."

In the emotional support factor, nine of fourteen items were from the Appropriate Concern subscale (45, 15, 22, 37, 36, 48, 39, 21, and 16). Example items were, "My mother is happy to let me make decisions on my own" and, "If I have a major setback, my mother is appropriately concerned." The items originally from the Intrusiveness scale that loaded onto the emotional support factor in a positive direction were 24, 17, 49, 40, and 26. Example items were, "My mother confides in me about problems in her personal life" and, "My mother asks to hear about things that I don't find interesting."

These analyses indicate that it may be worthwhile in a later study to expand the emotional and instrumental support factors to create two more subscales. These potential subscales could possibly make the benefits of appropriate concern more clear. Their levels might also differ depending on the sex of the parent. For instance, it may be that fathers give more instrumental support while mothers give more emotional support, as has been found by other researchers (Steinberg, 1999).

Furthermore, one might speculate that fathers may not need to exhibit a high degree of emotional support for the positive effects of instrumental support to be significant. A similar hypothesis might be made for mothers in terms of emotional support. It may also be that the division of support between mothers and fathers is beneficial only when there are two parents. A child of a single father, for instance, might not receive and exhibit positive effects if the father is not both emotionally and instrumentally supportive.

The final analysis on the maternal data was a principal component factor analysis with *varimax* rotation, a loading value suppression of .30, and an extraction limit of two factors. This analysis was performed to assess the factorial validity of Brown's (2004) Intrusiveness/ Appropriate Concern scale. According to DeVellis (2004), one can test factorial validity by performing an exploratory factor analysis (like mine) on a measure and then assessing the degree of similarity between the factors extracted and one's subscales. The two factors that were extracted from this analysis closely resembled the Intrusiveness and the

Appropriate Concern subscales, respectively (see Tables 1 and 2). The "intrusiveness" factor accounted for 26% of variance, and the "appropriate concern" factor accounted for an additional 20%. Therefore, Brown's Intrusiveness/ Appropriate Concern scale for mothers has moderate to high factorial validity.

Several items did not load "correctly" onto their factors. Nine items loaded positively onto both factors (19, 26, 30, 40, 44, 27, 34, 38, and 24), all were from the Intrusiveness subscale except two (27 and 34). These nine items were flagged for further analysis during the second study. I found three items (16, 3, and 32) on Brown's (2004) Intrusiveness/ Appropriate Concern scale about mothers that loaded onto the opposite scale's factor; each was an Appropriate Concern subscale item loading positively onto the intrusiveness factor. These items were similarly flagged for further analysis. Lastly, two items (7 and 17) did not load onto either factor. Both items were Intrusiveness subscale items and both were flagged for analysis in the second study.

Lastly, I compared the factor analysis data from the first study to Brown's (2004) factor analysis. Only 4 of 23 items that loaded onto Brown's maternal intrusiveness factor did not load onto my intrusiveness factor. Similarly, only 3 of 22 items that loaded onto Brown's maternal appropriate concern factor did not load onto my appropriate concern factor. Therefore, despite small discrepancies in findings, my maternal factor analyses generally support Brown's.

Table 1

Factor Loadings for First Maternal Factor (Intrusiveness) when Limited to Two Factors

Item #	Scale items	Factor loadings	M	SD
43	My mother visits me more often than I would like. (I)	.84	4.28	2.46
28	My mother tells me what things I should like or be interested in. (I)	.84	2.53	2.22
25	My mother tells me how I feel about things before I have said anything on the topic. (I)	.83	3.13	2.58
29	My mother is overly concerned about my weight. (I)	.80	3.68	2.40
41	My mother is overly critical of my friends. (I)	.79	3.57	2.51
31	My mother comments critically about the clothes I wear. (I)	.78	3.68	2.16
47	My mother calls me more often than I would like. (I)	.77	4.68	2.38
46	My mother inquires about my sex life. (I)	.77	3.45	2.53
8	My mother goes through my bureau drawers at home. (I)	.76	2.30	2.47
14	My mother reads my personal papers and mail. (I)	.75	2.13	2.10
33	My mother tells me how I should spend my money. (I)	.73	4.34	2.10
23	When my mother wants to talk to me, I feel that I should, or she would be upset with me. (I)	.71	5.15	1.90
35	My mother gives advice about how to improve my looks. (I)	.71	4.94	2.16
2	My mother gets upset if she is not involved in my day-to day decisions. (I)	.68	3.72	2.47
11	My mother does not like it when I express opinions that are different from hers. (I)	.65	3.51	2.15
19	My mother gives unsolicited advice about my relationships. (I)	.63	4.51	2.01
26	If something bad happens to me in college, my mother expects me to talk with her about it. (I)	.60	5.21	2.17

Item #	Scale items	Factor loadings	M	SD
16	My mother is interested in spending time with my friends. (AC)	.59	5.36	2.31
5	My mother enters my room without knocking. (I)	.59	3.15	1.89
30	My mother expects me to act in a certain way when I'm in public with her. (I)	.59	4.98	2.31
40	My mother offers me advice when I don't need it. (I)	.53	4.63	2.25
44	My mother expresses her opinion on my career choices. (I)	.50	5.15	2.46
20	My mother inquires about my bodily functions. (I)	.49	3.94	2.12
34	My mother is interested in hearing about my personal relationships. (AC)	.47	6.23	2.10
49	My mother treats me like a personal friend. (I)	.46	6.40	2.10
3	My mother is interested in reading papers I have written for school. (AC)	.41	6.06	2.11
32	My mother is interested in whether I am eating enough or too much. (AC)	.39	5.49	2.19
24	My mother confides in me about problems in her personal life. (I)	.38	5.53	2.31
27	My mother is interested in what I am thinking and feeling. (AC)	.33	7.64	1.71
38	My mother is involved in my course selections at school. (I)	.32	5.00	2.32

Table 2

Factor Loadings for Second Maternal Factor (Appropriate Concern) when Limited to Two Factors

Item #	Scale items	Factor loadings	M	SD
37	If I have a major setback, my mother is appropriately concerned. (AC)	.82	8.22	1.15
12	My mother is interested in hearing about whether I'm enjoying my academic work at college. (AC)	.82	8.09	1.53
4	In an emergency, my mother is willing to help me financially. (AC)	.79	8.13	1.56
36	My mother is interested in hearing about things that matter to me. (AC)	.77	8.04	1.44
21	If something bad happens to me in college, my mother is interested in hearing about it. (AC)	.74	7.51	1.74
13	My mother is willing to help me if I ever need her. (AC)	.73	8.49	1.37
1	My mother expresses appropriate concern about my health. (AC)	.71	7.83	1.76
27	My mother is interested in what I am thinking and feeling. (AC)	.66	7.64	1.71
39	My mother is interested in hearing about my performance in school. (AC)	.65	7.46	1.56
9	If I do poorly on a major academic test, my mother is appropriately concerned. (AC)	.63	7.19	1.56
18	My mother is interested in helping me with my financial planning. (AC)	.61	7.32	1.83
10	My mother surprises me with gifts. (AC)	.60	7.68	1.62
34	My mother is interested in hearing about my personal relationships. (AC)	.58	6.23	2.10
15	If I have exciting news, my mother is interested in hearing about it. (AC)	.53	8.36	1.28
48	My mother is interested in helping me when I'm stressed out. (AC)	.52	8.00	1.29
6	My mother worries appropriately about my drinking and drug activities. (AC)	.51	7.72	1.58
42	My mother is interested in hearing about my social activities at college. (AC)	.50	6.79	1.71

Item #	Scale items	Factor loadings	M	SD
38	My mother is involved in my course selections at school. (I)	.48	5.00	2.32
24	My mother confides in me about problems in her personal life. (I)	.41	5.53	2.31
40	My mother offers me advice when I don't need it. (I)	.39	4.63	2.25
45	My mother is happy for me when I accomplish something on my own that I am proud of. (AC)	.38	8.72	.58
22	My mother is happy to let me make decisions on my own. (AC)	.38	8.32	1.04
8	My mother goes through my bureau drawers at home. (I)	-.38	2.30	2.47
5	My mother enters my room without knocking. (I)	-.37	3.15	1.89
14	My mother reads my personal papers and mail. (I)	-.35	2.13	2.10
30	My mother expects me to act in a certain way when I'm in public with her. (I)	.33	4.98	2.31
19	My mother gives unsolicited advice about my relationships. (I)	.31	4.51	2.01
44	My mother expresses her opinion on my career choices. (I)	.31	5.15	2.46
26	If something bad happens to me in college, my mother expects me to talk with her about it. (I)	.30	5.21	2.17

Father Data

A similar procedure was performed for the Intrusiveness/ Appropriate Concern scale for fathers. First, a principal components factor analysis with *varimax* rotation and a .30 loading value cutoff was performed. Eleven factors were extracted and from the scree plot two primary and three secondary factors were considered salient. Thus, a second identical factor analysis was performed that limited the extraction to five factors.

The first two factors contained mostly Intrusiveness and Appropriate Concern subscale items, respectively, as with the analysis of the maternal scale. The third factor was comprised of 15 items that could be categorized as "emotional support." However, this factor only accounted for 11% of the variance and was in a position on the scree plot that suggested less salience, indicating that it might not make a robust subscale. The final two factors could be characterized as "psychological control" (10 items) and "behavioral control" (8 items), respectively. However, these factors did not account for a large portion of the variance (9%, and 7%, respectively) and were in a position on the scree plot that denoted less salience. Therefore, these two factors probably would not make robust subscales.

Finally, two factors on the scree plot for Brown's (2004) Intrusiveness/ Appropriate Concern scale for fathers accounted for much more variance than the lower three factors (26%, and 23%, respectively). Thus, an identical third factor analysis was performed that limited the extraction to two factors. These two

factors were comprised of nearly all the Intrusiveness and Appropriate Concern subscale items, respectively (see Tables 3 and 4). The factor analysis results provided moderate to high factorial validity for the two paternal subscales.

Table 3

Factor Loadings for First Paternal Factor (Intrusiveness) when Limited to Two Factors

Item #	Subscale items	Factor Loadings	M	SD
19	My father gives unsolicited advice about my relationships. (I)	.79	3.79	2.24
41	My father is overly critical of my friends. (I)	.79	3.40	2.00
2	My father gets upset if he is not involved in my day-to day decisions. (I)	.79	3.11	2.13
16	My father is interested in spending time with my friends. (AC)	.78	4.00	2.27
46	My father inquires about my sex life. (I)	.74	2.26	2.32
20	My father inquires about my bodily functions. (I)	.73	2.62	2.34
5	My father enters my room without knocking. (I)	.73	2.13	1.88
24	My father confides in me about problems in his personal life. (I)	.72	4.53	2.53
43	My father visits me more often than I would like. (I)	.71	3.85	2.33
28	My father tells me what things I should like or be interested in. (I)	.70	2.53	2.01
25	My father tells me how I feel about things before I have said anything on the topic. (I)	.69	2.70	2.12
8	My father goes through my bureau drawers at home. (I)	.69	1.87	2.13
29	My father is overly concerned about my weight. (I)	.68	3.09	2.33
31	My father comments critically about the clothes I wear. (I)	.68	3.38	2.51
47	My father calls me more often than I would like. (I)	.66	4.33	2.23
14	My father reads my personal papers and mail. (I)	.65	2.00	2.13
35	My father gives advice about how to improve my looks. (I)	.64	2.87	2.34
49	My father treats me like a personal friend. (I)	.63	5.54	2.20

Item #	Subscale items	Factor Loadings	M	SD
30	My father expects me to act in a certain way when I'm in public with him. (I)	.56	4.57	2.08
33	My father tells me how I should spend my money. (I)	.56	4.15	2.20
11	My father does not like it when I express opinions that are different from his. (I)	.56	3.46	1.79
7	My father makes comments about how to change my room. (I)	.53	3.66	2.15
34	My father is interested in hearing about my personal relationships. (AC)	.50	5.23	2.48
40	My father offers me advice when I don't need it. (I)	.45	4.26	2.10
42	My father is interested in hearing about my social activities at college. (AC)	.44	6.43	2.03
32	My father is interested in whether I am eating enough or too much. (AC)	.39	5.15	2.26
10	My father surprises me with gifts. (AC)	.39	7.47	2.04
38	My father is involved in my course selections at school. (I)	.37	5.15	2.31
17	My father asks to hear about things that I don't find interesting. (I)	.36	5.26	2.17
44	My father expresses his opinion on my career choices. (I)	.36	5.38	2.46
22	My father is happy to let me make decisions on my own. (AC)	-.35	7.98	1.71
26	If something bad happens to me in college, my father expects me to talk with him about it. (I)	.34	5.49	2.19

Table 4

Factor Loadings for Second Paternal Factor (Appropriate Concern) when Limited to Two Factors

Item #	Subscale items	Factor Loadings	M	SD
36	My father is interested in hearing about things that matter to me. (AC)	.86	8.21	1.38
13	My father is willing to help me if I ever need him. (AC)	.84	8.34	1.39
37	If I have a major setback, my father is appropriately concerned. (AC)	.84	8.02	1.80
12	My father is interested in hearing about whether I'm enjoying my academic work at college. (AC)	.84	8.02	1.34
15	If I have exciting news, my father is interested in hearing about it. (AC)	.83	8.15	1.60
39	My father is interested in hearing about my performance in school. (AC)	.82	7.74	1.75
4	In an emergency, my father is willing to help me financially. (AC)	.73	8.21	1.56
21	If something bad happens to me in college, my father is interested in hearing about it. (AC)	.71	7.38	1.79
27	My father is interested in what I am thinking and feeling. (AC)	.71	7.45	1.92
22	My father is happy to let me make decisions on my own. (AC)	.68	7.98	1.71
45	My father is happy for me when I accomplish something on my own that I am proud of. (AC)	.65	8.74	.49
1	My father expresses appropriate concern about my health. (AC)	.65	7.49	2.11
48	My father is interested in helping me when I'm stressed out. (AC)	.62	7.83	1.76
18	My father is interested in helping me with my financial planning. (AC)	.61	7.47	1.76
6	My father worries appropriately about my drinking and drug activities. (AC)	.58	7.06	2.24
9	If I do poorly on a major academic test, my father is appropriately concerned. (AC)	.56	7.11	2.10

Item #	Subscale items	Factor Loadings	M	SD
8	My father goes through my bureau drawers at home. (I)	-.55	1.87	2.13
26	If something bad happens to me in college, my father expects me to talk with him about it. (I)	.52	5.49	2.19
14	My father reads my personal papers and mail. (I)	-.47	2.00	2.13
42	My father is interested in hearing about my social activities at college. (AC)	.44	6.43	2.03
46	My father inquires about my sex life. (I)	-.44	2.26	2.32
20	My father inquires about my bodily functions. (I)	-.40	2.62	2.34
34	My father is interested in hearing about my personal relationships. (AC)	.39	5.23	2.48
38	My father is involved in my course selections at school. (I)	.36	5.15	2.31
10	My father surprises me with gifts. (AC)	.36	7.47	2.04
5	My father enters my room without knocking. (I)	-.35	2.13	1.88
31	My father comments critically about the clothes I wear. (I)	-.35	3.38	2.51
35	My father gives advice about how to improve my looks. (I)	-.33	2.87	2.34
3	My father is interested in reading papers I have written for school. (AC)	.32	6.02	2.13

As with the results for mothers, there were a few items for fathers that did not load "correctly" onto each factor. Five items loaded onto both factors positively (34, 42, 10, 38, and 26). The first three were Appropriate Concern subscale items and the final two were Intrusiveness subscale items. As in the analysis of the data for mothers, these items were flagged for attention in further analyses. Two Appropriate Concern items (16 and 32) loaded on the intrusiveness factor and were flagged for further analysis.

Intrusiveness/ Appropriate Concern Scale as a Whole

When looking at the items for both parents, one can see that items 34, 38, and 26 loaded positively onto both the intrusiveness and the appropriate concern factors. Items 16 and 32 loaded positively onto the opposite factor (intrusiveness) for both the mothers and fathers, indicating that these items were not being interpreted by students as I meant them to be interpreted. These five items were carefully reviewed in further analysis.

In the final step of analysis I assessed the content validity of the scale by compiling the students' suggestions of additional behaviors that they thought of as intrusive or as demonstrating appropriate concern. From these suggestions six new items were created and added to a revised version of Brown's (2004) Intrusiveness/ Appropriate Concern scale for mothers and fathers, creating 12 new items total (see Appendix C). These items were analyzed for reliability and validity along with all items in further analysis to be described shortly.

As a final note, the factor analyses from the first study were somewhat inconclusive. Comments made and questions asked by participants while they completed the survey raised some doubt about the reliability of the first study's data. Some students asked, "What if I don't have a father?" or, "My mother doesn't do this, so how should I answer?" In each case, the researcher told the participants to ask themselves, "If a parent performed this behavior, would I think it was intrusive or appropriate and how much." Sometimes, other participants then said, "Oh, I didn't do it like that." Such comments suggested that what the participants were meant to do was not communicated clearly enough. I wanted each participant to consider whether or not the behavior in each item was intrusive or appropriate, rather than consider whether or not the participant's parent did or did not do each behavior.

I also suspected that, even if the directions were clear, the format of the survey was confusing for participants. For instance, in order to keep the items of the scale as similar to the original scale as possible, I decided not to change the wording of the items. Thus, the items read, "My mother…etc." and, "My father…etc." It is likely that such wording caused participants to consider their own parents rather than the behavior as it relates to a generic mother or father figure. Participants may have done so despite instructions to consider the general case.

Due to such concerns, I decided to verify the results of the first study's factor analyses with a second identical series of factor analyses. These analyses

were performed on the first 50 participants' data from the second study. In the second study, participants took Brown's Intrusiveness/ Appropriate Concern Scale as it was meant to be taken, rating the frequency of their own parents' behavior on 5-point Likert scales (1 = Never, 5 = Often). The scale in the second study also included the new items that were derived from the content validity analysis in the first study.

Despite concerns about some participants not following the intended instructions in the first study, the results from an identical series of factor analyses in the second study mostly confirmed the first. When the maternal data were limited to extracting two factors an "appropriate concern" factor emerged, comprised of 34 items, and accounting for 23% of the variance. An "intrusiveness" factor also emerged, including 29 items, and accounting for an additional 14% of variance. Thus, in the second study, the maternal appropriate concern factor accounted for *more* variance than in the first study (20%), but the maternal intrusiveness factor accounted for much *less* variance than in the first study (26%). The same two general factors were found in the paternal data as well, with the appropriate concern factor accounting for 25% of the variance, and including 30 items. The intrusiveness factor accounted for 13% of additional variance and included 23 items. As in the maternal data, the second study's paternal appropriate concern factor accounted for approximately the same amount of variance as the in the first study (26%), but the paternal intrusiveness factor accounted for much less variance in the second study than in the first (23%).

Such a difference in variance accounted for might be expected considering that when participants were asked to rate the frequency of their own parents' behavior, as in the second study, there would be considerably more variance due to individual differences. When participants were asked to rate whether or not a behavior was generally intrusive or appropriate, as in the first study, they may have agreed more with their peers and therefore showed less overall variance. It seems that the difference in variance between the first study and the second study factor analyses would be the greatest with respect to the intrusiveness factor. Although many students may agree on what intrusive behavior is, they may vary considerably on how often they rate their own parents as being intrusive. This hypothesis could explain why less variance was accounted for by the second study's maternal and paternal intrusiveness factors than the first study's factors.

Because I could explain the difference in variance accounted for by each factor across the first and second study, I deemed the analyses similar enough to confirm that two salient constructs underlie Brown's (2004) Intrusiveness/ Appropriate Concern scale. This result verifies Brown's previous findings of two factors corresponding to the Intrusiveness and Appropriate Concern subscales. However, it is recommended that further factor analyses cross-validate these findings.

Reliability

After the factor analyses using the second study's participants, a reliability analysis of Brown's (2004) subscales (including the new items created) and the

subscale items was conducted. Using the first 50 participants from the second study again, a Cronbach alpha value was calculated for each subscale. Then, each item within the subscales was removed and the Cronbach alpha value was calculated for each subscale. With this analysis one can determine if an item is improving or detracting from a subscale's reliability. If the alpha value is higher after an item is removed, then one knows that that item detracts from reliability and should probably be removed from the subscale. Each subscale's total reliability and the reliabilities when each item is systematically removed from the subscales are listed in Tables 5 - 8. The items in bold are those that should be removed from the subscales they belong to. Thus, 5 items were removed from their respective subscales when the new scale was created. However, these items were allowed to be included on other subscales if they met the selection criteria (to be described shortly).

Table 5

Maternal Intrusiveness Subscale and Item Reliability

Cronbach's Alpha	N of Items
.87	29

Item #	Item Description	Corrected Item-Total Correlation	Alpha if Item Deleted
02	My mother gets upset if she is not involved in my day-to day decisions.	.63	.86
05	My mother enters my room without knocking.	.43	.87
07	My mother makes comments about how to change my room.	.49	.87
08	My mother goes through my bureau drawers at home.	.49	.87
11	My mother does not like it when I express opinions that are different from hers.	.21	.87
14	My mother reads my personal papers and mail.	.52	.87
17	My mother asks to hear about things that I don't find interesting.	.44	.87
19	My mother gives unsolicited advice about my relationships.	.43	.87
20	My mother inquires about my bodily functions.	.58	.86
23	When my mother wants to talk to me, I feel that I should, or she would be upset with me.	.48	.87
24	My mother confides in me about problems in her personal life.	.28	.87
25	My mother tells me how I feel about things before I have said anything on the topic.	.32	.87
26	If something bad happens to me in college, my mother expects me to talk with her about it.	.48	.87
28	My mother tells me what things I should like or be interested in.	.41	.87
29	My mother is overly concerned about my weight.	.40	.87

Item #	Item Description	Corrected Item-Total Correlation	Alpha if Item Deleted
30	My mother expects me to act in a certain way when I'm in public with her.	.32	.87
31	My mother comments critically about the clothes I wear.	.41	.87
33	My mother tells me how I should spend my money.	.58	.87
35	My mother gives advice about how to improve my looks.	.42	.87
38	**My mother is involved in my course selections at school.**	**.19**	**.88**
40	My mother offers me advice when I don't need it.	.59	.86
41	My mother is overly critical of my friends.	.56	.87
43	My mother visits me more often than I would like.	.32	.87
44	My mother expresses her opinion on my career choices.	.42	.87
46	My mother inquires about my sex life.	.45	.87
47	My mother calls me more often than I would like.	.41	.87
49	**My mother treats me like a personal friend.**	**-.02**	**.88**
53	My mother asks my friends or family about aspects of my personal life.	.25	.87
55	My mother tends to exaggerate my problems and then get overly involved trying to help me with them.	.44	.87

Table 6

Maternal Appropriate Concern Subscale and Item Reliability

Cronbach's Alpha	N of Items
.92	26

Item #	Item Description	Corrected Item-Total Correlation	Alpha if Item Deleted
01	My mother expresses appropriate concern about my health.	.21	.92
03	My mother is interested in reading papers I have written for school.	.54	.91
04	In an emergency, my mother is willing to help me financially.	.40	.92
06	My mother worries appropriately about my drinking and drug activities.	.41	.92
09	If I do poorly on a major academic test, my mother is appropriately concerned.	.56	.91
10	My mother surprises me with gifts.	.36	.92
12	My mother is interested in hearing about whether I'm enjoying my academic work at college.	.76	.91
13	My mother is willing to help me if I ever need her.	.78	.91
15	If I have exciting news, my mother is interested in hearing about it.	.73	.91
16	My mother is interested in spending time with my friends.	.55	.91
18	My mother is interested in helping me with my financial planning.	.55	.91
21	If something bad happens to me in college, my mother is interested in hearing about it.	.58	.91
22	My mother is happy to let me make decisions on my own.	.38	.92
27	My mother is interested in what I am thinking and feeling.	.71	.91

Item #	Item Description	Corrected Item-Total Correlation	Alpha if Item Deleted
32	**My mother is interested in whether I am eating enough or too much.**	**-.01**	**.93**
34	My mother is interested in hearing about my personal relationships.	.60	.91
36	My mother is interested in hearing about things that matter to me.	.88	.91
37	If I have a major setback, my mother is appropriately concerned.	.79	.91
39	My mother is interested in hearing about my performance in school.	.66	.91
42	My mother is interested in hearing about my social activities at college.	.60	.91
45	My mother is happy for me when I accomplish something on my own that I am proud of.	.66	.91
48	My mother is interested in helping me when I'm stressed out.	.64	.91
50	My mother supports my religious/spiritual beliefs without imposing her beliefs onto me.	.47	.92
51	My mother is supportive of my interests, even when she is not interested in the same things.	.69	.91
52	My mother is interested to hear about my daily routine and does not try to tell me when I should do things.	.55	.91
54	My mother encourages me in my career choices without trying to impose her own wishes on me.	.51	.91

Table 7

Paternal Intrusiveness Subscale and Item Reliability

Cronbach's Alpha	N of Items
.83	29

Item #	Item Description	Corrected Item-Total Correlation	Alpha if Item Deleted
02	My father gets upset if he is not involved in my day-to day decisions.	.34	.82
05	My father enters my room without knocking.	.43	.82
07	My father makes comments about how to change my room.	.18	.83
08	My father goes through my bureau drawers at home.	.33	.82
11	My father does not like it when I express opinions that are different from his.	.28	.83
14	My father reads my personal papers and mail.	.49	.82
17	My father asks to hear about things that I don't find interesting.	.30	.82
19	My father gives unsolicited advice about my relationships.	.55	.82
20	My father inquires about my bodily functions.	.12	.83
23	When my father wants to talk to me, I feel that I should, or he would be upset with me.	.53	.81
24	**My father confides in me about problems in his personal life.**	**.03**	**.84**
25	My father tells me how I feel about things before I have said anything on the topic.	.44	.82
26	If something bad happens to me in college, my father expects me to talk with him about it.	.46	.82
28	My father tells me what things I should like or be interested in.	.47	.82
29	My father is overly concerned about my weight.	.42	.82

Item #	Item Description	Corrected Item-Total Correlation	Alpha if Item Deleted
30	My father expects me to act in a certain way when I'm in public with him.	.24	.83
31	My father comments critically about the clothes I wear.	.33	.82
33	My father tells me how I should spend my money.	.50	.82
35	My father gives advice about how to improve my looks.	.29	.82
38	My father is involved in my course selections at school.	.23	.83
40	My father offers me advice when I don't need it.	.62	.81
41	My father is overly critical of my friends.	.38	.82
43	My father visits me more often than I would like.	.34	.82
44	My father expresses his opinion on my career choices.	.41	.82
46	My father inquires about my sex life.	.23	.83
47	My father calls me more often than I would like	.39	.82
49	**My father treats me like a personal friend.**	**.04**	**.84**
53	My father asks my friends or family about aspects of my personal life.	.19	.83
55	My father tends to exaggerate my problems and then get overly involved trying to help me with them.	.52	.82

Table 8

Paternal Appropriate Concern Subscale and Item Reliability

Cronbach's Alpha	N of Items
.94	26

Item #	Item Description	Corrected Item-Total Correlation	Alpha if Item Deleted
01	My father expresses appropriate concern about my health.	.52	.94
03	My father is interested in reading papers I have written for school.	.59	.94
04	In an emergency, my father is willing to help me financially.	.66	.94
06	My father worries appropriately about my drinking and drug activities.	.35	.94
09	If I do poorly on a major academic test, my father is appropriately concerned.	.70	.93
10	My father surprises me with gifts.	.48	.94
12	My father is interested in hearing about whether I'm enjoying my academic work at college.	.80	.93
13	My father is willing to help me if I ever need him.	.79	.93
15	If I have exciting news, my father is interested in hearing about it.	.85	.93
16	My father is interested in spending time with my friends.	.45	.94
18	My father is interested in helping me with my financial planning.	.61	.94
21	If something bad happens to me in college, my father is interested in hearing about it.	.67	.94
22	My father is happy to let me make decisions on my own.	.31	.94
27	My father is interested in what I am thinking and feeling.	.83	.93

Item #	Item Description	Corrected Item-Total Correlation	Alpha if Item Deleted
32	My father is interested in whether I am eating enough or too much.	.15	.94
34	My father is interested in hearing about my personal relationships.	.43	.94
36	My father is interested in hearing about things that matter to me.	.84	.93
37	If I have a major setback, my father is appropriately concerned.	.87	.93
39	My father is interested in hearing about my performance in school.	.68	.94
42	My father is interested in hearing about my social activities at college.	.72	.93
45	My father is happy for me when I accomplish something on my own that I am proud of.	.67	.94
48	My father is interested in helping me when I'm stressed out.	.78	.93
50	My father supports my religious/spiritual beliefs without imposing his beliefs onto me.	.44	.94
51	My father is supportive of my interests, even when he is not interested in the same things.	.57	.94
52	My father is interested to hear about my daily routine and does not try to tell me when I should do things.	.70	.93
54	My father encourages me in my career choices without trying to impose his own wishes on me.	.61	.94

Creating a New Scale

Using both factor analysis results I modified Brown's (2004) scale to create the Parental Intrusiveness versus Appropriate Concern scale (PIAC). I decided to use the second study factor analyses to construct the scale and then verify the construction with the first study's analyses. The second study's analyses seemed more reliable and therefore, were determined to be a better indicator of the underlying constructs in the scale. I created separate scales for mothers and fathers. The criteria used for the selection of items were; 1) the item was among the top two-thirds of the items (ranked by factor loadings) in its corresponding factor; and 2) it improved, or did not detract from, the internal consistency of the overall subscale it belonged to. An item's face validity was also important when selecting and evaluating items, but face validity was considered less important and was not required if the item fit the first two criteria.

The items that were "flagged" from the first study were re-analyzed and many performed much better in the second study. Eleven items that either, loaded onto both factors, loaded onto the opposite factor, or did not load during the first study, loaded highly onto their "correct" factors during the second. These eleven items were retained for the final scale because they met the three criteria above and because I considered the first study as somewhat less reliable. There were twelve items that were flagged from the first study that did not meet the three criteria above in the second study and were therefore eliminated. Finally, three of the four items deemed "double-barreled" (two-part statements) loaded highly onto

their respective factors and were retained due to their apparently high contribution to the subscales.

These procedures produced 20 maternal Intrusiveness items, 22 maternal Appropriate Concern items, 16 paternal Intrusiveness items, and 20 paternal Appropriate Concern items. There were two items that negatively loaded onto the "opposite" original subscale. For instance, the maternal Intrusiveness item, "My mother does not like it when I express opinions that are different from hers" loaded highly and negatively onto the maternal Appropriate Concern subscale. The two items that behaved this way fit the criteria to be included onto the "opposite" subscale as "reversed" scored items and were therefore retained. Thus, the maternal Appropriate Concern subscale and the paternal Intrusiveness subscale on the PIAC each include one reverse-scored item. The final maternal and paternal subscales in order of their respective factor loadings can be found in Appendix D.

When the PIAC subscales were compared to the first study's factor analyses factors for the maternal and paternal data, a moderate to high degree of similarity was found. To illustrate, 14 of the 20 items (70%) included in the PIAC's maternal Intrusiveness subscale were also in the highest loading two-thirds of the "intrusiveness" factor in the first study. Similarly, 12 of the 20 items (60%) in the PIAC's maternal Appropriate Concern subscale, 13 of 22 items (59%) in the PIAC's paternal Intrusiveness subscale, and 15 of 20 items (75%) in the PIAC's paternal Appropriate Concern subscale were in the top two-thirds of

their corresponding factors in the first study. I took this moderate to high degree of similarity between the factors from the first and second studies, which included independent samples of participants, to mean that the PIAC subscales were verified.

DeVellis (1991) argued that if scale items have strong relationships to their hypothesized underlying variable or construct, then they will have a strong relationship to each other. By testing the intercorrelations between the scale items, one can infer from the strength of these relationships something about the strength of the scale's relationship to its construct. The Cronbach alpha value essentially assesses the intercorrelations between scale items, and determines the strength of the average relationship between them. Thus, the Cronbach alpha value can be used to test how closely a scale's items related to *an* underlying variable. It is important to remember that just because all scale items relate very highly, it does not mean the name given for that scale is correct (DeVellis, 1991). The alpha values of the PIAC subscales were .81 for maternal Intrusiveness, .92 for maternal Appropriate Concern, .83 for paternal Intrusiveness, and .94 for paternal Appropriate Concern. Brown's (2004) alphas for her maternal scales were highly similar, .82 for maternal Intrusiveness and .91 for maternal Appropriate Concern. The PIAC scale is shorter than Brown's scale but retains the same level of reliability. Therefore, the PIAC scale is more practical for researchers, without sacrificing reliability.

These alpha values are high and indicate that the PIAC subscales created from the item and factor analyses were strongly related to an underlying construct and had high internal consistency. However, as alluded to above, it is possible that a scale with high internal consistency measures another construct other than that which the researcher intends to measure. To ensure that a scale measures what one thinks it measures, validity analyses are conducted on the scale. Therefore, the second study was designed to validate the PIAC scale.

SECOND STUDY

In the second study, construct validity and criterion validity were assessed for the PIAC scale. The variables used to assess the construct validity are discussed first; then the variables for criterion validity are discussed. Construct validity is defined as an assessment of whether other measures with a similar theoretical basis relate in expected ways to the measure one is validating (Nunnally & Bernstein, 1994). Three constructs, expected to relate to the constructs in the PIAC subscales were examined to assess the degree to which they actually related to the PIAC subscales in predictable ways. These three constructs are as follows: psychological control (Barber, 1996), Baumrind's parenting styles (Baumrind, 1967), and attachment status (Bartholomew & Horowitz, 1991). The rationale for using each of these constructs to assess the validity of the PIAC subscales will be discussed below. However, overall, these constructs were chosen because they, like the PIAC subscale constructs, are descriptions of the relationship between parent and child. Intrusiveness, appropriate concern, psychological control, parenting styles, and attachment status each in their own way describe the relationship between parent and child. Therefore, one would expect each of these constructs to share some variance within a population.

Psychological Control

Psychological control is a form of parental control used to regulate or intrude on a child's psychological and emotional self in order to maintain one's

psychological status as the parent (Barber, 1996; Barber, Bean, & Erickson, 2002; Pomerantz, & Eaton, 2000). Psychological control can include behaviors such as intruding, constraining verbal expression, invalidating feelings, inducing guilt, and manipulating the love relationship between parent and child.

Barber (2002) speculated that children who experience a high amount of psychological control will have difficulty developing as an individual distinct from their parent(s). Psychological control may give a subtle message to a child that she is not able to do things well on her own and needs help. Repeated interactions that produce similar feelings as these might make a child more dependent on her parent for instrumental and emotional support. Furthermore, Barber argued that a goal of psychological control is to maintain one's parental position in relation to a child. If a parent is trying to retain parental status then the parent will probably perform behaviors that seem to accomplish this end. Invalidating feelings, inducing guilt, and manipulating the love relationship with the child are behaviors that might be very effective in maintaining one's parental status by creating a more dependent child.

Incidentally, some have noted that indications of low psychological control do not necessarily mean there are high amounts of parental behaviors that encourage psychological autonomy (Barber et al., 2002). Barber and Harmon (2002) criticized researchers for conceptualizing psychological control and psychological autonomy as opposites on the same continuum. This false conceptualization is important to take into account when choosing a psychological

control measure. Some researchers created measures that use low psychological control scores to indicate high psychological autonomy, rather than creating a new set of items for psychological autonomy (Barber et al., 2002; Barber, Harmon, 2002).

A second cautionary note is that psychological control may affect adolescents differently when used by fathers versus mothers. Barber, Bean, and Erickson (2002) reported that 9 of 12 studies researching mothers and fathers found higher levels of psychological control for mothers. Therefore, as part of the second study I examined the differences between parental levels of psychological control and the different domains in which each parent exhibits psychological control.

Psychological control as a construct is closely related to intrusiveness as discussed in the first study. A child experiencing intrusiveness may still be able to develop as an individual distinct from her parent, but may struggle to maintain that separation due to constant intrusions into her autonomy. However, a child experiencing psychological control would have a harder time maintaining separation from her parent due to constant use of her love as a mechanism for sustaining dependency. Therefore, one would expect to find more severe negative effects for children who have experienced high psychological control than for children who have experienced high intrusiveness. One would also expect a moderate positive correlation between intrusiveness and psychological control. A higher correlation would not be anticipated because psychological control

involves an attempt to control children, whereas intrusiveness may not be used as a form of control.

Since psychological control has been associated with intrusiveness often (Barber, 1996; Schaefer, 1965a; Schaefer, 1965b), it is reasonable to assume that a scale trying to measure intrusiveness should correlate with psychological control to be considered valid. Thus, it has been included in this study of the PIAC scale's validity.

I also hope to flesh out some of the differences between psychological control and intrusiveness. I suspected that psychological control measures might not be close enough to a college student's experience to be very useful as a construct. The PIAC scale may be a more realistic measure for college students and their experience of a construct similar to psychological control.

Parenting Styles

Diana Baumrind began studying parenting and its effects by expanding the concept of parental control (Darling & Steinberg, 1993). She felt that parental control was not "strictness, use of physical punishment, consistency of punishment, or use of explanations" (p. 489) as was previously conceived, but was instead a parent's "[attempt] to integrate the child into the family and society by demanding behavioral compliance" (Darling & Steinberg, 1993, p. 489). She also conceived of parental control as something that was qualitatively different between parents rather than as a characteristic that a parent displayed in either a high or low amount (Darling & Steinberg, 1993).

To Baumrind, parental control was not a parenting practice, but a parenting style. A parenting practice is domain-specific and is not characteristic of a wide range of parent-child interactions (Darling & Steinberg, 1993). A parenting practice may change depending on how the child develops or depending on the child's personality. Parenting styles on the other hand, are patterns of parental affect, practices, and values that are defined by a parent's beliefs about the general roles of children and parents (Baumrind, 1968). Parenting styles are "a constellation of attitudes toward the child that are communicated to the child and that, taken together, create an emotional climate in which the parent's behaviors are expressed" (Darling & Steinberg, 1993, p. 488).

In her research, Baumrind tried to untangle parenting behaviors from child behaviors in order to define various parenting styles. For example, she measured parental attempts to gain child compliance separately from whether or not the child actually complied (Darling & Steinberg, 1993). She originally uncovered three distinct styles of parental control, which she called authoritative, permissive, and authoritarian. Later researchers divided the permissive parenting style into two styles: permissive-indulgent and permissive-neglectful (Maccoby & Martin, 1983).

Parenting styles are based on two aspects of parenting which are mostly independent of each other: demandingness and responsiveness (Steinberg, 1999). Baumrind defined demandingness as the extent to which a parent demands maturity of, and responsibility from a child, supervises and disciplines a child,

and confronts a child who is disobeying. Parental responsiveness is the extent to which a parent is attuned, supportive and accommodating of a child's individual needs in order to promote individuality, self-regulation, and self-assertion (Darling & Steinberg, 1993).

These two aspects of parenting are used to categorize the four parenting styles mentioned earlier (see Table 9). *Authoritative* parents are highly demanding and highly responsive (Maccoby & Martin, 1983). An authoritative parent directs a child's activities in an "issue-oriented manner," encourages verbal discussion, and values "autonomous self-will" and "disciplined conformity" (Baumrind, 1968, p. 261). In short, an authoritative parent is warm but firm. A parent who is highly demanding but not very responsive is an *authoritarian* parent (Maccoby & Martin, 1983). Such parents value obedience, conformity, respect for authority, and prefer forceful disciplinary measures to "curb self-will" (Baumrind, 1968, p. 261). *Permissive-indulgent* parents are not demanding and are highly responsive (Maccoby & Martin, 1983). A parent who is permissive-indulgent consults with the child about family rules, makes few demands for responsibility, acts as a resource for the child to use as the child wants, allows self-regulation as much as possible, and avoids using control because such a parent may see this as an infringement of the child's freedom (Baumrind, 1968). Lastly, parents who are not demanding and not responsive are categorized as *permissive-neglectful* parents (Maccoby & Martin, 1983). Permissive-neglectful parents structure their domestic life around their own needs instead of their child's

(Steinberg, 1999). These parents often do not know their children's activities or location, show little interest in their children's personal life, and do not usually consider their children's opinion when making decisions.

Table 9

Parenting Styles Broken Down by Demandingness and Responsiveness

		Demandingness: High	Demandingness: Low
Responsiveness	High	Authoritative	Permissive-Indulgent
	Low	Authoritarian	Permissive-Neglectful

Baumrind (1978, in Brown, 2004) argued that parents who have high demands and expectations for their children (authoritarian and authoritative parents) are likely to limit and intrude on their children's autonomy. However, authoritarian parents rather than authoritative parents tend to be relatively unresponsive to their children's needs and thus may be more likely to ignore their children's bids for autonomy. Therefore, it seems that authoritarian parents would have a greater likelihood of being intrusive than authoritative parents.

When Brown (2004) conducted a study of college women she demonstrated a moderate positive correlation between maternal authoritarian parenting and intrusiveness ($\underline{r} = .43$, $\underline{p} < .01$) while maternal authoritative parenting correlated negatively with intrusiveness ($\underline{r} = -.35$, $\underline{p} < .01$). In addition, Brown found that an authoritative parenting style significantly correlated with appropriate concern ($\underline{r} = .65$, $\underline{p} < .01$). Her finding is conceptually sound based on Baumrind's descriptions of the four parenting styles. Authoritative parents respond to their children's needs, but also have high expectations for them (Steinberg & Meyer, 1995). Similarly, parents who show appropriate concern will likely respect their children's autonomy while providing structured guidance.

Brown's (2004) results combined with Baumrind's conceptualization of authoritative and authoritarian parenting suggest that any measure of intrusiveness and appropriate concern should relate to authoritarian and authoritative parenting, respectively. Therefore, the parenting styles will be used as construct validity variables in the assessment of the PIAC scale's validity.

Attachment Style

Attachment as conceptualized by John Bowlby evolved to ensure survival as infants and caregivers seek to maintain proximity to each other (Bartholomew & Horowitz, 1991). Mary Ainsworth, a colleague of Bowlby's, concluded that "the quality of early attachment relationships is thus rooted in the degree to which the infant has come to rely on the attachment figure as a source of security" (Ainsworth et al., 1978, in Bartholomew & Horowitz, 1991, p. 226). As part of Bowlby and Ainsworth's theory, one's primary attachment is thought to continually shape one's state of mind with respect to future attachments throughout the lifetime (Bartholomew & Horowitz, 1991; Karen, 1998).

In Ainsworth's original theory of attachment there were two main styles, secure and insecure attachment. Insecure attachment included ambivalent and avoidant attachment (Karen, 1998; Steinberg, & Meyer, 1995). Infants classified by Ainsworth and her students as securely attached welcomed and sought their caregivers upon the caregivers' return from a brief separation and were easily calmed. Ambivalently attached infants also sought their caregivers but were not easily calmed. These infants even seemed ambivalent about their caregivers' offers of comfort, accepting them for a few moments and then violently rejecting them soon after. Lastly, avoidant infants did not seek their caregiver upon reunion and sometimes shunned their caregiver when he or she returned (Bartholomew & Horowitz, 1991; Karen, 1998; Steinberg, & Meyer, 1995).

Later, Mary Main found strong correlations between these styles and three adult styles of attachment: secure, preoccupied, and dismissive, respectively (Karen, 1998). Main found that secure adults had a generally balanced view of relationships; they were able to freely express a range of emotions and thought critically and in a balanced way about their parents (Karen, 1998). Preoccupied adults (conceptually corresponding to ambivalent infants) were still embroiled with anger or sadness about their childhood. They did not see their own responsibility in current relationships and they dreaded being abandoned (Karen, 1998). Finally, dismissive adults (conceptually similar to avoidant infants) did not seem to see the importance of attachments. They typically were shallow in their self-reflection and idealized their parents with little concrete evidence of their parents' perfection (Karen, 1998).

Ainsworth and Main's findings had a profound impact on child developmental research, but some were not content with three styles of attachment. Bartholomew and Horowitz (1991) hypothesized that two aspects of attachment could divide adults into four categories: one's image of the self as either positive or negative (i.e., feeling one is or is not worthy of love and support) and one's image of others as either positive or negative (i.e., feeling other people are or are not trustworthy and available). Taking these two aspects of attachment together, Bartholomew and Horowitz conceived of four attachment styles (see Table 10). First, secure adults have positive perceptions in both aspects. They feel they are worthy of love and support and also feel that others

are trustworthy and available. Second, preoccupied adults have negative images of themselves but positive perceptions of others. They do not feel worthy of love and support, but they see others as trustworthy and available. The third style, dismissive-avoidant, includes those with a positive view of the self but a negative view of others. These adults feel worthy of love but see others as unreliable and rejecting. Finally, individuals who are fearful-avoidant feel they are unworthy of love and perceive that others are unreliable and rejecting (Bartholomew & Horowitz, 1991). Thus, they feel negatively about their self-worth, and about the worth of others.

These four styles of attachment can also be thought of in terms of dependency and avoidance (see Table 10). High levels of dependency indicate that a positive view of oneself can only be achieved by others' acceptance, making one highly dependent on another's approval. Conversely, low levels indicate that one's self-regard does not require external validation (Bartholomew & Horowitz, 1991). Avoidance, similarly, varies from high avoidance of intimacy because negative consequences are expected, to low avoidance because few adverse consequences are expected.

Table 10

Attachment Styles Broken Down by Self-Worth and Worth of Other, and by Dependency and Avoidance

		Self-worth	
		High	Low
Worth of others	High	Secure	Preoccupied
	Low	Dismissive	Fearful

		Dependent to maintain positive self-image	
		High	Low
Avoidance of others	High	Fearful	Dismissive
	Low	Preoccupied	Secure

Both the preoccupied and fearful-avoidant attachment styles are highly dependent on others to maintain a positive self-image, but preoccupied individuals reach out to others to fulfill their need for acceptance, while fearful-avoidant individuals avoid others to escape disappointment. In the same vein, the dismissive-avoidant and fearful-avoidant groups both avoid intimacy, but the dismissive-avoidant individual does not need others to assure her of a positive self-image, while the fearful-avoidant individual does (Bartholomew & Horowitz, 1991). Having four styles instead of three allows a much more detailed and probably more accurate description of people and their responses to attachment issues.

Attachment was used in the present study because it is likely that attachment-related issues rise to the forefront during college. College is a time of increased autonomy and self-discovery. The college student often questions her relationships with her parents and others who are close to her. Thus, assessing attachment style during college may give a more complete picture of students' states of mind about interpersonal relationships, including their relationships with their parents.

Specifically, I expected attachment style self-ratings to relate to the PIAC subscales in several ways. First, a secure attachment history should correlate positively with rating one's parent as appropriately concerned. Parents who foster a secure attachment are characterized as warm, sensitive, and consistent (Karen,

1998). It is likely that parents who are characterized in such a way would be rated as having appropriate concern for their children.

Second, a preoccupied attachment history should correlate positively with rating one's parent as intrusive. Adult children who have a preoccupied attachment history often have parents who are inconsistent, unpredictable, and "attentive but out of sync" (Karen, 1998, p. 444). Such parents might be attentive but unable to assess their children's needs, and thus, may unknowingly become intrusive. Furthermore, parents who have preoccupied children are likely to be preoccupied themselves (Karen, 1998). Such parents might wish their children would remain enmeshed with them to feel needed and accepted in some way. Thus, it seems parents of preoccupied children might interfere with their children's autonomy in an attempt to maintain a closer relationship (Karen, 1998). Research has observed that some preoccupied mothers "frequently intrude when the baby is happily exploring on his own and [the mothers] push for interaction even when the baby resists it" (Karen, 1998, p.375). Such behavior might increase for some parents as the child grows and seeks more autonomy.

Lastly, Jay Belsky found that mothers of avoidant children are often intrusive with their infants (Karen, 1998). This finding is peculiar because mothers of avoidant children are often avoidant themselves, and thus would seemingly seek to minimize their children's dependency (Karen, 1998). It does not seem that a mother who is trying to avoid intimacy would then intrude on her infant. Jude Cassidy (in Karen, 1998) hypothesized that such mothers may

become intrusive in order to control the interaction. The mother tries to keep the child from initiating care-seeking as if the mother is saying, "Here, play with this, keep your focus away from attachment" (Karen, 1998).

Despite the common observation that mothers of avoidant children sometimes intrude, I did not hypothesize a relationship between dismissive or fearful attachment (both categories of avoidant attachment) and intrusiveness for either parent. It is more likely that parents who are dismissive would eventually stop intruding on their children once they become more autonomous.

Criterion Validity

The final type of validity that was assessed was criterion validity, defined as the extent to which a scale is able to predict the outcome of variables that are theoretically related to the construct for which the scale was made (Nunnally & Bernstein, 1994). In this study, I correlated the PIAC subscales with four criterion variables that should relate to intrusiveness and appropriate concern: Self-efficacy, locus of control, interpersonal guilt, and college adjustment. The construct validity variables share variance with intrusiveness and appropriate concern because they are all overlapping but different ways to describe parenting behaviors. On the other hand, the criterion validity variables share variance with intrusiveness and appropriate concern because they may be predictive of or predicted by the PIAC subscales. Therefore, the criterion validity variables are more distantly related to intrusiveness and appropriate concern than are the construct validity variables. There is nothing within the definition of

intrusiveness and appropriate concern that is also in the definition of self-efficacy for example, but the variables might still be expected to relate to each other.

Self-Efficacy

The theory of self-efficacy posits that personal mastery experiences are the main determinants of future change in behavior (Sherer, Maddux, Mercandante et al., 1982). According to this theory, two kinds of beliefs greatly influence future behavior: "Outcome expectancies," the belief that an outcome is achieved by some specific set of behaviors; and "self-efficacy expectancies," the belief in one's ability to perform the behaviors that are required to attain a certain outcome (Bandura, 2000; Sherer et al., 1982). Both kinds of beliefs are determined by the different experiences one has and whether success or failure is attributed to skill or chance.

Although both outcome expectancies and self-efficacy expectancies determine future behavior, Bandura (1977 in Sherer et al., 1982) argued that self-efficacy expectancies are the more influential beliefs in determining behavioral change. Such beliefs are more influential because self-efficacy expectancies determine whether or not one actually tries to perform a given behavior and the effort that is expended on that behavior (Sherer et al., 1982).

Since self-efficacy seems very far-reaching, it is helpful to understand what self-efficacy is not. First, self-efficacy is not self-esteem. Self-esteem is concerned with people's beliefs about their self-worth, while self-efficacy is concerned with people's beliefs about their personal capability (Bandura, 2000).

Second, self-efficacy is not a judgment about the outcomes that a certain behavior will produce. In fact, "it is because people see outcomes as contingent on the adequacy of their performance, and care about those outcomes, that they rely on efficacy beliefs in deciding which course of action to pursue and how long to pursue it" (Bandura, 2000, p. 24).

There is a debate among self-efficacy theorists about the extent to which self-efficacy is a general characteristic. Some researchers argue that self-efficacy is not a general trait-like characteristic (Bandura, 2000), while other researchers claim they have found a measure of generalized self-efficacy (Hoeltje, Zubrick, Silburn, & Garton, 1996; Sherer et al., 1982).

Those who believe that self-efficacy is not a general characteristic argued that one's beliefs about her ability to perform certain behaviors depend on context. One looks for context clues about future tasks in order to judge one's strength in performing such tasks. Therefore, the same behavior or task might generate two different efficacy beliefs depending on the context. For example, disarming a bomb in a police training exercise might generate high efficacy beliefs in an officer, while disarming a bomb in a real-life emergency might generate very low efficacy beliefs in the same person. Based on observations of this kind, some researchers argued (see Bandura, 2000 for a review) that one cannot eliminate context from self-efficacy beliefs, and, therefore, a general trait-like self-efficacy belief cannot exist.

However, other researchers (Sherer et al., 1982) argued that since self-efficacy beliefs in one domain are likely to influence other beliefs for related domains, some kind of general self-efficacy belief exists about one's general feeling in her ability to master new situations. This general efficacy belief has been defined as "the belief that one can deal effectively with everyday life problems and challenges at large" (Hoeltje et al., 1996, p. 446). For this study, I assumed there is a general kind of self-efficacy.

It is important to consider how general self-efficacy beliefs might be formed. Research has found that parents who provide infants with mastery experiences have infants who have a sense of agency that is conducive to cognitive development and competence (Bandura, 2000). It is implied in this research that an infant's sense of agency is fostered by the infant's self-efficacy about her ability to create success. One can imagine how a parenting style in which a parent does not provide the infant with mastery experiences would affect an infant's self-efficacy. For example, intrusive parents may try to help their infants too much in completing difficult tasks, causing the infants to have fewer experiences with personal mastery. Brown's (2004) research showed that student reports of intrusive mothering correlated negatively with self-efficacy ($\underline{r} = -.28$, $\underline{p} < .01$). Therefore, self-efficacy conceptually and in research seems to relate to parenting and thus, can be used to validate the PIAC scale.

Locus of Control

Locus of control is the degree to which a person perceives her behavior as causally linked to the outcomes she experiences. Such beliefs can vary between two extremes. On one extreme, termed *internal control,* is the belief that one's experienced outcomes are contingent upon her behavior, or upon her characteristics (Rotter, 1966, 1990). At the other extreme, termed *external control,* is the belief that one's experienced outcomes are independent of her behavior and instead, are contingent upon luck, chance, fate, complex forces that are unpredictable, or are contingent upon some powerful other (Rotter, 1966, 1990). Although these definitions suggest two typologies, a person is not either completely internally nor externally controlled (Phares, 1973; Rotter, 1975). However, researchers use the terms "internals" and "externals" as shorthand to represent those people who are primarily internally or externally controlled, respectively.

Researchers have found several differences between internals and externals. For example, research with adults cited in Phares (1973) found that internals were more likely than externals to find out more information about their environment and to use that information to influence the course of their lives. Internals also took longer to make decisions in experimental conditions where control of one's environment was possible (Rotter & Mulry, 1965, in Phares, 1973). These findings were consistent across several studies and lead researchers

to conclude that internals are more active in their attempts to deal with their environment (Phares, 1973).

Yet, how does a person develop primarily internal versus external locus of control? Rotter (1966) suggested that childhood experiences might contribute to one's primary locus of control beliefs. For example, parents who support their children's endeavors and encourage autonomy would probably raise children with primarily internal loci of control. Such children might infer that their behaviors and characteristics are creating the outcomes they experience. However, parents who inhibit autonomy may raise children who feel little control over their experienced outcomes, but feel that a powerful other (a parent in this case) has control over them. One might expect children raised by such parents to have primarily external loci of control.

Several researchers have investigated correlational links between observed parental behaviors and self-rated locus of control in children and adolescents. Davis (1969, in Phares 1973) observed families with eleven and twelve-year-olds as they completed several tasks and found that parents of externals were somewhat more controlling and domineering during the interaction. Also, Gordon, Nowicki, and Wichern (1981) found that mothers of children with higher internal locus of control were warmer, more nurturant, less critical, and more allowing of autonomy than mothers of children with higher external locus of control. The mothers of externals were interfering, criticizing, and performed more of their children's tasks than mothers of the internally controlled children.

These mothers also spent more time engaged in separate play activities from their children (Gordon et al., 1981). Although a causal relationship has not been established between locus of control and parenting behaviors, it is clear from these studies that there is a correlational relationship.

Based on Gordon et al.'s (1981) findings of more interference from parents with "externally controlled" children, it is likely that intrusive parenting would be related to higher external locus of control. Parents who constantly interfere or intrude on their children's learning experiences may lead their children to believe that they (the children) have little control over their experienced outcomes. Thus, locus of control could be used to assess the criterion validity of the PIAC's Intrusiveness subscale.

Interpersonal Guilt

Guilt is typically defined as "an individual's unpleasant emotional state associated with possible objections to his or her actions, inactions, circumstances, or intentions" (Baumeister, Stillwell, & Heatherton, 1994, p. 245). For many years, guilt was considered an individual emotion that occurs only as a self-evaluation against some abstract standard. Recently, researchers have conceived of guilt as more than an individual emotion, but as a fundamentally social phenomenon, linked to close relationships. (Baumeister et al., 1994; O'Conner, Berry, Weiss, Bush, & Sampson, 1997). Strong evidence for such a conceptualization of guilt comes from research on autobiographical narratives. Most people, when asked to discuss times when they have felt guilty, described

incidents that were almost always interpersonal (see Baumeister et al., 1994 for a review).

Baumeister, Stillwell, and Heatherton (1994) proposed that guilt arises from two sources. First, seeing another suffer and feeling empathy for them produces "bad" feelings that may, over time, turn into guilt. It is likely that once a child can recognize her own responsibility and causal relationship to the world, she may attribute another's suffering to her own actions, thereby giving rise to a form of guilt. Second, infants feel anxiety over separation from their primary attachment figures (Bowlby, 1969, 1973, in Baumeister et al., 1994). Eventually such anxiety could also give rise to feelings of guilt. To speculate, the fear of separation from one's parent may cause bad feelings (or anxiety) when one has done something that could potentially cause love withdrawal. Guilt may develop from a sense of anxiety such as the one just described and become a defensive response that warns people when their actions or inactions might be jeopardizing their closest attachment relationships (Baumeister et al., 1994). Therefore, guilt can be seen as a mechanism designed to maintain interdependencies and protect the mutual concern and nurturance attributed to close relationships (Baumeister et al., 1994; O'Conner et al., 1997).

Although guilt can maintain mutual concern in relationships, some researchers speculate that guilt can also be used to manipulate relationships. For instance, O'Conner et al. (1991) claimed that some parents induce guilt to ensure and maintain their children's attachment. Over time such children may manifest

four different types of guilt. Children might experience survivor guilt, a term that originally comes from research done with Holocaust and Hiroshima victims (O'Conner et al., 1997). Survivors of these extremely traumatic experiences often felt guilt over having survived when others did not (Baumeister et al., 1994). Yet, survivor guilt can also be experience in a less severe form. It is not uncommon for a person to feel guilty when she receives more of a reward than those around her (Hasserbrauck, 1987, in Baumeister et al., 1994). Therefore, survivor guilt is generally defined as surviving or surpassing a loved one in some way, often simply by living one's own life (O'Conner et al., 1997). As an example, a child may feel guilty about being accepted to college when her parent was never able to apply. Essentially, the child feels guilty that her parent is "worse off" than she is, and she may even believe the good things that happen to her have happened at the expense of her parent.

Separation guilt is guilt about being separate from, or different from one's parent(s), which the child feels causes the parent(s) to be harmed in some way. For example, a child may feel separation guilt about moving away from her parent(s) because she irrationally thinks her parent(s) will suffer once he or she does not have to look after her anymore. This type of guilt is conceptually similar to survivor guilt in that both types of guilt involve negative feelings about pursuing one's goals.

A third type of guilt is termed omnipotent-responsibility guilt, or guilt about one's inflated sense of responsibility to others (O'Conner et al., 1997). A

person with high omnipotent-responsibility guilt might take on the problems of her friends, then feel guilty about not being able to help them more. Omnipotent-responsibility guilt is highly related to survivor and separation guilt because in order to feel guilty about surpassing loved ones, leaving them, or being different from them, a child would also have to feel that she has great responsibility to her loved ones, so much so that she feels her everyday actions are harming them.

Finally, self-hate guilt is guilt about not living up to loved ones' expectations and taking as truth the perceived negative evaluations of those close to her (O'Conner et al., 1997). The child may adopt these negative images of herself as a way of continuing her attachment to her parents. In the end, the child may feel guilty about being herself. Thus, self-hate guilt is a more general sense of guilt than the first three forms that O'Conner et al. (1997) have defined.

Self-hate guilt should be closely related to intrusiveness. When parents intrude on their children they send a subtle message that their children are not good enough, and are incapable of managing themselves. Therefore, it is expected that children with intrusive parents would feel they are not living up to the standards their parents hold, and may internalize these perceived negative images of themselves. Furthermore, Morray and Shilkret (2002) found a positive correlation between intrusiveness and self-hate guilt ($\underline{r} = .27$, $\underline{p} < .01$). Conceptually there is a link between intrusiveness and self-hate guilt, and the link has been found in previous research. Thus, if the revised Intrusiveness subscale

from the PIAC scale has criterion validity, it would be correlated to self-hate guilt.

College Adjustment

A college education can further one's career and eventually give a person the potential to have more success in life. Because of these potential benefits, college adjustment has long interested researchers. Baker and Siryk (1984) argued that college is a multifaceted experience that includes several different kinds of demands, each requiring a different type of adjustment or coping response.

First, these researchers argued that one must adjust to the increased and often intensified academic workload (Baker & Siryk, 1984). Second, the social environment that residential colleges provide often presents various social issues to cope with (Baker & Siryk, 1984). Perhaps for the first time students are living in close quarters with people who may have radically different experiences and personalities. College is considered a time of intense personal growth, no doubt stemming from the social atmosphere that residential colleges provide. Third, college students must also adjust to the general environment, which often includes more pressure than previous educational experiences (Baker & Siryk, 1984). Therefore, there is a general adjustment that must occur in order to maintain mental and physical health while still performing well in college. Finally, all students must adapt to the specific policies and traditions of the college that she has selected while learning to "fit-in" to her college atmosphere.

Many researchers have speculated that individual differences in students' college adjustment can be accounted for, in part, by parent-child relationship styles (Brown, 2004; Mattanah, Hancock, & Brand, 2004; Morray & Shilkret, 2002; Seibel & Johnson, 2001; Shilkret & Vecchiotti, 1997). One area of research on parent-child relationships has focused on parental intrusiveness. For example, college adjustment has consistently correlated negatively with maternal intrusiveness (Brown, 2004; Morray & Shilkret, 2002). Brown (2004) hypothesized and found that self-efficacy mediated the relationship between intrusiveness and college adjustment. Her finding suggested that perceived maternal intrusiveness lowered feelings of self-efficacy, which in turn appeared to lower college adjustment. Thus, while using college adjustment as a variable to assess the criterion validity of the PIAC scale in the second study, I also collected data that could be used to replicate Brown's findings.

Mothers versus Fathers

A final component of the present study was investigating the differences between mothers and fathers for each of the variables discussed above. It is important to investigate mothers and fathers separately because each impacts different areas of adjustment (Edwards, 1997). Most researchers of parent-child relationships would acknowledge that it is unlikely that mothers and fathers affect children in the same way. However, when Phares and Compas (1992) reviewed eight clinical and developmental journals from 1984 to 1991, they found that of 577 articles, only 151 (26%) collected data on mothers and fathers. There was

also a significant contrast between the number of articles exclusively about mothers (277, or 48%) versus those exclusively about fathers (8, or 1%). Fathers have been neglected in studies of parent-child relationships.

Phares and Compas (1991) speculate that fathers may be excluded from these studies for a number of reasons, most of them myths. First, researchers may assume that fathers do not want to be involved in studies, and may resist participation (Phares & Compas, 1991). Second, researchers may also assume that fathers are more often absent from, or out of contact with the family due to separation or divorce. However, research cited in Phares and Compas' article found that while only 67% of children who are under 18 lived with both their biological parents, the other 33% of those children still had some contact with their biological fathers. Coupled with this reason for excluding fathers is the assumption that mothers have more impact on their children because it is usually the mother who spends the most time with the child. These three reasons for excluding fathers may be valid, but fathers nevertheless influence children in unique ways.

The few studies conducted with fathers have concluded that adolescents relate differently to their fathers and mothers (see Steinberg, 1999 for a review). For example, adolescents are often closer to their mothers, spend more time alone with her, and feel more comfortable talking with her about their problems (Steinberg, 1999). Sixth and eighth graders also report that their mothers are more accepting than their fathers (Armentrout & Burger, 1972). Third,

adolescents reported that their mothers were more psychologically controlling than their fathers (Armentrout & Burger, 1972). Finally, mothers of adolescents reported feeling closer to their children than did fathers, but they also reported having more conflicts and intense discussions with their children than fathers reported (Forehand & Nousiainen, 1993). Thus, mothers seem to have more intense relationships with their adolescents, including both positive and negative manifestations (Forehand & Nousiainen, 1993; Steinberg, 1999).

In contrast, fathers exhibited less affect with their adolescents and had less intense conflicts with them (Forehand & Nousiainen, 1993). Adolescents more often perceived their fathers as relatively distant authority figures with whom they discussed instrumental problems (trouble with homework, etc.), but not usually emotional problems (Forehand & Nousiainen, 1993; Steinberg, 1999). Furthermore, the relationship between fathers and daughters is especially distant, and emotionally flat (Steinberg, 1999). There have been several theories for this finding, each as speculative as the next. Some argue that "unconscious taboos against incest may make it difficult for fathers and daughters to remain close after puberty"; others reason that the "general emotional inexpressiveness of fathers" bothers daughters more than sons (Steinberg, 1999, p. 131). These theories may have some validity, but they have not been supported by research, creating another rationale for studying fathers and mothers separately.

Despite the findings that fathers seem to be less close to their children than mothers, researchers have found that it is fathers, not mothers, whose parenting

and acceptance significantly predicts adolescent functioning in school (Forehand & Nousiainen, 1993). However, mothers rated themselves as more accepting than fathers did. One likely hypothesis for such findings is that children are more eager for their fathers' acceptance and it means more to them because such acceptance may be more seldom given (Forehand & Nousiainen, 1993).

From this short review it is apparent that fathers matter. It is important to study the different effects that fathers have on adolescent functioning. Fathers may, in fact, have a greater impact on adolescent functioning, as has been suggested by previous research on academic success. Therefore, as part of the current study, I collected and analyzed separate data on mothers and fathers.

The two studies described above were used to determine the PIAC scale's validity for use with college women about their parents. Until this research, only maternal intrusiveness and appropriate concern were analyzed. I used the data from the first study of face and content validity to modify the items for the mothers' and fathers' PIAC scales separately. The modifications were then assessed for construct and criterion validity in the second study. I used two separately derived scales for mothers and fathers because it is likely that students feel behaviors are more or less intrusive (or appropriate) depending on the parent performing them. For example, a mother asking about a daughter's sex life is very different from, and probably less intrusive, than a father doing the same. Therefore, creating two separate subscales for both parents allows items that are

not considered intrusive (or appropriate) for fathers to still be included as intrusive (or appropriate) for mothers.

There were several hypotheses for this validity study (see Appendices E - H for figures of the hypothesized validity correlations). I expected that the Intrusiveness subscale would correlate *positively* with psychological control, the authoritarian parenting style, the preoccupied attachment style, external locus of control, and self-hate guilt. I also expected that the Intrusiveness subscale would correlate *negatively* with the authoritative parenting style, the secure attachment style, self-efficacy, and college adjustment.

I expected that the Appropriate Concern subscale would correlate *positively* with the authoritative parenting style, the secure attachment style, self-efficacy, internal locus of control, and college adjustment. Lastly, I expected that the Appropriate Concern subscale would correlate *negatively* with psychological control, the authoritarian parenting style, the insecure attachment styles (i.e., preoccupied, dismissing, and fearful), and self-hate guilt.

I hypothesized the same relationships for both mothers and fathers. However, it is possible that the relationships between the PIAC subscales and the construct and criterion validity variables could be different for fathers versus mothers.

Lastly, this validity study is based on two assumptions (represented as solid lines in *Figure 2*). The construct and criterion validity variables are assumed to be reliable and valid measures of their underlying constructs as will be

discussed in the Method section. I also assumed that there are theoretical relationships between the validity variable constructs and the intrusiveness and appropriate concern constructs (bottom line in *Figure 2*). Based on these two assumptions, any relationship found between the validity variable measures and the PIAC subscales is evidence that the PIAC subscales are valid measures of the intrusiveness and appropriate concern constructs.

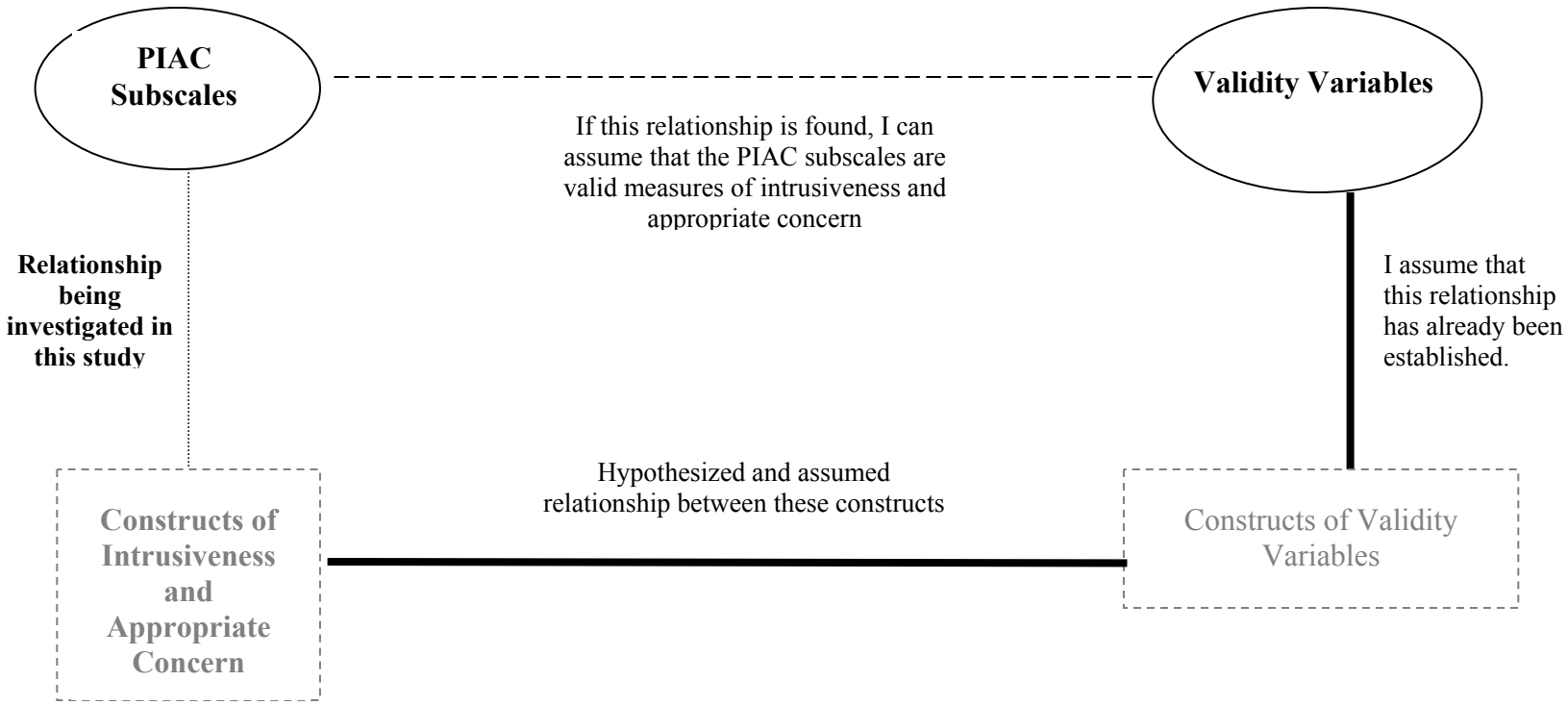

Figure 2. Theoretical Model of Demonstrating Validity. The validity variables are assumed (right solid line) to be reliable and valid measures of their underlying constructs (right gray and dashed box). I also assumed (bottom solid line) that there are theoretical relationships between the validity variable constructs and the intrusiveness and appropriate concern constructs (left gray and dashed box). Based on these two assumptions (solid lines), any relationship found between the validity variable measures and our PIAC subscales (large-dashed line on top) is evidence that the PIAC subscales are valid measures of the intrusiveness and appropriate concern constructs (small-dashed line on left).

Method

Participants. For the second study, I recruited 151 traditionally-aged women from Mount Holyoke College. Participants were mainly recruited by offering research participation credit to students who were required to participate in some research for psychology classes. Many participants were also personally recruited at campus meals and with flyers posted on campus. Participants who did not need psychology research credit were entered into a raffle for a $30 gift on their campus One Card account.

The students were between 17-23 years old with a mean age of 19.3. The sample included 52% first-years, 25% sophomores, 9% juniors, and 14% seniors. The majority of the students were not transfer (93%) or international students (89%). Thus, one might assume that most of the sample was raised in the United States. The sample also identified themselves as mostly Caucasian/ European American (61%), with some African American/Black students (5%), Asian American students (6%), Latina students (5%), biracial students (7%), and many (16%) were grouped into a general "other" category including students from regions of India, Asia, Africa, and Europe. Because the sample was for a large part, European American students who were raised in the United States, researchers are cautioned against generalizing findings from the present study to other cultures.

The parents of the students in this sample were highly educated as a whole, with 72% of mothers and 73% of fathers having completed college, while

38% of mothers and 49% of fathers had done graduate work. Only 25% of parents were divorced or separated, with a mean age of separation occurring when students were 10.4 years old. The age range of students when their parents were separated, however, was broad, spanning from before birth to 20 years old. The majority of students (77%) lived with both biological parents as they were growing up. For those who did not live with both biological parents, 13% lived with their biological mothers, 2% lived with their biological fathers, 3% lived with their adoptive parent(s), and 5% lived with another family arrangement (e.g., with both parents until a recent divorce then with one parent, with extended family, or with step-parents).

Materials. The Parental Intrusiveness versus Appropriate Concern Scale (PIAC) was used as the measure of primary importance in the second study. This scale was originally based on Brown's (2004) Intrusiveness/ Appropriate Concern Scale, which contained 49 identical items about mothers and fathers, yielding 98 items total. Participants rated the frequency of each parental behavior on 5-point Likert scales (1 = Never, 5 = Often). Higher scores on each subscale denoted a higher instance of intrusiveness and appropriate concern, respectively.

During the first study, six new items were added to Brown's (2004) scale, yielding a total of 12 new items. I also refined the scale including the 12 new items using item and factor analyses, creating smaller subscales. The criteria used for inclusion of items were; 1) the item was among the top two-thirds of the items (ranked by factor loadings) in its corresponding factor; and 2) it improved, or did

not detract from, the internal consistency of the overall subscale it belonged to. Due to the primary criterion of item selection being factor analysis loadings, the items on the maternal scale are not exactly the same as the items on the paternal scale. Also, the maternal Appropriate Concern subscale and the paternal Intrusiveness subscale both include one reverse-scored item.

These procedures produced 20 maternal Intrusiveness items such as, "My mother gets upset if she is not involved in my day-to-day decisions;" 22 maternal Appropriate Concern items such as, "My mother is interested in hearing about things that matter to me;" 16 paternal Intrusiveness items such as, "My father is happy to let me make decisions on my own (reverse scored);" and 20 paternal Appropriate Concern items such as, "If I have a major setback, my father is appropriately concerned." Therefore, each participant receives four scores on the PIAC scale. Scores on the subscales can range from 20-100 on maternal Intrusiveness, 22-110 on maternal Appropriate Concern, 16-80 on paternal Intrusiveness, and 20-100 on paternal Appropriate Concern.

In the first study, I found Cronbach alpha values for the PIAC subscales of .81 for maternal Intrusiveness and .92 for maternal Appropriate Concern. These values are comparable to Brown's alpha values of .82 and .91, respectively (Brown, 2004). For fathers, the Cronbach alpha values found for the PIAC subscales were .83 for the Intrusiveness subscale and .94 for the Appropriate Concern subscale. Therefore, sufficient reliability has been established and validity is being assessed. See Appendix I for a copy of the full scale.

Three measures were used to assess the construct validity of the PIAC subscales. First, the Psychological Control Scale – Youth Self-Report (PCS-YSR) was used (Barber, 1996). Barber (1996) created this scale to measure parental behaviors with their children such as, constraining verbal expression, invalidating feelings, guilt induction, and love withdrawal. After a factor analysis, the final PCS-YSR included 8 identical questions for mothers and fathers, making 16 items total. Examples of PCS-YSR items include: "My Mother is a person who changes the subject when I talk," and, "My Father is a person who would like to be able to tell me how to feel or think about things all the time." The items are rated on 3-point Likert scales (1 = not like her/him, 2 = Somewhat like her/him, 3 = A lot like her/him). Each participant obtains two scores on the PCS-YSR, one psychological control score for her mother and one for her father. The scores can range from 8-24, with higher scores indicating a higher appraisal of parental psychological control.

The Cronbach alpha values found for the PCS-YSR when used for mothers and fathers of female adolescents were both .83 (Barber, 1996). The validity of this scale as a measure of psychological control has been partially established in Barber's (1996) research. Barber reported three studies in which he measured psychological control with a section from a widely used scale that measures psychological control (Schaefer, 1965b), with objective observations, and with the PCS-YSR. He found similar results in each study, indicating that these three measures each measured the same underlying variable, providing

some convergent validity for the PCS-YSR as a measure of psychological control (Barber, 1996). See Appendix J for a copy of the full scale.

The second scale that was used to test construct validity was the self-report Parental Authority Questionnaire (PAQ; Edwards, 1997). Originally, this scale included 30 questions assessing three different parenting styles as defined by Baumrind; Authoritative, Authoritarian, and Permissive (Buri, 1991). This measure was modified by Vecchiotti (1995) to include Permissive-Indulgent and Permissive-Neglectful styles due to research and theory proposed by Maccoby and Martin (1983) as discussed in the Introduction. Vecchiotti used the 10 original permissive items from Buri's (1991) measure as Permissive-Indulgent items, three of which were also used as Permissive-Neglectful items. Next, Vecchiotti created seven new Permissive-Neglectful items.

Edwards (1997) further modified Vecchiotti's (1995) scale in order to make two distinct sets of items for the permissive-indulgent and permissive-neglectful prototypes. Edwards' scale included 40 identical items for mothers and fathers, yielding 80 items total, rated on 5-point Likert scales (1 = Strongly disagree, 5 = Strongly agree). Each item is part of a parenting style subscale, each one composed of 10 items: Authoritative (ATV), Authoritarian (ATN), Permissive-Indulgent (P-I), and Permissive-Neglectful (P-N). Examples of each are: "My mother/father always encouraged verbal give-and-take whenever I felt that family rules and restrictions were unreasonable (ATV)," "As I was growing up my mother/father did not allow me to question any decision she/he had made

(ATN)," "My mother/father has always felt that what children need is to be free to make up their own minds and to do what they want to do, even if this does not agree with what their parents might want (P-I)," and, "As I was growing up, my mother/father rarely listened to me and she/he rarely paid attention to what I said (P-N)."

The PAQ yields eight scores, four separate maternal and paternal scores for each of the parenting style prototypes. Scores on each subscale range from 10-50, with a higher score indicating a higher appraisal of that parenting style prototype. Cronbach alpha values in Edwards' (1997) study were .89 for both maternal and paternal Authoritative parenting; .89 and .92 for maternal and paternal Authoritarian parenting; .83 and .85 for maternal and paternal Permissive-Indulgent parenting; and .89 and .95 for maternal and paternal Permissive-Neglectful parenting.

The reliability and validity of the PAQ has been partially established by both Edwards (1997) and Brown (2004). Each researcher found significant correlations between the PAQ subscales and theoretically-related variables such as college adjustment, self-efficacy, various types of guilt, and various forms of psychological separation. A copy of the full measure is included in Appendix K.

Third, a measure of attachment style was used to assess the construct validity of the PIAC subscales. The self-report Relationship Questionnaire (Bartholomew & Horowitz, 1991), derived from Hazan and Shaver's (1987) attachment measure, was used to assess attachment style. Originally, Hazan and

Shaver's attachment measure consisted of three attachment style prototypes: secure, avoidant (conceptually identical to dismissive), and ambivalent (conceptually identical to preoccupied). The procedure consisted of three paragraphs corresponding to the three different attachment style prototypes, and the participant indicated the paragraph that applied most closely to her.

Bartholomew and Horowitz (1991) later revised Hazan and Shaver's (1987) scale to comply with a newly proposed attachment theory, which included four attachment style prototypes, dividing the avoidant or dismissive attachment prototype into two distinct styles: dismissive-avoidant and fearful-avoidant. Bartholomew and Horowitz used Main's terms to refer to each adult attachment style (secure, preoccupied, dismissive, and fearful). These researchers converted the forced-choice Hazan and Shaver measure into a 7-point Likert scale (1 = Not at all like me, 7 = Very much like me), indicating the self-reported degree of similarity between each description and the participant. Each participant obtains four scores on the Relationship Questionnaire, one for each of the attachment style prototypes.

The Relationship Questionnaire has achieved comparable correlations and results with other attachment measures. For instance, family and friend reports of participants' attachment styles correlated significantly using the Relationship Questionnaire: For the secure ratings, $\underline{r}$ (67) = .39, $\underline{p} < .001$; for the preoccupied ratings, $\underline{r}$ (67) = .66, $\underline{p} < .001$; for the dismissive-avoidant ratings, $\underline{r}$ (67) = .41, $\underline{p} < .001$; and for the fearful-avoidant ratings, $\underline{r}$ (67) = .29, $\underline{p} < .01$ (Bartholomew &

Horowitz, 1991). Also, when the ratings of the participants, participants' families, and friends were structurally analyzed, highly identical structures were found, each indicating four distinct attachment styles. Such findings demonstrate strong convergent validity of the Relationship Questionnaire. For a copy of the measure see Appendix L.

To assess the criterion validity of the PIAC subscales, four additional measures were used. First, the revised, self-report Perceived Self-Efficacy Scale (PSE; Hoeltje, Zubrick, Silburn, & Garton, 1996) was used. The PSE was designed to measure a wide range of beliefs for adolescents about their everyday lives as a way of assessing this age group's general self-efficacy. Brown (2004) modified Hoeltje et al.'s (1996) PSE items to make them apply more directly to college students. For example, Brown changed the wording, "How sure are you that you will manage well when you have new work to do at school?" to become, "How sure are you that you will manage well when you have new work to do for college?" These types of minor changes were made to 3 items. Thus, Brown's measure is nearly identical to Hoeltje et al.'s measure. The PSE includes 22 items that are rated on 5-point Likert scales (1 = Not at all sure, 5 = Very sure), with higher scores indicating more self-efficacy.

Hoeltje et al. (1996) found a Cronbach alpha value of .92 for adolescents, indicating high reliability. They found that the PSE has both content and construct validity from their principal component factor analysis. They also found cross-informant validation of the general self-efficacy construct when

expected correlations were found between adolescents' self-reports of self-efficacy, parents' ratings of adolescents' mental health problems, and teachers' ratings of adolescents' academic achievement. See Appendix M for a copy of the full measure.

The second measure that was used to assess criterion validity was the self-report Internal versus External Control Scale (I-E Scale; Rotter, 1966). This scale derived from Phares' (1957, in Rotter 1966) Locus of Control scale, which was a Likert-type scale with 13 items used with college students. Several researchers expanded and revised the scale until it became a 60-item forced-choice scale that was meant to assess a range of domains, including achievement, affection, and general social and political attitudes (Rotter, 1966). The scale was also designed to control for social desirability. However, when an item analysis was performed on the scale it was found that the subscales were not generating separate predictions and the authors felt there was too high of a correlation with the Marlowe-Crowne Social Desirability Scale (Phares, 1973). Therefore, the scale was pruned of the items that (1) had a high correlation with the Marlowe-Crowne Social Desirability Scale, (2) were consistently endorsed in one direction more than 85% of the time, and (3) had a non-significant relationship with the scale when that item was removed (Rotter, 1966, 1975). In the end, the I-E Scale used in this study emerged.

The I-E Scale has 29 forced-choice items, including 6 filler items that are meant to measure a general sense of a college student's locus of control. Each

item contains two statements, one that is part of the Internal Control subscale and another that is part of the External Control subscale. For example, the statement, "The idea that teachers are unfair to students is nonsense," is included in the Internal Control subscale. The corresponding statement, "Most students don't realize the extent to which their grades are influenced by accidental happenings," is included in the External Control subscale. The participant is required to choose one of these statements, resulting in 29 choices. A participant receives one point for each external item that she endorses and no points for each internal item she endorses. The participant also receives no points for either statement in the six filler items. Thus, the maximum score is 23 with a higher score indicating a greater endorsement of external control.

When the I-E scale was subjected to item and factor analyses, it had a reasonability high internal consistency (Rotter, 1966). The scale correlates moderately with other measures of locus of control, including interviews, questionnaires, Likert-type scales, and ratings from story-completion tasks (Rotter, 1966). The scale has shown low or insignificant correlations with intelligence variables, social desirability, and political liberalness, indicating that it has adequate divergent validity (Rotter, 1966). There is also significant evidence of the construct validity of the I-E Scale. For example, several studies have shown that (1) "internals" are more alert than "externals" to useful information about their environment that could be used in the future, and (2) "internals" also act to improve their environment more than "externals" (Rotter,

1966; Phares, 1973). These findings are consistent with some of the primary conceptualizations of internal versus external locus of control. A copy of the full scale can be found in Appendix N.

Third, the self-report Interpersonal Guilt Questionnaire (IGQ-67; O'Conner, Berry, Weiss, Bush, & Sampson, 1997) was used. The IGQ-67 was developed from a smaller scale called the IGQ-45. Senior clinicians developed items from their clinical observations and therapy to create the IGQ-45 (O'Conner et al., 1997). In order to improve reliability, 52 items were added (also created by clinicians) to the IGQ-45 to create 97 total items. These 97 items were administered to 111 college students and the data were subjected to item and factor analyses (O'Connor et al., 1997). Only those items that were most reliable, and had correlations of at least .40 with the total subscale, to which they belonged were retained for the final IGQ-67.

A principal components factor analysis was performed with *varimax* rotation on the IGQ-67 and two primary factors were found (O'Conner et al., 1997). The first, accounting for 57% of the variance, included the Survivor Guilt, Separation Guilt, and Omnipotent-Responsibility Guilt subscales. The factor loadings for each of the subscales were .83, .59, and .91, respectively. The second factor, accounting for 18% of additional variance, included the Self-Hate Guilt subscale with a factor loading of .96 (O'Conner et al., 1997). The results of this analysis prompted the scale developers to add an aggregate score called the

Composite Interpersonal Guilt subscale, which was the sum of the Survivor, Separation, and Omnipotent-Responsibility Guilt subscales.

The IGQ-67 contains 67 items rated on 5-point Likert scales (1 = Very untrue of me or strongly disagree, 5 = Very true of me or strongly agree). Each participant receives five scores: Survivor Guilt, ranging from 22-110; Separation Guilt, ranging from 15-75; Omnipotent-Responsibility Guilt, ranging from 14-70; Self-Hate Guilt, ranging from 16-80; and an Interpersonal Guilt composite score, ranging from 51-255. Higher scores indicate higher levels of each type of guilt. Example items from each subscale in order are: "I conceal or minimize my successes (SUR-GLT)," "It makes me uncomfortable to have critical thoughts about my parents (SEP-GLT)," "I worry a great deal about my parents, or children, or siblings (OMN-GLT)," and, "I do not deserve other people's respect or admiration (SH-GLT)."

The Cronbach alpha values for each subscale were reported as follows: Survival Guilt was .85, Separation Guilt was .82, Omnipotent-Responsibility Guilt was .83, and Self-Hate Guilt was .87 (O'Conner et al., 1997). Furthermore, the IGQ-67 correlated significantly with measures of state and trait guilt, depression, and shame. These, and similar correlations reported by O'Conner et al. (1997) speak to the validity of the IGQ-67. See Appendix O for the full questionnaire.

The final measure to assess the criterion validity of the PIAC scale was the self-report Student Adaptation to College Questionnaire (SACQ; Baker & Siryk,

1989). The measure was designed to assess a student's multi-faceted adjustment to college. It was originally a 52-item scale (Baker and Siryk, 1984), but was revised by the scale developers primarily to improve the reliability of all subscales, especially the Personal-Emotional Adjustment subscale. In the final SACQ measure, students are asked to indicate their current levels of college adjustment by responding to 67 items, rated on 9-point Likert scales (1 = Applies very closely to me, 9 = Doesn't apply to me at all). Each participant receives five scores: Academic Adjustment, ranging from 24-216; Social Adjustment, ranging from 20-180; Personal-Emotional Adjustment, ranging from 15-135, Attachment/ Goal Commitment, ranging from 15-135, and a Full-Scale College Adjustment score of the sum of all items, ranging from 67-603. The SACQ includes 33 items that are reverse-scored; higher scores indicate higher levels of college adjustment. In order, examples of the subscales are: "I am satisfied with the level at which I am performing academically (A-ADJ)," "I have had informal, personal contacts with Mount Holyoke professors (SOC-ADJ)," "Being on my own, taking responsibility for myself, has not been easy (PE-ADJ)," and, "I am pleased now about my decision to go to college (ATT/ GCOM)."

The reliability and validity of the SACQ has been assessed over many years by both the scale developers and others, it has achieved high reliability and validity (Baker & Siryk, 1989). Cronbach alpha values attained for first and second semester freshman at three different institutions ranged from .81 to .90 for Academic Adjustment; .83 to .91 for Social Adjustment; .77 to .86 for Personal-

Emotional Adjustment; .85 to .91 for Attachment/ Goal Commitment; and .92 to .95 for Full Scale College Adjustment (Baker & Siryk, 1989). The subscales and Full Scale scores have correlated with variables that were appropriate for each subscale including freshman year grade point average; election to an academic honor society (Phi Beta Kappa); outcome of application for dormitory assistant positions; amount of extracurricular activity; number of visits made home; being known to psychological service centers on campus; attrition; goal instability; personal psychological coping resources; self-esteem; self-efficacy; and psychological separation to name just a few. Thus, reliability and validity are well established for the SACQ. A copy of the full measure can be seen in Appendix P.

Lastly, a demographic questionnaire was included to gather information about individual differences among participants. The questionnaire was a modified version of Brown's (2004) measure and it contained items about age, class year, ethnicity, parental education and occupation, transfer or international student status, parental marital status, and the parent or parents that the participant lived with for most of her life. Appendix Q contains a copy of this questionnaire.

Procedure. Each participant read and signed a consent form and was given the first of two packets containing the battery of questionnaires described above. After completing the demographic questionnaire, the PAQ, the I-E scale, the Relationship Questionnaire, and the PCS-YSR, the participant brought the first packet to the researcher in an adjacent room as instructed. There, the

participant was given a beverage (usually soda or juice) and a second packet. The second packet included the PIAC scale, the IGQ, the PSE, and the SACQ, and was completed in the original testing room. This packet was returned to the researcher after completion where the participant was given a debriefing statement and thanked for her participation. Participation took an average of one hour, with a range of 35 minutes to two hours.

Results and Discussion

The Results and Discussion section is generally organized beginning with the least complex analyses and ending with the most complex. First, the descriptive statistics of all variables will be reported and discussed excluding the demographic variables because they have been described in the Method section. The correlations predicted for construct and criterion validity will follow, and the findings from these analyses will be discussed. Next, parental intrusiveness is compared with psychological control in order to flesh out some differences between these two constructs. Discussions of mother and father differences will be scattered, when relevant, throughout each of these sections. As a small note, the sample sizes are sometimes different for each set of analyses because some participants did not have a mother and a father figure and other participants skipped a section or a page. The most common decrease in sample size was from participants not having a father figure.

Descriptive Statistics

To compare the differences between levels of intrusiveness and appropriate concern, taking into account the different PIAC subscale lengths, I calculated average item scores for each participant on each subscale. These calculations were performed using the following formula:

$$\text{Participant's average item score on a subscale} = \frac{\text{Subscale score (the sum of all item scores in that subscale)}}{\text{\# of items in that subscale}}$$

The average item score ranged from 1 to 5, with a 1 indicating that a student answered all 1's for each item on a particular subscale, and a 5 indicating that a student answered all 5's for each item on a particular subscale. The overall means of these average item scores were compared with two-tailed, repeated-measures t-tests. The analysis revealed that mothers were rated as exhibiting significantly more appropriate concern ($\underline{M}$ = 4.10) than intrusive behavior ($\underline{M}$ = 2.58; $\underline{t}$ (149) = 19.27, $\underline{p}$ < .001). Similarly, fathers were rated as exhibiting significantly more appropriate concern ($\underline{M}$ = 3.87) than intrusive behavior ($\underline{M}$ = 1.86; $\underline{t}$ (143) = 23.36, $\underline{p}$ < .001). These results indicate that overall, the participants in the sample felt their parents were exhibiting more appropriate concern than intrusiveness.

To compare across parents, students rated their mothers ($\underline{M}$ = 4.10) as exhibiting significantly more appropriate concern behavior than their fathers ($\underline{M}$ = 3.87; $\underline{t}$ (143) = 3.13, $\underline{p}$ < .01). Students also rated their mothers ($\underline{M}$ = 2.58) as exhibiting significantly more intrusive behavior than their fathers ($\underline{M}$ = 1.86; $\underline{t}$ (143) = 11.71, $\underline{p}$ < .001). Thus, participants overall rated their mothers higher on both Appropriate Concern and Intrusiveness, which may support previous research that mothers have more intense relationships with their children, including both positive and negative manifestations of that intenseness (Steinberg, 1999). However, the present study did not include male college students, and therefore, the results described here about mothers and fathers' corresponding

levels of Intrusiveness and Appropriate Concern may only be true for parent-daughter relationships.

The means and standard deviations for the construct validity variables are reported in Table 11. Fathers were rated as significantly less psychologically controlling than mothers (t (143) = - 2.68, p < .01). This finding is consistent with a general trend spanning twelve studies that mothers are rated as more psychologically controlling than fathers (Barber, Bean, & Erickson, 2002). Again, the relationship between maternal and paternal psychological control may be further evidence that in general, mothers are more intensely involved with their children (Steinberg, 1999).

Table 11

Descriptive Statistics for the Construct Validity Variables

	N	Min	Max	Mean	SD
Mother's Psychological Control (MPSYCON)	149	8	24	12.21	3.58
Father's Psychological Control (FPSYCON)	146	8	22	11.35	3.29
Mother's Authoritative (MATV)	150	14	50	36.12	7.23
Mother's Authoritarian (MATN)	150	12	50	27.30	7.65
Mother's Permissive Indulgent (MPI)	150	11	45	25.24	6.20
Mother's Permissive Neglectful (MPN)	150	10	36	15.17	5.94
Father's Authoritative (FATV)	146	14	50	33.17	8.11
Father's Authoritarian (FATN)	146	10	50	28.79	9.61
Father's Permissive Indulgent (FPI)	146	10	50	25.51	7.63
Father's Permissive Neglectful (FPN)	146	10	50	19.44	9.08
Secure Attachment (SECURE)	151	1	7	4.31	1.73
Preoccupied Attachment (PROCC)	151	1	7	3.73	1.87
Dismissive Attachment (DISM)	151	1	7	3.89	1.90
Fearful Attachment (FEAR)	151	1	7	3.95	2.10

Second, I found that mothers were rated as significantly more Authoritative than fathers (t (144) = 4.23, p < .001). The difference between maternal and paternal Authoritarian parenting approached significance, with mothers being rated as less Authoritarian than fathers (t (144) = -1.85, p = .065). There was no significant difference in ratings for mothers and fathers on Permissive-Indulgent parenting. However, mothers were rated as significantly less Permissive-Neglectful than fathers (t (144) = - 5.76, p < .001).

These findings are interesting in that one might expect mothers to be rated higher on all parenting styles as further evidence that mother-child relationships are more intense. Yet fathers were rated higher on Permissive-Neglectful parenting and rated somewhat higher on Authoritarian parenting. These seemingly unusual findings are in fact, consistent with past research. Adolescents often see fathers as relatively distant authority figures with whom they discuss instrumental problems (e.g., homework, etc.), but not emotional problems (Forehand & Nousiainen, 1993; Steinberg, 1999). As discussed previously, the relationship between fathers and daughters is especially distant and emotionally flat (Steinberg, 1999). It may be that the "general emotional inexpressiveness of fathers" bothers daughters more than sons (Steinberg, 1999, p. 131). The college women in this study may generally feel less close to their fathers emotionally, and thus, they may have rated their fathers higher on the two parenting styles that are low in responsiveness and warmth, namely authoritarian and permissive-neglectful parenting. Furthermore, 13% of the sample lived only with their

biological mothers. It is likely that these participants have a somewhat more distant relationship with their fathers, possibly accounting for the higher ratings of Permissive-Neglectful parenting for fathers.

If this last speculation were true, then one would expect a group of only those participants who lived with their biological mothers while growing up to show a significant difference between maternal and paternal Permissive-Neglectfulness. Additionally, a group of only those participants who lived with both biological parents while growing up should demonstrate statistically equivalent means for maternal and paternal Permissive-Neglectfulness. In short, participants who did not live with their fathers would rate their fathers higher on Permissive-Neglectfulness. When using those participants who lived with only their biological mothers while growing up, I found that fathers were rated as significantly more Permissive-Neglectful than mothers (t (17) = 3.55, $p < .01$). This finding is consistent with my speculation. However, when using only those participants who lived with both biological parents while growing up (for simplicity I did not use other home environment combinations) I also found that fathers were rated as significantly more Permissive-Neglectful than mothers (t (115) = 5.04, $p < .001$) rather than as statistically equivalent as expected. This finding is inconsistent with the hypothesis that only those participants living with their biological mother while growing up would rate their fathers as more Permissive-Neglectful. My findings indicate that fathers are generally rated as

more permissive-neglectful than mothers, even when accounting for participants who did not live with their fathers while growing up.

Lastly, differences between attachment style ratings were compared. Participants were significantly more Secure than Preoccupied with respect to attachment (t (150) = 2.81, p < .01). The difference between the means for Dismissive attachment and Secure attachment approached significance (t (150) = -1.78, p = .076). However, there was no significant difference between the participant means for Secure and Fearful attachment styles or between any of the insecure attachment styles (Preoccupied, Dismissive, and Fearful).

These findings are generally consistent with attachment theory. It is likely that more students would rate themselves higher on secure attachment than any of the insecure attachment styles because in most samples, approximately 60% of the sample can be characterized as "securely attached" (Karen, 1998). Therefore, higher means would be expected for the secure attachment style when using a measure that does not "classify" participants into attachment styles. However, it is interesting that there was not a significant difference between Secure and Fearful attachment ratings. One would expect the sample mean for Fearful attachment to be significantly lower than that for Secure attachment because these two attachment style prototypes are conceptually opposite. Secure individuals feel they are lovable and feel others are trustworthy and available, whereas Fearful individuals feel they are not lovable and do not feel that others are trustworthy or available. Further research is needed to first replicate this finding,

and then explore possible explanations for the unexpected and relatively high mean for Fearful attachment ratings among college women at a prestigious school.

The next set of descriptive statistics is the means (and sometimes average item score means) and standard deviations for the criterion validity variables (see Table 12). Like the PIAC subscales, the Interpersonal Guilt Questionnaire (IGQ) subscales have different numbers of items within each subscale and therefore average item scores were calculated for guilt using the formula described previously. The average item score could range from 1 to 5, with 1 indicating that the participant answered all 1's for each item on a particular subscale, and 5 indicating that the participant answered all 5's. I compared the overall means for the average item scores across the guilt subscales with two-tailed, repeated-measures t-tests. The mean score for Survivor Guilt ($\underline{M}$ = 3.15) was significantly higher than that for Separation Guilt ($\underline{M}$ = 2.75; $\underline{t}$ (150) = 8.50, $\underline{p}$ < .001) and Self-Hate Guilt ($\underline{M}$ = 2.29; $\underline{t}$ (150) = 18.34, $\underline{p}$ < .001). However, the mean score for Survivor Guilt was not significantly higher than that for Omnipotent-Responsibility Guilt ($\underline{M}$ = 3.59; $\underline{t}$ (150) = - 11.92, $\underline{p}$ < .001). The mean for Separation Guilt ($\underline{M}$ = 2.75) was significantly lower than that for Omnipotent-Responsibility Guilt ($\underline{M}$ = 3.59; $\underline{t}$ (150) = - 19.42, $\underline{p}$ < .001), but significantly higher than that for Self-Hate Guilt ($\underline{M}$ = 2.29; $\underline{t}$ (150) = 7.06, $\underline{p}$ < .001). Finally, the mean for Omnipotent-Responsibility Guilt ($\underline{M}$ = 3.59) was significantly higher than that for Self-Hate Guilt ($\underline{M}$ = 2.29; $\underline{t}$ (150) = 22.84, $\underline{p}$ < .001). Omnipotent-

Responsibility Guilt had the significantly highest mean, followed by Survivor Guilt, Separation Guilt, and Self-Hate Guilt.

The mean differences for the guilt subscales have not yet been reported in any of the Mount Holyoke College samples that measured guilt (Brown, 2004; Edwards, 1997). Generally, they are difficult to interpret and may not be meaningful. In order to explain these differences, a study that focuses on guilt at Mount Holyoke College would be necessary. For this reason and because guilt is not the primary focus of the present study, I leave my findings open to interpretation. However, the significantly lower mean for Self-Hate Guilt than all other types of guilt is to be expected since Self-Hate Guilt seems more insidious, and high levels would not be expected in a college (non-clinical) population.

Table 12

Descriptive Statistics for the Criterion Validity Variables

	N	Min	Max	Mean	SD
Self-Efficacy (SLFEFF)	151	29	108	70.38	14.80
Locus Of Control (LOC)	149	4	23	12.25	3.88
Survival Guilt Subscale (SURGLT)	151	1.91	4.41	3.15*	.43
Separation Guilt Subscale (SEPGLT)	151	1.53	4.60	2.75*	.54
Omnipotence Guilt Subscale (OMNGLT)	151	2.14	4.71	3.59*	.52
Self-Hate Guilt Subscale (SHGLT)	151	1.13	4.88	2.29*	.67
Interpersonal Guilt Subscale (INTPGLT)	151	2.12	4.08	3.15*	.39
Academic Adjustment Subscale (AADJ)	150	69	203	150.39	26.47
Social Adjustment Subscale (SOCADJ)	150	54.70	173.70	128.41	25.46
Personal-Emotional Adjustment Subscale (PEADJ)	150	36	191	83.35	21.28
Attachment-Goal Commitment Subscale (ATTGCOM)	150	40	135	105.15	18.97
College Adjustment Full Subscale (COLLADJ)	150	264	567	422.36	65.99

* Values are overall means of average item scores per participant to control for various subscale length

Lastly, to account for different numbers of subscale items on the Student Adaptation to College Adjustment Questionnaire (SACQ), I converted the sample's subscale raw score means into T-scores. The T-scores have been normalized so that a T- score of 50 is the mean with a standard deviation of 10 (Baker & Siryk, 1989). The sample's T-score for the raw score mean Academic Adjustment was 51, for the raw score mean Social Adjustment was 46, for the raw score mean Personal-Emotional Adjustment was 45, for the raw score mean Attachment/ Goal Commitment was 48, and for the raw score mean Full Scale College Adjustment was 49. Thus, the sample's raw score means did not differ significantly from the general population of college students, nor were the subscales statistically different from each other.

PIAC Scale Validity

Construct Validity

To demonstrate the construct validity of the PIAC subscales I ran Pearson product-moment correlations between the PIAC subscales and Psychological Control, the parenting styles, and the attachment styles for both mothers and fathers. To demonstrate construct validity, moderate correlations (using an approximate rule of correlations between .35 - .65 being termed moderate) were desired because such correlations indicate that two constructs are related, but are not identical. A visual representation of the correlations can be found in Table 13.

Table 13

Construct Validity Correlations for the PIAC subscales

	MPIAC INT	MPIAC AC	FPIAC INT	FPIAC AC
MPIACAC	-.14			
FPIACINT	**.30*** **	-.07		
FPIACAC	-.03	**.28*** **	.00	
MPSYCON	**.51*** **	**-.50*** **	.15	**-.21***
FPSYCON	**.20***	-.04	**.67*** **	**-.24****
MATV	**-.25****	**.74*** **	-.04	**.35*** **
MATN	**.42*** **	**-.42*** **	.12	-.06
MPI	**-.29*** **	.09	-.10	.10
MPN	.09	**-.76*** **	.11	**-.31*** **
FATV	-.08	**.22****	**-.22****	**.71*** **
FATN	.15	-.06	**.49*** **	**.20***
FPI	-.08	-.08	**-.37*** **	.09
FPN	**.17***	**-.17***	.15	**-.76*** **
SECURE	-.09	.15	-.14	**.23****
PROCC	.04	-.10	**.24****	-.09
DISM	**.22****	-.16	.03	-.12
FEAR	.13	-.14	**.18***	-.06

*** p< .001 (all 2-tailed) ** p< .01 * p< .05

Intrusiveness. First, I hypothesized that the Intrusiveness subscale would correlate moderately and *positively* with Psychological Control, the Authoritarian parenting style, and the Preoccupied attachment style. Two of the three positive correlations expected for mothers were found. Maternal Intrusiveness was significantly related to maternal Psychological Control ($r = .51$, $p < .001$) and maternal Authoritarian parenting ($r = .42$, $p < .001$). I also found all three positive correlations expected for fathers. Paternal Intrusiveness was significantly related to paternal Psychological Control ($r = .67$, $p < .001$), paternal Authoritarian parenting ($r = .49$, $p < .001$), and Preoccupied attachment ($r = .24$, $p < .005$).

Second, as part of the construct validity analysis of the Intrusiveness subscale, I expected moderate and *negative* correlations between Intrusiveness and the Authoritative parenting style, and the Secure attachment style. Maternal Intrusiveness was significantly related to maternal Authoritative parenting ($r = -.25$, $p < .005$) but not to Secure attachment. Similarly, paternal Intrusiveness was significantly related to paternal Authoritative parenting ($r = -.22$, $p < .01$) but not to Secure attachment. Thus, Secure attachment was not significantly related to either maternal or paternal Intrusiveness. See Appendices R and S for figures of the construct validity predictions that were found for maternal and paternal Intrusiveness.

Many of these construct validity correlations yielded results that indicated support for the construct validity of the Intrusiveness subscale. First, and maybe most importantly, Intrusiveness and Psychological Control were moderately and

positively correlated for both parents. These findings suggested that intrusiveness and psychological control were related but not identical, which confirms a staple hypothesis for the second study.

Second, Intrusiveness and Authoritarian parenting were moderately and positively correlated for both parents. Again, these findings indicate that intrusiveness and authoritarian parenting were related but not identical constructs. The fact that intrusiveness was related, but not identical to both psychological control and authoritarian parenting, suggests that the Intrusiveness subscale has a high degree of construct validity.

However, some of the validity correlations were not completely consistent with my hypotheses and may indicate that the Intrusiveness subscale is not measuring intrusiveness as accurately as one might wish. A first set of unconfirmed findings was that the attachment variables did not correlate with the Intrusiveness subscale as expected. I found no significant relationship between maternal Intrusiveness and Preoccupied attachment, or between Intrusiveness for both parents and Secure attachment. Yet, the hypotheses that Preoccupied and Secure attachment styles would correlate with Intrusiveness may have been based on false assumptions about parent-child relationships and the transmission of personality characteristics. I assumed that intrusiveness would pre-date attachment formation and would remain consistent as a parenting style rather than being inconsistent as a parenting behavior. It is equally likely that attachment styles are primarily formed before intrusive behaviors are manifest. If this were

the case, intrusive behaviors would not shape a child's attachment, but would rather "interact" with the attachment that has already formed. Intrusiveness may act as a moderator of attachment style effects on other outcome variables. A moderator relationship between attachment styles and intrusiveness may explain why correlations were not generally found between these two variables. This hypothesis is a possible direction for future research.

Another explanation for the lack of construct validity correlations with attachment is that a participant's attachment style might influence her ratings of parental intrusiveness rather than vice versa. For instance, it might be that a student with a preoccupied state of attachment would feel that her parents' "intrusive" behavior (as judged objectively) was not intrusive. Preoccupied individuals are often "preoccupied" with their relationships and tend to seek others for affirmation of their self-worth (Bartholomew & Horowitz, 1991). It is possible that a preoccupied student would relish in her parent's intrusion and potentially interpret the parental behavior as showing appropriate concern.

A student who is dismissive, on the other hand, would be more likely to rate her parents as intrusive. Dismissive individuals are often avoidant of relationships and as a result tend to minimize their connections with others. Students who are dismissive in terms of attachment may see their parents' "intrusive" behavior as more intrusive than students with other attachment styles. Previous research has shown that dismissive attachment, and not preoccupied attachment, is related to maternal intrusiveness (Karen, 1998). This finding was

confirmed in my analyses ($r = .22$, $p < .01$). The relationship between dismissive attachment and intrusiveness can also be viewed another way. If one assumes that intrusiveness is a parenting style and not a parenting behavior, one could speculate that an infant becomes dismissively attached as a way to cope with the parental intrusion.

Another curious finding about attachment styles was that paternal, but not maternal, Intrusiveness was significantly related to Preoccupied attachment. This finding is very difficult to explain. It may be that fathers intrude in different ways than mothers, leading to different consequences in the father-daughter than in the mother-daughter relationship. The factor analysis in the first study revealed that different items loaded onto the maternal intrusiveness factor than onto the paternal intrusiveness factor. However, there seemed to be no obvious or substantial differences between the Intrusiveness subscales that could account for the discrepancy in findings between maternal and paternal Intrusiveness in relation to Preoccupied attachment. A different possibility is that "preoccupied" attachment might mean different things in relation to mothers versus fathers. These two speculations are possible directions for future research with intrusiveness and attachment styles. Researchers might use longer attachment style measures to gain more qualitative information about attachment in relation to mothers and fathers separately.

Returning to the results of the construct validity analyses, it was also contrary to my hypotheses that no significant correlations were found for maternal

or paternal Intrusiveness with respect to Secure attachment. There is a potential problem with comparing attachment styles as measured by the Relationship Questionnaire (Bartholomew & Horowitz, 1991) to other variables. The Relationship Questionnaire allows a student to agree at varying levels with all four types of attachment. Theoretically, a student could rate herself highly on Secure attachment, while also rating herself highly on all three insecure attachment styles. Therefore, the correlations between the attachment styles and other variables may be affected by noise in the attachment measure, namely that students are not purely one attachment style, but a combination of all four types of attachment.

To test this hypothesis, participants who were "clear-cases" of secure attachment were selected and their Secure attachment ratings were correlated with their parental Intrusiveness ratings. The "clear-cases" included only those participants ($\underline{n}$ = 18) who were above the sample mean for Secure attachment ($\underline{M}$ = 4.31) but below the sample means for all other attachment styles ($\underline{M}$ (procc) = 3.74, $\underline{M}$ (dism) = 3.90, $\underline{M}$ (fear) = 3.95). Then, I correlated Secure attachment with maternal and paternal Intrusiveness using only these cases. However, I did not find significant correlations using this procedure. Therefore, even when cases were selected in which participants were more clearly secure with respect to attachment, Secure attachment still did not correlate with Intrusiveness.

However, when exploring potential differences between students' ethnicity, I found that using only self-identified European American students ($\underline{n}$ =

92) in the construct validity analyses yielded significant correlations between Secure attachment and both maternal and paternal Intrusiveness, respectively (r = - .21, $p < .05$ and r = - .25, $p < .05$). Therefore, construct validity for Intrusiveness seems to improve greatly when a European American sub-sample is used (see Appendix T and U for a visual representation of the construct validity findings using only European American students). This finding might have been expected, considering the sample of participants used to create the PIAC scale in the first study was 61% European American. Thus, it is likely that the PIAC scale would demonstrate more validation for a European American population.

My findings indicated that intrusiveness as measured by the PIAC scale might only relate to secure attachment when using a European American sub-sample. Furthermore, intrusive parenting may be related to secure attachment in different ways in other cultures but this sample does not include a sufficient number of participants from these other groups to make legitimate comparisons. Future research focusing on cultural differences is needed to investigate attachment style as it relates to intrusiveness.

However, even when a European American sub-sample was used, the significant correlations between the attachment variables were not as high as expected (ranging from .23 - .32). A likely explanation is that the attachment style measure was not a direct assessment of the parent, but an assessment of the parent-child relationship. It is expected that attachment styles would not correlate as highly with Intrusiveness as the parenting styles did, since both the

Intrusiveness subscale and the parenting styles scale are measures of the parents themselves. Two measures of parents would naturally be more closely related than a measure of parents and a measure of parent-child relationships.

While discussing attachment styles and intrusiveness, another interesting finding should be noted. Student ratings of maternal Intrusiveness were significantly related to self-ratings of Dismissive attachment, while ratings of paternal Intrusiveness were significantly related to self-ratings of Preoccupied and Fearful attachment. Thus, it is possible that maternal and paternal intrusiveness lead to different types of attachment styles, although no causal link has yet been established. Perhaps maternal intrusiveness is associated with negative views of others. Remember that maternal Intrusiveness was correlated positively with Dismissive attachment, a style of attachment including negative images of others but positive images of the self. Paternal intrusiveness, on the other hand, might be related to negative views of the self as it was correlated positively with the preoccupied and fearful attachment styles. Both the preoccupied and fearful attachment styles include a negative view of the self.

Thus, there may be a potential difference in the behavioral manifestations of intrusiveness for mothers versus fathers resulting in different attachment styles. It may be that fathers tend to intrude in different ways than mothers, and different types of intrusion may lead to or be linked with different types of insecure attachment. I have also mentioned that fathers are often more involved in instrumental ways with their children and are not extremely accepting (Steinberg,

1999). If one assumes that different types of intrusion lead to different types of attachment styles, and that fathers intrude in different ways, then one can speculate that intruding in instrumental ways but being emotionally distant may cause a child to become sensitive about relationships as a way of eliciting some type of emotional connection. The preoccupied and fearful attachment styles could be characterized as coping mechanisms developed to elicit emotional connections from others. Therefore, the finding that paternal Intrusiveness related to Preoccupied and Fearful attachment might be a starting point for research hypothesizing a model similar to the one just described.

Because I found cultural differences in the correlations between intrusiveness and secure attachment, I also explored the types of insecure attachment styles that intrusiveness might be related to in different cultures. When using only European American students ($n = 92$) I found that maternal Intrusiveness was positively correlated with Dismissive and Fearful attachment styles ($r = .24$, $p < .05$ and $r = .26$, $p < .05$ respectively). Therefore, when using only European American students, fearful attachment is positively correlated with maternal intrusiveness. This was not found when using the entire sample.

It would have been interesting to compare each culture separately to see if there were differences in the correlations between the insecure attachment styles and intrusiveness. However, the sub-sample sizes for other cultures represented in the entire sample were not large enough to make just comparisons between cultural groups. Thus, for exploratory purposes all non-European American

students and biracial students were grouped together to create a "non-European American" group. This procedure is not recommended for future research, but nevertheless, it may serve to illustrate broad potential differences between European Americans and non-European Americans. When using the 59 students who indicated they were non-European American or biracial the only significant insecure attachment style correlation I found was that paternal Intrusiveness was significantly correlated with Fearful attachment ($\underline{r} = .74$, $\underline{p} < .05$). It is difficult to interpret these cultural findings. However, it seems clear that a cultural differences study is implicated by such results.

After discussing the construct validity findings for the Intrusiveness subscale I can conclude that the scale seems to demonstrate a high degree of construct validity for both mothers and fathers, especially with respect to European American students. Most of the construct validity correlations expected were found and those that were not found appeared to have legitimate explanations to account for the unconfirmed findings. Furthermore, the correlations with Intrusiveness that were expected to be moderate (Psychological Control and Authoritarian parenting) usually were, indicating that Intrusiveness was related to similar constructs, but was not identical with them.

Appropriate Concern. The next analysis that was conducted was a series of correlations to assess the construct validity of the Appropriate Concern subscale for both parents. I hypothesized that the Appropriate Concern subscale would correlate moderately and *positively* with the Authoritative parenting style

and the Secure attachment style. Maternal Appropriate Concern was significantly related to maternal Authoritative parenting ($r = .74$, $p < .001$) but only approached significance when correlated with Secure attachment ($r = .15$, $p = .074$). I found both of the positive correlations expected for fathers: Paternal Appropriate Concern was significantly related to paternal Authoritative parenting ($r = .71$, $p < .001$) and to Secure attachment ($r = .23$, $p < .01$).

I also expected moderate and *negative* correlations between Appropriate Concern and Psychological Control, the Authoritarian parenting style, and the insecure attachment styles (Preoccupied, Dismissing, and Fearful). Two of the five expected correlations were found for mothers. Maternal Appropriate Concern was significantly related to maternal Psychological Control ($r = -.50$, $p < .001$) and maternal Authoritarian parenting ($r = -.42$, $p < .001$). When maternal Appropriate Concern was correlated with Dismissive attachment, the correlation only approached significance but related in the expected direction ($r = -.16$, $p = .057$). Two of the five negative correlations expected were found for fathers. Paternal Appropriate Concern was significantly related to paternal Psychological Control ($r = -.24$, $p < .005$) and paternal Authoritarian parenting ($r = -.20$, $p < .05$). See Appendices V and W for figures of the construct validity predictions that were found for maternal and paternal Appropriate Concern.

From these analyses several findings indicate support for the construct validity of the Appropriate Concern subscale. Many of the expected correlations

were found and some were of moderate strength demonstrating that the construct of intrusiveness was related to, but not identical with these constructs.

However, some hypotheses were not met in an optimal way, suggesting that construct validity for the Appropriate Concern scale has not been fully established. First and foremost, Intrusiveness correlated so highly with Authoritative parenting (.74 and .71 for mothers and fathers respectively) that one might question whether these two constructs are different. It is not necessary to find a perfect correlation between two scales to have suspicions that they are essentially measuring the same thing. The constructs measured in this study are often composite variables, including several different aspects of behavior into one general category. A high correlation, such as .71, is difficult to achieve between two composite constructs, each measuring a range of behaviors. If one also accounts for sampling error, a correlation of .71 seems very high indeed. Thus, the Appropriate Concern subscale and the Authoritative parenting scale, having achieved such a high correlation, might be measuring the same underlying construct. It would make sense that Authoritative parenting and Appropriate Concern were measuring approximately the same construct. Authoritative parenting includes warm but firm parental behaviors. Similarly, appropriate concern is conceptualized as parenting that exhibits an appropriate balance between psychological and behavioral constraint and neglect. In practice, appropriate concern behavior might be identical to authoritative behavior. The Appropriate Concern subscale and the Authoritative parenting subscale may

simply be describing the same behavior in two different ways. However, although I am suspicious that appropriate concern and authoritative parenting are the same construct, future research might refine the Appropriate Concern subscale further, assess the degree of similarity again, and find a lower correlation.

A second set of hypotheses that were not fully confirmed was that the attachment variables did not correlate with Appropriate Concern as expected. First, paternal Appropriate Concern was positively correlated with Secure attachment, but maternal Appropriate Concern only approached significance when correlated with Secure attachment. It may be that fathers' levels of appropriate concern are more related to children's secure attachments. This finding somewhat supports previous research reporting that paternal variables seem to serve as better predictors for some outcome variables for children (Steinberg, 1999).

However, as was mentioned in the above discussion of intrusiveness, it is possible that a participant's attachment style influences her parental ratings. Depending on a student's primary attachment style, she may rate her parents more or less realistically than her peers. For example, people with secure attachments are often reflective about their past relationships and are able to discuss the good and bad parts of those relationships more freely than those with any of the other attachment styles (Karen, 1998). People who are dismissive, on the other hand, often have idealized images of their parents (Karen, 1998) and may tend to rate their parents highly on measures of "good" parenting, such as appropriate

concern. Thus, students with secure attachments may be more objective in their parental ratings than students with other attachment styles.

Another potential individual difference that may account for the lack of findings between the attachment variables and Appropriate Concern is ethnicity. However, when the construct validity correlations were performed again with only European American students, no differences were found between these construct validity correlations and the construct validity correlations using the entire sample (see Appendices X and Y). Such findings may suggest one of two things. First, appropriate concern may be more similar across cultures than intrusiveness. Second, appropriate concern may be subject to a great deal of individual difference, resulting in any cultural differences becoming less important or salient. Again, more research is needed to confirm my findings, but these are two potential hypotheses to assess in future studies.

It is also possible that my findings are accurate and that parental appropriate concern across cultures is just as likely to occur when a child is secure with respect to attachment as when she is insecure. The logic I used to predict negative correlations between appropriate concern and the insecure attachment styles was based on the idea that parents who "raised" children with insecure attachments were likely to be insecurely attached themselves, and therefore would not exhibit appropriate concern. However, my findings indicate that there is a weak relationship between the insecure attachment styles and Appropriate Concern, if there is any relationship at all. Perhaps parents who have insecurely

attached children can exhibit appropriate concern. In the end, more research is needed to flesh out the relationship, or lack of a relationship, between attachment and the PIAC subscales.

To conclude this section, nearly half the correlations expected with Appropriate Concern were found, all in the expected direction and some of the expected strength. The hypotheses about the attachment styles that were unconfirmed appeared to have explanations, although future research was implicated. Therefore, it seems that a mild to moderate degree of support has been found for the construct validity of the Appropriate Concern subscale, but more support is desired.

Criterion Validity

To demonstrate the criterion validity of the PIAC subscale I ran a second set of correlations between the PIAC subscales and Self-Efficacy, Locus of Control, Interpersonal Guilt, and all five College Adjustment variables for mothers and fathers separately (see Table 14). Low to moderate correlations were expected as support for the PIAC subscales' criterion validity. Lower correlations are expected in these analyses because unlike the construct validity variables, the criterion validity variables are more distantly related to the PIAC subscale constructs. Intrusiveness and appropriate concern are expected to relate to the criterion validity variables in a predictive sense. The PIAC subscale constructs are thought to be one of many constructs to influence or be influenced by the levels of the criterion validity variables.

Intrusiveness. I hypothesized that the Intrusiveness subscale would correlate *positively* with External Locus of Control and Self-Hate Guilt for both parents. Maternal Intrusiveness was significantly related to Self-Hate Guilt ($\underline{r}$ = .30, $\underline{p} < .001$) but not External Locus of Control. Similarly, paternal Intrusiveness was significantly related only to Self-Hate Guilt ($\underline{r}$ = .46, $\underline{p} < .001$). Neither maternal nor paternal Intrusiveness were significantly related to External Locus of Control.

Table 14

Criterion Validity Correlations for the PIAC Subscales

	MPIAC INT	MPIAC AC	FPIAC INT	FPIAC AC
SLFEFF	-.01	.04	**-.19***	-.12
LOC	-.03	.02	-.04	.01
SURGLT	.15	-.15	**.23****	.01
SEPGLT	-.06	**.28****	.08	**.32*****
OMNGLT	.09	**.21****	**.21***	**.19***
SHGLT	**.30*****	**-.29*****	**.46*****	-.10
INTPGLT	.08	.12	**.22****	**.20***
AADJ	-.13	**.17***	-.05	.07
SOCADJ	-.03	.03	-.09	.00
PEADJ	**-.19***	.12	**-.23****	.07
ATTGCOM	-.07	.06	.07	-.05
COLLADJ	-.13	.14	-.11	.03

*** p < .001 (all 2-tailed) ** p < .01 * p < .05

Also as part of the criterion validity analysis for the Intrusiveness subscale, I expected *negative* correlations between Intrusiveness and Self-Efficacy and all five types of College Adjustment. Only one of these six negative correlations was found for mothers and two of the six negative correlations expected were found for fathers. Maternal Intrusiveness was significantly related to Personal-Emotional Adjustment ($\underline{r} = -.19$, $\underline{p} < .05$). Paternal Intrusiveness was significantly related to Self-Efficacy ($\underline{r} = -.19$, $\underline{p} < .05$) and Personal-Emotional Adjustment ($\underline{r} = -.23$, $\underline{p} < .01$). See Appendices Z and AA for figures of the criterion validity predictions that were found for maternal and paternal Intrusiveness.

Some of these findings suggested that there was support for the criterion validity of the Intrusiveness subscale. First, the correlation with Self-Hate Guilt was found in the expected direction for both parents and was also of an expected magnitude. Secondly, a negative correlation was found between Intrusiveness and Personal Emotional Adjustment for both parents, indicating that as expected, intrusiveness may have negative effects on college adjustment. These two sets of findings demonstrate some support for the criterion validity of the Intrusiveness subscale because the subscale was correlated to some of the criterion validity variables that it was expected to influence or be influenced by.

Yet, many of the findings suggested the criterion validity of the Intrusiveness subscale needs improvement. Five to six of the correlations expected were not found significant. However, as was done in the construct

validity analyses, I controlled for participants ethnicity, and correlated the criterion validity variables with Intrusiveness again. When I used only students who indicated they were European American I found more correlations between maternal Intrusiveness and the criterion validity variables than when the entire sample was used (see Appendix BB). In this analysis, maternal Intrusiveness correlated significantly and in the expected direction with Self-Hate Guilt ($\underline{r}$ = .39, $\underline{p}$ < .01), Self-Efficacy ($\underline{r}$ = - .22, $\underline{p}$ < .05), Academic Adjustment ($\underline{r}$ = - .28, $\underline{p}$ < .01), Social Adjustment ($\underline{r}$ = - .26, $\underline{p}$ < .05), Personal-Emotional Adjustment ($\underline{r}$ = - .30, $\underline{p}$ < .01), Attachment/ Goal Commitment ($\underline{r}$ = - .30, $\underline{p}$ < .01), and Full Scale College Adjustment ($\underline{r}$ = - .35, $\underline{p}$ < .01). Therefore, all the expected correlations were found for European American students with respect to their mothers' Intrusiveness except the correlation between External Locus of Control and maternal Intrusiveness. All these correlations were low to moderate as predicted. Therefore, these results suggest that the maternal Intrusiveness scale has a high degree of criterion validity, but only when used with European American students.

A similar, but less drastic, change in the criterion validity correlations was found for fathers as well. When paternal Intrusiveness was correlated with the criterion validity variables using only a European American sub-sample many more significant correlations, each in the expected direction, were found (see Appendix CC). Paternal Intrusiveness correlated significantly with Self-Hate Guilt ($\underline{r}$ = .44, $\underline{p}$ < .01), Self-Efficacy ($\underline{r}$ = - .23, $\underline{p}$ < .05), Social Adjustment ($\underline{r}$ = -

.21, $p < .05$), Personal-Emotional Adjustment ($r = -.32$, $p < .01$), and the correlation with Full Scale College Adjustment approached significance ($r = -.17$, $p = .11$). The correlations that were still not found when using the European American sub-sample were between paternal Intrusiveness and External Locus of Control, Academic Adjustment, and Attachment/ Goal Commitment. Thus, as with maternal Intrusiveness, the paternal Intrusiveness subscale appears to have a moderate to high degree of criterion validity when used with European American students.

However some correlations were not found even when using the European American sub-sample, suggesting that these variables were not adequate criterion validity variables. The criterion validity variables are theoretical predictions about possible correlates of intrusiveness. Looking back on the hypotheses, I have reason to believe that some of my predictions were not consistent with previous research or theory about the variables I used.

One hypothesis that was not supported was that maternal and paternal Intrusiveness did positively correlate with External Locus of Control. Upon reflection, a child would probably have more than one authority figure influencing her personality development. If only one authority figure were intrusive, others who were not intrusive might counter-balance the potential "externalizing" affects on the child. Therefore, one could speculate that if both parents were highly intrusive, a child would rate herself as more "external" than if only one or neither parent was highly intrusive.

To test this hypothesis, cases were selected to compare only those participants who rated both parents one standard deviation above the respective mean scores for Intrusiveness with participants who rated both parents one standard deviation below the respective mean scores for Intrusiveness (M (m) = 51.66, SD = 12.59; M (f) = 29.77, SD = 10.05). Thus, I created two groups, participants who rated their parents as highly intrusive (n = 7), and participants who rated their parents as low in intrusiveness (n = 6). After selection, the means for Locus of Control were computed for each group. The hypothesis was that participants who rated their parents as highly intrusive would have a significantly higher Locus of Control score (suggesting higher External Locus of Control) than participants who rated their parents as low in intrusiveness. The mean Locus of Control score for participants who rated their parents as highly intrusive (M = 12.43) was more "external" than the mean score for participants who rated their parents low in intrusiveness (M = 11.67), but the difference in means did not reach significance. Thus, my hypothesis was not confirmed.

The lack of a correlation between Intrusiveness and Locus of Control can also be explained in another way. Conclusions about one's locus of control, developed from interactions with one or more intrusive parents, would probably not generalize to all situations. It is simplistic to assume that one set of parenting behaviors could drastically impact a person's general locus of control. In the present study, a general sense of locus of control was measured spanning many different domains of functioning. This general sense of locus of control is likely

to be influenced by hundreds of different kinds of experiences, and a relationship with one or more intrusive parents may only account for a small portion of those experiences.

A second hypothesis that was not confirmed even when using only European American students was that paternal Intrusiveness did not correlate with Academic Adjustment and Attachment/ Goal Commitment. These are curious findings considering past research indicated that paternal acceptance and parenting in general, were more predictive with respect to adolescents' functioning in school (Steinberg, 1999). One potential explanation for these findings could be that students do not consider paternal intrusion into academic realms intrusive. In American society, adolescents more often seek out fathers for instrumental help than emotional help (Steinberg, 1999). Therefore, some students may not see intrusion into the "instrumental" realms of college, such as academic work and college career goals, as intrusive. However, other students might see such behavior as intrusive. An explanation like this one might account for the lack of a correlation between paternal Intrusiveness and both Academic Adjustment and Attachment/ Goal Commitment. Researchers might investigate this finding more closely by gaining a more qualitative picture of what paternal intrusive behavior entails.

Based on these analyses and the discussion of them, there seems to be a low degree of support for the criterion validity of the Intrusiveness subscale when ethnicity is not controlled for. Many of the expected correlations were not found

and did not seem explainable from past research or from theory about the criterion validity variables. However, a high degree of support for the criterion validity of the maternal Intrusiveness subscale and a moderate degree of support for the criterion validity of the paternal Intrusiveness subscale was found when using only European American students. Many of the expected criterion validity correlations were found with this sub-sample, and those that were not found may be consistent with theory about the criterion validity variables and theory about intrusiveness. Due to many of my findings becoming clearer when ethnicity is taken into account, future research is strongly suggested to flesh out the relationship between culture and parental intrusiveness.

Appropriate Concern. The next set of correlations was used to assess the criterion validity of the Appropriate Concern subscale. I hypothesized that the Appropriate Concern subscale would correlate *positively* with Self-Efficacy, Internal Locus of Control, and all types of College Adjustment. Maternal Appropriate Concern was significantly related only to Academic Adjustment ($\underline{r}$ = .17, $\underline{p} < .05$); and none of the expected positive correlations were found for fathers.

I also expected a *negative* correlation between Appropriate Concern and Self-Hate Guilt. Maternal Appropriate Concern was significantly related to Self-Hate Guilt ($\underline{r}$ = -.29, $\underline{p} < .001$), but paternal Appropriate Concern was not. See Appendices DD and EE for figures of the criterion validity predictions that were found for maternal and paternal Appropriate Concern.

There was low support for the criterion validity of the maternal Appropriate Concern subscale. Two of the expected correlations were found in the hypothesized direction and with the expected strength. However, many of the expected correlations were not found for mothers, and none were found for fathers.

The low level of support for the criterion validity of the Appropriate Concern subscale led me to try the criterion validity correlations again after controlling for ethnicity. I generally found slightly higher correlations but none that reached significance when correlations were performed with European American participants (see Appendices FF and GG). Therefore, it seems that Appropriate Concern does not change its relationship to the criterion validity variables like Intrusiveness did when used with different cultures. Two suggestions that were made previously were that appropriate concern might be conceptualized similarly across cultures while intrusiveness might not, or appropriate concern might be subject to a high degree of individual differences that override the potential effects of culture.

In conclusion, there is some support for the criterion validity of the Appropriate concern scale for mothers, but no support was found for fathers. Only two of the eight expected correlations were found for mothers, and none were found for fathers. Furthermore, the results did not change even when the correlations were controlled for ethnicity. The criterion validity predictions seem accurate for a measure of appropriate concern, but they may not be. There is

some evidence within the correlational results that the construct of appropriate concern may not be related to the criterion variables as was predicted. If the hypotheses for appropriate concern were accurate, it seems that many of the same hypotheses could have been made for authoritative parenting as well, due to the high correlation between Appropriate Concern and Authoritative parenting. However, few of the criterion validity hypotheses were found for Authoritative parenting (see Appendix HH for the correlation matrix with all variables), suggesting that the criterion validity hypotheses were not sound for appropriate concern. But, I must face the possibility that the hypotheses were sound and my results were accurate, and that the Appropriate Concern subscale may not yet be assessing appropriate concern as well as I would like.

Overall Validity of Intrusiveness and Appropriate Concern

A final correlational validity analysis was used to assess the relationship between the subscales of the PIAC scale. I expected to find a moderate negative correlation between the two subscales for both parents. A moderate negative correlation would indicate that the two subscales were not the same, but were related in such a way that a parent who is rated as highly intrusive would also be rated as having a low amount of appropriate concern, and vice versa. However, for mothers, Intrusiveness did not correlate significantly with Appropriate Concern ($\underline{r}$ = - .14, $\underline{p}$ = .09), and the same was found for the fathers ($\underline{r}$ = .00, $\underline{p}$ = .98).

When only European American participants were used however, the maternal subscales were significantly related ($r = -.26$, $p < .05$) but the paternal subscales were still not ($r = -.05$, $p = .63$). These findings are somewhat counter-intuitive because it seems that if one parent were capable of being rated as both intrusive and appropriate it would be mothers, considering that past research has indicated that mothers rate themselves highly on both positive and negative aspects of parenting (Steinberg, 1999). However, the correlations between subscales using only European American students suggest that for this group, fathers are sometimes rated as both intrusive and appropriately concern but mothers are not. The low negative correlation between the maternal subscales indicates that if mothers are rated as intrusive they are less likely to be rated as having high appropriate concern, and vice versa.

To see if there were any broad differences between the European American students and the non-European American students, I intercorrelated the PIAC subscales using only those students who were non-European American and biracial. With these participants ($n = 59$), maternal Intrusiveness was unrelated to maternal Appropriate concern ($r = -.02$, $p = .97$), but paternal Intrusiveness was very highly related to paternal Appropriate Concern ($r = .85$, $p < .01$). Therefore, it seems for non-European American cultures, fathers who are rated as intrusive are very likely to be rated as appropriately concerned, whereas mothers may be rated as both intrusive and appropriately concerned and they may not be.

Perhaps there is an explanation for these findings about culture and the PIAC subscale intercorrelations. It has been suggested previously that there are two different types of intrusiveness: Intrusion (judged objectively) that is wanted or enjoyed by a child versus intrusion that is unwanted. If conceptions of intrusiveness vary, then students may also vary on the degree to which they rate their parents as both intrusive and appropriately concerned while completing a scale in which the intrusiveness subscales are mainly valid for only European American students. For example, if a European American student completes the PIAC scale, her conceptions of intrusiveness may match the conceptions of intrusiveness measured by the scale and therefore, the student may be more likely to rate her parent as intrusive but not appropriate (if her parent were intrusive). Therefore, a negative correlation between intrusiveness and appropriate concern would be expected for this European American student. On the other hand, if a student from another culture completes the PIAC scale but does not have the same conceptions of intrusiveness as the construct underlying the scale assumes, then she *may* rate her parent highly on both intrusiveness and appropriate concern. Essentially the same behavior, described in the same way, might be seen as intrusive by one child while a second child sees it as demonstrating appropriate concern. Such individual differences in the interpretation of intrusiveness may vary across cultures. Furthermore, a subscale may measure a culture's concept of intrusiveness and appropriate concern better or worse for one parent rather than the other. Such hypotheses as these may be starting points for research exploring

the differences with respect to intrusiveness and appropriate concern between parents within cultures, and between cultures.

After taking all analyses and explanations into account, conclusions can be made about the validity of the PIAC subscales. In general, the construct validity hypotheses (psychological control, parenting styles, and attachment styles) were met with more consistency than the criterion validity hypotheses (self-efficacy, locus of control, interpersonal guilt, and college adjustment). Also, the hypotheses about Intrusiveness were met with more consistency than were the hypotheses about Appropriate Concern. A high degree of support for the construct validity of the PIAC Intrusiveness subscale was found for both mothers and fathers, and a moderate degree of support for the criterion validity of this subscale for both parents was also found, especially with respect to European American students. Most of the correlations predicted were found in these validity analyses and those that were not, often could be explained. Thus, it seems the construct of intrusiveness is being measured by the PIAC scale's Intrusiveness subscale.

Secondly, these analyses suggested that a moderate degree of support for the construct validity of the Appropriate Concern subscale was found for both mothers and fathers, but a low degree of support for the criterion validity for this subscale was found for mothers, even when controlling for culture. No support was found for the criterion validity of the paternal Appropriate Concern subscale. Some of the validity correlations expected were found, and many (but not all) that

were not found could be explained. Thus, the construct of appropriate concern appears to be tapped by the PIAC scale's Appropriate Concern subscale, but it may not be optimally assessed.

Intrusiveness versus Psychological Control

The moderate correlation between Psychological Control and Intrusiveness ($r = .51$, $p < .001$ and $r = .67$, $p < .001$ maternal and paternal respectively) indicated that they are measuring clearly related, but separate constructs. As part of the validity study of the PIAC subscales, I sought to flesh out some of the differences between psychological control and intrusiveness. To explore these two variables, I correlated both Psychological Control and Intrusiveness with all variables (see Table 15). Then, the sets of correlations were compared noting differences, for example, between the strength of the correlation of Psychological Control with Self-Efficacy, and the strength of the correlation of Intrusiveness with Self-Efficacy.

Table 15

Psychological Control versus Intrusiveness: Correlations with all Validity Variables

	MPSYCON	MPIACINT	FPSYCON	FPIACINT
MPIACINT	.51***			
FPSYCON	.19*	.20*		
FPIACINT	.15	.30***	.67***	
MPIACAC	**-.50*** **	**-.14**	-.04	-.07
FPIACAC	-.21*	-.03	**-.24****	**.00**
MATV	**-.50*** **	**-.25****	-.08	-.04
MATN	.61***	.42***	.07	.12
MPI	-.37***	-.29***	-.08	-.10
MPN	**.38*** **	**.09**	.16	.11
FATV	-.19*	-.08	**-.45*** **	**-.22****
FATN	.19*	.15	.52***	.49***
FPI	-.04	-.08	-.37***	-.37***
FPN	.27**	.17*	**.37*** **	**.15**
SECURE	-.08	-.09	-.25**	-.14
PROCC	.16	.04	.18*	.24**
DISM	.15	.22**	.12	.03
FEAR	.16	.13	.20*	.18*
SLFEFF	.02	-.01	-.00	-.19*
LOC	.03	-.03	-.04	-.04
SURGLT	.22**	.15	.12	.23**
SEPGLT	-.26**	-.06	-.16	.08
OMNGLT	.04	.09	.21*	.22*
SHGLT	.39***	.30***	.34***	.46***
INTPGLT	.01	.08	.07	.22**
AADJ	-.04	-.13	.06	-.05
SOCADJ	-.03	-.03	.05	-.09
PEADJ	-.12	-.19*	-.14	-.23**
ATTGCOM	-.07	-.07	.17*	.07
COLLADJ	-.07	-.13	.03	-.11

***p < .001 (all 2-tailed) **p < .01 *p < .05 level

Because many of the results have changed substantially when only European American students were used, the procedure just described was used when only European American students were selected as compared to when only non-European American students and biracial students were selected. Then, the procedure was performed with all participants. There were generally few differences between the psychological control versus intrusiveness comparisons when culture was controlled. Thus, only the results for the entire sample are reported. However, researchers should not assume that the results to be described shortly are always true for other cultural groups.

The three main findings were that Psychological Control was more closely related to (had higher correlations with) Authoritative parenting, Permissive-Neglectful parenting, and Appropriate Concern than was Intrusiveness for both parents (see highlighted correlations in Table 15). Although one can see that the correlations were higher for Psychological control than Intrusiveness with respect to the three variables mentioned (Authoritative parenting, Permissive-Neglectful parenting, and Appropriate Concern), were the correlations for Psychological Control significantly higher than the correlations for Intrusiveness?

To test for a significance difference between dependent (repeated measures) correlations, such as the sets of correlations of interest here, I used an eleven-step calculation method from Bruning and Kintz (1968; see example calculation in Appendix II). For the maternal variables, the difference in the correlation between Psychological Control and Authoritative parenting ($\underline{r}$ = -.50),

and the correlation between Intrusiveness and Authoritative parenting (r = -.25) was statistically significant (t = - 3.50, p < .01). This difference in respective correlations was also significant for fathers (t = - 3.76, p < .01). Therefore, Psychological Control for both parents was significantly more closely related to Authoritative parenting than was Intrusiveness.

This finding may support the previous speculation that psychological control is more severe than intrusiveness. Psychological Control was more closely related to Authoritative parenting and the relationship was in a negative direction, indicating that psychological control and authoritative parenting are closely related, but in "opposite" ways. Intrusiveness, which also had a negative relationship to Authoritative parenting, may not be correlated as highly as Psychological Control with Authoritative parenting because it does not seem as severely harmful as psychological control. If this were the case, a stronger negative correlation would be observed when Psychological Control was correlated with Authoritative parenting than when Intrusiveness was correlated with it. Thus, the finding that Psychological Control was significantly more closely related to Authoritative parenting than was Intrusiveness for both parents may suggest that psychological control is significantly more severe than intrusiveness.

The second main finding is that for mothers, the difference in the correlation between Psychological Control and Permissive-Neglectful parenting (r = .38), and the correlation between Intrusiveness and Permissive-Neglectful

parenting (r = .09) was statistically significant (t = 3.88, p < .01). The difference in respective correlations was also significant for fathers (t = 3.48, p < .01). Thus, Psychological Control was significantly more closely related to Permissive-Neglectful parenting than was Intrusiveness for both parents.

To continue with the hypothesis that intrusiveness is a less severe form of psychological control, one might speculate that permissive-neglectful parenting, a seemingly harmful type of parenting, would be more closely related to psychological control than to intrusiveness. Furthermore, because permissive-neglectful parenting is characterized by a lack of concern for the child, the fact that psychological control relates more closely to it, suggests that psychological control more than intrusiveness conveys a lack of concern.

Lastly, the difference in the correlation between maternal Psychological Control and maternal Appropriate Concern (r = - .50), and the correlation between maternal Intrusiveness and maternal Appropriate Concern (r = - .14) was statistically significant (t = - 5.14, p < .01). Again, this difference in respective correlations was also significant for fathers (t = - 3.72, p < .01). These results mean that Psychological Control was significantly more closely related to Appropriate Concern than was Intrusiveness for both parents.

The finding here suggests that intrusiveness is closer on the "concern continuum" to appropriate concern than is psychological control. In other words, intrusiveness may be a less severe form of "too much concern" than psychological control. Furthermore, intrusiveness does not necessarily demonstrate concern, nor

does it demonstrate a lack of concern. Psychological control, on the other hand, certainly demonstrates a lack of concern. Therefore, measures of psychological control would be expected to correlate more closely in a negative direction with measures of appropriate concern then would measures of intrusiveness.

What do these differences suggest about the difference between the constructs of psychological control and intrusiveness? First, in the introduction to the second study, I hypothesized that Psychological Control would not be a good measure for college students because it was designed for children and might be too far removed from the college student's experience. I speculated that Intrusiveness would serve as a better measure of parental behaviors like psychological control. If this were the case, one might expect psychological control to have weak relationships to other variables, meaning the correlations between psychological control and many of the variables would be lower than the same correlations with intrusiveness. However, I found no support for this hypothesis, and it seems that Psychological Control and Intrusiveness generally serve as equally useful measures when used with college students.

Yet, even if these two measures assess college students equally well, they relate to the other variables I used in varying degrees of strength. It appears from the results just described that intrusiveness is closer to appropriate concern on the "concern continuum" than psychological control, suggesting that psychological control may have more severe effects on college students.

General Discussion

These two studies refined and assessed the validity of a measure of parental intrusiveness and appropriate concern. The first study demonstrated a generally high degree of support for the face and content validity of the PIAC subscales. All factor analyses revealed two primary salient underlying constructs that corresponded to the Intrusiveness and Appropriate Concern subscales of the PIAC scale. The internal consistency was also high for the PIAC subscales, indicating that each subscale was strongly related to an underlying construct.

The second study revealed a moderate to high degree of support for the construct validity of the maternal and paternal Intrusiveness subscales. Of the five correlations expected with the construct validity variables (psychological control, parenting styles, and attachment styles), maternal Intrusiveness was significantly correlated with three of them, and paternal Intrusiveness was significantly correlated with four of them. Also, mild support for the criterion validity (self-efficacy, locus of control, interpersonal guilt, and college adjustment) of the Intrusiveness subscales was demonstrated. Two of the eight correlations between maternal Intrusiveness and the criterion validity variables were found, and three of the eight correlations expected were found for paternal Intrusiveness. Many of the correlations that were not found could be explained, and therefore the Intrusiveness subscales seemed to demonstrate an overall moderate degree of validity.

When only European American participants were analyzed, support for the validity of the Intrusiveness subscale for both parents increased substantially. In this case, of the five correlations expected with the construct validity variables, maternal Intrusiveness was significantly correlated with four of them, and paternal Intrusiveness was significantly correlated with them all. A high degree of support for the criterion validity of the maternal and paternal Intrusiveness subscales was found when it was used with European American students. Similarly, seven of the eight criterion validity correlations that were expected were found for the maternal Intrusiveness subscale, and four of eight (with one correlation approaching significance) were found for the paternal Intrusiveness subscale. Thus, support for the validity of the Intrusiveness subscale for both parents increased greatly when ethnicity was controlled.

A moderate degree of support was found for the construct validity of the maternal and paternal Appropriate Concern subscales. Three of the seven correlations expected with the construct validity variables were found for maternal Appropriate Concern, with a fourth approaching significance. The paternal Appropriate Concern subscale correlated with four of the seven expected construct validity correlations. Lastly, some support for the criterion validity of the maternal Appropriate Concern subscale was found, in that two of the eight correlations expected were supported. However, no support for the criterion validity of the paternal Appropriate Concern scale was demonstrated; none of the correlations expected with the criterion validity variables were found for fathers.

Some of the correlations that were not found could be explained, demonstrating more support for the construct and criterion validity of the Appropriate Concern subscales. It seems that the PIAC Appropriate Concern subscale is tapping into the construct of appropriate concern, but it may not yet be an optimal measure of appropriate concern. Further scale development is recommended and further validity analyses are essential.

Throughout the analyses there were some overall themes. First, a general comparison between maternal and paternal variables gives one the impression that paternal variables were more closely related to the other variables in the study. Many of the significant correlations between the variables explored in the second study were higher for fathers than mothers, and there were several correlations that were significant only for fathers. However, fathers seemed to have a somewhat one-dimensional relationship to college women. Reviewing the correlations, paternal *Intrusiveness* often correlated more strongly with the validity variables than did maternal Intrusiveness. For example, higher correlations were observed for paternal Intrusiveness as it related to Permissive-Neglectfulness, Fearful attachment, Preoccupied attachment, Survivor Guilt, Omnipotent-Responsibility Guilt, Self-Hate Guilt, Interpersonal Guilt, Self-Efficacy, and Personal-Emotional Adjustment than when these variables were correlated with maternal Intrusiveness. But, paternal *Appropriate Concern* often demonstrated lower correlations than maternal Appropriate Concern with the validity variables. The only two correlations that were higher for paternal than

maternal Appropriate Concern were with Separation Guilt and Interpersonal Guilt. Such observations suggest, but do not show that fathers may negatively influence several aspects of college women's lives, but may not be equally influential in positive ways. However, these are simply observations and the differences in correlational strength for mothers and fathers might be negligible. Future research might investigate the type of influence fathers have on their children as opposed to the type of influence mothers seem to have.

Second, I found that generally psychological control and intrusiveness are related, but separate constructs because psychological control was more closely related to some of the construct validity variables than was intrusiveness. Parental Psychological Control correlated significantly higher in the expected directions than parental Intrusiveness did when each was correlated with Authoritative parenting, Permissive-Neglectful parenting, and Appropriate Concern. Each of these findings suggests that psychological control is more severe than intrusiveness and may be more toward the "unconcerned" extreme of the hypothetical "concern continuum."

Third, there was a general hypothesis throughout the study that fathers are primarily involved with their children in instrumental ways and mothers are primarily involved in emotional ways. This assumption, however, needs to be explored further with respect to each finding it was used to explain during the previous discussions. Several directions for future research are suggested in these

two studies, many of which call to investigate the domains in which parents are involved with their children.

One primary limitation of the two studies reported here was the fact that much of the sample was of one ethnicity, European American. In the first study, many of the participants in the second series of factor analyses were European American (61%) and non-international students (84%). Similarly, many of the participants in the second study were European American (61%) and non-international students (89%). Therefore, the PIAC scale cannot be assumed valid for use with college students of other ethnicities. Intrusiveness may entail different behaviors in one culture versus another. It may be that cultures other than the European American culture find intrusive parenting a positive quality that may result in positive effects on college students. If factor analyses were conducted on the PIAC scale with primarily Asian, African America or any number of other cultures, different underlying constructs might be found. Considering that even the maternal and paternal factor structures were different in this sample, it is likely that there are cultural differences in the intrusiveness and appropriate concern facture structures as well. Thus, before using the PIAC scale with other cultures, the scale must be validated for them.

The two studies reported here have revealed some interesting findings, but future research is needed to clarify the affects of intrusiveness and appropriate concern on college women. First, studies should be performed that collect data from multiple sources, including friends, family members, and interviews with the

students themselves. Doing so might reveal the discussed "mismatch" between parents and students about dependency. Perhaps researchers will find that when parents and children's views about dependency do not "match" the college student experiences more negative effects in several outcome variables. Furthermore, such procedures might reveal differences in the same "intrusive" behaviors for different students. It was suggested previously that some students might enjoy objectively viewed "intrusive" behaviors, while others might dislike such behaviors. A more qualitative study that collects data from multiple sources might reveal differences in outcome variables between these two hypothesized groups of students.

Secondly, studies using objective observations of families are needed to further explore intrusiveness and appropriate concern as constructs. As was suggested previously, students' own personality characteristics and beliefs (attachment style, locus of control, etc.) may be influencing their ratings of intrusiveness and appropriate concern, possibly blurring the effects of objectively determined intrusiveness or appropriate concern behavior.

A third direction for future research is to include male students. To date, there have been no studies using the Intrusiveness or Appropriate Concern constructs with male college students. Now that a fairly robust scale has been created, especially for European American students, it is important to assess the validity of the PIAC scale among different populations. Intrusiveness and appropriate concern may affect male students differently than female students.

Fourth, this study was a preliminary validity analysis. Future validity studies need to be performed with samples of other ethnic groups using culturally verified measures. Many of the validity measures used in the present studies may not be valid for use with other cultures. For example, locus of control may be based on European American assumptions about the value of independence. Therefore, studies attempting to validate the PIAC scale for other cultures, must take into account the fact that many measures have only been validated for European American samples. Furthermore, it may be that the criterion validity expectations for the PIAC subscales are not accurate for other cultures. The PIAC scale itself may be valid for other cultures, but the validity hypotheses in the second study may not have been valid predictions for such cultures.

Finally, one aspect of validity that has not yet been assessed is the divergent validity of the PIAC subscales. Construct validity can be broken into to sub-types, convergent and divergent validity (Trochim, 2002). Some argue that one must demonstrate both convergent and divergent validity in order to establish the construct validity of a measure (Trochim, 2002). Convergent validity is the extent to which one's measure of interest shows relationships with other measures of similar constructs. To assess convergent validity one looks for moderate to high correlations between one's measure and measures of similar constructs as a way to demonstrate that each measure is corresponding or converging on a similar construct. The validity question is, "Are measures that assess similar constructs actually statistically similar?" The construct validity analyses performed in this

study were used to support the convergent validity of the PIAC subscales. Thus, to apply this terminology to the second study, I have demonstrated a moderate to high degree of support for the convergent construct validity of the PIAC subscales for both mothers and fathers.

Divergent validity is the extent to which one's measure does not relate to, or diverges from, dissimilar measures (Trochim, 2002). This validity question is, "Are measures of unrelated or dissimilar constructs actually unrelated statistically?" Keep in mind that being unrelated suggests one finds no positive or negative correlation between two measures. Divergent validity was not assessed in these analyses but from my results there are several hypotheses I can recommend for future validity studies on the PIAC subscales.

First, from my analyses I found that Intrusiveness was nearly unrelated to Permissive-Neglectfulness for both parents ($\underline{r}$ = .09, $\underline{p}$ = ns and $\underline{r}$ = .15, $\underline{p}$ = ns for maternal and paternal respectively). Permissive-neglectful parents in one sense are highly related to intrusive parents in that both "types" of parents are highly unresponsive to their children's needs. Such parents might disregard their children's needs and intrude into their children's physical and emotional life as a means to satisfy some of their own needs. However, permissive-neglectful parents might not intrude at all, but they might be truly neglectful in their parenting, caring little for their children. Second, I also found that Appropriate Concern was nearly unrelated to Permissive-Indulgence for both parents ($\underline{r}$ = .09, $\underline{p}$ = ns and $\underline{r}$ = .09, $\underline{p}$ = ns for maternal and paternal respectively). In one way,

permissive-indulgent parenting is highly related to appropriate concern in that both parenting behaviors demonstrate high responsiveness to their children. However, permissive-indulgent parents try to avoid controlling their children, while parents who demonstrate appropriate concern would not avoid controlling their children to some extent. Thus, a researcher might predict that Appropriate Concern should be unrelated to Permissive-Indulgent parenting, while Intrusiveness should be unrelated to Permissive-Neglectful parenting.

A third potential divergent validity hypothesis is that intrusiveness may be unrelated to acceptance. It seems possible that intrusive parents could be accepting of their children, while other intrusive parents may not be. Fourth, appropriate concern might imply some type of synchrony in the parent-child relationship, but it seems possible for parents who exhibit appropriate concern could also be "out of sync" with their children. Therefore, future studies might investigate whether appropriate concern is actually unrelated to synchronized parent-child relationships. Speculations such as these might be future directions to demonstrate the divergent construct validity of the PIAC subscales.

In conclusion, the face and content validity for the PIAC subscales have been supported. The construct validity of the PIAC scale was generally supported for this sample, and was highly supported for a European American sub-sample. The criterion validity of the Intrusiveness subscale has generally been supported when the scale is used with European American students. However, further

studies are needed to demonstrate more support for the criterion validity of the Appropriate Concern scale.

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Appendix A

Intrusiveness/Appropriate Concern Scale (Brown, 2004)

1---------- 2---------- 3---------- 4---------- 5

Never Often

MOTHER:

1) My mother expresses appropriate concern about my health. (AC)

2) My mother gets upset if she is not involved in my day-to day decisions. (I)

3) My mother is interested in reading papers I have written for school. (AC)

4) In an emergency, my mother is willing to help me financially. (AC)

5) My mother enters my room without knocking. (I)

6) My mother worries appropriately about my drinking and drug activities. (AC)

7) My mother makes comments about how to change my room. (I)

8) My mother goes through my bureau drawers at home. (I)

9) If I do poorly on a major academic test, my mother is appropriately concerned. (AC)

10) My mother surprises me with gifts. (AC)

11) My mother does not like it when I express opinions that are different from hers. (I)

12) My mother is interested in hearing about whether I'm enjoying my academic work at college. (AC)

13) My mother is willing to help me if I ever need her. (AC)

14) My mother reads my personal papers and mail. (I)

15) If I have exciting news, my mother is interested in hearing about it. (AC)

16) My mother is interested in spending time with my friends. (AC)

17) My mother asks to hear about things that I don't find interesting. (I)

18) My mother is interested in helping me with my financial planning. (AC)

19) My mother gives unsolicited advice about my relationships. (I)

20) My mother inquires about my bodily functions. (I)

21) If something bad happens to me in college, my mother is interested in hearing about it. (AC)

22) My mother is happy to let me make decisions on my own. (AC)

23) When my mother wants to talk to me, I feel that I should, or she would be upset with me. (I)

24) My mother confides in me about problems in her personal life. (I)

25) My mother tells me how I feel about things before I have said anything on the topic. (I)

26) If something bad happens to me in college, my mother expects me to talk with her about it. (I)

27) My mother is interested in what I am thinking and feeling. (AC)

28) My mother tells me what things I should like or be interested in. (I)

29) My mother is overly concerned about my weight. (I)

30) My mother expects me to act in a certain way when I'm in public with her. (I)

31) My mother comments critically about the clothes I wear. (I)

32) My mother is interested in whether I am eating enough or too much. (AC)

33) My mother tells me how I should spend my money. (I)

34) My mother is interested in hearing about my personal relationships. (AC)

35) My mother gives advice about how to improve my looks. (I)

36) My mother is interested in hearing about things that matter to me. (AC)

37) If I have a major setback, my mother is appropriately concerned. (AC)

38) My mother is involved in my course selections at school. (I)

39) My mother is interested in hearing about my performance in school. (AC)

40) My mother offers me advice when I don't need it. (I)

41) My mother is overly critical of my friends. (I)

42) My mother is interested in hearing about my social activities at college. (AC)

43) My mother visits me more often than I would like. (I)

44) My mother expresses her opinion on my career choices. (I)

45) My mother is happy for me when I accomplish something on my own that I am proud of. (AC)

46) My mother inquires about my sex life. (I)

47) My mother calls me more often than I would like. (I)

48) My mother is interested in helping me when I'm stressed out. (AC)

49) My mother treats me like a personal friend. (I)

FATHER*:

*All items are exactly the same for fathers as they were for mothers (including order and wording), but the word "father" replaced "mother" and male pronouns were used.

Note: The subscales include: Intrusiveness (I) and Appropriate Concern (AC).

Appendix B

Modified Intrusiveness/ Appropriate Concern Scale (Brown, 2004) Used in the First Study

I am working with Professor Shilkret on a research project about parenting and its effects on college students. This survey is part of a pilot study that we are using to gain feedback on a measure we intend to use as part of my thesis. We want to know what students at MHC consider intrusive parental behavior as opposed to parental behavior the shows appropriate concern. Please use whatever definitions of "intrusive" or "appropriate concern" that seem appropriate to you. The results of this survey will help us determine the direction we take in my senior thesis. Thus, please read each item carefully and take time to think about your answers. When reading the questions, think about how you would view a parent who behaved in the ways described. Each item asks you to rate the parental behavior on a scale of 1-9 (1 being intrusive and 9 being appropriately concerned). There are identical questions for mothers and fathers. The section on fathers follows that on mothers.

1------- 2------- 3------- 4------- 5------- 6------- 7------- 8------- 9

Intrusive Appropriate

MOTHER:

1) My mother expresses appropriate concern about my health.
2) My mother gets upset if she is not involved in my day-to day decisions.
3) My mother is interested in reading papers I have written for school.
4) In an emergency, my mother is willing to help me financially.
5) My mother enters my room without knocking.
6) My mother worries appropriately about my drinking and drug activities.
7) My mother makes comments about how to change my room.
8) My mother goes through my bureau drawers at home.

9) If I do poorly on a major academic test, my mother is appropriately concerned.

10) My mother surprises me with gifts.

11) My mother does not like it when I express opinions that are different from hers.

12) My mother is interested in hearing about whether I'm enjoying my academic work at college.

13) My mother is willing to help me if I ever need her.

14) My mother reads my personal papers and mail.

15) If I have exciting news, my mother is interested in hearing about it.

16) My mother is interested in spending time with my friends.

17) My mother asks to hear about things that I don't find interesting.

18) My mother is interested in helping me with my financial planning.

19) My mother gives unsolicited advice about my relationships.

20) My mother inquires about my bodily functions.

21) If something bad happens to me in college, my mother is interested in hearing about it.

22) My mother is happy to let me make decisions on my own.

23) When my mother wants to talk to me, I feel that I should, or she would be upset with me.

24) My mother confides in me about problems in her personal life.

25) My mother tells me how I feel about things before I have said anything on the topic.

26) If something bad happens to me in college, my mother expects me to talk with her about it.

27) My mother is interested in what I am thinking and feeling.

28) My mother tells me what things I should like or be interested in.

29) My mother is overly concerned about my weight.

30) My mother expects me to act in a certain way when I'm in public with her.

31) My mother comments critically about the clothes I wear.

32) My mother is interested in whether I am eating enough or too much.

33) My mother tells me how I should spend my money.

34) My mother is interested in hearing about my personal relationships.

35) My mother gives advice about how to improve my looks.

36) My mother is interested in hearing about things that matter to me.

37) If I have a major setback, my mother is appropriately concerned.

38) My mother is involved in my course selections at school.

39) My mother is interested in hearing about my performance in school.

40) My mother offers me advice when I don't need it.

41) My mother is overly critical of my friends.

42) My mother is interested in hearing about my social activities at college.

43) My mother visits me more often than I would like.

44) My mother expresses her opinion on my career choices.

45) My mother is happy for me when I accomplish something on my own that I am proud of.

46) My mother inquires about my sex life.

47) My mother calls me more often than I would like.

48) My mother is interested in helping me when I'm stressed out.

49) My mother treats me like a personal friend.

FATHER*:

*** A second section that was exactly the same followed but wording was changed to ask about fathers instead of mothers. The question below was the last question in the survey.**

Are there any intrusive or appropriate parental behaviors that were not mentioned? Please list those behaviors that you feel are missing from this measure.

College Class Year _____

THANK YOU!

Appendix C

New Items for Brown's Intrusiveness/ Appropriate Concern Scale

50) My mother/father supports my religious/spiritual beliefs without imposing her/his beliefs onto me. (AC)

51) My mother/father is supportive of my interests, even when she/he is not interested in the same things. (AC)

52) My mother/father is interested to hear about my daily routine and does not try to tell me when I should do things. (AC)

53) My mother/father asks my friends or family about aspects of my personal life. (I)

54) My mother/father encourages me in my career choices without trying to impose her/his own wishes on me. (AC)

55) My mother/father tends to exaggerate my problems and then get overly involved trying to help me with them. (I)

Appendix D

PIAC Scale and Factor Loadings for Mothers and Fathers

Maternal Data - Factor 1 (Appropriate Concern Subscale)

Item #	New Subscale Items	Factor Loadings	M	SD
36	My mother is interested in hearing about things that matter to me. (AC)	.91	4.40	.90
13	My mother is willing to help me if I ever need her. (AC)	.83	4.78	.55
37	If I have a major setback, my mother is appropriately concerned. (AC)	.81	4.46	.89
12	My mother is interested in hearing about whether I'm enjoying my academic work at college. (AC)	.78	4.48	.68
15	If I have exciting news, my mother is interested in hearing about it. (AC)	.77	4.64	.78
51	My mother is supportive of my interests, even when she is not interested in the same things. (AC)*	.77	4.04	1.03
27	My mother is interested in what I am thinking and feeling. (AC)	.76	4.14	.97
45	My mother is happy for me when I accomplish something on my own that I am proud of. (AC)	.68	4.66	.72
48	My mother is interested in helping me when I'm stressed out. (AC)	.66	4.04	.99
34	My mother is interested in hearing about my personal relationships. (AC)	.66	3.60	1.20
39	My mother is interested in hearing about my performance in school. (AC)	.65	4.48	.74
49	My mother treats me like a personal friend. (I)	.64	3.52	1.20
21	If something bad happens to me in college, my mother is interested in hearing about it. (AC)	.64	4.54	.76
42	My mother is interested in hearing about my social activities at college. (AC)	.63	3.92	1.08
3	My mother is interested in reading papers I have written for school. (AC)	.62	2.94	1.35

Item #	New Subscale Items	Factor Loadings	M	SD
52	My mother is interested to hear about my daily routine and does not try to tell me when I should do things. (AC)*	.60	3.52	1.16
11	My mother does not like it when I express opinions that are different from hers. (I)	-.59	2.36	1.14
16	My mother is interested in spending time with my friends. (AC)	.59	3.40	1.12
18	My mother is interested in helping me with my financial planning. (AC)	.57	4.02	1.19
54	My mother encourages me in my career choices without trying to impose her own wishes on me. (AC)*	.56	3.72	1.07
9	If I do poorly on a major academic test, my mother is appropriately concerned. (AC)	.56	4.02	.98
50	My mother supports my religious/spiritual beliefs without imposing her beliefs onto me. (AC)*	.52	3.70	1.30

Maternal Data - Factor 2 (Intrusiveness Subscale)

Item #	New Subscale Items	Factor Loadings	M	SD
2	My mother gets upset if she is not involved in my day-to day decisions. (I)	.67	2.68	1.13
41	My mother is overly critical of my friends. (I)	.64	2.06	1.02
33	My mother tells me how I should spend my money. (I)	.64	2.44	1.16
20	My mother inquires about my bodily functions. (I)	.63	3.06	1.39
32	My mother is interested in whether I am eating enough or too much. (AC)	.62	3.36	1.34
14	My mother reads my personal papers and mail. (I)	.57	1.94	1.19
7	My mother makes comments about how to change my room. (I)	.54	2.48	1.34
8	My mother goes through my bureau drawers at home. (I)	.54	2.16	1.25
23	When my mother wants to talk to me, I feel that I should, or she would be upset with me. (I)	.53	2.98	1.30
31	My mother comments critically about the clothes I wear. (I)	.53	2.24	1.29
5	My mother enters my room without knocking. (I)	.52	2.96	1.37
44	My mother expresses her opinion on my career choices. (I)	.51	3.44	1.09
29	My mother is overly concerned about my weight. (I)	.50	2.16	1.15
17	My mother asks to hear about things that I don't find interesting. (I)	.48	3.08	1.08
26	If something bad happens to me in college, my mother expects me to talk with her about it. (I)	.48	3.48	1.21
47	My mother calls me more often than I would like. (I)	.48	2.30	1.25
28	My mother tells me what things I should like or be interested in. (I)	.48	2.20	.95
35	My mother gives advice about how to improve my looks. (I)	.47	2.32	1.19

Item #	New Subscale Items	Factor Loadings	M	SD
46	My mother inquires about my sex life. (I)	.44	1.92	1.16
55	My mother tends to exaggerate my problems and then get overly involved trying to help me with them. (I)*	.44	2.38	1.40

Paternal Data - Factor 1 (Appropriate Concern)

Item #	New Subscale Items	Factor Loadings	M	SD
37	If I have a major setback, my father is appropriately concerned. (AC)	.89	4.28	.95
15	If I have exciting news, my father is interested in hearing about it. (AC)	.87	4.38	.97
36	My father is interested in hearing about things that matter to me. (AC)	.86	4.24	1.00
12	My father is interested in hearing about whether I'm enjoying my academic work at college. (AC)	.84	4.30	1.07
27	My father is interested in what I am thinking and feeling. (AC)	.83	3.84	1.06
13	My father is willing to help me if I ever need him. (AC)	.82	4.54	.79
48	My father is interested in helping me when I'm stressed out. (AC)	.80	3.76	1.24
42	My father is interested in hearing about my social activities at college. (AC)	.77	3.34	1.30
52	My father is interested to hear about my daily routine and does not try to tell me when I should do things. (AC)*	.74	3.36	1.26
9	If I do poorly on a major academic test, my father is appropriately concerned. (AC)	.73	4.12	1.14
39	My father is interested in hearing about my performance in school. (AC)	.72	4.54	.81
21	If something bad happens to me in college, my father is interested in hearing about it. (AC)	.71	4.08	1.07
4	In an emergency, my father is willing to help me financially. (AC)	.70	4.44	.93
45	My father is happy for me when I accomplish something on my own that I am proud of. (AC)	.70	4.72	.70
26	If something bad happens to me in college, my father expects me to talk with him about it. (I)	.67	3.30	1.22
18	My father is interested in helping me with my financial planning. (AC)	.67	3.94	1.19

Item #	New Subscale Items	Factor Loadings	M	SD
51	My father is supportive of my interests, even when he is not interested in the same things. (AC)*	.62	3.90	1.13
3	My father is interested in reading papers I have written for school. (AC)	.61	3.12	1.56
54	My father encourages me in my career choices without trying to impose his own wishes on me. (AC)*	.61	3.70	1.25
49	My father treats me like a personal friend. (I)	.56	2.72	1.29

Paternal Data - Factor 2 (Intrusiveness)

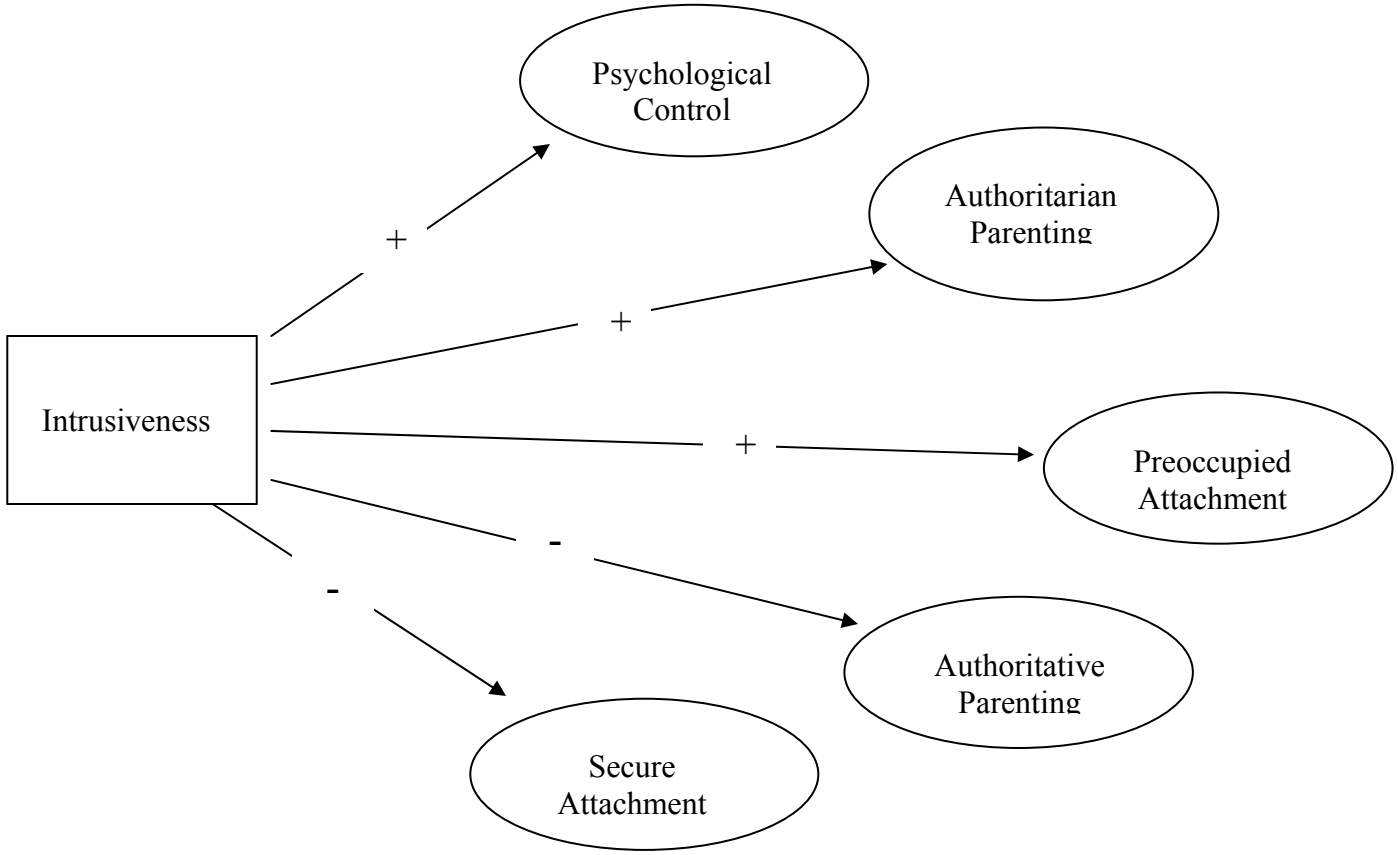
Item #	New Subscale Items	Factor Loadings	M	SD
22	My father is happy to let me make decisions on my own. (AC)	-.76	4.23	1.14
40	My father offers me advice when I don't need it. (I)	.66	2.20	1.36
29	My father is overly concerned about my weight. (I)	.63	1.44	.97
14	My father reads my personal papers and mail. (I)	.63	1.46	1.03
11	My father does not like it when I express opinions that are different from his. (I)	.61	1.98	1.19
28	My father tells me what things I should like or be interested in. (I)	.61	1.84	1.02
33	My father tells me how I should spend my money. (I)	.60	2.26	1.26
31	My father comments critically about the clothes I wear. (I)	.57	1.52	.93
23	When my father wants to talk to me, I feel that I should, or he would be upset with me. (I)	.57	2.66	1.39
5	My father enters my room without knocking. (I)	.54	1.84	1.22
30	My father expects me to act in a certain way when I'm in public with him. (I)	.53	2.02	1.24
55	My father tends to exaggerate my problems and then get overly involved trying to help me with them. (I)*	.52	1.82	1.24
8	My father goes through my bureau drawers at home. (I)	.51	1.12	.52
41	My father is overly critical of my friends. (I)	.48	1.50	.79
19	My father gives unsolicited advice about my relationships. (I)	.46	1.58	.97
25	My father tells me how I feel about things before I have said anything on the topic. (I)	.44	1.76	1.15

*Indicates items that were added from the first study's content analysis.

(AC) Appropriate Concern; (I) Intrusiveness

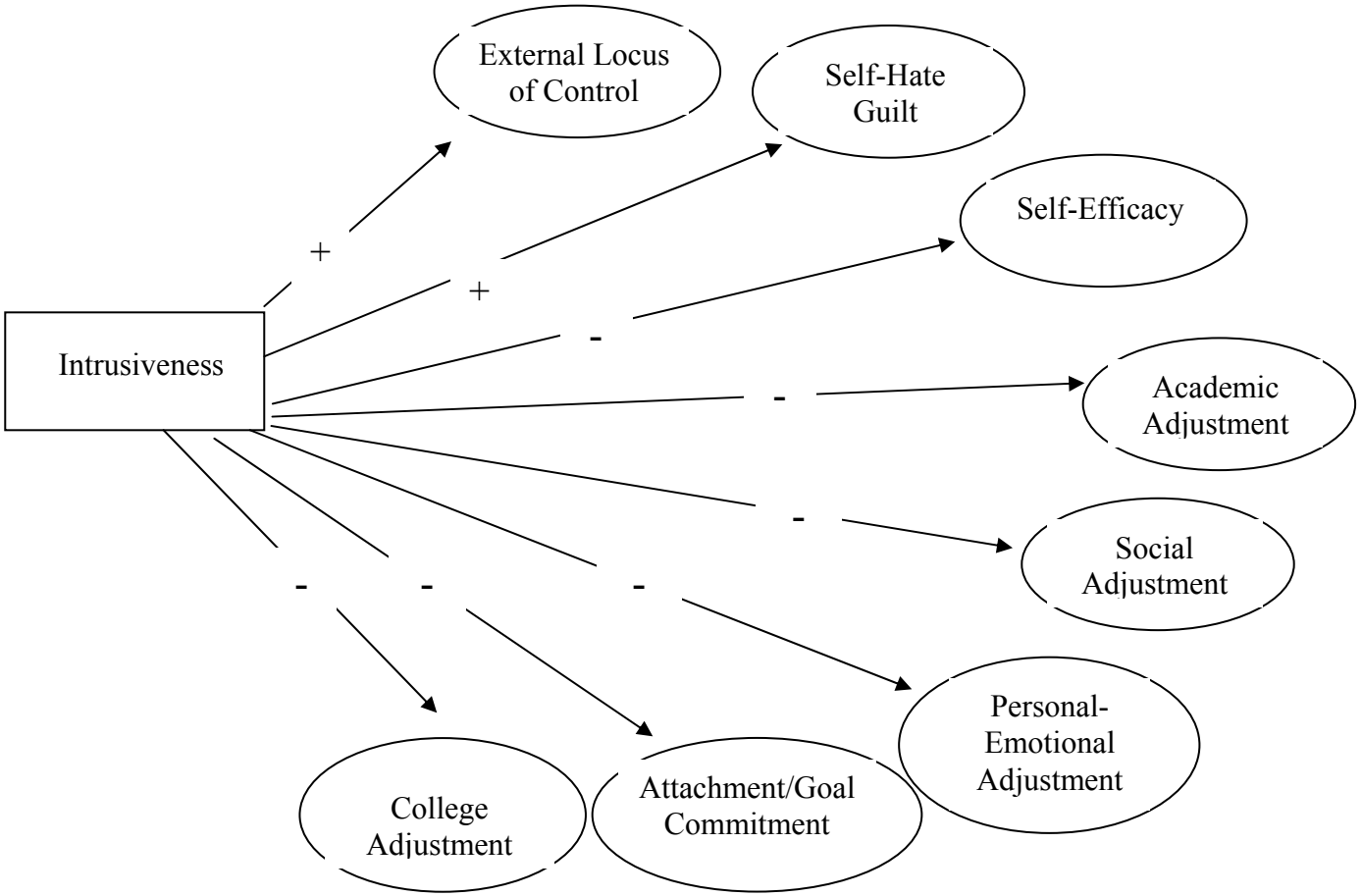
Appendix E

Hypothesized Construct Validity Correlations – Intrusiveness



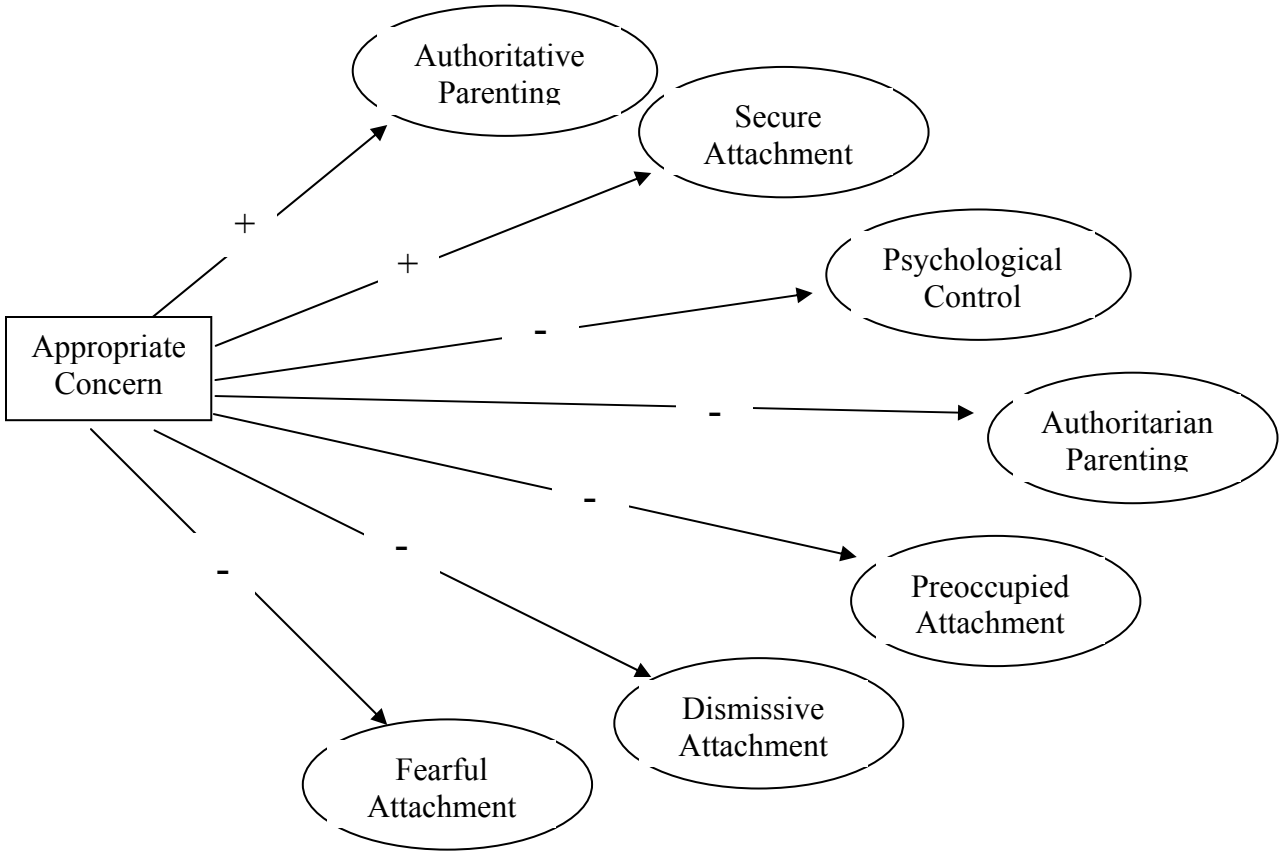
Appendix F

Hypothesized Criterion Validity Correlations - Intrusiveness



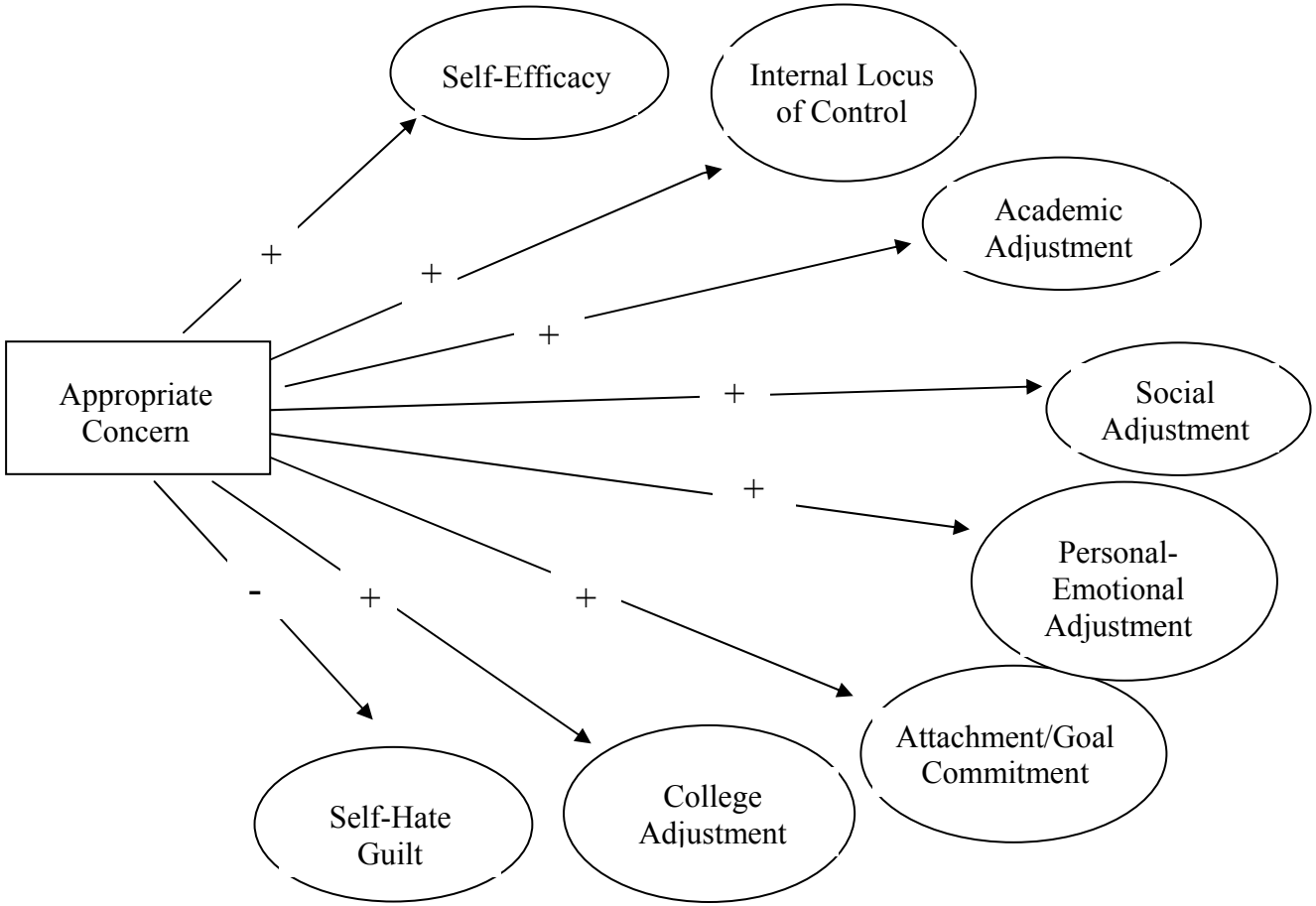
Appendix G

Hypothesized Construct Validity Correlations – Appropriate Concern



Appendix H

Hypothesized Criterion Validity Correlations – Appropriate Concern



Appendix I

Parental Intrusiveness versus Appropriate Concern Scale (PIAC)

1---------- 2---------- 3---------- 4---------- 5

Never Often

1) My mother gets upset if she is not involved in my day-to day decisions. (I)

2) My mother is interested in reading papers I have written for school. (AC)

3) My mother enters my room without knocking. (I)

4) My mother makes comments about how to change my room. (I)

5) My mother goes through my bureau drawers at home. (I)

6) If I do poorly on a major academic test, my mother is appropriately concerned. (AC)

7) My mother does not like it when I express opinions that are different from hers. (AC - Reverse scored)

8) My mother is interested in hearing about whether I'm enjoying my academic work at college. (AC)

9) My mother is willing to help me if I ever need her. (AC)

10) My mother reads my personal papers and mail. (I)

11) If I have exciting news, my mother is interested in hearing about it. (AC)

12) My mother is interested in spending time with my friends. (AC)

13) My mother asks to hear about things that I don't find interesting. (I)

14) My mother is interested in helping me with my financial planning. (AC)

15) My mother inquires about my bodily functions. (I)

16) If something bad happens to me in college, my mother is interested in hearing about it. (AC)

17) When my mother wants to talk to me, I feel that I should, or she would be upset with me. (I)

18) If something bad happens to me in college, my mother expects me to talk with her about it. (I)

19) My mother is interested in what I am thinking and feeling. (AC)

20) My mother tells me what things I should like or be interested in. (I)

21) My mother is overly concerned about my weight. (I)

22) My mother comments critically about the clothes I wear. (I)

23) My mother is interested in whether I am eating enough or too much. (I)

24) My mother tells me how I should spend my money. (I)

25) My mother is interested in hearing about my personal relationships. (AC)

26) My mother gives advice about how to improve my looks. (I)

27) My mother is interested in hearing about things that matter to me. (AC)

28) If I have a major setback, my mother is appropriately concerned. (AC)

29) My mother is interested in hearing about my performance in school. (AC)

30) My mother is overly critical of my friends. (I)

31) My mother is interested in hearing about my social activities at college. (AC)

32) My mother expresses her opinion on my career choices. (I)

33) My mother is happy for me when I accomplish something on my own that I am proud of. (AC)

34) My mother inquires about my sex life. (I)

35) My mother calls me more often than I would like. (I)

36) My mother is interested in helping me when I'm stressed out. (AC)

37) My mother treats me like a personal friend. (AC)

38) My mother supports my religious/spiritual beliefs without imposing her beliefs onto me. (AC)*

39) My mother is supportive of my interests, even when she is not interested in the same things. (AC)*

40) My mother is interested to hear about my daily routine and does not try to tell me when I should do things. (AC)*

41) My mother encourages me in my career choices without trying to impose her own wishes on me. (AC)*

Father:

1) My father is interested in reading papers I have written for school. (AC)

2) In an emergency, my father is willing to help me financially. (AC)

3) My father enters my room without knocking. (I)

4) My father goes through my bureau drawers at home. (I)

5) If I do poorly on a major academic test, my father is appropriately concerned. (AC)

6) My father does not like it when I express opinions that are different from his. (I)

7) My father is interested in hearing about whether I'm enjoying my academic work at college. (AC)

8) My father is willing to help me if I ever need him. (AC)

9) My father reads my personal papers and mail. (I)

10) If I have exciting news, my father is interested in hearing about it. (AC)

11) My father is interested in helping me with my financial planning. (AC)

12) My father gives unsolicited advice about my relationships. (I)

13) If something bad happens to me in college, my father is interested in hearing about it. (AC)

14) My father is happy to let me make decisions on my own. (I – Reverse scored)

15) When my father wants to talk to me, I feel that I should, or he would be upset with me. (I)

16) My father tells me how I feel about things before I have said anything on the topic. (I)

17) If something bad happens to me in college, my father expects me to talk with him about it. (AC)

18) My father is interested in what I am thinking and feeling. (AC)

19) My father tells me what things I should like or be interested in. (I)

20) My father is overly concerned about my weight. (I)

21) My father expects me to act in a certain way when I'm in public with him. (I)

22) My father comments critically about the clothes I wear. (I)

23) My father tells me how I should spend my money. (I)

24) My father is interested in hearing about things that matter to me. (AC)

25) If I have a major setback, my father is appropriately concerned. (AC)

26) My father is interested in hearing about my performance in school. (AC)

27) My father offers me advice when I don't need it. (I)

28) My father is overly critical of my friends. (I)

29) My father is interested in hearing about my social activities at college. (AC)

30) My father is happy for me when I accomplish something on my own that I am proud of. (AC)

31) My father is interested in helping me when I'm stressed out. (AC)

32) My father treats me like a personal friend. (AC)

33) My father is supportive of my interests, even when he is not interested in the same things. (AC)*

34) My father is interested to hear about my daily routine and does not try to tell me when I should do things. (AC)*

35) My father encourages me in my career choices without trying to impose his own wishes on me. (AC)*

36) My father tends to exaggerate my problems and then get overly involved trying to help me with them. (I)*

Note: PIAC subscales are indicated as follows: Intrusiveness (I) and Appropriate Concern (AC). *Indicates added items after the first study.

Appendix J

Psychological Control Scale – Youth Self-Report (PCS-YSR, Barber, 1996)

1 = Not like her/him; 2 = Somewhat like her/him; 3 = A lot like her/him

My mother/father is a person who….

1. changes the subject, whenever I have something to say.
2. finishes my sentences whenever I talk.
3. often interrupts me.
4. acts like she/he knows what I'm thinking or feeling.
5. would like to be able to tell me how to feel or think about things all the time.
6. is always trying to change how I feel or think about things.
7. blames me for other family members' problems.
8. brings up my past mistakes when she/he criticizes me.

Appendix K

Parental Authority Questionnaire (PAQ, Edwards, 1997)

1----------2----------3----------4----------5

Strongly Disagree	Disagree	Undecided	Agree	Strongly Agree

Mother:

1. While I was growing up my mother felt that in a well-run home the children should have their way in the family as often as the parents do. (P-I)
2. Even if her children didn't agree with her, my mother felt that is was for our own good if we were forced to conform to what she thought was right. (ATN)
3. My mother tried to minimize her involvement in parenting tasks. (P-N)
4. Whenever my mother told me to do something as I was growing up, she expected me to do it immediately without asking any questions. (ATN)
5. As I was growing up, once my family policy had been established, my mother discussed the reasoning behind the policy with the children in the family. (ATV)
6. As I was growing up, my mother was uninvolved in my life and she took little notice of what I did. (P-N)
7. My mother always encouraged verbal give-and-take whenever I felt that family rules and restrictions were unreasonable. (ATV)
8. My mother has always felt that what children need is to be free to make up their own minds and to do what they want to do, even if this does not agree with what their parents might want. (P-I)
9. As I was growing up my mother did not allow me to question any decision she had made. (ATN)

10. As I was growing up, my mother rarely listened to me and she rarely paid attention to what I said. (P-N)
11. As I was growing up my mother directed the activities and decisions of the children in the family through reasoning and discipline. (ATV)
12. My mother has always felt that more force should be used by parents in order to get their children to behave the way they are supposed to. (ATN)
13. As I was growing up my mother did not feel that I needed to obey rules and regulations of behavior simply because someone in authority had established them. (P-I)
14. As I was growing up I knew what my mother expected of me in my family, but I also felt free to discuss those expectations with my mother when I felt that they were unreasonable. (ATV)
15. As I was growing up, my mother was unresponsive to me and we rarely spoke about things that were important to me. (P-N)
16. My mother felt that wise parents should teach their children early just who is boss in the family. (ATN)
17. As I was growing up, my mother seldom gave me expectations and guidelines for my behavior since she believed that I should be able to make up my own mind. (P-I)
18. Most of the time as I was growing up my mother did what the children in the family wanted when making family decisions. (P-I)
19. As the children in my family were growing up, my mother consistently gave us direction and guidance in rational and objective ways. (ATV)
20. As I was growing up, my mother rarely bothered to set rules for me or issue guidelines. (P-N)
21. As I was growing up my mother would get very upset if I tried to disagree with her. (ATN)

22. My mother feels that most problems in society would be solved if parents would not restrict their children's activities, decisions, and desires as they are growing up. (P-I)
23. As I was growing up my mother let me know what behavior she expected of me, and if I didn't meet those expectations, she punished me. (ATN)
24. As I was growing up my mother allowed me to decide most things for myself without a lot of direction from her. (P-I)
25. As I was growing up my mother took the children's opinions into consideration when making family decisions, but she would not decide for something simply because the children wanted it. (ATV)
26. As I was growing up, my mother was cold and unsupportive in most of my endeavors. (P-N)
27. My mother did not view herself as responsible for directing and guiding my behavior as I was growing up – she felt that this was my responsibility. (P-I)
28. My mother had clear standards of behavior for the children in our home as I was growing up, but she was willing to adjust those standards to the needs of each of the individual children in the family. (ATV)
29. As I was growing up, my mother ignored me. (P-N)
30. My mother gave me direction for my behavior and activities as I was growing up and she expected me to follow her direction, but she was always willing to listen to my concerns and to discuss that direction with me. (ATV)
31. My mother rarely noticed the way I acted or behaved. (P-N)
32. As I was growing up my mother allowed me to form my own point of view on family matters and she generally allowed me to decide for myself what I was going to do. (P-I)

33. My mother has always felt that most problems in society would be solved if we could get parents to strictly and forcibly deal with their children when they don't do as they're supposed to as they are growing up. (ATN)
34. My mother was more interested in her own concerns than in my concerns. (P-N)
35. As I was growing up my mother often told me exactly what she wanted me to do and how she expected me to do it. (ATN)
36. As I was growing up my mother gave me clear direction for my behaviors and activities, but she was also understanding when I disagreed with her. (ATV)
37. As I was growing up my mother did not direct the behaviors, activities, and desires of the children in the family because she felt that we should decide these things for ourselves. (P-I)
38. As I was growing up I knew what my mother expected of me in the family and she insisted that I conform to those expectation simply out of respect for her authority. (ATN)
39. As I was growing up, my mother seldom knew where I was or what I was doing. (P-N)
40. As I was growing up, if my mother made a decision in the family that hurt me, she was willing to discuss that decision with me and to admit it if she had made a mistake. (ATV)

Father:

1. While I was growing up my father felt that in a well-run home the children should have their way in the family as often as the parents do. (P-I)
2. Even if his children didn't agree with him, my father felt that is was for our own good if we were forced to conform to what he thought was right. (ATN)
3. My father tried to minimize his involvement in parenting tasks. (P-N)

4. Whenever my father told me to do something as I was growing up, he expected me to do it immediately without asking any questions. (ATN)
5. As I was growing up, once my family policy had been established, my father discussed the reasoning behind the policy with the children in the family. (ATV)
6. As I was growing up, my father was uninvolved in my life and he took little notice of what I did. (P-N)
7. My father always encouraged verbal give-and-take whenever I felt that family rules and restrictions were unreasonable. (ATV)
8. My father has always felt that what children need is to be free to make up their own minds and to do what they want to do, even if this does not agree with what their parents might want. (P-I)
9. As I was growing up my father did not allow me to question any decision he had made. (ATN)
10. As I was growing up, my father rarely listened to me and he rarely paid attention to what I said. (P-N)
11. As I was growing up my father directed the activities and decisions of the children in the family through reasoning and discipline. (ATV)
12. My father has always felt that more force should be used by parents in order to get their children to behave the way they are supposed to. (ATN)
13. As I was growing up my father did not feel that I needed to obey rules and regulations of behavior simply because someone in authority had established them. (P-I)
14. As I was growing up I knew what my father expected of me in my family, but I also felt free to discuss those expectations with my father when I felt that they were unreasonable. (ATV)
15. As I was growing up, my father was unresponsive to me and we rarely spoke about things that were important to me. (P-N)

16. My father felt that wise parents should teach their children early just who is boss in the family. (ATN)
17. As I was growing up, my father seldom gave me expectations and guidelines for my behavior since he believed that I should be able to make up my own mind. (P-I)
18. Most of the time as I was growing up my father did what the children in the family wanted when making family decisions. (P-I)
19. As the children in my family were growing up, my father consistently gave us direction and guidance in rational and objective ways. (ATV)
20. As I was growing up, my father rarely bothered to set rules for me or issue guidelines. (P-N)
21. As I was growing up my father would get very upset if I tried to disagree with him. (ATN)
22. My father feels that most problems in society would be solved if parents would not restrict their children's activities, decisions, and desires as they are growing up. (P-I)
23. As I was growing up my father let me know what behavior he expected of me, and if I didn't meet those expectations, he punished me. (ATN)
24. As I was growing up my father allowed me to decide most things for myself without a lot of direction from him. (P-I)
25. As I was growing up my father took the children's opinions into consideration when making family decisions, but he would not decide for something simply because the children wanted it. (ATV)
26. As I was growing up, my father was cold and unsupportive in most of my endeavors. (P-N)
27. My father did not view himself as responsible for directing and guiding my behavior as I was growing up – he felt that this was my responsibility. (P-I)

28. My father had clear standards of behavior for the children in our home as I was growing up, but he was willing to adjust those standards to the needs of each of the individual children in the family. (ATV)
29. As I was growing up, my father ignored me. (P-N)
30. My father gave me direction for my behavior and activities as I was growing up and he expected me to follow his direction, but he was always willing to listen to my concerns and to discuss that direction with me. (ATV)
31. My father rarely noticed the way I acted or behaved. (P-N)
32. As I was growing up my father allowed me to form my own point of view on family matters and he generally allowed me to decide for myself what I was going to do. (P-I)
33. My father has always felt that most problems in society would be solved if we could get parents to strictly and forcibly deal with their children when they don't do as they're supposed to as they are growing up. (ATN)
34. My father was more interested in his own concerns than in my concerns. (P-N)
35. As I was growing up my father often told me exactly what he wanted me to do and how he expected me to do it. (ATN)
36. As I was growing up my father gave me clear direction for my behaviors and activities, but he was also understanding when I disagreed with him. (ATV)
37. As I was growing up my father did not direct the behaviors, activities, and desires of the children in the family because he felt that we should decide these things for ourselves. (P-I)
38. As I was growing up I knew what my father expected of me in the family and he insisted that I conform to those expectation simply out of respect for his authority. (ATN)

39. As I was growing up, my father seldom knew where I was or what I was doing. (P-N)
40. As I was growing up, if my father made a decision in the family that hurt me, he was willing to discuss that decision with me and to admit it if he had made a mistake. (ATV)

Note: Parenting style subscales are indicated as follows: Permissive-Indulgent (P-I), Authoritarian (ATN), Authoritative (ATV), and Permissive-Neglectful (P-N).

Appendix L

Relationship Questionnaire (Bartholomew & Horowitz, 1991)

1----------2----------3----------4----------5----------6----------7

Not at all like me	Somewhat un-like me	Somewhat like me	Very much like me

1. I am comfortable without close emotional relationships. It is very important to me to feel independent and self-sufficient, and I prefer not to depend on others or have others depend on me. *(Dismissing)*
2. I am uncomfortable getting close to others. I want emotionally close relationships, but I find it difficult to trust others completely, or to depend on them. I worry that I will be hurt if I allow myself to become too close to others. *(Fearful)*
3. It is easy for me to become emotionally close to others. I am comfortable depending on others and having others depend on me. I don't worry about being alone or having others not accept me. *(Secure)*
4. I want to be completely emotionally intimate with others, but I often find that others are reluctant to get as close as I would like. I am uncomfortable being without close relationships. But I sometimes worry that others don't value me as much as I value them. *(Preoccupied)*

Appendix M

Perceived Self-Efficacy Scale

(PSE, Hoeltje, Zubrick, Silburn, & Garton, 1996, in Brown, 2004)

1---------- 2---------- 3---------- 4---------- 5

Not at all sure Very sure

1. How sure are you that you will manage well when you meet a person for the first time?
2. How sure are you that you will manage well when you do something for the first time?
3. How sure are you that you will manage well when you visit a place you don't know anything about?
4. How sure are you that you will manage well when you travel to a new place by yourself?
5. How sure are you that you will manage well when you give a talk in class?
6. How sure are you that you will manage well when you have a problem with a friend?
7. How sure are you that you will manage well when you have new work to do for college?
8. How sure are you that you will manage well when you have to get something right under pressure?

9. How sure are you that you will manage well when you have to figure out something by yourself?
10. How sure are you that you will manage well when you do things people expect you to do?
11. How sure are you that you will manage well when you make an important decision?
12. How sure are you that you will manage well when you have a problem at college?
13. How sure are you that you will manage well when someone counts on you to do something important?
14. How sure are you that you will manage well when things are going wrong?
15. How sure are you that you will manage well when you feel very unhappy?
16. How sure are you that you will manage well when you lose something important?
17. How sure are you that you will manage well when you have done something wrong?
18. How sure are you that you will manage well when you have a problem with your mother?
19. How sure are you that you will manage well when you have a problem with your father?
20. How sure are you that you will manage well when you become older?

21. How sure are you that you will manage well when you have a problem with a professor?
22. How sure are you that you will manage well when you are bored and need to find something to do?

Appendix N

Internal versus External Control of Reinforcement (Rotter, 1966)

This is a questionnaire to find out the way in which certain important events in our society affect different people. Each item consists of a pair of alternatives lettered a or b. Please select the one (*and only one*) statement of each pair which you more strongly *believe* to be the case as far as you're concerned. Be sure to select the one you actually *believe* to be more true rather than the one you think you should choose or the one you would like to be true. This is a measure of personal belief: obviously there are no right or wrong answers.

Please answer these items carefully but do not spend too much time on any one item. Be sure to find an answer for every choice. In some instances you may discover that you believe both statements or neither one. In such cases, be sure to select the one you more strongly believe to be the case as far as you're concerned. Also try to respond to each item independently when making your choice; do not be influenced by your previous choices.

1. a. Children get into trouble because their parents punish them too much. (Filler)
   b. The trouble with most children nowadays is that their parents are too easy with them. (Filler)
2. a. Many of the unhappy things in people's lives are partly due to bad luck. (EX)
   b. People's misfortunes result from the mistakes they make. (IN)
3. a. One of the major reasons why we have wars is because people don't take enough interest in politics. (IN)
   b. There will always be wars, no matter how hard people try to prevent them. (EX)
4. a. In the long run people get the respect they deserve in this world. (IN)
   b. Unfortunately, an individual's worth often passes unrecognized no matter how hard he tries. (EX)
5. a. The idea that teachers are unfair to students is nonsense. (IN)
   b. Most students don't realize the extent to which their grades are influenced by accidental happenings. (EX)

6. a. Without the right breaks one cannot be an effective leader. (EX)
   b. Capable people who fail to become leaders have not taken advantage of their opportunities. (IN)
7. a. No matter how hard you try some people just don't like you. (EX)
   b. People who can't get others to like them don't understand how to get along with others. (IN)
8. a. Heredity plays the major role in determining one's personality. (Filler)
   b. It is one's experiences in life which determine what they're like. (Filler)
9. a. I have often found that what is going to happen will happen. (EX)
   b. Trusting to fate has never turned out as well for me as making a decision to take a definite course of action. (IN)
10. a. In the case of the well-prepared student there is rarely if ever such a thing as an unfair test. (IN)
    b. Many times exam questions tend to be so unrelated to course work that studying is really useless. (EX)
11. a. Becoming a success is a matter of hard work, luck has little or nothing to do with it. (IN)
    b. Getting a good job depends mainly on being in the right place at the right time. (EX)
12. a. The average citizen can have influence in government decisions. (IN)
    b. This world is run by the few people in power, and there is not much the little guy can do about it. (EX)
13. a. When I make plans, I am almost certain that I can make them work. (IN)
    b. It is not always wise to plan too far ahead because many things turn out to be a matter of good or bad fortune anyhow. (EX)
14. a. There are certain people who are just no good. (Filler)
    b. There is some good in everybody. (Filler)
15. a. In my case getting what I want has little or nothing to do with luck. (IN)

b. Many times we might just as well decide what to do by flipping a coin. (EX)

16. a. Who gets to be the boss often depends on who was lucky enough to be in the right place first. (EX)
    b. Getting people to do the right thing depends upon ability, luck has little or nothing to do with it. (IN)
17. a. As far as world affairs are concerned, most of us are the victims of the forces we can neither understand, nor control. (EX)
    b. By taking an active part in political and social affairs the people can control world events. (IN)
18. a. Most people don't realize the extent to which their lives are controlled by accidental happenings. (EX)
    b. There really is no such things as "luck." (IN)
19. a. One should always be willing to admit mistakes. (Filler)
    b. It is usually best to cover up one's mistakes. (Filler)
20. a. It is hard to know whether or not a person really likes you. (EX)
    b. How many friends you have depends upon how nice a person you are. (IN)
21. a. In the long run the bad things that happen to us are balanced by the good ones. (EX)
    b. Most misfortunes are the result of lack of ability, ignorance, laziness, or all three. (IN)
22. a. With enough effort we can wipe our political corruption. (IN)
    b. It is difficult for people to have much control over the things politicians do in office. (EX)
23. a. Sometimes I can't understand how teachers arrive at the grades they give. (EX)
    b. There is a direct connection between how hard I study and the grades I get. (IN)

24. a. A good leader expects people to decide for themselves what they should do. (Filler)
    b. A good leader makes it clear to everybody what their jobs are. (Filler)
25. a. Many times I feel that I have little influence over the things that happen to me. (EX)
    b. It is impossible for me to believe that chance or luck plays an important role in my life. (IN)
26. a. People are lonely because they don't try to be friendly. (IN)
    b. There's not much use in trying too hard to please people, if they like you, they like you. (EX)
27. a. There is too much emphasis on athletics in high school. (Filler)
    b. Team sports are an excellent way to build character. (Filler)
28. a. What happens to me is my own doing. (IN)
    b. Sometimes I feel that I don't have enough control over the direction my life is taking. (EX)
29. a. Most of the time I can't understand why politicians behave the way they do. (EX)
    b. In the long run the people are responsible for bad government on a national as well as on a local level. (IN)

Note: I-E subscales are indicated as follows: External Locus of Control (EX), Internal Locus of Control (IN), and filler items that are not part of either subscale (Filler).

Appendix O

Interpersonal Guilt Questionnaire (IGQ; O'Connor et al., 1997)

1	2	3	4	5
Very untrue of me or strongly disagree	Not true of me or disagree	Sometimes true, sometimes not or undecided	True of me or agree	Very true of me or strongly agree

1. I conceal or minimize my successes. (SV)
2. It makes me uncomfortable to have critical thoughts about my parents. (SP)
3. I worry a great deal about my parents, or children, or siblings. (OR)
4. I do not deserve other people's respect or admiration. (SH)
5. It makes me very uncomfortable to receive better treatment than the people I am with. (SV)
6. It is difficult to see my parent's flaws. (SP)
7. I am afraid to fully enjoy my successes because I fear something bad is just around the corner. (SV)
8. I often find myself doing what someone else wants me to do rather than doing what I would most enjoy. (OR)
9. I deserve to be rejected by people. (SH)
10. Other people's misfortunes do not affect me. (SV)
11. I feel bad when I disagree with my parent's ideas or values, even if I keep it to myself. (SP)
12. I worry about hurting other people's feelings if I turn down an invitation from somebody who is eager for me to accept. (OR)
13. I am always expecting to be hurt. (SH)
14. I sometimes feel I don't deserve the happiness I've achieved. (SV)
15. I wish I could be more like my parents. (SP)
16. I enjoy having other people envy me. (SV)
17. It is very hard for me to cancel plans if I know the other person is looking forward to seeing me. (OR)

18. If something bad happens to me I feel I must have deserved it. (SH)
19. I feel responsible at social gatherings for people who are not able to enter into conversation with others. (SV)
20. I feel that bad things may happen to my family if I do not stay in close contact with them. (SP)
21. I worry a lot about the people I love even when they seem to be fine. (OR)
22. If I make a mistake I get very depressed. (SH)
23. I am able to retain my good humor even after seeing beggars or homeless people. (SV)
24. It makes me anxious to be away from home for too long. (SP)
25. I generally have trouble saying no to people, i.e., refusing other people's deadlines. (OR)
26. If someone blames me for a mishap I assume they are right. (SH)
27. I don't feel sorry for people who are less fortunate or successful than I am. (SV)
28. I am uncomfortable talking about my achievements in social situations. (SV)
29. I feel uncomfortable if I don't do things in the same way my parents did. (SP)
30. I can't stand the idea of hurting someone else. (OR)
31. If I fail at something I condemn myself and want to harm myself. (SH)
32. I feel uncomfortable if other people envy me for what I have. (SV)
33. I prefer to do things the way my parents did them. (SP)
34. I don't let my parents make me feel responsible for their happiness. (OR)
35. It does not disturb me to see very poor people. (SV)
36. Sometimes I feel I am such a bad person that I don't deserve to live. (SH)
37. In social situations, I like to talk about my accomplishments. (SV)
38. I am very reluctant to express an opinion that is different from the opinions held by my family or friends. (SP)

39. If my child, spouse or close friends have a problem, I am very tempted to try to solve it for them. (OR)
40. Other people have better lives because they are more deserving that I am. (SH)
41. It makes me very uncomfortable if I am more successful at something than are my friends or family members. (SV)
42. I don't mind saying negative things about my parents. (SP)
43. I am afraid to be alone. (OR)
44. My parents needed to punish me severely as a child because I did so many bad things. (SH)
45. I feel uncomfortable when I feel better than other people. (SV)
46. I have no difficulty rejecting my family's values. (SP)
47. My parent's problems are their own concern, not mine. (OR)
48. I always assume I am at fault when something goes wrong. (SH)
49. I am relieved when my spouse, my students, my parents, or my children are successful or confident, or when they achieve recognition or honors. (SV)
50. I am glad I am not like my parents. (SP)
51. I can't be happy when a friend or relative is suffering a disappointment. (SV)
52. It is easy for me to say no to others. (OR)
53. People would not mistreat me if I did not deserve it. (SH)
54. It is often hard for me to enjoy things that I have been looking forward to. (SV)
55. I would feel terrible if I did not love my parents. (SP)
56. I don't worry about my parents or children. (OR)
57. I feel like an unlovable person. (SH)
58. I am afraid to get what I want because I feel there will be a price to pay that I did not anticipate. (SV)

59. One's parents should always come first. (SP)
60. If something goes wrong in the family I tend to ask myself how could I have prevented it. (OR)
61. I feel I am being punished for bad things I did as a child. (SH)
62. I tend to get somewhat depressed after important accomplishments. (SV)
63. I feel guilty about not liking my parents. (SP)
64. Sometimes I feel that I am selfish and irresponsible person. (SH)
65. When I get a little extra money I feel tempted to share it with a poor friend or relative. (SV)
66. I feel there is something inherently bad about me. (SH)
67. When a friend or relative suffers a misfortune I imagine how I would feel if I suffered a similar misfortune. (SV)

Note: Guilt subscales are indicated as follows: Survival Guilt (SV), Separation Guilt (SP), Omnipotent Responsibility Guilt (OR), and Self-Hate Guilt (SH).

Appendix P

Student Adaptation to College Questionnaire

(SACQ, Baker & Siryk, 1989)

1------- 2------- 3------- 4------- 5------- 6------- 7------- 8------- 9

Applies very closely to me Doesn't apply to me at all

1. I feel that I fit in well as part of the Mount Holyoke environment. (SA, AGC)
2. I have been feeling tense or nervous lately. (PE-A)
3. I have been keeping up to date on my academic work. (AA)
4. I am meeting as many people, and making as many friends, as I would like at Mount Holyoke. (SA, AGC)
5. I know why I'm in college and what I want out of it. (AA)
6. I am finding academic work at Mount Holyoke difficult. (AA)
7. Lately I have been feeling blue and moody a lot. (PE-A)
8. I am very involved with social activities in college. (SA)
9. I am adjusting well to college. (SA)
10. I have not been functioning well during examinations. (AA)
11. I have felt tired much of the time lately. (PE-A)
12. Being on my own, taking responsibility for myself, has not been easy. (PE-A)
13. I am satisfied with the level at which I am performing academically. (AA)
14. I have had informal, personal contacts with Mount Holyoke professors. (SA)
15. I am pleased now about my decision to go to college. (AGC)
16. I am pleased now about my decision to attend Mount Holyoke in particular. (SA, AGC)
17. I'm not working as hard as I should at my coursework. (AA)

18. I have several close social ties at Mount Holyoke. (SA)
19. My academic goals and purposes are well-defined. (AA)
20. I haven't been able to control my emotions very well lately. (PE-A)
21. I'm not really smart enough for the academic work I am expected to be doing right now. (AA)
22. Lonesomeness for home is a source of difficulty for me now. (SA)
23. Getting a college degree is very important to me. (AA)
24. My appetite has been good lately. (PE-A)
25. I haven't been very efficient in the use of my study time lately. (AA)
26. I enjoy living in a college dormitory. (Please omit if you do not live in a dormitory; any college housing should be regarded as a dormitory.) (SA, AGC)
27. I enjoy writing papers for courses. (AA)
28. I have been having a lot of headaches lately. (PE-A)
29. I really haven't had much motivation for studying lately. (AA)
30. I am satisfied with the extracurricular activities available at Mount Holyoke. (SA)
31. I've given a lot of thought lately to whether I should ask for help from the Health Center, or from a psychotherapist outside of Mount Holyoke. (PE-A)
32. Lately I have been having doubts regarding the value of a college education. (AA)
33. I am getting along very well with my roommate at Mount Holyoke (Please omit if you do not have a roommate.) (SA)
34. I wish I were at another college or university rather than Mount Holyoke. (AGC)
35. I've put on (or lost) too much weight recently. (PE-A)
36. I am satisfied with the number and variety of courses available at Mount Holyoke. (AA, AGC)

37. I feel that I have enough social skill to get along well in the college setting. (SA)
38. I have been getting angry too easily lately. (PE-A)
39. Recently I have had trouble concentrating when I try to study. (AA)
40. I haven't been sleeping very well. (PE-A)
41. I'm not doing well enough academically for the amount of work I put in. (AA)
42. I am having difficulty feeling at ease with other people at Mount Holyoke. (SA, AGC)
43. I am satisfied with the quality or the caliber of courses available at Mount Holyoke. (AA)
44. I am attending classes regularly. (AA)
45. Sometimes my thinking gets muddled up to easily. (PE-A)
46. I am satisfied with the extent to which I am participating in social activities at Mount Holyoke. (SA)
47. I expect to stay at Mount Holyoke for a bachelor's degree. (AGC)
48. I haven't been mixing too well with the opposite sex lately. (SA)
49. I worry a lot about my college expenses. (PE-A)
50. I enjoy my academic work at college. (AA)
51. I have been feeling lonely a lot at Mount Holyoke lately. (SA)
52. I am having a lot of trouble getting started on homework assignments. (AA)
53. I feel I have good control over my life situation at Mount Holyoke.
54. I am satisfied with my program of courses for this semester. (AA)
55. I have been feeling in good health lately. (PE-A)
56. I feel I am very different from other students at Mount Holyoke, in ways that I don't like. (SA, AGC)
57. On balance, I would rather be home than here. (SA, AGC)

58. Most of the things I am interested in are not related to any of my coursework at Mount Holyoke. (AA)
59. Lately I have been giving a lot of thought to transferring to another college. (AGC)
60. Lately I have been giving a lot of thought to dropping out of college altogether and for good. (AGC)
61. I find myself giving considerable thought to taking time off from college and finishing later. (AGC)
62. I am very satisfied with the professors I have now in my courses. (AA)
63. I have some good friends or acquaintances at Mount Holyoke with whom I can talk about any problems I may have. (SA)
64. I am experiencing a lot of difficulty coping with the stressed imposed upon me in college. (PE-A)
65. I am quite satisfied with my social life at Mount Holyoke. (SA)
66. I am quite satisfied with my academic situation at Mount Holyoke. (AA)
67. I feel confident that I will be able to deal in a satisfactory manner with future challenges here at Mount Holyoke.

Note: SACQ subscales are indicated as follows: Academic Adjustment (AA), Social Adjustment (SA), Personal-Emotional Adjustment (PE-A), and Attachment/Goal Commitment (AGC).

Appendix Q

Demographic Questionnaire (modified from Brown, 2004)

1. Please state your age. ____
2. Please circle your year.

   First-year Sophomore Junior Senior

   Are you a transfer student? (Please circle one.) yes no
3. How many siblings do you have? _____
4. What is your birth order? (e.g., first born, middle child, etc.) ____
5. Are you an international student? (Please circle one.) yes no
6. What is your ethnicity? (e.g., European-American, African-American, Latin-American, Asian-American, Native American, Middle Eastern, Indian, South-American, Chinese, Korean, etc.)

   _____
7. What is your mother's level of education? (Please circle one.)

   a. Some high school
   b. Completed high school
   c. Some college
   d. Completed college
   e. Graduate work
8. What is your father's level of education? (Please circle one.)

   a. Some high school
   b. Completed high school
   c. Some college
   d. Completed college

e. Graduate work

9. What is your mother's occupation? _____

10. What is your father's occupation? _____

11. What kind of high school did you attend? (Please circle one.)

Public Parochial Private

12. During high school, did you live away from home? (Please circle one.)

yes no

13. Are your parents separated or divorced? (Please circle one.) yes no

If yes, how old were you at the time? _____

14. As you were growing up, who was the person who was most like a mother to you? (e.g., mother, step-mother, aunt, grandmother, sister, teacher, friend.) Please list one.

_____

15. As you were growing up, who was the person who was most like a father to you? (e.g., father, step-father, uncle, grandfather, brother, teacher, friend.) Please list one.

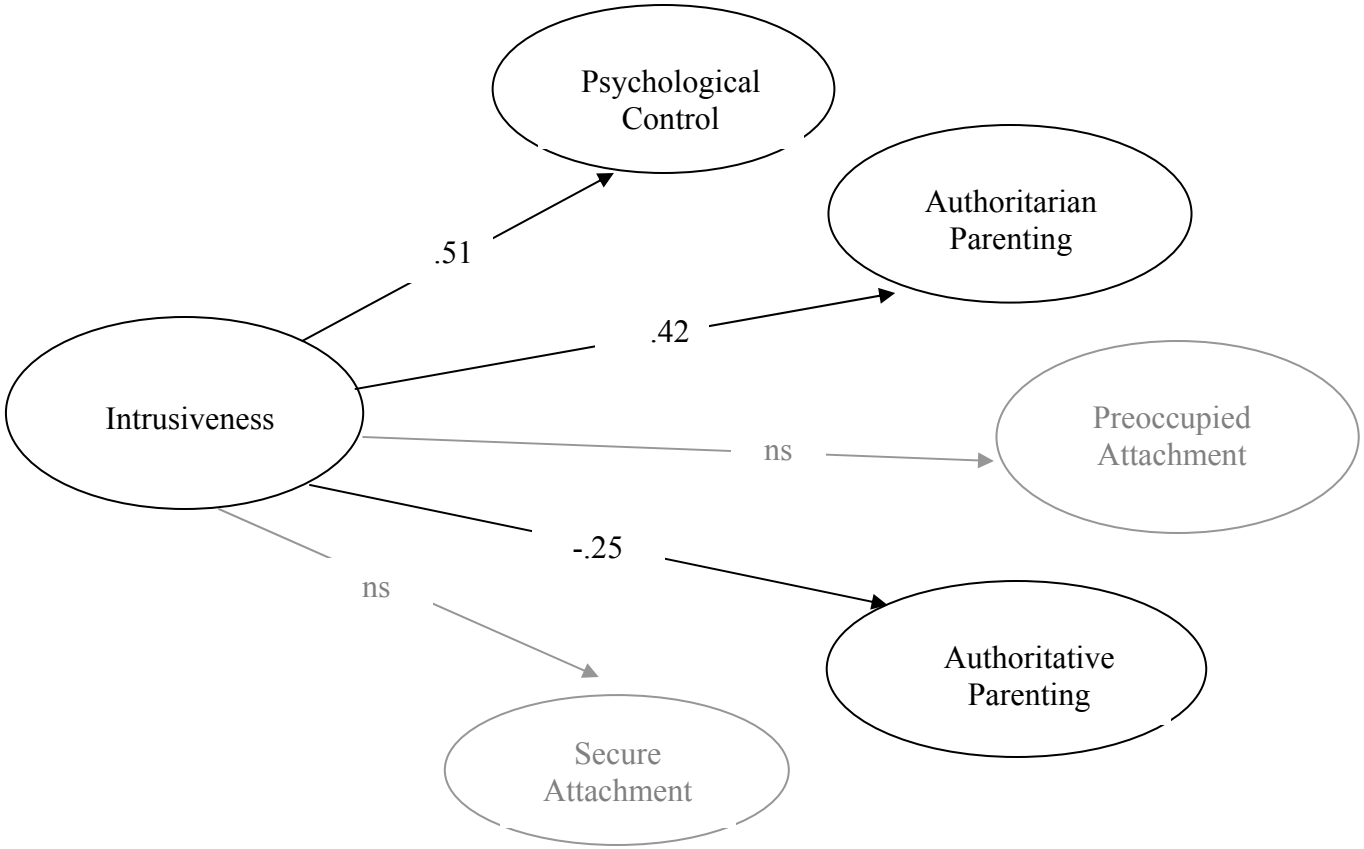
_____

16. As you were growing up, with whom did you live for the majority of the time? (e.g., biological mother, biological father, both biological parents, adoptive parents, step-parent, etc.)

_____

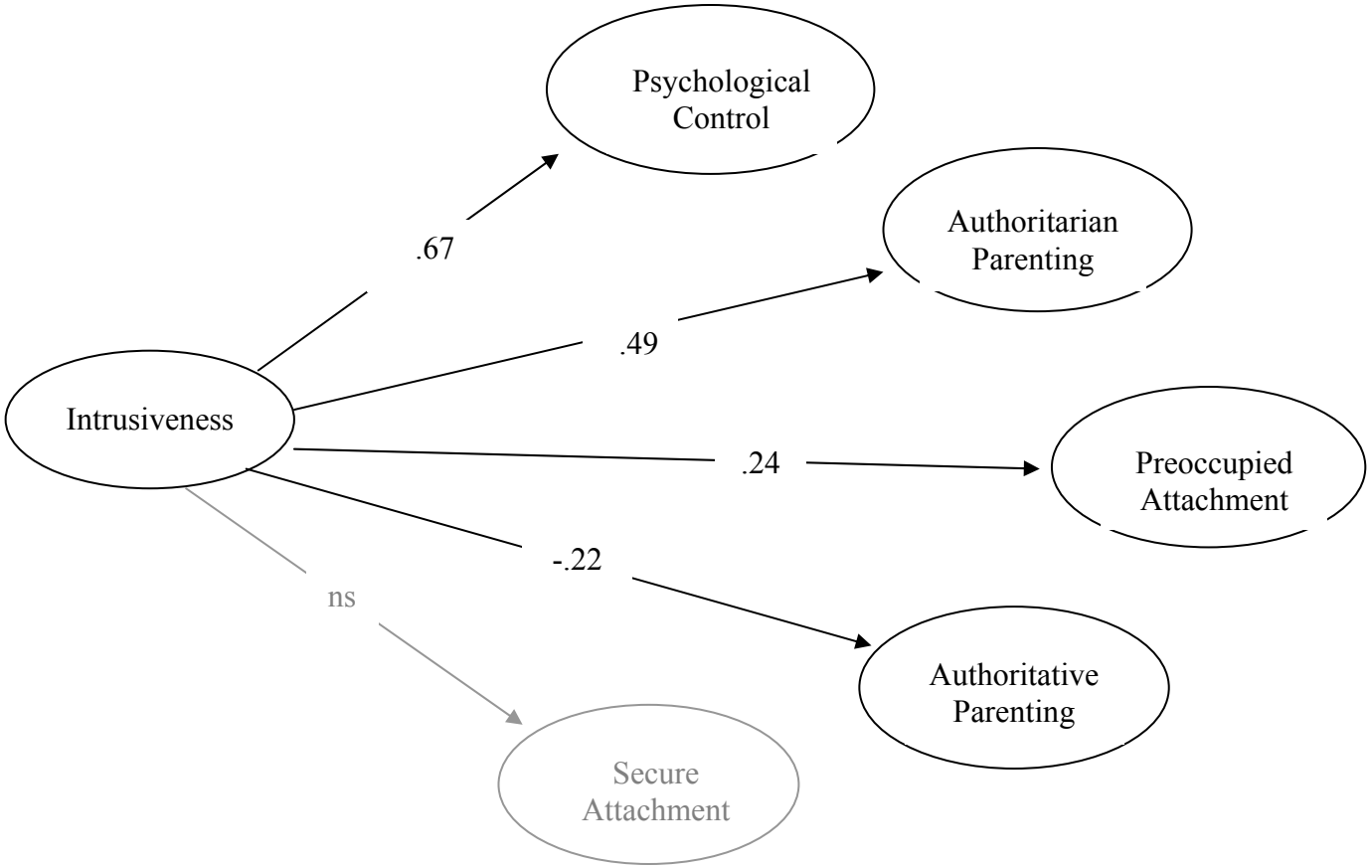
Appendix R

Found Construct Validity Correlations - Maternal Intrusiveness



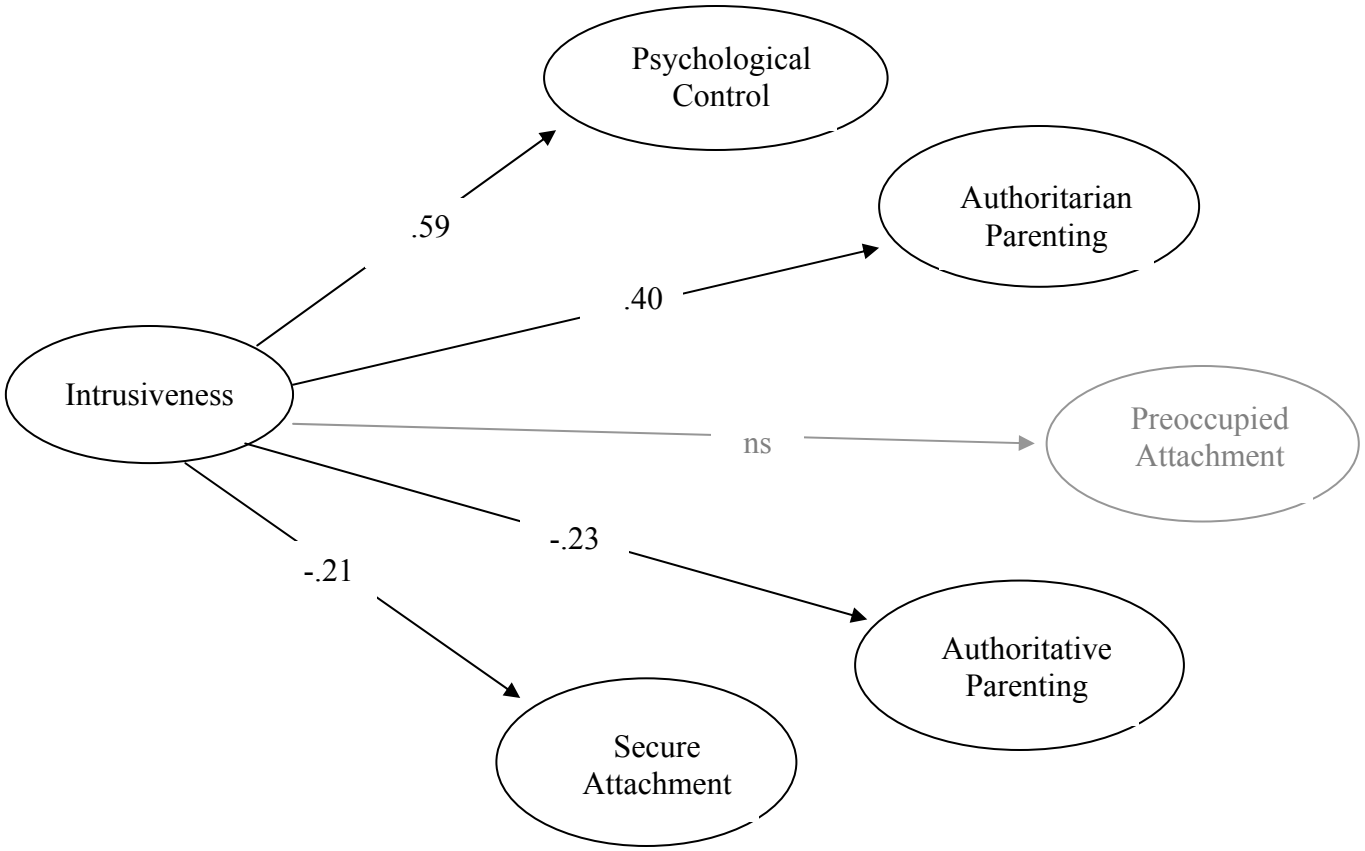
Appendix S

Found Construct Validity Correlations - Paternal Intrusiveness



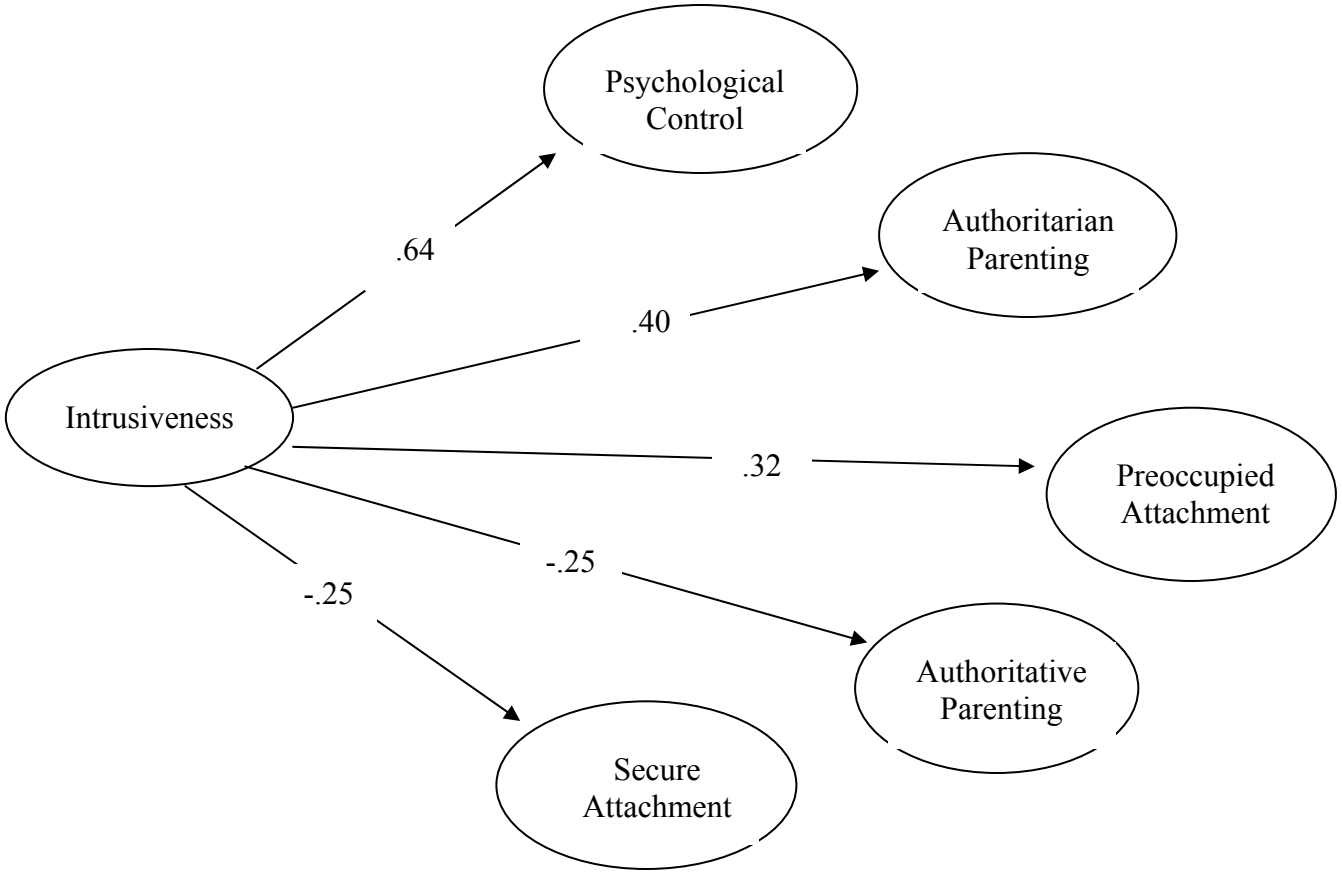
Appendix T

Found Construct Validity Correlations for European American Students Only - Maternal Intrusiveness



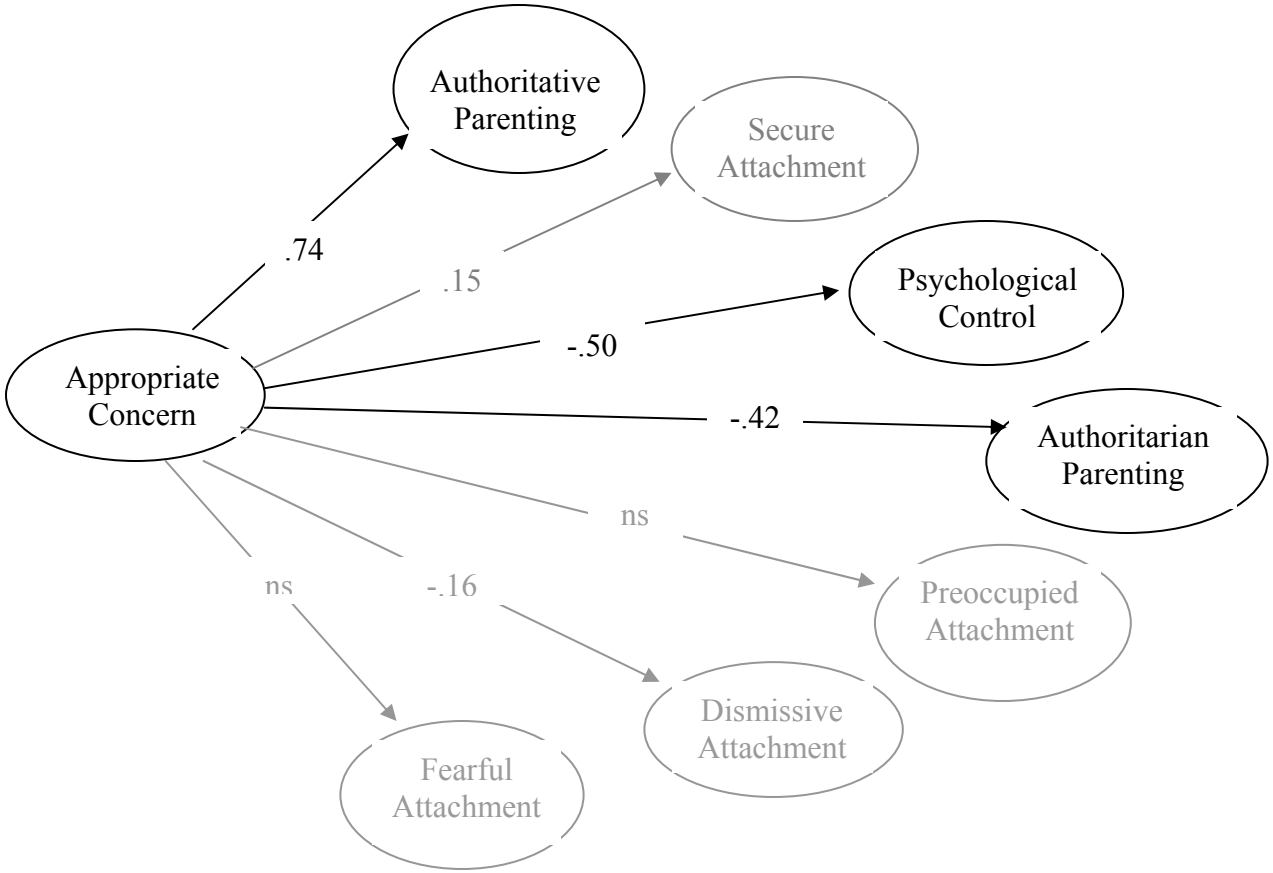
Appendix U

Found Construct Validity Correlations for European American Students Only - Paternal Intrusiveness



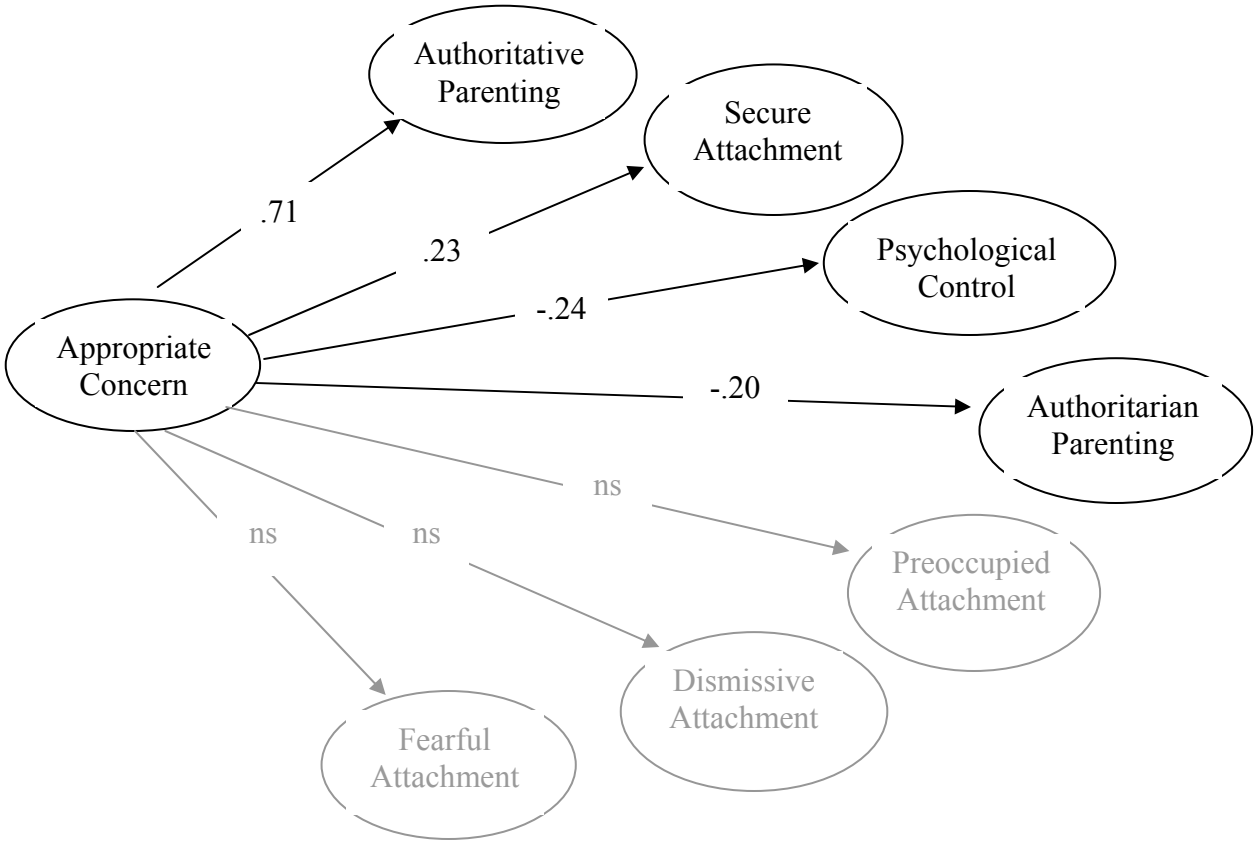
Appendix V

Found Construct Validity Correlations – Maternal Appropriate Concern



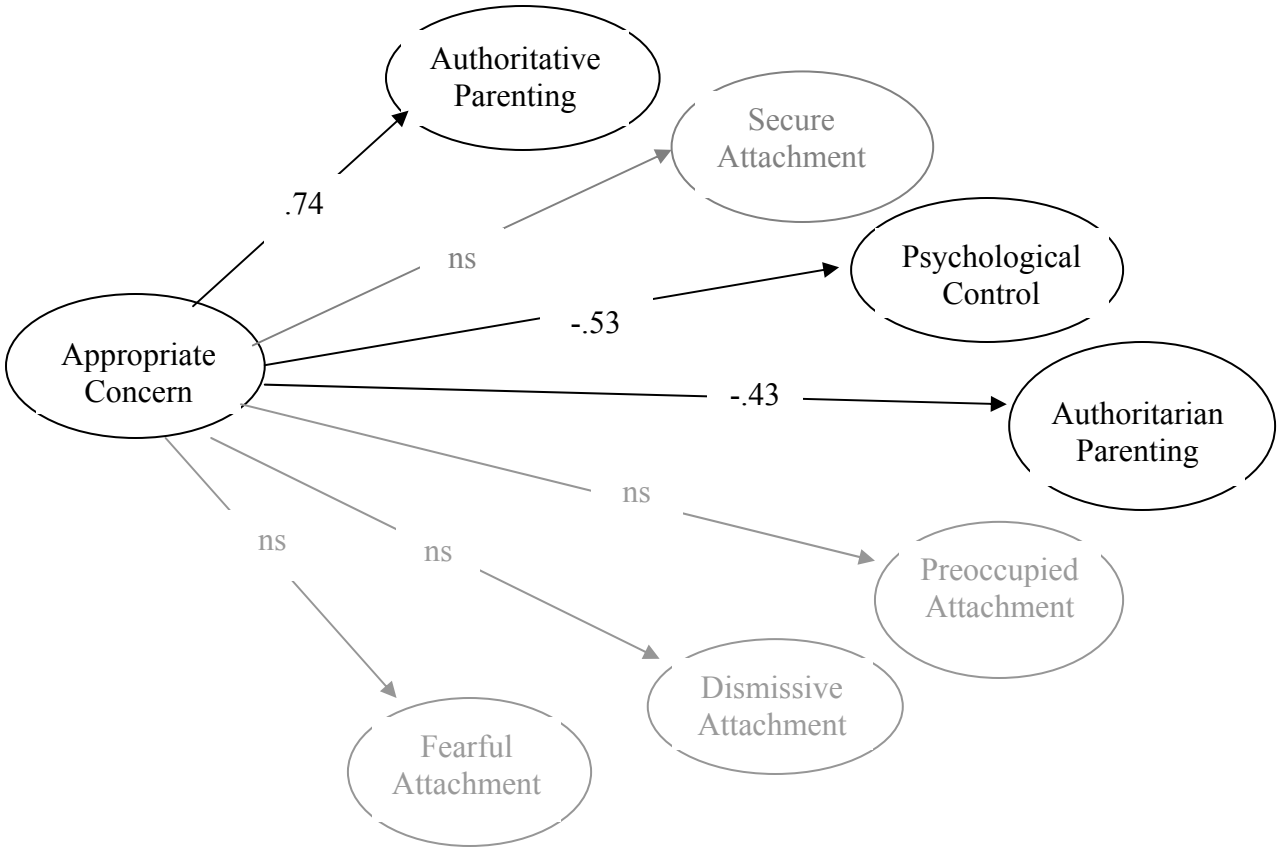
Appendix W

Found Construct Validity Correlations – Paternal Appropriate Concern



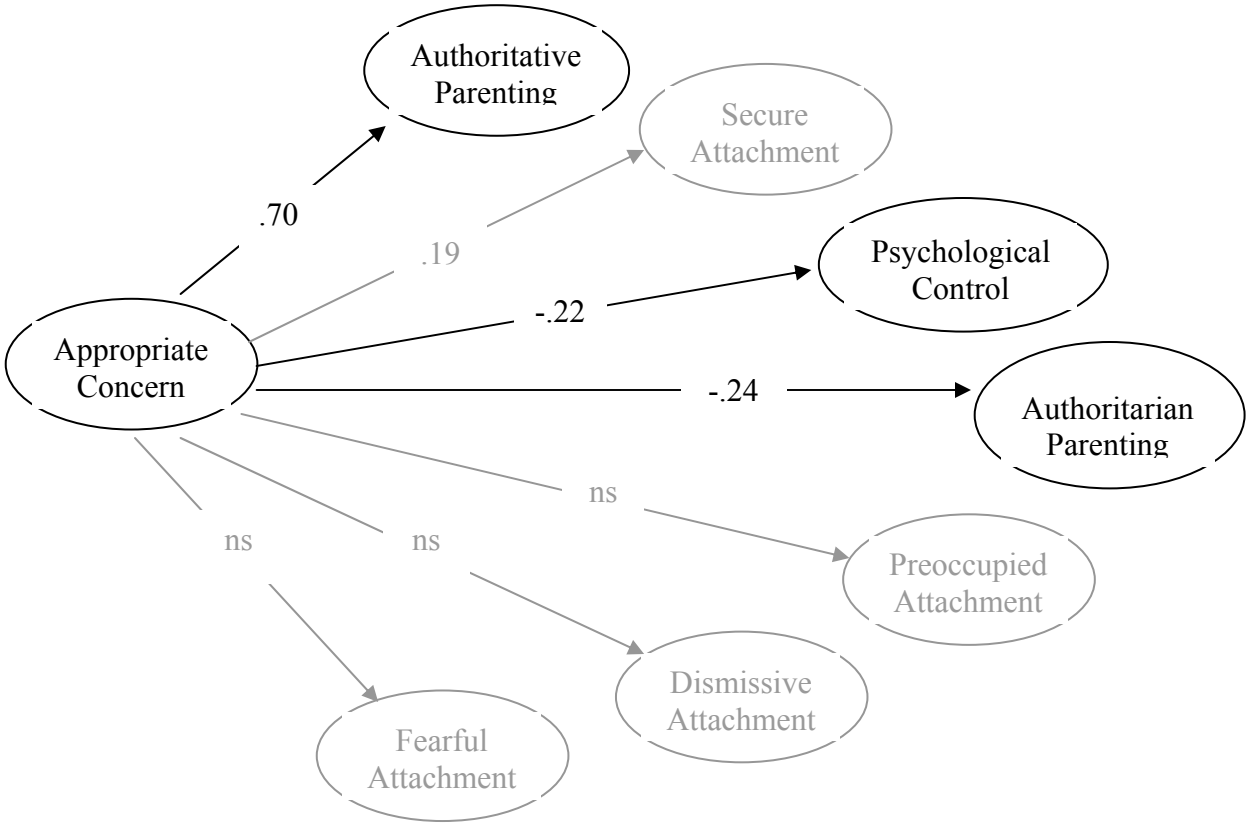
Appendix X

Found Construct Validity Correlations for European American Students Only – Maternal Appropriate Concern



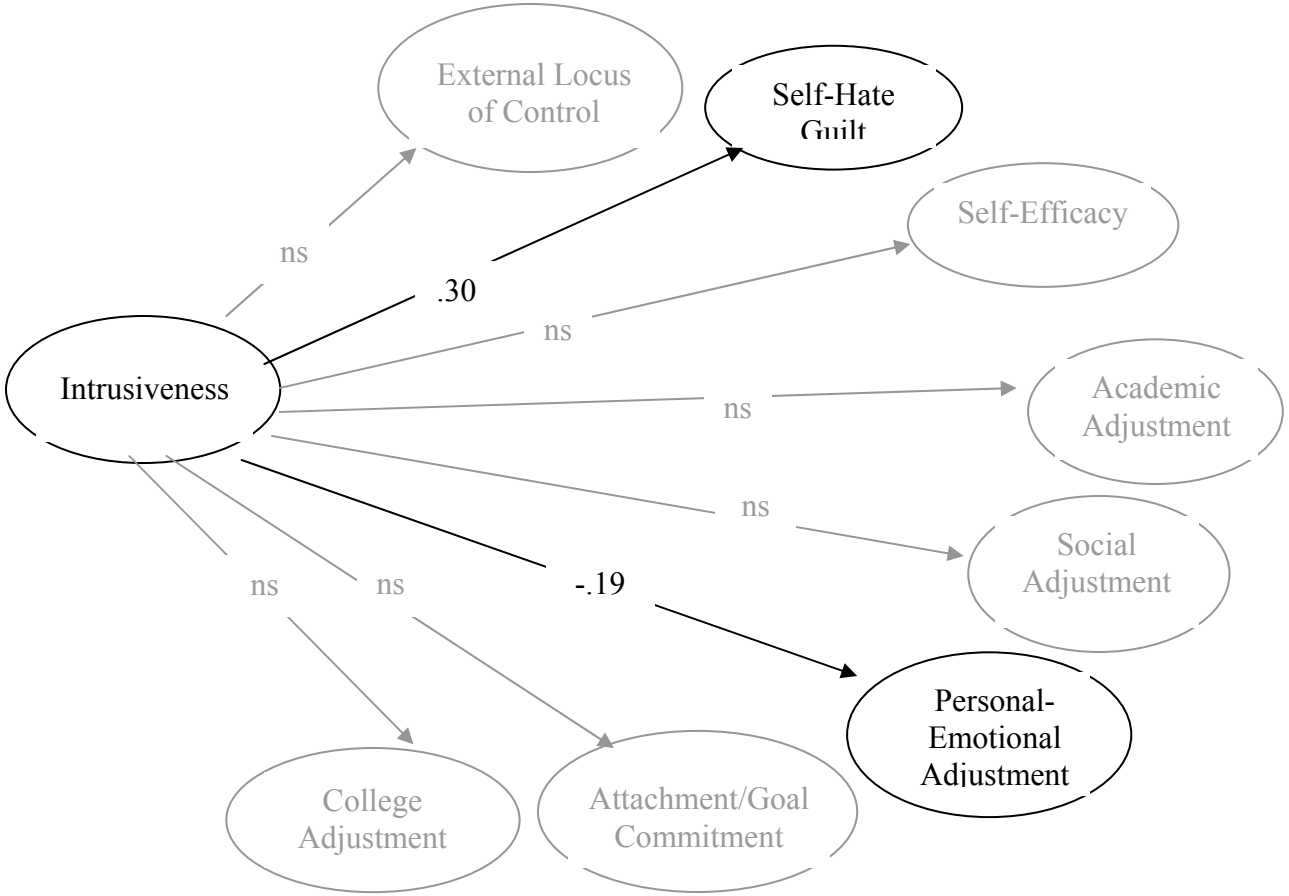
Appendix Y

Found Construct Validity Correlations for European American Students Only – Paternal Appropriate Concern



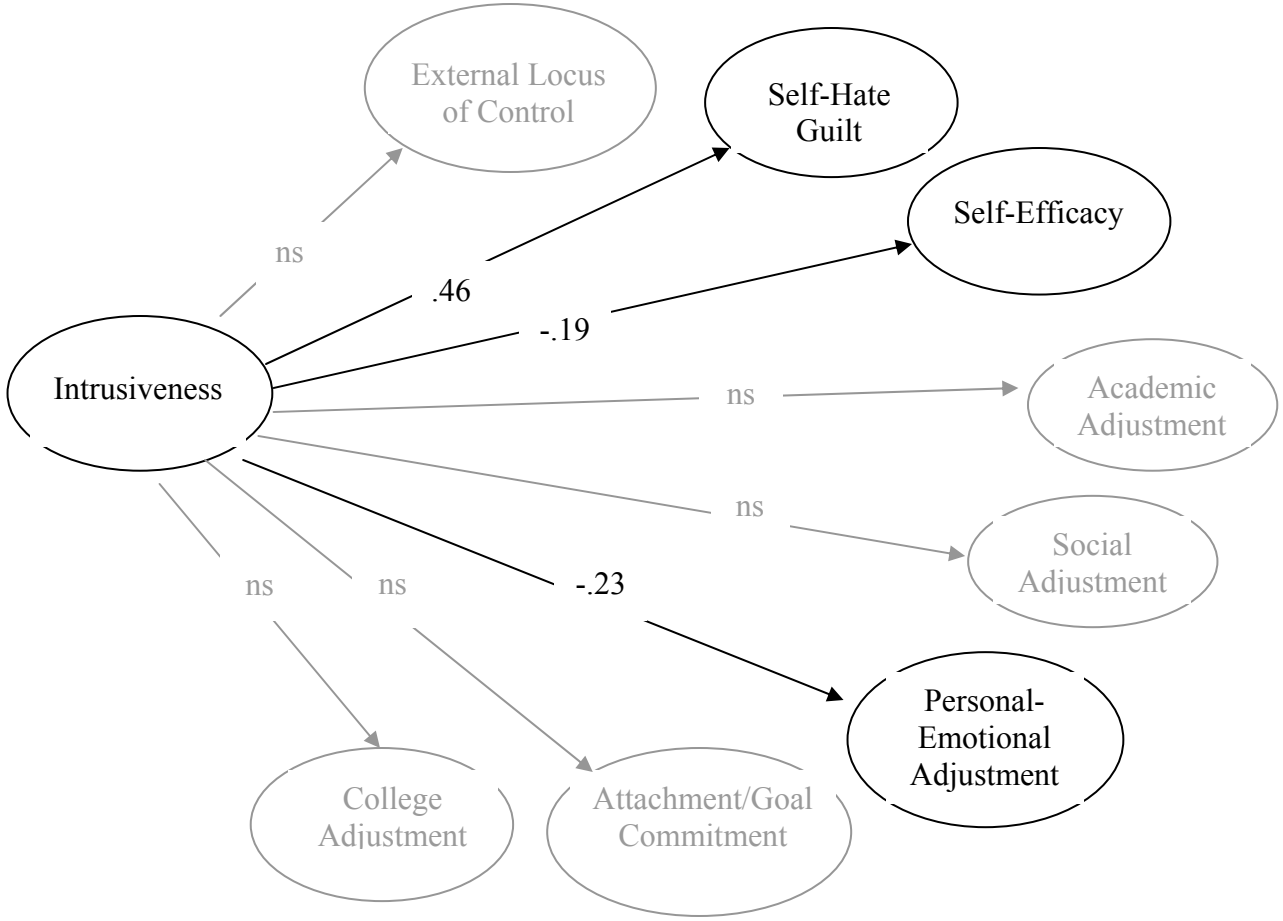
Appendix Z

Found Criterion Validity Correlations – Maternal Intrusiveness



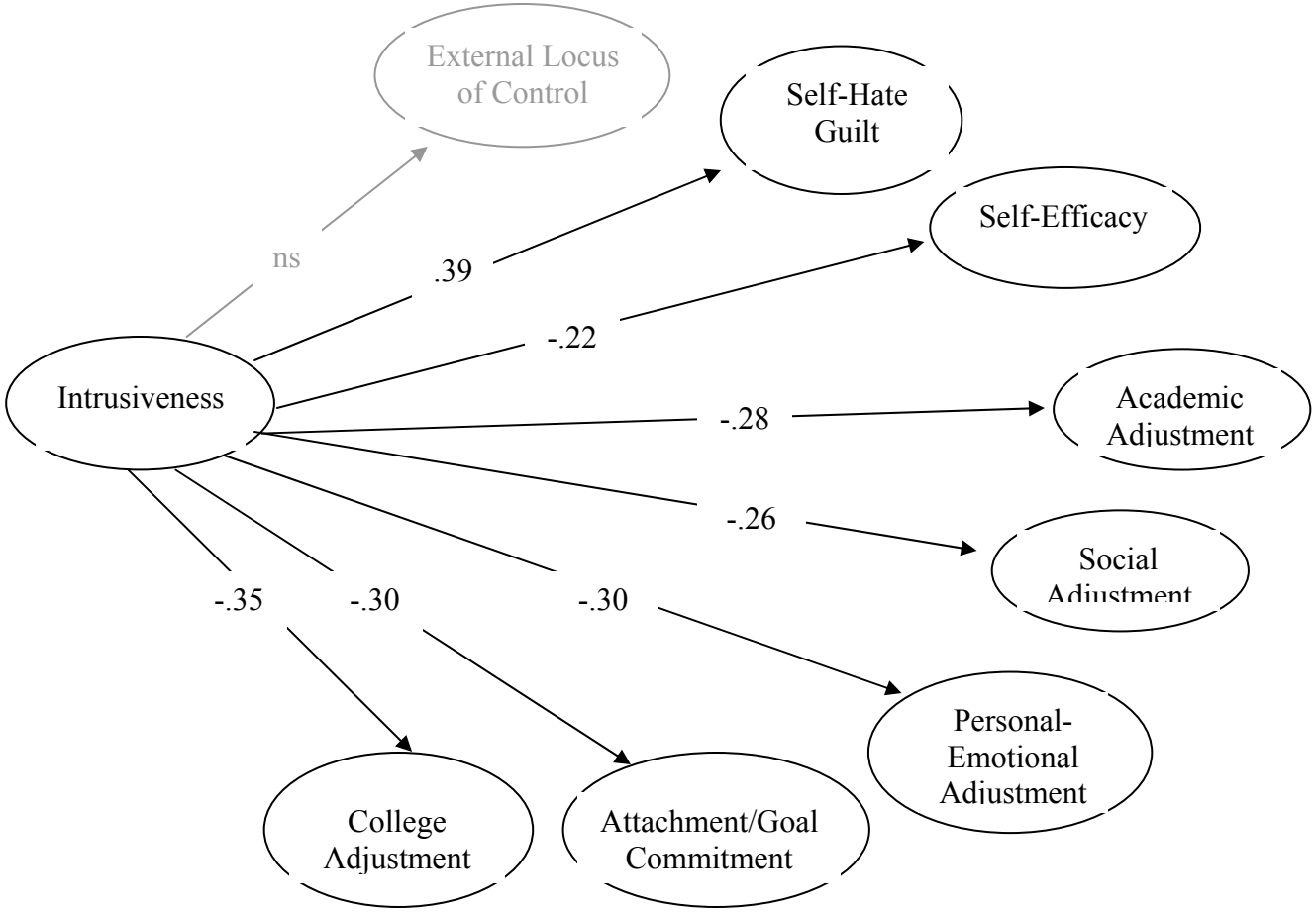
Appendix AA

Found Criterion Validity Correlations - Paternal Intrusiveness



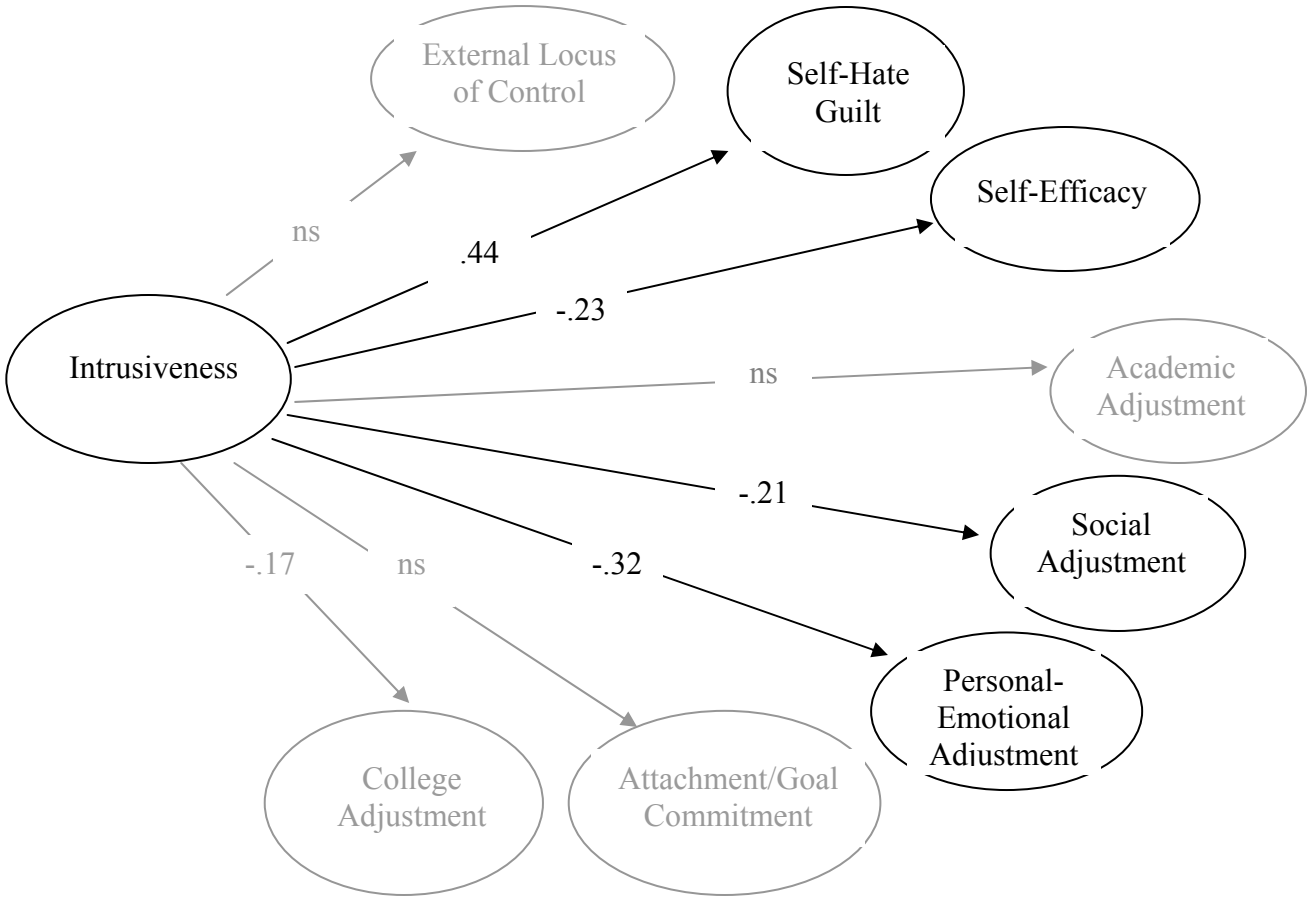
Appendix BB

Found Criterion Validity Correlations for European American Students Only – Maternal Intrusiveness



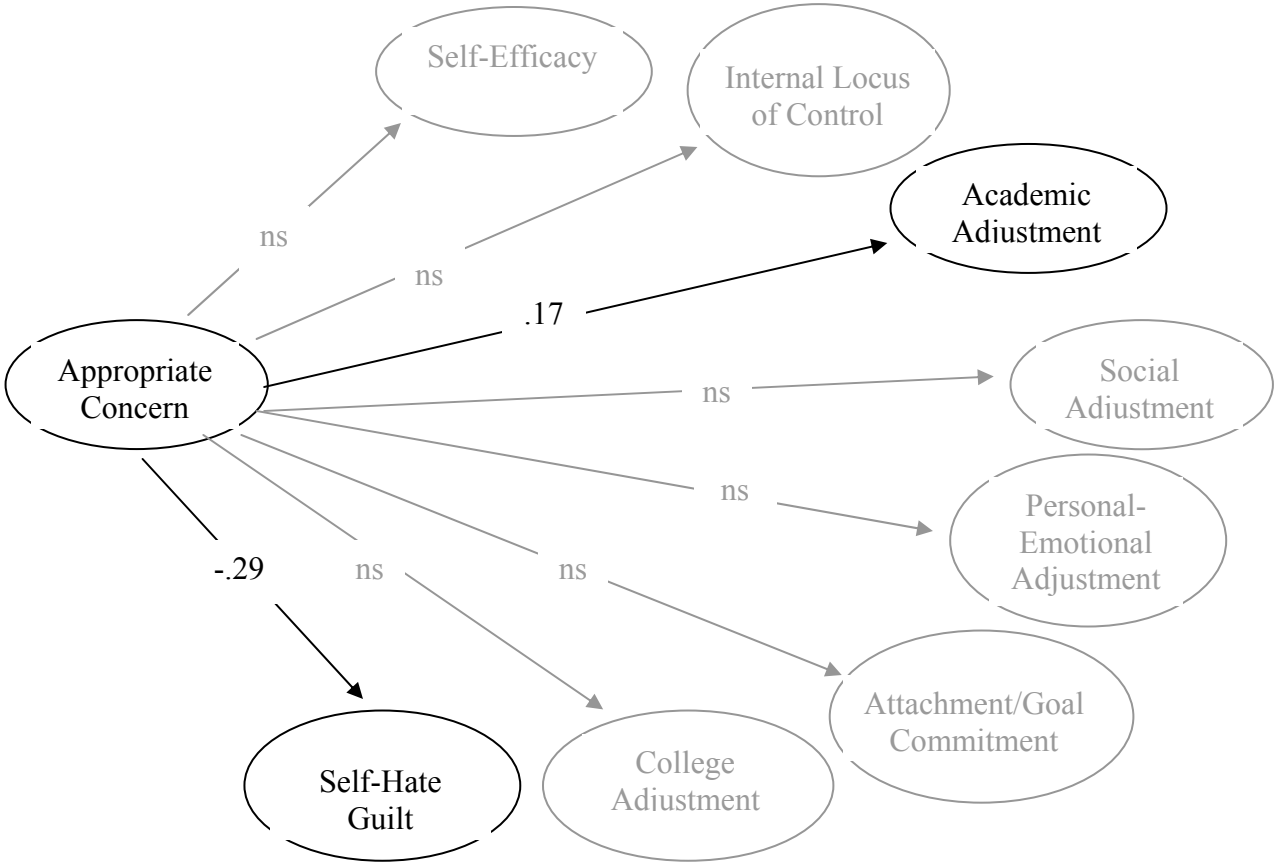
Appendix CC

Found Criterion Validity Correlations for European American Students Only - Paternal Intrusiveness



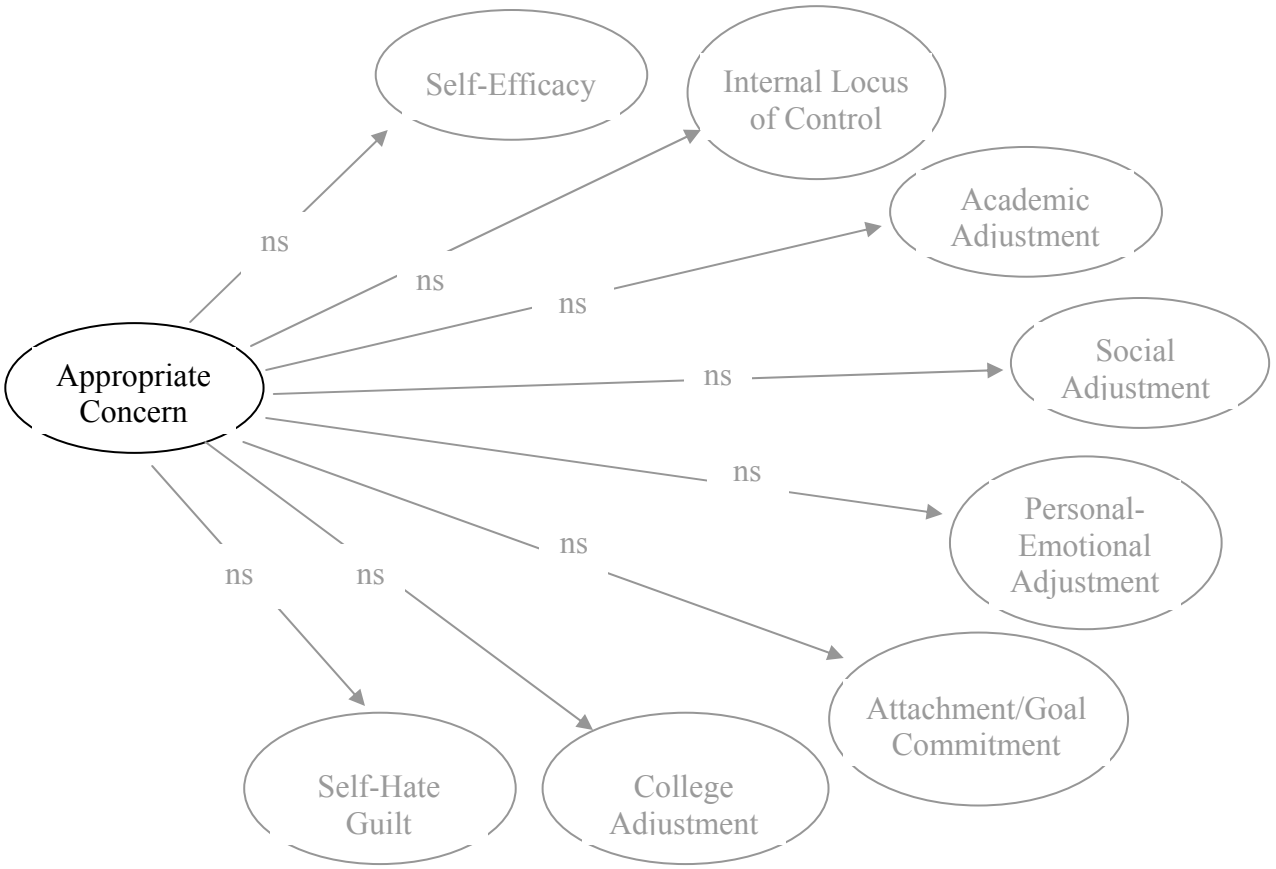
Appendix DD

Found Criterion Validity Correlations – Maternal Appropriate Concern



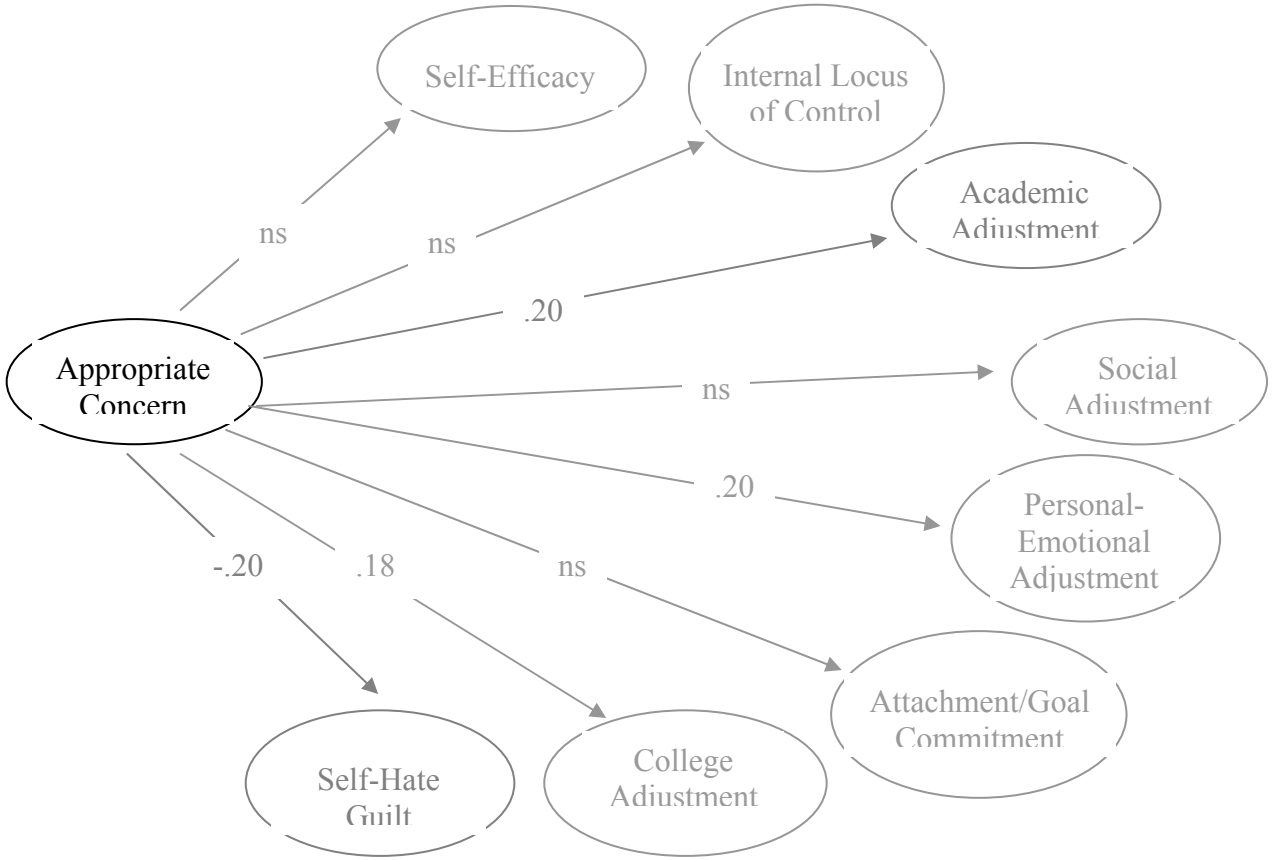
Appendix EE

Found Criterion Validity Correlations – Paternal Appropriate Concern



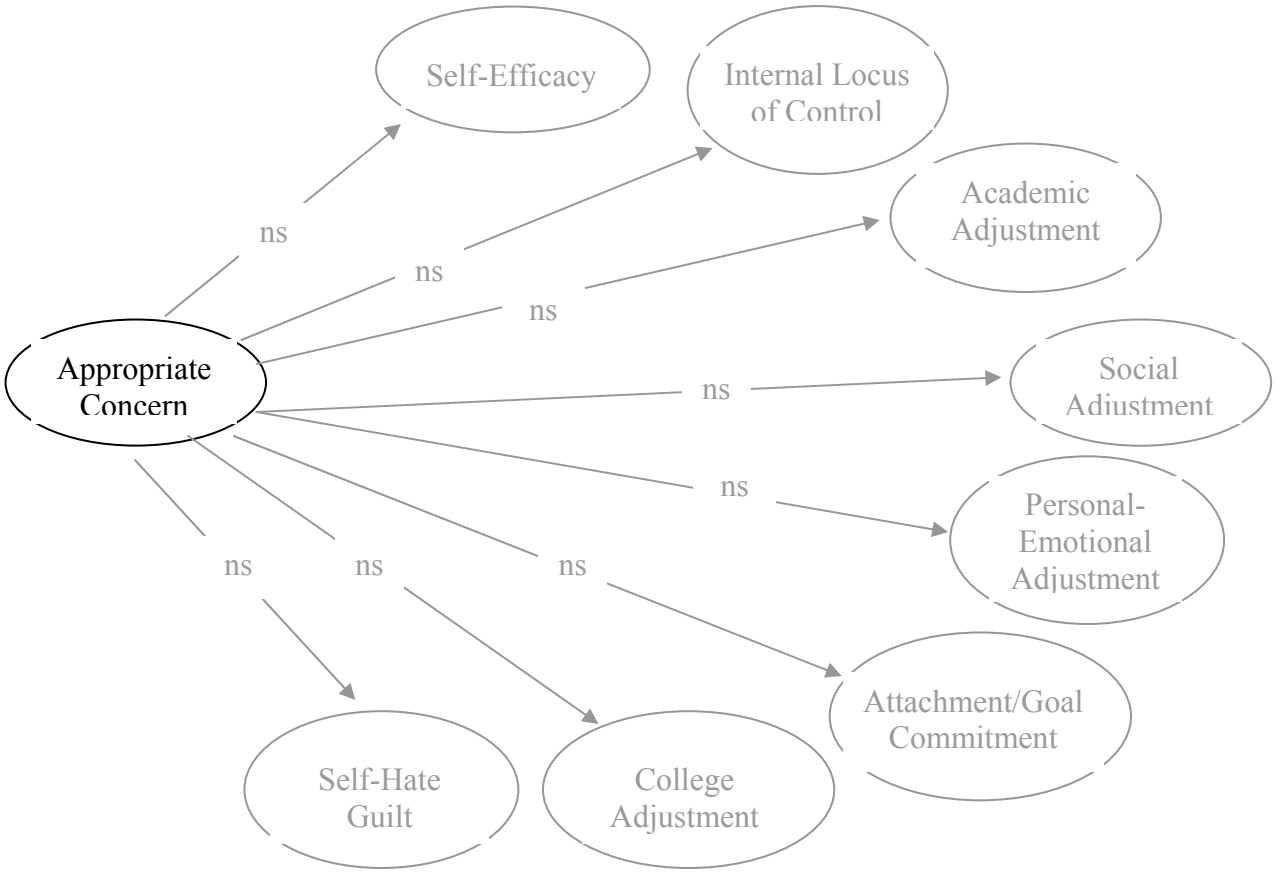
Appendix FF

Found Criterion Validity Correlations for European American Students Only – Maternal Appropriate Concern



Appendix GG

Found Criterion Validity Correlations for European American Students Only – Paternal Appropriate Concern



Appendix HH

Intercorrelations for All Variables

	MPIA CINT	MPIA CAC	FPIAC AC	MPSY CON	FPSY CON	MATV	MATN	MPI	MPN	FATV	FATN	FPI	FPN	SECU RE	PROC	DISM
MPIACAC	-.14															
FPIACINT	.30**	-.07														
FPIACAC	-.03	.28**														
MPSYCON	.51**	-.50**	-.21*													
FPSYCON	.20*	-.04	-.24**	.19*												
MATV	-.25**	.74**	.35**	-.50**	-.08											
MATN	.42**	-.42**	-.05	.61**	.07	-.44**										
MPI	-.28**	.09	.10	-.37**	-.08	.16*	-.55**									
MPN	.09	-.76**	-.31**	.38**	.16	-.74**	.32**	.12								
FATV	-.08	.22**	.71**	-.19*	-.45**	.42**	-.08	.08	-.31**							
FATN	.15	-.06	-.20*	.19*	.52**	-.10	.34**	-.23**	.08	-.41**						
FPI	-.08	-.08	.09	-.04	-.37**	-.11	-.14	.41**	.16*	.23**	-.72**					
FPN	.17*	-.17*	-.76**	.27**	.37**	-.31**	.06	-.01	.35**	-.74**	.21**	.02				
SECURE	-.09	.15	.23**	-.08	-.25**	.16*	.02	-.07	-.23**	.40**	-.16	.23**	-.36**			
PROCC	.04	-.10	-.09	.16	.18*	-.14	.09	.00	.21*	-.12	.02	.13	.10	.03		
DISM	.22**	-.16	-.12	.15	.12	-.15	.13	.01	.16	-.08	.07	.04	.13	-.28**	-.21*	
FEAR	.13	-.14	-.06	.16	.20*	-.21*	.11	.02	.25**	-.27**	.12	-.09	.20*	-.69**	.07	.28**
SLFEFF	-.01	.04	-.12	.02	.00	.02	-.02	-.05	-.04	.02	.02	-.07	-.04	.20*	-.17*	.21*
LOC	-.03	.02	.01	.02	-.04	-.04	-.05	.13	-.05	-.01	-.03	.05	.02	-.12	.09	-.12
SURGLT	.14	-.15	.01	.22**	.12	-.22**	.22**	-.11	.24**	-.07	.12	-.10	.08	-.22**	.16*	-.09
SEPGLT	-.06	.28**	.32**	-.26**	-.16	.29**	.05	-.03	-.24**	.28**	-.06	-.02	-.28**	.12	-.04	-.27**
OMNGLT	.09	.21**	.19*	.04	.21*	.17*	.07	-.10	-.07	.10	.12	-.11	-.10	.01	.13	-.20*
SHGLT	.30**	-.29**	-.10	.39**	.34**	-.30**	.40**	-.14	.35**	-.29**	.27**	-.08	.28**	-.33**	.26**	.05
INTPGLT	.08	.12	.20*	.01	.07	.07	.15	-.10	-.01	.12	.08	-.10	-.11	-.06	.11	-.23**
AADJ	-.13	.17*	.07	-.04	.06	.17*	-.09	.05	-.16	.15	.00	-.10	-.11	.07	-.11	.10
SOCADJ	-.03	.03	.00	-.02	.05	.06	-.03	-.16	-.13	.11	.04	-.09	-.10	.33**	-.11	-.05
PEADJ	-.19*	.12	.07	-.12	-.14	.04	-.10	.05	-.10	.21*	-.16	.04	-.15	.09	-.11	.11
ATTGCOM	-.07	.06	-.05	-.06	.17*	.04	-.10	-.06	-.13	.00	.13	-.15	-.02	.15	-.13	-.01
COLLADJ	-.13	.14	.03	-.07	.03	.12	-.10	.00	-.16*	.16	.00	-.09	-.12	.19*	-.15	.07

	FEAR	SLF EFF	LOC	SUR GLT	SEP GLT	OMN GLT	SH GLT	INTP GLT	AADJ	SOCA DJ	PE ADJ	ATTG COM
MPIACAC												
FPIACINT												
FPIACAC												
MPSYCON												
FPSYCON												
MATV												
MATN												
MPI												
MPN												
FATV												
FATN												
FPI												
FPN												
SECURE												
PROCC												
DISM												
FEAR												
SLFEFF	-.20*											
LOC	.18*	-.25**										
SURGLT	.31**	-.33**	.14									
SEPGLT	-.05	-.36**	.07	.30**								
OMNGLT	.09	-.32**	.05	.56**	.50**							
SHGLT	.47**	.09**	.21*	.19**	.04	.21**						
INTPGLT	.16*	.30**	-.29	-.10**	.39**	.34**	-.30**					
AADJ	-.18*	.41**	-.25**	-.14	-.18*	-.03	-.33**	-.15				
SOCADJ	-.34**	.51**	-.29**	-.19*	-.29**	-.14	-.34**	-.26**	.54**			
PEADJ	-.17*	.33**	-.22**	-.27**	-.23**	-.23**	-.43**	-.31**	.54**	.35**		
ATTGCOM	-.30**	.44**	-.24**	-.14	-.26**	-.03	-.28**	-.18*	.59**	.80**	.27**	
COLLADJ	-.31**	.55**	-.30**	-.23**	-.31**	-.15	-.45**	-.29**	.88**	.78**	.68**	.78**

Appendix II

Example Test for Difference Between Dependent Correlations (Bruning & Kintz, 1968, p. 193)

Maternal Psychological Control correlated with Authoritative Parenting = **- .50**
Maternal Intrusiveness correlated with Authoritative Parenting = **- .25**
Maternal Psychological Control correlated with Intrusiveness = **.51**

Step 1: Compute the difference between the two correlations one is interested in (psychological control and intrusiveness).

$$- .50 – (-).25 = \mathbf{- .25}$$

Step 2: Subtract 3 (always 3) from the number of participants used in the correlations.

$$149 – 3 = \mathbf{146}$$

Step 3: Add 1 (always 1) to the correlation one is not interested in (between psychological control and intrusiveness).

$$.51 + 1 = \mathbf{1.51}$$

Step 4: Multiply the answer from Step 2 with that of Step 3 and take the square root of the resulting product.

$$146 * 1.51 = \sqrt{220.46} = \mathbf{14.85}$$

Step 5: Multiply the answer from Step 1 with that of Step 4.

$$- .25 * 14.85 = \mathbf{- 3.71}$$

Step 6: Square each of the three correlations and add the squares.

$$- .50^2 + (-).25^2 + .51^2 = .25 + .06 + .26 = \mathbf{.57}$$

Step 7: Multiply the three correlations together.

$$- .50 * - .25 * .51 = \mathbf{.06}$$

Step 8: Multiply the answer from Step 7 by 2 (always 2), then add 1 (always 1) to the resulting product.

$$(.06 * 2) + 1 = \mathbf{1.13}$$

Step 9: Subtract the answer from Step 6 from the answer from Step 8.

$$1.13 - .57 = \mathbf{.56}$$

Step 10: Multiply the answer from Step 9 by 2 (always 2) and take the square root of the resulting product.

$$.56 * 2 = \sqrt{1.12} = \mathbf{1.06}$$

Step 11: Divide the answer from Step 5 by the answer from Step 10, yielding the t statistic.

$$t = \frac{- 3.71}{1.06} = \mathbf{- 3.5} \ (p < .01)$$

To determine the significance level of the t statistic, one consults Appendix B in Bruning and Kintz (1968) or Table A-2 in Aron and Aron (2002).