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Does Social Support Impact the Prediction of Locus of Control for University Students

Differentiated on Personality and Parenting?

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### Abstract

The purpose of this study was to examine relationships among perceived parenting styles, personality, and locus of control in a sample of at-risk university students. At-risk was defined by low levels of social support using Cutrona's (1984) Social Provisions Scale. University students enrolled in undergraduate psychology courses at Mount Saint Vincent University participated in the study. Sixty-nine participants completed the Parental Authority Questionnaire, the HEXACO Personality Inventory- Revised, the Adult Nowicki-Strickland Internal-External control scale, and the Social Provisions Scale. Students who perceived their parents as having an authoritative parenting style and were open to experience demonstrated an internal locus of control. Perceived parenting style and personality combined was a better predictor of locus of control than either factor alone. This thesis demonstrates the important role that school psychologists can play in influencing parenting and social support to help students adopt a more internal locus of control.

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## Does Social Support Impact the Prediction of Locus of Control for University Students Differentiated on Personality and Parenting?

Behaviours and interactions with others are intuitively important predictors for life outcomes, academic achievement, and well-being. In fact, these behaviours may not be well understood as part of our daily routines. The purpose of the present study is to explore variables that may influence our behaviours and interactions by examining the associations among perceived parenting styles, personality, and locus of control.

Researchers have demonstrated that parents play an important role in the socialization of their children (Cole & Cole, 2001). Therefore, it is intuitive to suggest that they have some bearing on their children's expression of personality. Locus of control and social support could be the result of values instilled by parents as well as an individual's personality. The present study is designed to examine this hypothesis in an effort to better understand the development of social support, personality, parenting, and locus of control.

Social support is important to determining whether or not a student adjusts well to university life, and completes a degree (Pancer, Pratt, Hunsberger & Alisat, 2005). It also impacts many areas of students' lives such as locus of control (Brown & Schutte, 2006), and there are various factors that predict locus of control such as personality and parenting. There is considerable evidence that the influence of social support on university students is important because it serves to buffer the stresses that many life transitions can bring. There are various factors that predict locus of control such as personality and parenting.

Building upon a distinct area of research, the primary purpose of this study is to investigate whether locus of control (extent to which individuals believe that they can control events that affect them, either internally or externally) in a population of at-risk university students can be predicted by parenting and personality factors. For this study, at-risk is defined as those receiving low levels of social support. Researchers have indicated that the support of others is a key factor in determining how well students will adjust to university. Individuals who perceive that they have the support of others tend to adjust much better to university than students who perceive that they have less support (Brooks & DuBois, 1995; Compas, Wagner, Slavin, & Vannatta, 1986; Cutrona, 1982; Dennis, Phinney & Chuateco, 2005; Gall, Evans, & Bellerose 2000; Tao, Dong, Pratt, Hunsberger, & Pancer, 2000). The major goal of this study is to explore the contributions of parenting and personality in the prediction of locus of control orientation in an at-risk sample of university students.

### *Locus of Control*

Locus of control was described by Julian B. Rotter in 1954 and has since been an important and widely investigated aspect of personality studies. Given the amount of research in the area of locus of control, McClun and Merrel (1998) defined locus of control as referring to the extent to which individuals believe they can control events that affect them. Locus of control is the individual's belief of where the control for the behaviours originates- internally or externally. Individuals with a high internal locus of control believe that the results of events are caused by their own actions and behaviour. Contrary to this definition, individuals with a high external locus of control believe that

fate or chance determine the outcome of events (Gizir & Aydin, 2009; McClun & Merrel, 1998; Tella, Tella, & Adika, 2008).

In a number of studies, an external locus of control orientation has been found to be associated with factors such as low achievement in school, depression, and delinquency (Gizir & Aydin, 2009; Hagborg, Masella, Palladino & Shepardson, 1991; McClun & Merrel, 1998; Tella, et al., 2008; Van-Boxtel & Monks, 1992). In terms of locus of control and school achievement, Gordon (1977), Nordstrom and Segrist (2009), and Gizir and Aydin (2009) found that an internal locus of control orientation was significantly related to greater academic achievement and high self-esteem. An internal locus of control has also been found to be linked to beneficial outcomes such as academic achievement, positive emotional status, and lower rates of delinquency (McClun & Merrel, 1998).

In another related study, Powers and Rossman (1984) investigated 399 low-achieving Anglo, Black, Hispanic, and Native American community college students. The researchers found that the four ethnic groups were similar in their attributions of success to external causes. The attributions of academic success were found to be related to context of an event and good luck. In general, findings such as these suggest the importance of maintaining a more internal locus of control orientation.

Locus of control and the role of social support have implications for university students. This relationship has been explored in an article by Brown and Schutte (2006). These authors examined the relationships between emotional intelligence and subjective fatigue in university students and found that an internal locus of control, amount of social support, and satisfaction with social support each partially mediated between emotional



intelligence and fatigue. Researchers have noted that there are many predictors of locus of control, however, one that is of particular interest in this study is variations in traditional parenting typologies.

### *Parenting Styles*

One of the variables that might contribute to variations in locus of control is parenting styles. Diana Baumrind's (1971) parenting styles have been extensively discussed across the psychological literature (e.g., Buri, 1991; Dombusch, Ritter, Leiderman, Roberts & Fraleigh, 1987; McClun & Merrel, 1998; Pelaez, Field, Pickens & Hart, 2008; Pellerin, 2005; Manuel, 2006). Baumrind conducted one of the first and most comprehensive longitudinal studies examining the relations of parenting style to child development and subsequently outlined three styles of parent-child interaction.

According to Baumrind (1971) these three significant parenting variations are the authoritative, authoritarian, and permissive parenting styles, and Baumrind (1991) reported a relationship among various behaviours in adolescence and parenting styles.

According to Baumrind (1971), parents who clearly set standards, firmly enforce rules, encourage the child's independence, and recognize the rights of both parents and children by means of open communication may be classified as utilizing an authoritative style. Adolescents of parents who practiced the authoritative parenting style seemed to be generally more positive with their overall behaviours and attitudes. Some examples included being friendly, having qualities of leadership and trust, social competence, and displaying responsibility. All characteristics of an authoritative parenting style are associated with positive outcomes among teenagers, and this parenting style is a keystone

of the psychosocial wellness of children and adolescents (Lee, Daniels, & Kissinger, 2006).

Conversely, authoritarian parents are characterized as being high in demands and low in parental responsiveness to the child (Dombusch et al., 1987). Adolescents of parents who use an authoritarian style tended to be uncooperative, unfriendly, and had higher incidents of delinquency. Additionally, parents described as authoritarian emphasize obedience, respect for authority, and regularly use various forms of punishment on the child (Baumrind, 1971). In contrast to the former styles, permissive parents are accepting toward the child's impulses, use as little punishment as possible, and make few demands for mature behaviour (Baumrind, 1971). Adolescents of parents who exhibit the permissive parenting style display behaviours of high aggression and independence (Baumrind, 1991).

Dombusch et al., (1987) and Lee et al., (2006) investigated the associations among Baumrind's authoritative, authoritarian and permissive parenting styles and adolescent school performance which is an important outcome under investigation in this current study. These researchers found that among 7,836 adolescents, both authoritarian and permissive parenting styles were negatively associated with grades, and authoritative parenting was positively associated with grades. This relationship to grades was shown across gender, age, parental education, and ethnic and family structure categories. It was also found that students from solely authoritative families had the highest mean grades.

It is important to investigate parenting styles from the standpoint of how adolescents perceive their parents' parenting and the relationship to academic outcomes as noted in a study conducted by Shek (2002). Therefore, in the current study, rather than

examining self-assessed parenting styles, the focus will be on how students perceive their parents' parenting styles. Perceived parenting has been studied by a number of researchers. In an empirical account of perceived parenting in an adolescent population, Shek (2002) found that among 229 adolescents with economic disadvantages, those that had positive perceptions of their parents' parenting had better psychological well-being, school adjustment, as well as fewer problem behaviours. In opposition, adolescents who held less favourable views of their parents had an increase of instances of substance abuse and delinquency, as well as lower psychological well-being and school adjustment.

Researchers have found that fathers tend to interact differently with their children than mothers do (Shek, 2002), therefore students' perceptions of their parents' parenting may be different depending on the parent. Further, an area that remains under-represented in the research is that of links between parenting and locus of control. Questions still remain regarding how perceptions of parenting typologies relate to individuals' beliefs about the control they exert on life events, however, there is some evidence to suggest an important link between parenting and locus of control.

#### *Parenting Styles and Locus of Control*

Rotter (1966) speculated in his writings of a direct relationship between locus of control and parenting behaviours. Currently, there is an understanding, lead by sparse scientific evidence, that the development of locus of control is associated with aspects of parenting or more global family relationships. Many individuals with an internal locus of control have grown up with families that have modeled beliefs associated with an internal locus of control. Schultz & Schultz (2005) stated that children who develop an internal locus of control usually come from families where parents have been supportive and

consistent with child rearing. Schultz & Schultz found that children are more likely to attribute their successes and failures to external causes if their parents had an external locus of control.

An internal locus of control has been found to be related to greater academic achievement and high self-esteem, and authoritative parenting has been positively associated with grades and other positive outcomes in separate studies. McClun and Merrell (1998) intended to examine this link concurrently in one study. These researchers found that students in grade eight and nine who perceived their parents as authoritative were more likely to have an internal locus of control orientation than those who perceived their parents as authoritarian or permissive. The authoritative parenting style, which was found to be related to an internal locus of control in students, may contribute to the development of self-adequacy and a stronger self-concept. Internal locus of control was more often significantly correlated with consistency of discipline, balanced autonomy, and reinforcement of positive behaviours (Dew & Huebner, 1994). Parental encouragement and support are essential for the development of an internal locus of control in children and adolescents. Conversely, the authoritarian and permissive parenting styles may be associated with negative patterns of social-emotional development. Students who perceived their parents as having an authoritarian parenting style reported the most extreme external locus of control orientation. Other specific parenting behaviours found to correlate with locus of control orientation in adolescents are: nurturance, approval, attentiveness, allowance of autonomy, and degree of control (McClun & Merrell, 1998). These findings support Baumrind's conceptualization of

parenting styles and add credibility to the claim that an authoritative parenting style is associated with positive social-emotional development in adolescents.

The research conducted has shown links between locus of control and parenting. However, other factors such as personality may also be related to locus of control, and when combined with parenting, may provide a more accurate picture of the predictors of locus of control.

### *Personality*

Another variable that can explain variability in locus of control is personality. Personality is difficult to define because it involves several facets: individual differences, behavioural dimensions, and traits (Allen, 2003). During the past decade a substantial amount of research in personality psychology has focused on typologies. The majority of research has been directed toward the Big Five or Five-Factor Model dimensions of personality. McCrae and Costa (1987) validated the Five-Factor Model of personality across instruments and observers. The Five-Factor Model of personality is an organization of personality traits in terms of five basic dimensions: Extraversion, Agreeableness, Conscientiousness, Neuroticism, and Openness to Experience and has been used in many applied settings. For example, Hogan (in press) discussed the relevance of personality for industrial and organizational psychology, Costa (1991) explored a Five-Factor Model of personality for clinical psychologists, and McCrae and Costa (1991) discussed its application in counselling.

The Five-Factor model was investigated in English and other languages, however, across languages, support was made for only four of the five factors of the Five-Factor Model (Extraversion, Agreeableness, Conscientiousness, and Neuroticism). Openness

was a factor that was not supported or did not emerge as a factor in all other languages (Ashton et al., 2004). Lee and Ashton (2004) addressed the question of the universality of the Five-Factor Model in terms of that particular personality factor. To account for this limitation, Ashton et al., (2004) examined personality structures and found that six-factor solutions were observed in eight independent studies involving seven languages (Dutch, French, German, Hungarian, Italian, Korean, and Polish). A similar personality structure emerged from each language. In another Lee and Ashton (2004) study, Extraversion and Conscientiousness in the HEXACO-PI were found to be quite similar to the Big Five counterparts. As well, the HEXACO-PI scales were consistent to the hypothesized six-factor structure. These researchers concluded that the HEXACO-PI appears to be a psychometrically sound measure of the six major personality dimensions that have been found in studies of personality structure across numerous diverse languages.

In the present research the HEXACO personality dimensions will be analyzed based on the corresponding personality inventory (HEXACO-PI-R). The HEXACO-PI-R is an instrument that assesses the six major dimensions of personality: Honesty-Humility (H), Emotionality (E), eXtraversion (X), Agreeableness versus Anger (A), Conscientiousness (C), and Openness to Experience (O). Lee and Ashton (2010) describe and provide adjectives to the domain-level scales of the six major dimensions of personality (refer to Table 1).

Lee and Ashton (2004) discuss the predictive advantages provided by the HEXACO-PI in comparison with other popular inventories that represent the Big Five and Five-Factor Model such as the NEO-PI-R. Similar to the Five-Factor Model, the

HEXACO model provides factors that encompass the wide definition of personality, however, keep the number of factors small, as to make it practical for research and assessment purposes. Overall, researchers have reported the HEXACO-PI-R model to be useful in measuring six major dimensions of personality and their corresponding facets.

Aspects of personality have been related to how individuals perceive their control over events around them. But, there is no published research that takes into account the HEXACO Model of personality and locus of control orientation. It is anticipated that an investigation of the relationships between locus of control and personality as defined by Lee and Ashton (2004) will yield novel and interesting results.

#### *Personality and Locus of Control*

McClun and Merrel (1998) suggested that locus of control orientation comprises a large portion of one's personality, beliefs and behaviours. Taking this into consideration, it is worthwhile to further investigate the relationships between locus of control and personality. In one study, researchers investigated the relationship among locus of control and personality dimensions. Mindingall, Libb and Welch (1980) examined this relationship in a sample of learning disabled children. Findings were such that a significant external locus of control orientation was found in the learning disabled population.

Fincham and Barling (1978) investigated locus of control and generosity in learning disabled, normal achieving, and gifted children. The purpose of this study was to relate locus of control in exceptional populations to nonacademic behaviour. The researchers found significant differences among all of the groups of 34 male children who completed the shortened Nowicki-Strickland Locus of Control Scale and a donation

task. Learning disabled children were found to have the most external locus of control orientation and gifted children were the least externally oriented. All groups differed in terms of generosity.

A plethora of research has been conducted separately on locus of control, parenting, and personality. However, there is a lack of research regarding relationships among locus of control, perceived parenting, and personality that have been carried out on a group of students differentiated on social support.

### *Personality and Parenting Styles*

To date, researchers have not published reports on the relations among students' perceived parenting styles and the development of personality in young adults using the HEXACO model. However, relations have been found between parenting styles and personality factors that are similar to the personality factors found in the HEXACO model of personality (Weiss & Schwarz, 1996). The investigation of parenting and personality using the HEXACO model may yield results similar to those that have been found in exploring relationships among parenting and other personality theories such as the Five Factor Model.

In one study, Weiss and Schwarz (1996) examined the relationship among parenting types and adolescents' personality, academic achievement, adjustment, and substance use. In this study, 178 university students and their mothers, fathers, roommates and one sibling, all responded to questions regarding the student's personality and questions about the parents' parenting. A main objective of the study was to examine the generalizability of Baumrind's findings to an older, more independent, university-age population. In terms of the relationship between parenting and personality, these



researchers found a significant main effect for parenting type for three of the five personality measures in the Five Factor Model of personality: Agreeableness, Openness to Experience, and Neuroticism. Those from Authoritarian-directive homes were found to be low on Openness to Experience compared to those from most other homes, and high on Neuroticism. As well, the researchers indicated that those with unengaged (permissive) parents were more likely to show low scores on Agreeableness and Openness to Experience. The superiority of the Authoritative parenting style was more ambiguous in the present study as compared to other studies. However, adolescents from authoritative families were found to be favourable in many ways. For example, children from authoritative homes had high favourable scores in academic achievement and adjustment regardless of gender. Overall, in this study, Baumrind's parenting theory that distinguished individuals raised from different parenting styles were also present in this older, college-age sample.

In another related study, Nakao et al., (2000) investigated 105 children to better understand the influences of family environment on the development of personality traits. Children who reported overprotective parents tended to rate higher on Extraversion. Additionally, children with high Introversion had stronger influences from family environment than children with high Extraversion. From these results, it seems that some aspects of personality are influenced by parenting styles.

Adolescents' views regarding their parents' parenting styles are important to explore. Thus, further investigation of the influence of perceived, rather than self-assessed, parenting style on personality expression in university students will show novel findings in this area. Perceived parenting styles may be extremely important to outcomes

in a university student population. Perceived parenting measures may show new significant relationships with personality aspects when compared to previous studies involving parental self-assessments (Weiss & Schwarz, 1996; Nakao et al., 2000).

To date there have been no published reports of investigations conducted to examine the relationships among students' perceptions of their parents' parenting, personality, and locus of control orientation in an at-risk university student population. An investigation of these three variables is necessary because it will provide substantial new information in an area that is relatively sparse.

#### *Locus of Control, Parenting, and Personality*

All of the previous studies support a connection among the variables that will be examined in this current study. However, there are no previously published accounts of research that have empirically investigated the connection in the same study. The major goal of this study was to explore the contributions of parenting and personality in the prediction of locus of control orientation in at-risk sample of university students. For this study, at-risk is defined as those receiving low levels of social support. Researchers have indicated that the support of others is a key factor in determining how well students will adjust to university.

#### *The Role of Social Support*

Academic success is sought after by many in a milieu that represents less support than was available in high school (Pancer, Pratt, Hunsberger & Alisat, 2005). Key challenges in university consist of the increased degree of expected independence, introduction to new technologies, and balancing the academic workload with other commitments such as jobs, social pressures, and family life (Pancer, Pratt, Hunsberger &

Alisat, 2005). Social support is an important area of investigation because this and other issues have implications for students' academic performance, attrition rates, and psychological well-being (Heirdsfield, Walker, Walsh, & Wilss, 2008).

Pancer, Pratt, Hunsberger, and Alisat (2005), examined the implications of the transition to university. It was noted that the changes students undergo are more dramatic for those who attend university away from home. This is largely due to the fact that parental control and the students' networks of support are no longer readily available for those living away, and there is also a novel array of social and academic pressures and obstacles during this period. It has been found that social adjustment difficulties can lead to withdrawal from university and between 25 and 40% of students drop out of university without completing a degree (Pancer, Pratt, Hunsberger, & Alisat, 2005). While academic difficulties account for much of the attrition that occurs in university, researchers indicate that social and emotional factors may play an even greater role in determining whether or not a student adjusts well to university life, and stays to complete a degree (Brooks & DuBois, 1995; Gerdes & Mallinckrodt, 1994; Pritchard & Wilson, 2003; Rickinson & Rutherford, 1995, 1996). Researchers also specify that the support of others is a key factor in determining how well students will adjust to university. Individuals who perceive that they have the support of others tend to adjust much better to university than students who perceive that they have less support (Brooks & DuBois, 1995; Compas et al., 1986; Cutrona, 1982; Dennis, et al., 2005; Gall et al., 2000; Tao et al., 2000).

Pancer et al., (2005) delved into the role of social support among the university student population and found strong correlations between social support and adjustment

in university. Social support is defined by Day and Livingstone (2003) as the extent to which individuals perceive that they have the support they need from others in order to deal with difficulties in their lives, as well as a sense of belonging and emotional support. There is considerable evidence that the effect of social support on university students is important because social support serves to buffer the stresses that many life transitions can bring (Pancer et al., 2005).

Day and Livingstone (2003) expanded on previous studies by examining gender differences in perceived stress and the use of social support as an effective coping mechanism to deal with stress. In this study, undergraduate students rated the perceived stressfulness of five scenarios and discussed the type and source of social support they would use to cope with each of the situations. Based on previous findings it was expected that men and women would differ in their perceptions of stressors. The researchers indicated that the results of the study showed that women perceived three of the five scenarios as significantly more stressful than did men. Women said that they would turn to their romantic partner and friends to a greater extent than men. But there were no gender differences in the extent that both sexes would turn to other sources of social support. As well, women were more inclined to seek emotional support to a greater degree. The results are consistent with the notion that men and women are socialized to cope with stress in somewhat different ways, with women more likely to seek social support.

*The Present Study, Hypotheses, and Implications*

The purpose of the present research was to examine the associations among perceived parenting, personality styles, and locus of control orientation within a sample of university students and to determine if findings were comparable for students with low versus high social support. It was aforementioned that researchers such as McClun and Merrell (1998) have suggested that perceived parenting styles are associated with locus of control orientation while others have proposed that personality styles are related to locus of control orientation (Mindingall, Libb & Welch, 1980). Researchers have found that authoritarian parenting and an external locus of control tends to be related to negative outcomes, while authoritative parenting and an internal locus of control is associated with positive outcomes (Gordon, 1977; McClun & Merrell, 1998; Weiss & Schwarz, 1996).

However, there are no published articles that explore if locus of control can be predicted from the combination of personality and parenting as defined in this thesis. The present endeavor is exploratory in nature and will answer some current questions in the existing psychological literature.

Overall, it will be investigated if direct or interactive relationships among perceived parenting and personality in the prediction of locus of control exist. Aspects of the hypotheses, in the current study, were based on the results of a study conducted by Weiss and Schwarz (1996). Specific hypotheses in this current study consist of:

- University students with low levels of social support, who score low on the personality factor of Agreeableness versus Anger, and perceive their parents as being high on the Authoritarian parenting style separately will have an external locus of control orientation.

- University students with low levels of social support, who score low on the personality factor of Openness to Experience, and perceive their parents as being high on the Permissive parenting style separately will have an external locus of control orientation.
- University students with high levels of social support, who score high on the personality factor of Conscientiousness, and perceive their parents as being high on the Authoritative parenting style separately will have an internal locus of control orientation.
- Perceived parenting style and personality combined will provide a better predictor of locus of control, for students with low levels of social support, than either factor alone.

#### *Implications for School Psychologists*

The relations found in past research gives researchers a better idea of what kind of parenting styles and personality factors may be associated with a locus of control orientation. Gordon (1977) found that an internal locus of control orientation was significantly related to greater academic achievement and high self-esteem. If combinations or independent elements of parenting styles and personality factors can be confirmed as predictors of locus of control, they may help school psychologists guide families and students towards the types of interactions that are associated with the development of a locus of control orientation that is positive in nature (Nowicki & Schneewind, 1982).

It is important for school psychologists to understand that parenting style qualities may impact school achievement for students at different ages. However, it is possible

that adolescents with school adjustment problems or other mental health problems may perceive their parents' parenting in a negative manner (Shek, 2002). It is also possible that the behaviour of an adolescent may affect the parenting style of their parents (Shek, 2002). Additionally, locus of control orientation has implications for special education. It has been found that an overuse of praise in special education may be perceived by the child as unrelated to performance and may promote an external locus of control (Fincham & Barling, 1978). School psychologists can use this valuable information to help improve the academic performance of at-risk or struggling students.

Additionally, social and emotional factors may play an even greater role in determining whether or not a student adjusts well to university life, and stays to complete a degree. Individuals who perceive that they have the support of others tend to persevere in greater proportions than students who perceive that they have less support. School psychologists have the opportunity act on this information. Psychologists working in the university setting are encouraged to enhance counselling services and social support groups available for students in order to improve the outcomes for university students.

## Method

### *Participants*

The participants in this study were 69 undergraduate students (63 females and 6 males) who were enrolled in undergraduate psychology courses at Mount Saint Vincent University. Participants were recruited on a volunteer basis, with the permission of the course instructors. The typical participant was female, between 19 and 22 years of age, and a full-time student (i.e., three or more courses per semester). Students in the study ranged from first year university to fifth year university. The average age of a participant

was 21 but participants ranged between 19 and 32 years of age. Participants were required to provide informed consent, along with their willingness to participate in the study.

### *Procedure*

All measures and procedures in this study were approved by Mount Saint Vincent University's Research Ethics Board for research involving human subjects. Professors of psychology courses at Mount Saint Vincent University were contacted via mail, telephone, or in person and asked if the lead researcher could recruit participants in their classes. The sample was selected on a volunteer basis from students in these classes. The lead researcher visited the classes, distributed questionnaires and explained the general purpose of the study. Informed consent was obtained through a consent sheet attached to the questionnaires. Upon completing informed consent procedures (see Appendix A), and demographic information (see Appendix B), respondents were requested to complete the questionnaires. To maintain confidentiality, participants were asked not to write their names on the questionnaires as they were identified by participant numbers. Informed consent forms and questionnaires were collected in separate envelopes and sealed within the presence of the participants. All questionnaires were completed in a quiet classroom setting at the start of undergraduate psychology classes. The questionnaires took approximately 30 minutes to complete.

Participants will be able to obtain a summary of the general findings if they wish. A summary copy of the final results will be mailed or sent via e-mail to participants who were interested in receiving this information. Names on the master sheet were kept



separate from the questionnaires since identification numbers distinguished participants. The master sheet was shredded after the data collection was completed.

The identity of every participant was protected and from the point of consent, each participant was allocated a number which was the only way he or she was identified for the remainder of the study. All records were saved to a locked and password-protected computer, and all hardcopy documents were filed in a locked cabinet in Dr. Lagacé-Séguin's office. No individual scores were referenced in the publication or other release of study findings. The lead researcher had access to the data collected for the participants as did her thesis supervisor. Data will be retained for as long as it remains useful for further work regarding this initial study.

### *Measures*

All measures used in this study have adequate published psychometric properties.

*Personality.* Ashton and Lee's (2009) HEXACO Personality Inventory-Revised (HEXACO-PI-R) was administered to participants to measure individual difference variables (see Appendix C). The HEXACO-PI-R is an instrument that assesses the six major dimensions of personality: Honesty-Humility, Emotionality, eXtraversion, Agreeableness versus Anger, Conscientiousness, and Openness to Experience. This is a 100-item measure (e.g., "I often push myself very hard when trying to achieve a goal") assessing six personality dimensions found in studies of personality structure. Responses were given on a 5-point rating scale; from 1 (*strongly disagree*) to 5 (*strongly agree*) where higher scores indicate a higher degree of the personality dimension. All HEXACO-PI-R factor scales show high internal consistency reliabilities (ranging between 0.86 and 0.92) and show adequate convergent validities with external variables.

It took approximately 15 minutes to complete the 100-item version of the HEXACO-PI-R.

*Perceived Parenting Styles.* To measure perceived parenting styles the Parental Authority Questionnaire (Buri, 1991) was used (see Appendix D). The Parental Authority Questionnaire contains a total of 30 items and each item has two five-point Likert-type scales, one for the mother and one for the father. The questionnaire is scored with response options ranging from 1 (*strongly disagree*) to 5 (*strongly agree*) and an example of a statement for authoritarian parenting is, “Even if her children didn’t agree with her, my parent felt that it was for our own good if we were forced to conform to what she thought was right.” The three parenting styles (authoritarian, authoritative and permissive typologies) are each measured by ten separate items. The test yields six scores for children with two parents. These are perceived levels for each parent on all three parenting styles. This questionnaire has acceptable psychometric properties and is available in the public domain. Buri (1991) found the internal consistency reliability values to be highly respectable. The test-retest reliability for testing sessions over a two week period yielded reliabilities from .78 to .92. As well, the Parental Authority Questionnaire was found to have adequate discriminant-related validity and criterion-related validity. Overall, the Parental Authority Questionnaire demonstrates respectable measures of reliability and validity (Buri, 1991).

*Locus of Control.* The Adult Nowicki-Strickland Internal-External control scale (ANSIE – College Form) initially developed by Nowicki and Strickland (1974) was used to measure locus of control (see Appendix E). The ANSIE consists of 40 items which are answered either *yes* or *no*. An example of a sample item is, “Do you feel that when you

do something wrong there's very little you can do to make it right?" The items were derived through modification of the Child Nowicki-Strickland Internal-External control scale (CNSIE). These alterations consisted primarily of changing the word "children" to "people" and changing the tense of some statements to make them more appropriate for adults. The scale has been found to have a simple reading level, acceptable reliability and satisfactory validity information and has been used to examine thousands of participants. Psychometric properties of the scale have been reported in several sources and are adequate to good. Estimates of internal consistency range from the upper .60 level to the lower .80 level and test-retest reliability coefficients have been found to range from .56 to .83 for periods of time ranging from five weeks to one year (McClun & Merrell, 1998). For this scale, the score is the total number of items answered in an externally controlled direction based on the externally keyed responses.

*Social Support.* Social support was measured in university students using Cutrona's (1984) Social Provisions Scale (see Appendix F). Respondents indicated their agreement or disagreement with each of the measure's 24 items on a scale ranging from -4 (*very strongly disagree*) to +4 (*very strongly agree*) (e.g., "There are people I can depend on to help me if I really need it"). Total scores for the scale were calculated by aggregating the scale scores. Consistency in reliability is provided by Pancer et al., (2005) as they have reported Cronbach alphas for this scale to be .92 in a 1998 study and .90 in another study published in 2002.

## Results

The primary goal of this study was to examine the associations among perceived parenting, personality styles, locus of control orientation, and social support within a sample of university students. This thesis describes predictive pathways to locus of control from parental styles and personality characteristics. The results section is presented as follows. First, preliminary analyses are presented where assumptions are explored and associations with demographic variables are presented. The second section contains correlations among all major variables and, finally, regression analyses are performed to determine if locus of control can be predicted by variations in parenting, personality styles, and social support. The internal and external locus of control scales were later combined to form one variable.

### *Preliminary Analyses*

*Data screening.* All data were examined for outliers, linearity, normality and homogeneity of variance. Since no assumptions were violated, there was no need to transform the data.

*T-Tests.* T-tests were performed to explore sex differences in all perceived parenting, personality, social support, and locus of control variables. Means and standard deviations are presented in Table 2. No statistically significant sex differences were found.

*Correlations.* Pearson correlations were then computed for all paired combinations of parenting styles, personality variables, social support and locus of control (see Table 3). Perceived permissive parenting was significantly negatively correlated with perceived authoritarian parenting ( $r = -.33, p < .01$ ). Authoritative

parenting showed a significant negative relationship with authoritarian parenting ( $r = -.40, p < .01$ ).

Authoritarian parenting was significantly negatively correlated with social support ( $r = -.34, p < .05$ ) and honesty-humility ( $r = -.35, p < .01$ ). Social Support showed significant positive correlation with extraversion ( $r = .33, p < .05$ ). Locus of control was significantly negatively correlated with extraversion ( $r = -.30, p < .05$ ) and positively correlated with emotionality ( $r = .26, p < .05$ ).

Honesty-humility showed a significant positive correlation with agreeableness versus anger ( $r = .34, p < .01$ ). Emotionality was significantly positively correlated with openness to experience ( $r = .30, p < .05$ ). Conscientiousness was not significantly correlated with any other variable.

#### *Moderated Regression Analyses*

*Overview.* To examine moderated (interactive) pathways in the prediction of locus of control, interactions among predictor variables (i.e., perceived parenting styles and personality variables) were explored using multiple regression analyses. Cohen's partialled products technique (Cohen, 1978, Cohen & Cohen, 1983) was employed where independent variables are first entered into the regression equation as a block, followed by the various interaction terms (as represented by their multiplicative products). All variables were standardized before entering them into the blocks. The first step involved putting one personality variable into the main effect. In the second step, a parenting variable was put into the main effect. For the third step, the combination of the two variables was entered, to create the interaction. At each step, the significance in  $R^2$

change was assessed to determine if each main effect or interaction added to the predictive nature of the overall equation.

As such, standardized interaction terms were created by combining parenting (authoritative, authoritarian, and permissive) and personality (honesty-humility, emotionality, extraversion, agreeableness versus anger, conscientiousness, and openness to experience) variables (separately and standardized). Once the interaction terms were created they were then re-standardized. And, these 18 interactions (i.e., three interactions representing parenting x each of the personality variables- for both low versus high social support achieved through a median split) were tested in the prediction of the locus of control outcome. In all, 36 interactions were tested at a conservative family-wise alpha level.

In order to assess the moderating effects (i.e., each of these interaction terms), as mentioned, specific blocks of variables were entered into the hierarchical regression analyses. The first block consists of the main effects for the parenting styles being tested and the personality variables being tested. The second block consists of the interaction term (the combination of the parenting styles and the personality variables) for both high levels of social support and again for low levels of social support.

Where significant interactions were detected (i.e., a significant in  $R^2$  change), follow up analyses were conducted. Only those regressions that were found to be significant are presented in the following section. Complete results for all interaction terms are presented in Table 4 and Table 5.

*Moderated Analyses.* Results from regression analyses revealed significant interactions among authoritative parenting and the openness to experience personality variable in

students with low levels of social support to predict an internal locus of control ( $R^2$  change = .10,  $F(2, 66) = 21.17, p < .05$ ).

Interactions were explored by re-computing the regression analyses separately for groups of students scoring above or below the median in terms of openness to experience. Results from follow-up analyses indicated that authoritative parenting was not associated with an internal locus of control among students with lower openness to experience ( $\beta = .18, t = .06, n.s$ ) but significantly and negatively associated with an internal locus of control among students with higher openness to experience ( $\beta = -.37, t = -2.33, p < .05$ ) (see Figure 1).

### Discussion

The purpose of the present study was to investigate the relationships among perceived parenting, personality styles, and locus of control for students differentiated on levels of social support. One of the major objectives was to explore the unique contributions of personality and parenting in the prediction of locus of control. Another aim was to determine if direct or interactive relationships among perceived parenting, personality, and locus of control for varying levels of social support existed. More specifically, this thesis investigated perceived permissive, authoritative, and authoritarian parenting along with six personality variables (i.e. honesty-humility, extraversion, emotionality, conscientiousness, openness to experience, and agreeableness versus anger) and the relationships with locus of control and social support.

Overall, the first hypothesis implying that students with low levels of social support, who score low on the personality factor of agreeableness versus anger, and perceive their parents as being high on the authoritarian parenting style separately will

have an external locus of control orientation was not supported. The second hypothesis that students with low levels of social support, who score low on the personality factor of openness to experience, and perceive their parents as being high on the permissive parenting style separately will have an external locus of control orientation was also not supported. The third hypothesis that students with high levels of social support, who score high on the personality factor of conscientiousness, and perceive their parents as being high on the authoritative parenting style separately will have an internal locus of control orientation was not supported. Overall, these findings did not support the first three hypothesis set out in this thesis. The fourth hypothesis, which stated that perceived parenting style and personality combined would provide a better predictor of locus of control for students with differentiated levels of social support, was supported.

Individuals differ in their susceptibility to the influences of family environment (Weiss & Schwarz, 1996). In this thesis Pearson correlations revealed that participants whose parents were perceived to use an authoritarian parenting style tended to rate themselves as having lower social support and honesty-humility. Students who perceived their parents as authoritarian might not feel socially supported. This style of parenting is characterized by heightened value of obedience and frequently employing punitive measures (Manuel, 2006). These students might have less favourable perceptions of their parents (Shek, 2002). Pearson correlations in this current study also revealed that those with higher social support were likely to have higher levels of extraversion. Extraversion includes active and assertive characteristics which might make students high in this personality trait more adept to seeking out social support networks (Heirdsfield, Walker, Walsh, & Wilss, 2008). Children high on extraversion may attract peers to play with



them. Similarly, children high on extraversion may actively persuade other children to choose them as leaders of school groups (Weiss & Schwarz, 1996). Conversely, Nakao et al., (2000) found that children who reported having parents with an overprotective or interfering style tended to rate higher in extraversion. Students high on extraversion are gregarious, assertive, and talkative. Those high on extraversion with strict parents who were perceived as using an authoritarian style might learn to act in a manner that pleases their parents to avoid punishment. Thus, knowing how to socially appease might become generalized to all social situations for those high on extraversion. Students high on extraversion learn to become predominately concerned with obtaining gratification from what is outside the self and are driven by social situations (Lee & Ashton, 2004).

Furthermore, based on Pearson's correlations in this current study, higher honesty-humility was related to lower authoritarian parenting. Those high in honesty-humility are described as people who tend to avoid manipulating others and feel little enticement to break rules (Lee & Ashton, 2004). Thus, parents of these children would have no need for strict rules and the use of punitive measures which would be characteristic of parents lower on the authoritarian parenting style. Weller and Tikir (2010) state that high honesty-humility was strongly associated with low risk taking, higher risk perceptions, and lower perceived benefits for engaging in a risky behaviour.

In this current study, participants with increased levels of an internal locus of control were associated with lower extraversion and higher emotionality. Introversion and extraversion are typically viewed as a single continuum. Thus those with lower extraversion will most likely have high introversion. Introversion is associated with positive traits such as intelligence (Nakao et al., 2000). It is likely that those with lower

extraversion have a more internal locus of control and are in control of their academic achievement. Also, those low in extraversion are often described as reserved or analytical and these individuals often engage in reflection (Nakao et al., 2000). This might make them more apt to thinking through their actions before taking action. Further, in this current study, higher emotionality was related to an internal locus of control. Since those high in emotionality tend to fear physical dangers, experience anxiety in response to life's stressors, and have a need for emotional support from others, it seems likely that they would be driven to be in better control of their behaviour (Lee & Ashton, 2004). Weller and Tikir (2010) found that the emotionality dimension was associated with heightened risk perceptions involving a strong attentional component, coupled with vigilant scanning of the environment. These individuals often use a "stop, look, listen" system of the mind.

In this current study, interactions were conducted to look at the combined "effect" of parenting and personality in the prediction of locus of control in students who self-disclosed themselves as receiving high vs. low social support. One statistically significant interaction was found. An internal locus of control was predicted for students who perceived their parents as being authoritative and were, themselves, open to experience and had low levels of social support. Perhaps individuals who possess characteristics of openness spend a great deal of time exploring their environments and engaged in their own goals (Lee & Ashton, 2004).

Previous researchers have shown goal-setting and high openness to experience to be characteristic of an internal locus of control (Stout, 1999). For example, college swimmers have been found to set goals to improve overall performance. Most swimmers

have attributed their sport performance to internal factors, and personality factors such as conscientiousness, discipline, and determination (Stout, 1999). Dollinger, Leong and Ulicni (1996) have also found that a high level of openness was related to locus of control in the areas of responsibility and self-control. An internal locus of control is found where there is love and support from parents (such as an authoritative parenting style) and in students with a high degree of effort and responsibility. Students reduce their effort and persistence when they feel a lack of control over their own performance (Tella, Tella & Adika, 2008). The students who have more control over their goals consistently perform more effectively. Therefore, it could be interpreted that the internal drive to succeed and perform, as well as supportive parents are factors that helps students persevere (Tella, Tella & Adika, 2008). This helps explain the interaction found in this current study that students who reported their parents as using an authoritative style and were, themselves, open to experience were predictive of an internal locus of control orientation. However, this study found that in a situation where a student is high on openness to experience, there is a negative relationship among authoritative parenting and locus of control when they are receiving low social support. Since people high on openness to experience are interested in unusual ideas or interesting people, when they are not supported they might not attempt to influence other people and might not be active in seeking information that concern their situation (Lee & Ashton, 2004).

The impact of family environment on personality traits differs trait by trait, which is in accord with previous studies (Weiss & Schwarz, 1996). In this current study, two additional interactions approached significance, and it is speculated that with a larger sample they may have been statistically significant. While it is not the norm to discuss, at

length, statistically non-significant findings, the trends are worth mentioning, briefly, keeping in mind that they are not significant at the  $p < .05$  level. First, for students whose parents use an authoritarian parenting style, the extraversion personality variable and high levels of social support approached significance for predicting an internal locus of control.

Shek (2002) found that family environment influenced extraversion. Perhaps those who are raised in strict homes learn that they must constantly obey others. To fulfill this role they adopt behaviours characteristic of extraversion to survive and flourish in their home environment (Nakao et al., 2000). Authoritarian parenting tends to be more often associated with negative personality characteristics in children (Weiss & Schwarz, 1996), but perhaps being raised in a firm home where children must always please and obey parents leads to greater awareness of one's own actions. On the contrary, students who perceived their parents as having an authoritarian parenting style reported the most extreme external locus of control orientation (McClun & Merrell, 1998). Similarly, adolescents of parents who use an authoritarian style have tended to be uncooperative, unfriendly, and have higher incidents of delinquency (Baumrind, 1971).

Secondly, in this current study, for students whose parents use an authoritative parenting style, the extraversion personality variable and high levels of social support approached significance for predicting an internal locus of control. The characteristics of an authoritative parenting style are typically associated with positive outcomes among adolescents (Lee, Daniels, & Kissinger, 2006). The authoritative parenting style, which previously was related to an internal locus of control in students, may contribute to the development of self-adequacy and a stronger self-concept (McClun & Merrell, 1998).

Internal locus of control has been significantly correlated with consistency of discipline, balanced autonomy, and reinforcement of positive behaviours (Dew & Huebner, 1994).

Previous researchers have shown that positive parental influence is associated with social-emotional development in adolescents (Baumrind, 1991). Schultz & Schultz (2005) have found that children who develop an internal locus of control usually come from families whose parents have been supportive and consistent with child rearing. Parenting practices might correlate with a child's locus of control. But, a child's behaviour might also alter parental practices and locus of control. Mothers showed a more internal locus of control following successful behavioural treatment for sleep problems in children with intellectual disabilities (Wiggs & Stores, 2001). Children of parents with an external locus of control were more likely to display aggressive or non-compliant behaviour (Roberts et al., 1992). As well, children of parents with a more external locus of parenting control when the children are two to three years old are more likely to have externalizing behaviour problems at age nine (Hagekull et al., 2001). Specific cognitions such as locus of control might influence coping styles used by parents and children in response to stressors. An internal locus of control may be linked with greater use of problem-solving coping strategies. Parents who believe they have little control over their child's behaviour (external locus of control) may have difficulty implementing behavioural interventions. Parents and children with an external locus of control may have difficulty making effective use of available social and family supports (Wiggs & Stores, 2001).

Personality and parenting outcomes are related to locus of control and social support. However, while different parenting styles may be related to various outcomes in

students it is also possible that different students may experience very different outcomes, even if parented by parents with the same parenting styles.

### *Implications*

Findings from the present study are an important contribution to the area of locus of control and social support. Interestingly, perceived parenting and personality were valuable to the prediction of locus of control, and specifically that the personality variables were significant in the prediction of locus of control over and above the importance of perceived parenting variables.

In terms of personality, researchers have reported the HEXACO-PI-R model to be useful in measuring six major dimensions of personality and their corresponding facets. But, there was no published research that took into account the HEXACO model of personality and locus of control orientation. Thus, using this model of personality, as opposed to the Five Factor Model, there has been some additions to the body of research on personality development. This thesis has led to a better understanding of the relationship among personality, parenting, locus of control, and social support.

In terms of parenting, this study is consistent with past findings. Those that have positive perceptions of their parents' parenting (such as authoritative parents) tend to have better psychological well-being, school adjustment, as well as fewer problem behaviours and an internal locus of control orientation (McClun & Merrell, 1998; Shek, 2002). The authoritative parenting style has been linked to children having a higher self-esteem and independence because of the democratic give-take nature of the authoritative parenting style. The present study has contributed to the parenting literature with regards to how perceived parenting may be related to personality and locus of control.

Authoritative parenting is often associated with positive characteristics such as emotional stability and consistency, while authoritarian parenting is usually related to more negative characteristics such as higher neuroticism (Weiss & Schwarz, 1996). Some of the findings from the present study seem to contradict this notion. In the present study an internal locus of control was predicted for students who perceived their parents as authoritative and were, themselves, open to experience and had low levels of social support. Those that perceived their parents as authoritarian were related to high extraversion and those that perceived their parents as authoritative were also related to high extraversion. Thus, there might be some positive aspects related to the authoritarian parenting style. Aspects of the authoritarian parenting style may be associated with more positive child outcomes than Baumrind (1971) expected.

Past researchers have found perceived parental authoritativeness to be related to an internal locus of control (Shek, 2002). In this study it was found that authoritative parenting along with being open to experience predicted an internal locus of control. Perceived parental nurturance and locus of control seem to be involved intimately in the development of children (Nowicki & Segal, 1974). Results from this thesis add to these discoveries and prompt further research. Future studies could examine the genetics of those reared by an authoritative parenting style and the relationship to locus of control.

In terms of social support, individuals who perceive that they have the support of others tend to persevere in greater proportions than students who perceive that they have less support (Pancer et al., 2005). Based on the findings from this thesis, parents who were perceived by their children as employing an authoritarian parenting style correlated negatively with social support. School psychologists can take this into consideration.

Also, high levels of extraversion are related to social support. These highly supported, extraverted individuals also tend to adjust much better to university than students who perceive that they have less support (Brooks & DuBois, 1995). Psychologists working in the university setting are encouraged to enhance counselling services and social support groups available for students in order to improve their outcomes.

Students who have an internal locus of control have a greater potential for success (Tella, Tella, & Adika, 2008). These students have a strong sense of self-efficacy and control over the actions that shape their lives. Locus of control has implications for educational advancement, which is a core focus within the profession of school psychology. Practitioners of school psychology have become increasingly interested in explanations for performance and effort variance among students at school. Nordstrom and Segrist (2009) reported that internal locus of control amongst students was a key predictor of entrance to graduate school above and beyond grade point average and consumer orientation. An internal locus of control was also found to be important in graduate school success. Those that planned to pursue graduate school more actively participated in class, which is clearly behaviour consistent with an internal locus of control orientation (Nordstrom & Segrist, 2009). Students who stand out are defined by their motivation and personality profile (Nordstrom & Segrist, 2009). Students who possess an internal locus of control are motivated which enables them to strive for success. This information is useful for school psychologists. These professionals could promote in students the importance of understanding that there is a clear connection between their efforts and the outcomes they derive.



In a school system, many personnel, in addition to school psychologists, can utilize these findings to enhance student success. Teachers who have an in-depth knowledge of their students' individual characteristics (e.g., locus of control belief, confidence, and personality) could develop effective regimens for each individual student or groups of students. Teachers could modify their teaching style to enhance academic performance. For example, a teacher may want to provide more feedback to a student who is externally-oriented rather than to one who is internally-oriented. Teachers can also promote strategies to develop a more internal locus of control and teach the importance of being responsible for one's actions, being predictable, and being in control of one's environment. Students may perhaps be encouraged to believe that they can make things happen by managing their time effectively, getting involved in school events, working independently, and establishing positive relationships and social support systems. Nordstrom and Segrist (2009) state, "Many of the tasks that differentiate 'average' students from 'go-getters' rely upon an internal locus of control." Overall, teachers should work with students to enhance and reinforce internal locus of control behaviours associated with academic success.

The practical implications can also be related to parent training and educational programs. There appears to be support for the notion that "good" parenting should involve an appropriate balance of warmth and restrictiveness (McClun & Merrel, 1998). Parents who are supportive, but who also set realistic limits, are more likely to raise children who have an increased positive sense of themselves and an internal locus of control orientation (McClun & Merrel, 1998). The authoritative parenting style has been shown to foster a more internal locus of control in their children (McClun & Merrel,

1998). School psychologists can take a proactive role by consulting with parents as to appropriate parental practices. Positive reinforcement, structure, open communication, emotional responsiveness, while minimizing acts of punishment should be encouraged as best practices. Psychologists can help parents to effectively rear their children to be responsible for their actions with the objective of providing them with a sense of control over their lives. For students who are struggling in school, it may be wise to inquire about the parenting style and supports in place at home. It is important to consider a student's home life.

#### *Caveats and Possible Limitations*

While one always runs the risk of explaining away findings while discussing limitations, they are a natural part of any research project. The statistically significant and non-significant findings may represent reality in the generalized population, however there are potential limitations to be acknowledged that, if addressed in the future, may provide additional interesting information.

In the present study, participants consisted of a convenience sample drawn from undergraduate psychology classes. As the sample was taken from a university with a high proportion of female students, participants were relatively homogeneous. The results may be different from that which would be found using a random sample from a diverse range of students from other universities.

Another potential limitation of the study was that parenting style was assessed using student self-reports of their perceptions rather than an objective and independent evaluation of parent behaviours and characteristics. It is possible that such factors as response sets, denial, or temporary stresses in student-parent relationships may have

influenced and biased the student subjects self-reports. However, retrospective studies are advantageous in contributing valuable information on a small scale and within a short completion time.

Measures consisted of self-report questionnaires, which have the potential to be biased. Individuals may have been reluctant to report on negative personality aspects or on negative perceptions of their parents. Thus, fewer students might have been identified as having negative personality characteristics or parenting styles. The findings were also based on correlational data relating self-reported personality aspects and retrospective perceived parenting. The levels of personality and perceived parental contributions to locus of control cannot be determined for certain, only associations can be drawn. However, all questionnaires were psychometrically stable which provides some reliance on the current findings.

Despite these limitations, findings from the present study contribute to our understanding of the personality traits and perceived parenting styles that influence locus of control and social support in students.

#### *Suggestions for Future Research*

An element of academic achievement could be examined to further investigate the relationship among personality, parenting, and locus of control. A relationship to academic achievement could be studied across gender, age, parental education, and ethnic and family structure categories. Additionally, researchers have found that fathers tend to interact with their children differently than mothers (Shek, 2002). Therefore, students' perceptions of their parents' parenting may be different depending on the parent. This may be an important factor to consider in future studies.

In terms of environmental effects, a more definitive study is needed that includes non-familial environmental factors such as peer relationships. Various aspects of family environment such as socioeconomic status may also have a differential effect on different personality traits. Furthermore, sex differences are an important variable to consider when predicting locus of control. Models describing locus of control could become more complex to include individual differences in sex. Future investigations comprising of a more even gender distribution can further examine the role of sex differences in predicting locus of control from personality and parenting.

### *Conclusion*

The present study has uncovered interesting relationships among perceived parenting, personality, and locus of control for students differentiated on degree of social support. The findings add to the literature, and future researchers can further investigate the relationships among these variables. Additional research could be conducted to decipher the contribution that each may make to the development of locus of control. One interaction was found as well as some interesting relationships and correlations. Specifically, perceived authoritative parenting and openness to experience was associated with an internal locus of control for students with low levels of social support. Further investigation of how authoritative parenting could lead to an internal locus of control could be prompted from these findings. A greater understanding of how to foster an internal locus of control in students would be very beneficial to society at large.

Overall, this thesis demonstrates the important role that school psychologists play to support students' in the move towards a positive locus of control. Ultimately, the internal perceptions of students greatly influence their desire to achieve success.

Students who are supported by a positive support network have a greater chance of success. Extrinsic factors such as strong social support networks and authoritative parenting positively influence a student's intrinsic desire to achieve success and be in control of their actions. School psychologists are encouraged to play a more active role in educating parents, teachers, and students on the value of locus of control.

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Table 1

*Scale descriptions of the six major dimension of personality in the HEXACO-PI-R.*

The HEXACO-PI-R Six Major Dimensions of Personality	Descriptions of Individuals who Score <i>High</i> on the Scale	Descriptions of Individuals who Score <i>Low</i> on the Scale
Honesty-Humility (H)	Tend to avoid manipulating others for personal gain, feel little enticement to break rules, and are indifferent towards having luxuries or having a high social status	Tend to be described as greedy, pretentious and boastful
Emotionality (E)	Tend to fear physical dangers, experience anxiety in response to life's stressors, and have a need for emotional support from others	Tend to be described as brave, tough and independent
eXtraversion (X)	Tend to feel confident when leading groups of people, enjoy social interactions, are enthusiastic, and feel positive about themselves	Tend to be described as passive, withdrawn and reserved
Agreeableness versus Anger (A)	Tend to compromise and cooperate with others, are patient with other people, and forgive people for wrongdoings	Tend to be described as ill-tempered or stubborn
Conscientiousness (C)	Tend to organize things, work in a discipline manner toward their goals, strive for accuracy and perfection in tasks, and deliberate carefully in any decisions to be made	Tend to be described as sloppy, lazy, and absent-minded
Openness to Experience (O)	Tend to be absorbed in the beauty of art and nature, feel intellectually curious, regularly use their imagination, and are interested in unusual ideas or people	Tend to be described as shallow and conventional

Table 2

*Means and Standard Deviation for Males and Females on Perceived Parenting, Personality, Social Support, and Locus of Control*

	Males	<i>N</i>	Females	<i>N</i>
<b>Perceived Parenting</b>				
Authoritative <sub>a</sub>	3.92 (.69)	4	3.57 (.72)	62
Permissive <sub>a</sub>	2.68 (.42)	4	2.52 (.76)	63
Authoritarian <sub>a</sub>	3.02 (.75)	4	2.95 (.84)	61
<b>Personality</b>				
Honesty-Humility <sub>b</sub>	3.15 (.34)	5	3.48 (.71)	63
Emotionality <sub>b</sub>	2.90 (.13)	5	3.85 (.59)	63
Extraversion <sub>b</sub>	3.60 (.46)	5	3.43 (.61)	61
Agreeableness versus Anger <sub>b</sub>	2.82 (.28)	5	2.98 (.69)	63
Conscientiousness <sub>b</sub>	2.87 (.15)	5	2.95 (.29)	62
Openness to Experience <sub>b</sub>	3.35 (.46)	5	3.57 (.53)	62

<sub>a</sub> 5-point scale, Max Score = 5

<sub>b</sub> 5-point scale, Max Score = 5

<sub>c</sub> 9-point scale, Max Score = 4

<sub>d</sub> 2-point scale, Max Score = 2

Table 2 Continued

*Means and Standard Deviation for Males and Females on Perceived Parenting, Personality, Social Support, and Locus of Control*

	<u>Males</u>	<u>N</u>	<u>Females</u>	<u>N</u>
<b>Social Support</b>				
Attachment <sub>c</sub>	2.81 (1.46)	5	3.25 (.98)	63
Social Integration <sub>c</sub>	3.06 (1.24)	5	3.22 (.91)	63
Opportunity for Nurturance <sub>c</sub>	2.12 (1.45)	5	2.28 (1.20)	63
Reassurance of Worth <sub>c</sub>	3.62 (.53)	5	2.76 (.99)	63
Reliable Alliance <sub>c</sub>	3.35 (.54)	5	3.59 (.64)	63
Guidance <sub>c</sub>	3.65 (.51)	5	3.48 (.75)	63
<b>Locus of Control</b>				
External <sub>d</sub>	1.88 (.37)	5	1.73 (.30)	63
Internal <sub>d</sub>	1.16 (.51)	5	1.20 (.75)	63

<sup>a</sup> 5-point scale, Max Score = 5

<sup>b</sup> 5-point scale, Max Score = 5

<sup>c</sup> 9-point scale, Max Score = 4

<sup>d</sup> 2-point scale, Max Score = 2

Table 3

*Two-tailed Pearson Correlations for Perceived Parenting Styles, Personality Aspects, Social Support, and Locus of Control*

	Social Support	Locus of Control	Permissive	Authoritarian	Authoritative
Social Support	1				
Locus of Control	.08	1			
Permissive	.01	-.12	1		
Authoritarian	-.34*	-.08	-.33**	1	
Authoritative	.11	-.16	.22	-.40**	1
Honesty-Humility	.10	.19	.08	-.35**	.08
Emotionality	.12	.26*	.04	-.01	.04
Extroversion	.33*	-.30*	.17	.11	.20
Agreeableness	.16	.13	.12	-.23	.19
versus Anger					
Conscientiousness	-.00	-.08	.23	.06	.07
Openness to Experience	.05	-.01	-.12	.05	.17

\* shows significance at .05 level or less

\*\* shows significance at .01 level or less

Table 3 Continued

*Two-tailed Pearson Correlations for Perceived Parenting Styles, Personality Aspects, Social Support, and Locus of Control*

	Honesty- Humility	Emotionality	Extroversion	Agreeableness versus Anger
Social Support				
Locus of Control				
Permissive				
Authoritarian				
Authoritative				
Honesty-Humility	1			
Emotionality	.08	1		
Extroversion	-.02	-.04	1	
Agreeableness versus Anger	.34**	-.03	-.03	1
Conscientiousness	.08	.08	.12	-.09
Openness to Experience	.13	.30*	.09	.12

\* shows significance at .05 level or less

\*\* shows significance at .01 level or less



Table 3 Continued

*Two-tailed Pearson Correlations for Perceived Parenting Styles, Personality Aspects, Social Support, and Locus of Control*

	Conscientiousness	Openness to Experience
Social Support		
Locus of Control		
Permissive		
Authoritarian		
Authoritative		
Honesty-Humility		
Emotionality		
Extroversion		
Agreeableness		
versus Anger		
Conscientiousness	1	
Openness to Experience	-.06	1

\* shows significance at .05 level or less

\*\* shows significance at .01 level or less

Table 4

*Predicting Locus of Control from Parenting Variables and Personality Variables for Low Social Support*

Variables	Beta	t-score	F-value
Permissive X Honesty-Humility	.52	.69	.91
Permissive X Emotionality	.32	.28	.90
Permissive X Extraversion	-.05	-.09	.13
Permissive X Agreeableness versus Anger	-.17	-.32	.35
Permissive X Conscientiousness	.33	.48	.35
Permissive X Openness to Experience	.31	.20	.68
Authoritative X Honesty-Humility	.23	.40	.52
Authoritative X Emotionality	.46	1.50	3.74
Authoritative X Extraversion	-.55	-1.14	1.00
Authoritative X Agreeableness versus Anger	.85	2.20	2.29
Authoritative X Conscientiousness	-.75	-1.66	1.49
Authoritative X Openness to Experience	.12	.89	21.17*
Authoritarian X Honesty-Humility	-.27	-.44	.62
Authoritarian X Emotionality	-.84	-.88	3.34
Authoritarian X Extroversion	-.29	-.23	.95
Authoritarian X Agreeableness versus Anger	-.31	-.41	.40

\* shows significance at .05 level or less

Table 4 Continued

*Predicting Locus of Control from Parenting Variables and Personality Variables for Low Social Support*

Variables	Beta	t-score	F-value
Authoritarian X Conscientiousness	-.62	-.88	.74
Authoritarian X Openness to Experience	-.37	-.43	1.22

\* shows significance at .05 level or less

Table 5

*Predicting Locus of Control from Parenting Variables and Personality Variables for High Social Support*

Variables	Beta	t-score	F-value
Permissive X Honesty-Humility	.19	.64	.26
Permissive X Emotionality	.15	.68	1.42
Permissive X Extraversion	-.32	-1.31	1.90
Permissive X Agreeableness versus Anger	.33	2.03	1.51
Permissive X Conscientiousness	.42	2.18	1.61
Permissive X Openness to Experience	-.01	-.06	.04
Authoritative X Honesty-Humility	.20	1.22	1.56
Authoritative X Emotionality	-.13	-.76	2.17
Authoritative X Extraversion	.24	1.18	2.48
Authoritative X Agreeableness versus Anger	-.07	-.35	.85
Authoritative X Conscientiousness	-.08	-.47	.57
Authoritative X Openness to Experience	-.20	-1.13	.92
Authoritarian X Honesty-Humility	-.14	-.79	.59
Authoritarian X Emotionality	.05	.33	1.40
Authoritarian X Extroversion	.24	1.29	2.42
Authoritarian X Agreeableness versus Anger	-.11	-.59	.36

\* shows significance at .05 level or less

Table 5 Continued

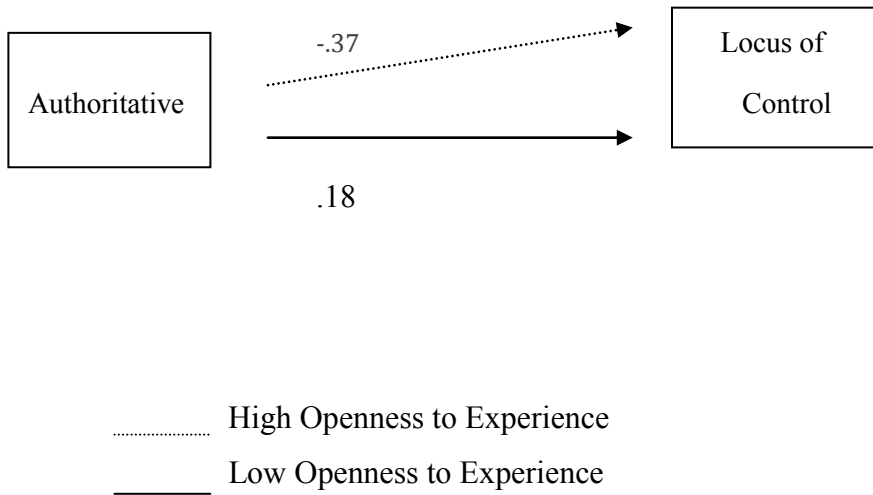
*Predicting Locus of Control from Parenting Variables and Personality Variables for High Social Support*

Variables	Beta	t-score	F-value
Authoritarian X Conscientiousness	-.19	-1.07	.45
Authoritarian X Openness to Experience	.18	1.02	.43

\* shows significance at .05 level or less

Figure 1

*Simple Effects Testing of Moderated Relation Between Authoritative Parenting and Openness to Experience in the Prediction of Locus of Control*



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$*p < .05$

## Appendix A.

Dear students,

I am a student in the Master of Arts in School Psychology program at Mount Saint Vincent University, working under the supervision of Dr. Daniel Lagacé-Séguin who is in the Department of Psychology. I am currently investigating the relationship among perceived parenting styles and the expression of personality in predicting locus of control in students differentiated on social support. More specifically, I am looking at how certain parenting styles may be related to the expression of specific personality traits in students and how these two factors may influence locus of control for different levels of social support.

I wish to invite you to participate in the present study. You will be required to fill out four short questionnaires: A questionnaire to assess perceived parenting styles of your parents, another to investigate aspects of your personality, one to examine your relationships with others, and one to examine your locus of control. All questions should take approximately 30 minutes to complete.

If you agree to participate you may choose to skip any questions that make you feel uncomfortable, and participation is completely voluntary. You may choose to withdraw from the study at any time without penalty.

All responses are confidential. To ensure confidentiality do not place your name on the survey. If you would like to participate please complete the attached informed consent form and hand it in along with your completed survey. You may keep this letter for your own records. Summarized results will be made available to you if you wish to have a copy and all you need to do is fill out contact information on the next page. The information obtained from the consent forms will be used to send a summary of results. Benefits are that involvement in the study will allow you to learn more about how perceived parenting may influence personality expression and locus of control. After completion of the study all identifying information will be destroyed.

If you have any questions do not hesitate to contact my thesis supervisor, Dr. Daniel Lagacé-Séguin at (902) 457- 6460. If you have questions about how this study is being conducted and wish to speak with someone who is not directly involved in the study, you may contact the Chair of the University Research Ethics Board (UREB) c/o MSVU Research and International Office, at 457-6350 or via e-mail at [research@msvu.ca](mailto:research@msvu.ca).

If you agree with the above please sign the consent form on the next page.

Sincerely,

Jillyan Farbstein  
MA Student

Dr. Daniel Lagacé-Séguin  
Associate Professor  
Thesis Supervisor  
Department of Psychology



**Participant Consent Form**

PLEASE PRINT CLEARLY IN INK

I, \_\_\_\_\_ (insert full name) have read the information sheet, and agree to participate in the present study concerning perceived parenting styles, personality, and locus of control.

\_\_\_\_\_  
Date

\_\_\_\_\_  
Signature

**Please complete this section if you wish to obtain a summary copy of the final results.**

\_\_\_\_\_  
Name

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

\_\_\_\_\_  
Mailing Address

OR

\_\_\_\_\_  
E-mail Address

## Appendix B.

**Demographics Questionnaire**

Please check the appropriate box or fill in the blank.

**Gender:**

- male
- female
- other

**Age:** \_\_\_\_\_

**Number of Years in University** (including your current year of study): \_\_\_\_\_

**Main Female Guardian's Highest Education (if applicable):**

- high School
- college
- university
- post-Graduate
- not applicable

**Main Male Guardian's Highest Education (if applicable):**

- high School
- college
- university
- post-Graduate
- not applicable

**Number of Siblings:** \_\_\_\_\_

**With whom did you reside while growing up?**

- mother and father
- mother only
- father only
- other

- If checked "other" please specify \_\_\_\_\_

**Who do you currently live with (you may check more than one)?**

- Alone (off-campus)
- Roommate(s) (off-campus)
- Residence (on-campus)
- mother and father
- mother only
- father only
- wife
- husband
- romantic partner
- other

- If checked "other" please specify \_\_\_\_\_

**List the individual(s) who provides you with the most social support (you may check more than one)?**

- sibling(s)
- roommate(s)
- friend(s)
- mother
- father
- grandparent(s)
- teacher(s)
- wife
- husband
- romantic partner
- other

- If checked "other" please specify \_\_\_\_\_

## Appendix C.

<p style="text-align: center;"><b>HEXACO-PI-R</b> <b>(SELF REPORT FORM)</b></p>
---

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***DIRECTIONS***

On the following pages you will find a series of statements about you. Please read each statement and decide how much you agree or disagree with that statement. Then write your response in the space next to the statement using the following scale:

5 = strongly agree

4 = agree

3 = neutral (neither agree nor disagree)

2 = disagree

1 = strongly disagree

Please answer every statement, even if you are not completely sure of your response.

**Please provide the following information about yourself.**

Sex (circle): Female Male

Age: \_\_\_\_\_ years

1 = strongly disagree    2 = disagree    3 = neutral    4 = agree    5 = strongly agree

- 1 \_\_\_\_\_ I would be quite bored by a visit to an art gallery.
- 2 \_\_\_\_\_ I clean my office or home quite frequently.
- 3 \_\_\_\_\_ I rarely hold a grudge, even against people who have badly wronged me.
- 4 \_\_\_\_\_ I feel reasonably satisfied with myself overall.
- 5 \_\_\_\_\_ I would feel afraid if I had to travel in bad weather conditions.
- 6 \_\_\_\_\_ If I want something from a person I dislike, I will act very nicely toward that person in order to get it.
- 7 \_\_\_\_\_ I'm interested in learning about the history and politics of other countries.
- 8 \_\_\_\_\_ When working, I often set ambitious goals for myself.
- 9 \_\_\_\_\_ People sometimes tell me that I am too critical of others.
- 10 \_\_\_\_\_ I rarely express my opinions in group meetings.
- 11 \_\_\_\_\_ I sometimes can't help worrying about little things.
- 12 \_\_\_\_\_ If I knew that I could never get caught, I would be willing to steal a million dollars.
- 13 \_\_\_\_\_ I would like a job that requires following a routine rather than being creative.
- 14 \_\_\_\_\_ I often check my work over repeatedly to find any mistakes.
- 15 \_\_\_\_\_ People sometimes tell me that I'm too stubborn.
- 16 \_\_\_\_\_ I avoid making "small talk" with people.
- 17 \_\_\_\_\_ When I suffer from a painful experience, I need someone to make me feel comfortable.
- 18 \_\_\_\_\_ Having a lot of money is not especially important to me.
- 19 \_\_\_\_\_ I think that paying attention to radical ideas is a waste of time.
- 20 \_\_\_\_\_ I make decisions based on the feeling of the moment rather than on careful thought.
- 21 \_\_\_\_\_ People think of me as someone who has a quick temper.
- 22 \_\_\_\_\_ I am energetic nearly all the time.
- 23 \_\_\_\_\_ I feel like crying when I see other people crying.
- 24 \_\_\_\_\_ I am an ordinary person who is no better than others.
- 25 \_\_\_\_\_ I wouldn't spend my time reading a book of poetry.
- 26 \_\_\_\_\_ I plan ahead and organize things, to avoid scrambling at the last minute.
- 27 \_\_\_\_\_ My attitude toward people who have treated me badly is "forgive and forget".
- 28 \_\_\_\_\_ I think that most people like some aspects of my personality.
- 29 \_\_\_\_\_ I don't mind doing jobs that involve dangerous work.
- 30 \_\_\_\_\_ I wouldn't use flattery to get a raise or promotion at work, even if I thought it would succeed.

Continue...

1 = strongly disagree    2 = disagree    3 = neutral    4 = agree    5 = strongly agree

- 31 \_\_\_\_\_ I enjoy looking at maps of different places.
- 32 \_\_\_\_\_ I often push myself very hard when trying to achieve a goal.
- 33 \_\_\_\_\_ I generally accept people's faults without complaining about them.
- 34 \_\_\_\_\_ In social situations, I'm usually the one who makes the first move.
- 35 \_\_\_\_\_ I worry a lot less than most people do.
- 36 \_\_\_\_\_ I would be tempted to buy stolen property if I were financially tight.
- 37 \_\_\_\_\_ I would enjoy creating a work of art, such as a novel, a song, or a painting.
- 38 \_\_\_\_\_ When working on something, I don't pay much attention to small details.
- 39 \_\_\_\_\_ I am usually quite flexible in my opinions when people disagree with me.
- 40 \_\_\_\_\_ I enjoy having lots of people around to talk with.
- 41 \_\_\_\_\_ I can handle difficult situations without needing emotional support from anyone else.
- 42 \_\_\_\_\_ I would like to live in a very expensive, high-class neighborhood.
- 43 \_\_\_\_\_ I like people who have unconventional views.
- 44 \_\_\_\_\_ I make a lot of mistakes because I don't think before I act.
- 45 \_\_\_\_\_ I rarely feel anger, even when people treat me quite badly.
- 46 \_\_\_\_\_ On most days, I feel cheerful and optimistic.
- 47 \_\_\_\_\_ When someone I know well is unhappy, I can almost feel that person's pain myself.
- 48 \_\_\_\_\_ I wouldn't want people to treat me as though I were superior to them.
- 49 \_\_\_\_\_ If I had the opportunity, I would like to attend a classical music concert.
- 50 \_\_\_\_\_ People often joke with me about the messiness of my room or desk.
- 51 \_\_\_\_\_ If someone has cheated me once, I will always feel suspicious of that person.
- 52 \_\_\_\_\_ I feel that I am an unpopular person.
- 53 \_\_\_\_\_ When it comes to physical danger, I am very fearful.
- 54 \_\_\_\_\_ If I want something from someone, I will laugh at that person's worst jokes.
- 55 \_\_\_\_\_ I would be very bored by a book about the history of science and technology.
- 56 \_\_\_\_\_ Often when I set a goal, I end up quitting without having reached it.
- 57 \_\_\_\_\_ I tend to be lenient in judging other people.
- 58 \_\_\_\_\_ When I'm in a group of people, I'm often the one who speaks on behalf of the group.
- 59 \_\_\_\_\_ I rarely, if ever, have trouble sleeping due to stress or anxiety.
- 60 \_\_\_\_\_ I would never accept a bribe, even if it were very large.

Continue...

1 = strongly disagree    2 = disagree    3 = neutral    4 = agree    5 = strongly agree

- 61 \_\_\_\_\_ People have often told me that I have a good imagination.
- 62 \_\_\_\_\_ I always try to be accurate in my work, even at the expense of time.
- 63 \_\_\_\_\_ When people tell me that I'm wrong, my first reaction is to argue with them.
- 64 \_\_\_\_\_ I prefer jobs that involve active social interaction to those that involve working alone.
- 65 \_\_\_\_\_ Whenever I feel worried about something, I want to share my concern with another person.
- 66 \_\_\_\_\_ I would like to be seen driving around in a very expensive car.
- 67 \_\_\_\_\_ I think of myself as a somewhat eccentric person.
- 68 \_\_\_\_\_ I don't allow my impulses to govern my behavior.
- 69 \_\_\_\_\_ Most people tend to get angry more quickly than I do.
- 70 \_\_\_\_\_ People often tell me that I should try to cheer up.
- 71 \_\_\_\_\_ I feel strong emotions when someone close to me is going away for a long time.
- 72 \_\_\_\_\_ I think that I am entitled to more respect than the average person is.
- 73 \_\_\_\_\_ Sometimes I like to just watch the wind as it blows through the trees.
- 74 \_\_\_\_\_ When working, I sometimes have difficulties due to being disorganized.
- 75 \_\_\_\_\_ I find it hard to fully forgive someone who has done something mean to me.
- 76 \_\_\_\_\_ I sometimes feel that I am a worthless person.
- 77 \_\_\_\_\_ Even in an emergency I wouldn't feel like panicking.
- 78 \_\_\_\_\_ I wouldn't pretend to like someone just to get that person to do favors for me.
- 79 \_\_\_\_\_ I've never really enjoyed looking through an encyclopedia.
- 80 \_\_\_\_\_ I do only the minimum amount of work needed to get by.
- 81 \_\_\_\_\_ Even when people make a lot of mistakes, I rarely say anything negative.
- 82 \_\_\_\_\_ I tend to feel quite self-conscious when speaking in front of a group of people.
- 83 \_\_\_\_\_ I get very anxious when waiting to hear about an important decision.
- 84 \_\_\_\_\_ I'd be tempted to use counterfeit money, if I were sure I could get away with it.
- 85 \_\_\_\_\_ I don't think of myself as the artistic or creative type.
- 86 \_\_\_\_\_ People often call me a perfectionist.
- 87 \_\_\_\_\_ I find it hard to compromise with people when I really think I'm right.
- 88 \_\_\_\_\_ The first thing that I always do in a new place is to make friends.
- 89 \_\_\_\_\_ I rarely discuss my problems with other people.
- 90 \_\_\_\_\_ I would get a lot of pleasure from owning expensive luxury goods.

Continue...

1 = strongly disagree    2 = disagree    3 = neutral    4 = agree    5 = strongly agree

- 91 \_\_\_\_\_ I find it boring to discuss philosophy.
- 92 \_\_\_\_\_ I prefer to do whatever comes to mind, rather than stick to a plan.
- 93 \_\_\_\_\_ I find it hard to keep my temper when people insult me.
- 94 \_\_\_\_\_ Most people are more upbeat and dynamic than I generally am.
- 95 \_\_\_\_\_ I remain unemotional even in situations where most people get very sentimental.
- 96 \_\_\_\_\_ I want people to know that I am an important person of high status.
- 97 \_\_\_\_\_ I have sympathy for people who are less fortunate than I am.
- 98 \_\_\_\_\_ I try to give generously to those in need.
- 99 \_\_\_\_\_ It wouldn't bother me to harm someone I didn't like.
- 100 \_\_\_\_\_ People see me as a hard-hearted person.



## Appendix D.

**Parental Authority Questionnaire**

**For each statement circle the number that best describes your mother and father (or male and female primary caregiver) as you were growing up. 1 = strongly disagree and 5 = strongly agree.**

- 1) While I was growing up my parent felt that in a well-run home the children should have their way in the family as often as the parents do.

Mother (Female caregiver)	1	2	3	4	5
Father (Male caregiver)	1	2	3	4	5

- 2) Even if her children didn't agree with her, my parent felt that it was for our own good if we were forced to conform to what she thought was right.

Mother (Female caregiver)	1	2	3	4	5
Father (Male caregiver)	1	2	3	4	5

- 3) Whenever my parent told me to do something as I was growing up, she expected me to do it immediately without asking any questions.

Mother (Female caregiver)	1	2	3	4	5
Father (Male caregiver)	1	2	3	4	5

- 4) As I was growing up, once family policy had been established my parent discussed the reasoning behind the policy with the children in the family.

Mother (Female caregiver)	1	2	3	4	5
Father (Male caregiver)	1	2	3	4	5

- 5) My parent has always encouraged verbal give and take whenever I have felt that family rules and restrictions were unreasonable.

Mother (Female caregiver)	1	2	3	4	5
Father (Male caregiver)	1	2	3	4	5

- 6) My parent 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.

Mother (Female caregiver)	1	2	3	4	5
Father (Male caregiver)	1	2	3	4	5

7) As I was growing up my parent did not allow me to question any decision she had made.

Mother (Female caregiver)	1	2	3	4	5
Father (Male caregiver)	1	2	3	4	5

8) As I was growing up my parent directed the activities and decisions of the children in the family through reasoning and discipline.

Mother (Female caregiver)	1	2	3	4	5
Father (Male caregiver)	1	2	3	4	5

9) My parent has always felt that parents should use more force in order to get their children to behave the way they are supposed to.

Mother (Female caregiver)	1	2	3	4	5
Father (Male caregiver)	1	2	3	4	5

10) As I was growing up my parent did not feel that I needed to obey rules and regulations of behaviour simply because someone in authority had established them.

Mother (Female caregiver)	1	2	3	4	5
Father (Male caregiver)	1	2	3	4	5

11) As I was growing up I knew what my parent expected of me in my family, but I also felt free to discuss those expectations with my parent when I felt that they were unreasonable.

Mother (Female caregiver)	1	2	3	4	5
Father (Male caregiver)	1	2	3	4	5

12) My parent felt that wise parents should teach their children early just who is boss in the family

Mother (Female caregiver)	1	2	3	4	5
Father (Male caregiver)	1	2	3	4	5

13) As I was growing up, my parent seldom gave me expectations and guidelines for my behaviour.

Mother (Female caregiver)	1	2	3	4	5
Father (Male caregiver)	1	2	3	4	5

14) Most of the time as I was growing up my parent did what the children in the family wanted when making family decisions.

Mother (Female caregiver)	1	2	3	4	5
Father (Male caregiver)	1	2	3	4	5

15) As the children in my family were growing up my parent consistently gave us direction and guidance in rational and objective ways.

Mother (Female caregiver)	1	2	3	4	5
Father (Male caregiver)	1	2	3	4	5

16) As I was growing up my parent would get very upset if I tried to disagree with her.

Mother (Female caregiver)	1	2	3	4	5
Father (Male caregiver)	1	2	3	4	5

17) My parent felt 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

Mother (Female caregiver)	1	2	3	4	5
Father (Male caregiver)	1	2	3	4	5

18) As I was growing up my parent let me know what behaviour she expected of me, and if I didn't meet those expectations, she punished me.

Mother (Female caregiver)	1	2	3	4	5
Father (Male caregiver)	1	2	3	4	5

19) As I was growing up my parent allowed me to decide most things for myself without a lot of direction from her.

Mother (Female caregiver)	1	2	3	4	5
Father (Male caregiver)	1	2	3	4	5

20) As I was growing up my parent took the children's opinions into consideration when making family decisions, but she would not decide for something simply because the children wanted it.

Mother (Female caregiver)	1	2	3	4	5
Father (Male caregiver)	1	2	3	4	5

21) My parent did not view herself as responsible for directing and guiding my behaviour as I was growing up.

Mother (Female caregiver)	1	2	3	4	5
Father (Male caregiver)	1	2	3	4	5

22) My parent had clear standards of behaviour 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.

Mother (Female caregiver)	1	2	3	4	5
Father (Male caregiver)	1	2	3	4	5

23) My parent gave me direction for my behaviour 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.

Mother (Female caregiver)	1	2	3	4	5
Father (Male caregiver)	1	2	3	4	5

24) As I was growing up my parent 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.

Mother (Female caregiver)	1	2	3	4	5
Father (Male caregiver)	1	2	3	4	5

25) My parent 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 what they are supposed to as they are growing up.

Mother (Female caregiver)	1	2	3	4	5
Father (Male caregiver)	1	2	3	4	5

26) As I was growing up my parent often told me exactly what she wanted me to do and how she expected me to do it.

Mother (Female caregiver)	1	2	3	4	5
Father (Male caregiver)	1	2	3	4	5

27) As I was growing up my parent gave me clear direction for my behaviours and activities, but she also understood when I disagreed with her.

Mother (Female caregiver)	1	2	3	4	5
Father (Male caregiver)	1	2	3	4	5

28) As I was growing up my parent did not direct the behaviours, activities, and desires of the children in the family.

Mother (Female caregiver)	1	2	3	4	5
Father (Male caregiver)	1	2	3	4	5

29) As I was growing up I knew what my parent expected of me in the family and she insisted that I conform to those expectations simply out of respect for her authority.

Mother (Female caregiver)	1	2	3	4	5
Father (Male caregiver)	1	2	3	4	5

30) As I was growing up, if my parent 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.

Mother (Female caregiver)	1	2	3	4	5
Father (Male caregiver)	1	2	3	4	5

## Appendix E.

**ANSIE – Form C****YES NO**

- \_\_\_ \_\_\_ 1. Do you believe that most problems will solve themselves if you don't fool with them?
- \_\_\_ \_\_\_ 2. Do you believe that you can stop yourself from catching a cold?
- \_\_\_ \_\_\_ 3. Are some people just born lucky?
- \_\_\_ \_\_\_ 4. Most of the time, do you feel that getting good grades means a great deal to you?
- \_\_\_ \_\_\_ 5. Are you often blamed for things that just aren't your fault?
- \_\_\_ \_\_\_ 6. Do you believe that if somebody studies hard enough, he or she can pass any subject?
- \_\_\_ \_\_\_ 7. Do you feel that most of the time it doesn't pay to try hard because things never turn out right anyway?
- \_\_\_ \_\_\_ 8. Do you feel that if things start out well in the morning that it's going to be a great day, no matter what you do?
- \_\_\_ \_\_\_ 9. Do you feel that most of the time parents listen to what their children have to say?
- \_\_\_ \_\_\_ 10. Do you believe that wishing can make good things happen?
- \_\_\_ \_\_\_ 11. When you get criticized, does it usually seem it's for no good reason at all?
- \_\_\_ \_\_\_ 12. Most of the time do you find it hard to change a friend's (mind) opinion?
- \_\_\_ \_\_\_ 13. Do you think that cheering, more than luck, helps a team to win?
- \_\_\_ \_\_\_ 14. Do you feel that it is nearly impossible to change your parents' mind about anything?
- \_\_\_ \_\_\_ 15. Do you believe that your parents should allow you to make most of your own decisions?
- \_\_\_ \_\_\_ 16. Do you feel that when you do something wrong there's very little you can do to make it right?
- \_\_\_ \_\_\_ 17. Do you believe that most people are just born good at sports?
- \_\_\_ \_\_\_ 18. Are most of the other people your age and sex stronger than you are?
- \_\_\_ \_\_\_ 19. Do you feel that one of the best ways to handle most problems is just not to think about them?
- \_\_\_ \_\_\_ 20. Do you feel that you have a lot of choice in deciding whom your friends are?
- \_\_\_ \_\_\_ 21. If you find a four leaf clover, do you believe that it might bring good luck?
- \_\_\_ \_\_\_ 22. Do you often feel that whether or not you do your homework has much to do with what kinds of grades you get?

- \_\_\_ \_\_\_ 23. Do you feel that when a person your age is angry with you, there's little you can do to stop him or her?
- \_\_\_ \_\_\_ 24. Have you ever had a good luck charm?
- \_\_\_ \_\_\_ 25. Do you believe that whether or not people like you depends on how you act?
- \_\_\_ \_\_\_ 26. Will your parents usually help you if you ask them to?
- \_\_\_ \_\_\_ 27. Have you ever felt that when people were angry with you, it was usually for no reason at all?
- \_\_\_ \_\_\_ 28. Most of the time, do you feel that you can change what might happen tomorrow by what you do today?
- \_\_\_ \_\_\_ 29. Do you believe that when bad things are going to happen they just are going to happen no matter what you do to try to stop them?
- \_\_\_ \_\_\_ 30. Do you think that people can get their own way if they just keep trying?
- \_\_\_ \_\_\_ 31. Most of the time, do you find it useless to try to get your own way at home?
- \_\_\_ \_\_\_ 32. Do you feel that when good things happen, they happen because of hard work?
- \_\_\_ \_\_\_ 33. Do you feel that when somebody your age wants to be your enemy, there's little you can do to change matters?
- \_\_\_ \_\_\_ 34. Do you feel that it's easy to get friends to do what you want them to do?
- \_\_\_ \_\_\_ 35. Do you usually feel that you have little to say about what you get to eat at home?
- \_\_\_ \_\_\_ 36. Do you feel that when someone doesn't like you there's little you can do about it?
- \_\_\_ \_\_\_ 37. Do you usually feel that it is almost useless to try in school because most other students are just plain smarter than you are?
- \_\_\_ \_\_\_ 38. Are you the kind of person that believes that planning ahead makes things turn out better?
- \_\_\_ \_\_\_ 39. Most of the time, do you feel that you have little to say about what your family decides to do?
- \_\_\_ \_\_\_ 40. Do you think it's better to be smart than to be lucky?

## Appendix F.

**Relationships with Others**

In this section, you will find a number of statements relating to your relationships with those around you. Read each carefully and rate using the following scale.

-4	-3	-2	-1	0	+1	+2	+3	+4
very strongly disagree	strongly disagree	moderately disagree	slightly disagree	neither agree nor disagree	slightly agree	moderately agree	strongly agree	very strongly agree

1. \_\_\_\_\_ There are people I can depend on to help me if I really need it.
2. \_\_\_\_\_ I feel that I do not have any close personal relationships with other people.
3. \_\_\_\_\_ There is no one I can turn to for guidance in times of stress.
4. \_\_\_\_\_ There are people who depend on me for help.
5. \_\_\_\_\_ There are people who enjoy the same social activities I do.
6. \_\_\_\_\_ Other people do not view me as competent.
7. \_\_\_\_\_ I feel personally responsible for the well-being of another person.
8. \_\_\_\_\_ I feel part of a group of people who share my attitudes and beliefs.
9. \_\_\_\_\_ I do not think other people respect my skills and abilities.
10. \_\_\_\_\_ If something went wrong, no one would come to my assistance.
11. \_\_\_\_\_ I have close relationships that provide me with a sense of emotional security and well-being.
12. \_\_\_\_\_ There is someone I could talk to about important decisions in my life.
13. \_\_\_\_\_ I have relationships where my competence and skill are recognized.
14. \_\_\_\_\_ There is no one who shares my interests and concerns.

-4	-3	-2	-1	0	+1	+2	+3	+4
very strongly disagree	strongly disagree	moderately disagree	slightly disagree	neither agree nor disagree	slightly agree	moderately agree	strongly agree	very strongly agree

15. \_\_\_\_\_ There is no one who really relies on me for their well-being.
16. \_\_\_\_\_ There is a trustworthy person I could turn to for advice if I were having problems.
17. \_\_\_\_\_ I feel a strong emotional bond with at least one other person.
18. \_\_\_\_\_ There is no one I can depend on for aid if I really need it.
19. \_\_\_\_\_ There is no one I feel comfortable talking about problems with.
20. \_\_\_\_\_ There are people who admire my talents and abilities.
21. \_\_\_\_\_ I lack a feeling of intimacy with another person.
22. \_\_\_\_\_ There is no one who likes to do the things I do.
23. \_\_\_\_\_ There are people I can count on in an emergency.
24. \_\_\_\_\_ No one needs me to care for them any more.