Attachment Styles and Psychological Separation
in relation to Procrastination: A Psychodynamic Perspective on the
Breakdown in Volitional Action

Mohsen Haghbin

Thesis submitted to the Faculty of Graduate Studies and Research in partial fulfillment of
the requirements for the degree of Master of Arts

Department of Psychology

Carleton University

August 2006

©Mohsen Haghbin

Library and
Archives Canada

Bibliothèque et
Archives Canada

Published Heritage
Branch

Direction du
Patrimoine de l'édition

395 Wellington Street
Ottawa ON K1A 0N4
Canada

395, rue Wellington
Ottawa ON K1A 0N4
Canada

Your file Votre référence

ISBN: 978-0-494-18267-3

Our file Notre référence

ISBN: 978-0-494-18267-3

NOTICE:

The author has granted a non-exclusive license allowing Library and Archives Canada to reproduce, publish, archive, preserve, conserve, communicate to the public by telecommunication or on the Internet, loan, distribute and sell theses worldwide, for commercial or non-commercial purposes, in microform, paper, electronic and/or any other formats.

The author retains copyright ownership and moral rights in this thesis. Neither the thesis nor substantial extracts from it may be printed or otherwise reproduced without the author's permission.

AVIS:

L'auteur a accordé une licence non exclusive permettant à la Bibliothèque et Archives Canada de reproduire, publier, archiver, sauvegarder, conserver, transmettre au public par télécommunication ou par l'Internet, prêter, distribuer et vendre des thèses partout dans le monde, à des fins commerciales ou autres, sur support microforme, papier, électronique et/ou autres formats.

L'auteur conserve la propriété du droit d'auteur et des droits moraux qui protègent cette thèse. Ni la thèse ni des extraits substantiels de celle-ci ne doivent être imprimés ou autrement reproduits sans son autorisation.

In compliance with the Canadian Privacy Act some supporting forms may have been removed from this thesis.

Conformément à la loi canadienne sur la protection de la vie privée, quelques formulaires secondaires ont été enlevés de cette thèse.

While these forms may be included in the document page count, their removal does not represent any loss of content from the thesis.

Bien que ces formulaires aient inclus dans la pagination, il n'y aura aucun contenu manquant.

Canada

Abstract

In the present study, I sought to understand procrastination from a psychodynamic perspective by exploring the influence of the intra-psychic factors, attachment and separation-individuation from parents, on academic procrastination. Two hundred and one undergraduate students completed a battery of measures. The results revealed that total academic procrastination had a significant negative relation with conflictual, emotional, and functional independence from parents and a significant positive relationship with preoccupied and fearful prototypes as well as fear of rejection. However, these results were not consistent for different components of academic procrastination and the results differed on the basis of gender. Conflictual independence from father for females as well as emotional and functional independence from mother for males were the significant contributing factors in the prediction of procrastination. Freedom from negativity and conflict related to self and parents was identified as the most important construct in this study, and I argue that it may be instrumental in reducing general academic procrastination.

Dedicated to my unconditional sources of love, inspiration, motivation and support:

Ameneh, Paryrokh, Fatemeh and my beloved Father

Acknowledgments

I wish I had enough writing space to be able to extend my heartfelt gratitude to all of the teachers and friends who have affected my life, taught me a word, or given me encouragement to continue my development despite all the difficulties.

I wish I had appropriate words to acknowledge my advisor, Dr. Timothy Pychyl who understood me in the most difficult days of my life, gave me hope and unwavering support to follow my idea, and wisely inspired me to develop my research. My respect for him and appreciation of his positive impact on my education can not be measured. This study would neither have started nor completed without invaluable guidance of Tim and his confidence in me as one of his students.

My gratitude goes to the members of my MA thesis committee: Dr. Zelenski, Dr. Daniels, Dr. Pollard, and Dr. Campbell for reviewing my thesis, providing interesting questions and valuable comments.

I also would like to thank the wonderful administrative staff of Psychology Department, June for showing her true heart and great humanity, supporting and advising me in difficult situations, Etelle and Natalie for their kindness and keeping me on track in terms of deadlines and helping me to finish my MA in two years.

I would like to express my heartfelt gratitude to Marianna who has given me invaluable feedback in terms of writing and who argued and fought over ideas with me. In these conversations, I became inspired, more clear, and prepared for the defense. I never forget her unique understanding, encouragement and support.

My deepest gratitude to everybody who shared the good and bad times with me and who always believed in me: my family - Mehdi, Mostafa, Amir, Hamid , Zohreh, Azadeh, Ali, Alaleh, Neda, Negar, Mohamad, Niloofar, Mariam, Siavash, Marjan, Reza, Shirin and my dearest friends: Susan, Farhad B, Mauricio, Shahla, Maria, Mariam, Marzieh, Mehdi Maleky, Ernest D, Hossein, Payam, Delara, Laleh, and.....

Table of Contents

Abstract	ii
Acknowledgements	iii
Table of content	iv
List of tables	vi
List of figures	vii
Introduction	1
Procrastination, Definitions and Correlates	3
Procrastination, Psychodynamic Theory and Research	5
Separation-Individuation	7
Attachment Theory	11
Connectedness versus Autonomy	17
Summary of Hypothesis and Proposed Data Analysis	21
Method	23
Participants	23
Procedures	23
Measures	25
Results	30
Case Inclusion	30
Missing Data	30
Principal Component Analyses of Outcome Measures	31
Testing 1st Hypothesis: The relation between PSI and Procrastination	39
Gender Differences	47
Testing 2nd Hypothesis: The relation between attachment and procrastination	51
Testing 3rd Hypothesis: Optimal combinations of independent and dependent variables and its relationship	56
Final “Omnibus” hypothesis test	64
Summary of Results	66

Discussion	68
Independence and Attachment Findings in Light of Previous Research	69
Gender Differences	72
Procrastination is A Complex Phenomenon	74
Optimal Independence-attachment Combinations	75
Independence-attachment Components and Procrastination	77
Potential theoretical Explanation and Implication of the Findings	78
Potential Clinical Implications	82
Limitations and Future Research	83
Summary and Conclusion	86
References	87
Appendices	101
Demographic Questionnaire	102
Psychological Separation Inventory (PSI)	103
Relationships Questionnaire (RQ)	107
Relationships Structures (RS)	109
Procrastination Assessment Scale for Students (PASS)	113
Multidimensional Academic Procrastination Scale (MAPS)	118

List of Tables

Table 1. Correlates of Bartholomew's attachment styles	16
Table 2. Order of questionnaires in the package	24
Table 3. Principal components of the PASS problem items	32
Table 4. Principal components loadings of the PASS problem items	32
Table 5. Principal components of the PASS_Frequency and MAPS_Behaviour items	33
Table 6. Principal components loadings of the PASS & MAPS behaviour items	34
Table 7. Principal components loadings of the MAPS emotion items	36
Table 8. Abbreviations and descriptive statistics: independent and dependent variables	38
Table 9. Multiple regressions of psychological separation individuation variables on procrastination indices.	44-5
Table 10. Multiple regressions of attachment variables on procrastination indices	53-4
Table 11. Principal components loadings of the dependent variables (procrastination indices)	58
Table 12. Principal components loadings of the independent variables (separation-individuation aspects and attachment diminutions)	59
Table 13. Multiple regressions of the independence and conflict-free component on procrastination components	61
Table 14. Principal components loadings of the independent variables II (separation- individuation aspects and attachment prototypes)	62
Table 15. Improved principal components loadings of the independent variables II	63
Table 16. Multiple regressions of the independence, healthy attachment, and negativity free component on procrastination components	64
Table 17. Multiple regressions of the independence, healthy attachment, and negativity free component on total academic by gender	67

List of Figures

Figure 1. Four attachment styles in a two-dimensional framework	15
Figure 2. The existing psychodynamic explanation of procrastination	79
Figure 3. A Potential extension for the existing psychodynamic explanation of procrastination, based on gender findings	80

Attachment Styles and Psychological Separation in relation to Procrastination: A Psychodynamic Perspective on the Breakdown in Volitional Action

Procrastination is believed to be a “dysfunction of important human abilities” (Milgram, Sroloff, and Rosenbaum, 1988, p. 210). At least 25% of students report suffering from severe cases of procrastination (Ferrari, et al., 1995). The word procrastination has a long history of being used both positively and negatively; however, scientific efforts to define and research this construct are relatively new (Ferrari et al., 1995).

A number of different causality theories of procrastination presently exist. Some of them evolve around personality factors that are argued to be the source of procrastination such as conscientiousness, impulsivity, and neuroticism (see Aitken, 1992; McCown, 1995; Johnson and Bloom, 1993; McCown, Rupter and Patzel, 1987). Some focus on situational factors such as task aversiveness (Solomon and Rothblum, 1984). Others hint at more cognitive and cognitive-behavioural elements including irrational beliefs, abilities to self-regulate task schedules (Ellis and Knaus, 1977; Carver and Scheier, 1990), learned hopelessness (McKean, 1990), and locus of control (Taylor, 1979).

Little theoretical and empirical work, however, has been done in advancing and supporting psychodynamic or developmental theoretical explanations of procrastination. To date, the major developmental and psychodynamic explanations of procrastination have been centered on variables directly related to parenting. It has been demonstrated

that the type of parenting style can differentiate between procrastinator and non-procrastinator (MacIntyre, 1964; Ferrari and Olivette, 1993, 1994; Pychyl, Coplan, and Reid, 2002). Although useful, these studies did not target the developmental intrapsychic factors which are directly affected by or related to parenting styles and could potentially manifest in such behaviours as procrastination.

In order to begin to address this limitation in the existing literature, the purpose of this study was to examine developmental variables related to procrastination. I examined the possibility of situating procrastination within two major psychodynamic theories namely Separation Individuation and Attachment. Given that these important psychological processes have been related to the development of volition and action regulation (e.g., Calkins, 2004; Sroufe et al., 2000), my overall hypothesis was that measures of these variables would account for significant variance in measures of procrastination. Theoretically, I use this as evidence of the important role that these variables may play in the etiology of procrastination.

I begin the thesis with an outline of the theoretical framework, major concepts and variables relevant to this study, as well as strategies for examining the relationship between these variables. Specifically, in the first section, I review definitions of the dependent variable, procrastination, its empirical correlates, and psychodynamic explanations. Secondly, I position procrastination in two developmental psychodynamic theories, Separation Individuation and Attachment, and present my first set of hypotheses. This is done by introducing the independent variables, different aspects of psychological separation from parents and attachment styles, as well as reviewing related empirical findings. The second set of hypotheses is presented after discussing reasons for

considering the integration of the two psychodynamic theories to explain procrastination in an academic setting. The literature review concludes with a summary of the hypotheses and the relevant statistical analyses for my study.

Procrastination, Definitions and Correlates

One of the difficulties in studying procrastination is the variation in definitions (Ferrari et al., 1995). Most generally, procrastination is defined as the irrational tendency to delay an intended task (Lay, 1986). Researchers conceptualize procrastination as the “notion that procrastination represents a discrepancy between an individual’s intention to act and the performance of the intended action” (Blunt and Pychyl, 2005, p. 1772). These definitions can be interpreted as both *dilatory behaviour* and a *general habitual trait*. When dilatory behaviour becomes a typical response in a variety of situations, it can be considered as trait procrastination (Schouwenburg, 2004).

There is also differentiation between dilatory behaviours and task avoidance. Schouwenburg (2004) cautions that this difference is delicate and subject to clinical interpretation. One should not jump to conclusions and label late submission of a term paper a dilatory behaviour. In this case, the student might be fearful of the teacher and delay or neglect the submission due to his or her anxiety which produces avoidant behaviour.

There are two kinds, *decisional* (Mann et al., 1998) and *behavioural* (Lay, 1986; McCown and Johnson, 1989a) procrastination, reported in the literature. Decisional procrastination refers to postponing decisions, while behavioural procrastination refers to postponing actions (van Eerde, 2003). There is also a differentiation of procrastination based on the context of its occurrence. For example, some authors differentiate between

general, academic, and daily-life procrastination (e.g., Miligram et al., 1998 cited in van Eerde, 2003).

Given the complexity, some might say confusion, regarding this term, it is important to note that in this study I focus on behavioural procrastination in an academic setting. In this context, trait (chronic) procrastination is believed to cause dilatory behaviours of school tasks (Schouwenburg, 2004). Academic procrastination is operationally defined as needless delay on five specific school tasks (e.g., writing a term paper) and performing academic tasks in general at the last moment (Solomon and Ruthblum, 1984).

A number of studies have been done in the past decade investigating the relationship of procrastination with a variety of psychological factors. A negative relationship of procrastination has been well established with self-control, self-confidence and self-esteem (see Ferrari, 2004; Steel, 2002). Among the “Big Five” dimensions of personality, conscientiousness and to a lesser extent neuroticism (emotional stability) have shown an association with trait procrastination (Steel, 2002; van Eerde, 2003). Chronic procrastinators also exhibit high levels of trait and state anxiety, fear of failure, depression, neurosis, and feelings of guilt (see Ferrari, 2004; Steel, 2002).

Other variables strongly related to procrastination include distractibility, self-handicapping and impulsiveness (for a detailed review see Ferrari, 2004; Ferrari and Patel, 2004; Steel, 2002). In addition, gender and age have been demonstrated to have an impact on procrastination. Procrastination is more likely to be reported in a younger male group (van Eerde, 2003).

In sum, procrastination has been researched largely from a quasi-experimental perspective with key person and situation factors correlated to a variety of measures of procrastination. And, although this has enriched our understanding of procrastination in terms of prediction, it lacks some explanatory power from a theoretical perspective. At most, the theoretical perspective has been based on a notion of “source” traits for procrastination such as conscientiousness (e.g., Lay, 1997), or for situational determinants such as task aversiveness (e.g., Blunt & Pychyl, 2000). What is lacking in this literature and in our understanding of procrastination are alternative explanations of procrastination from a theoretical perspective.

Procrastination, Psychodynamic Theory and Research

Missilidine (1964) was among the first psychodynamic developmentalists who tried to explain the *procrastination syndrome*. From his perspective, it is faulty parenting, unrealistic goals demanded from parents and the parents’ linking of goal achievement to parental love that result in anxiety and worthless feelings for a child and eventually the *procrastination syndrome*. The procrastination syndrome in turn manifests in “*slow, daydreaming paralysis*” towards task achievement (Ferrari et al., 1995).

Similarly, MacIntyre (1964) viewed permissive and authoritarian parenting styles as the cause for “nervous under-achiever” and “angry under-achiever” characteristics in children, respectively. Later in life due to severe anxiety, it is difficult for the nervous under-achiever to pursue goals effectively and to reach his or her self-set deadlines. The angry under-achiever, in contrast, fails in goal pursuit while trying to obtain a false sense of independence by disregarding the obligation of deadlines (Ferrari et al., 1995).

A different explanation of the effect of authoritarian parental style on procrastination was offered by Spock (1971) who suggested that children are unconsciously expressing their anger towards their authoritarian parent by failing at parentally imposed tasks (Ferrari et al., 1995). This explanation was later explored empirically by Ferrari and Olivette (1994) who suggested that children adopt a passive-aggressive personality style to cope with the restrictive environment of the forceful, overbearing, and highly controlling parent.

Empirical research found a direct relationship between authoritative and authoritarian parenting styles in fathers and female procrastinators as well as an indirect relationship mediated by self-worth of female procrastinators and parenting in mothers (Ferrari and Olivette, 1994; Pychyl, Coplan, and Reid, 2002). No significant results were found when the relationship between permissive parenting style and procrastination was investigated (Ferrari and Olivette, 1993, 1994; Pychyl et al., 2002).

As Pychyl and his colleagues (2002) noted, these studies used participants' perception, which may be different from the actual parenting styles. In addition, studying parenting styles alone gives only a partial picture in understanding the association between parent-individual dyadic interaction and procrastination. A specific parental style might influence the individual's developmental factors (e.g., attachment style) differently from one person to another.

For example, Karavasilis, Doyle, and Markiewicz (2003) demonstrated that authoritarian parenting style (low level of warm involvement and psychological autonomy granting and high level of behavioural control) resulted in the development of both fearful-avoidant and preoccupied attachment styles. These styles in turn might

contribute to different developmental paths to procrastination. Directly examining the relationship of developmental factors explained by both Separation-Individuation and Attachment theories and procrastination might add to a better understanding of the etiology of this maladjustment. It might also have direct implications for counseling practices.

Separation-Individuation

One of the fundamental *neo-analytic conceptualizations* (Blos, 1967; Mahler, 1960) is the concept of *separation-individuation*, which is used interchangeably with *psychological separation* in this study. In this view, “the individual’s drive towards healthy personal adjustment is critically dependent on his/her ability to psychologically separate from parents and gain the sense of identity as a separate individual” (Hoffman, 1984, p. 170). Based on the observations of the mother-baby interactions, Mahler (1968) introduced the first process of separation-individuation during infancy. Mahler, Pine, and Bergman (1975) believe that a pronounced reduction in attachment and dependency in infants towards their parent is a necessary condition in the development of identity and obtaining an effective separation-individuation.

Blos (1962, 1979) proposed the second process of separation-individuation in adolescence and early adulthood governed by the same principles as in infancy. The adolescent process of separation-individuation involves shedding dependencies from parents and emotional disengagement from infantile internalized parental objects which results in a redefinition of existing relationships with parents.

Based on Mahler and Blos’s theory of separation-individuation as well as empirical evidence, researchers (see Hoffman, 1984; Steinberg and Silverman, 1986;

Moore, 1987) suggested that psychological separation from parents should be considered as a multidimensional construct including affective, cognitive, and behavioural components. In this study, the first dimension refers to both emotional and conflictual independence/dependence from parents and the latter two correspond to attitudinal and functional independence/dependence respectively.

Hoffman (1984) defined these four aspects of psychological separation as follows. Emotional independence is defined as “freedom from an excessive need for approval, closeness, and emotional support from mother and father. Conflictual independence is considered as “freedom from excessive guilt, anxiety, resentment, and anger toward the parents” (p. 157). Attitudinal independence refers to the image of oneself as being unique and having attitudes, beliefs, and opinions different from their parents. Functional independence refers to the ability of oneself to manage and direct his or her practical and personal affairs without the parental involvement (Hoffman 1984; Lapsley and Edgerton, 2002).

The relationship between psychological separation and academic procrastination has not been studied directly. However, research has demonstrated a strong relationship between psychological separation from parents and academic adjustment, academic achievement, interpersonal problems and identity development (Dadsetan, Haghbin, Basazian, and Hosan-Zade, 2004; Hoffman, 1984; Hoffman and Weiss, 1987; Lapsley and Edgerton, 2002; Lopez & Gover, 1993; Lopez, Watkins, Manus, & Hunton-Shoup, 1992; Lucas, 1997; Rice, Cole, & Lapsley, 1990; Tokar, Withrow, Hall, and Moradi, 2003). Given this extensive evidence linking psychological separation and academic performance, I expect that there is a relationship between psychological separation and

procrastination, as procrastination has also been clearly linked to academic adjustment (e.g., Schowenberg, 2004).

Ferrari (1994) demonstrated that overall dysfunctional procrastination (the combination of decisional and behavioural procrastination) was significantly correlated with interpersonal dependency, a personality variable involving “timidness with acquaintances, needing constant reassurance, ingratiating to strangers, separation anxiety as a child, and seeking constant supervision” (p. 675). Although both decisional and behavioural procrastination significantly correlated with a dependent personality style, a step-wise multiple regression analysis demonstrated that dependent personality predicted decisional but not behavioural procrastination.

It is possible for the latter result to be significant if different aspects of dependency are considered. That is, the interpersonal dependency described by Ferrari (1994) is a unidimensional personality construct and it does not measure either different dimensions of interpersonal dependency or various developmental aspects of dependence/independence. It is possible that in Ferrari’s research high levels in some aspect of dependence (e.g., functional or attitudinal) and low levels in others (e.g., emotional and conflictual) canceled each other out in the overall measure of dependence manifesting in the normal level of dependency in the personality construct, and a non-significant result. By studying these different factors separately in relationship to procrastination one can not only estimate a better measure of general dependence/independence, but also clarify which aspects directly predict procrastination.

Out of the four components of psychological separation, conflictual independence from parents has been identified as most important in understanding psychological

adjustment. A high level of conflictual independence has been associated with better personal adjustment and fewer problems in close relationships (Hoffman, 1984; Rice and Fitzgerald, 1995; Lopez and Gover, 1993), higher self-esteem (McCardy and Sherman, 1996), and academic adjustment (Choi, 2002).

Conceptually, conflictual independence/dependence is linked to procrastination. Conflictual dependence is defined as having excessive guilt, anxiety, resentment, and anger toward the parents. Similarly, according to different psychodynamic explanations, procrastination stems from aggressive or hostile feelings of children towards their over-controlling parents (Ferrari and Olivette, 1993, 1994; Ferrari, 1995; Spock, 1971) or rebelling against parents by displaying a false pattern of independence (MacIntyre, 1964). In addition, both constructs are empirically related to low self-esteem and self-worth (van Eerde, 2003, McCardy and Sherman, 1996). Therefore, a negative relationship between conflictual independence from both parents and procrastination is expected in this study.

The findings in reference to the association of other aspects of psychological independence - emotional, functional, and attitudinal - with psychological adjustment are mixed and inconclusive. Some argue that emotional independence was related to fewer academic problems (Hoffman, 1984) and higher academic achievement (Dadsetan et al., 2004; Hoffman and Weiss, 1987). Others reported no relationship between emotional independence and academic and social adjustment (Lapsley and Edgerton, 2002). A negative relationship was reported for attitudinal independence from fathers in females with academic and interpersonal success, while no relationship in males was demonstrated (Hoffman, 1984; Lapsley, 1989; Lopez et al., 1986, 1988). As well, no relationship between attitudinal independence in both males and females and different

indices of academic adjustment and achievement was reported by Lapsley and Edgerton (2002) and Dadsetan et al. (2004). Similarly, findings about functional independence ranged from showing no relationship (Hoffman, 1984; Dadsetan et al., 2004; Lapsley and Edgerton (2002) to a positive relationship with psychological adjustment (Choi, 2002). Since there is no theoretical framework that can predict the direction of the relationship between these aspects of independence and procrastination, the present study is the first to explore these connections.

Attachment Theory

In contrast to separation-individuation theory, attachment theorists emphasize the importance of the attachment between adolescents and their parents to reinforce social competencies. Attachment theories are widely considered among the most important theories of personality, development and intimate relationships. As is well known to even undergraduates of developmental psychology, attachment theory was first proposed by Bowlby in 1969 and later developed by Ainsworth (1972) and Ainsworth et al. (1978).

According to Ainsworth (1972), attachment is different from dependency and is defined as “an affectional tie or bond that one individual (person or animal) forms between himself and another specific individual” (p. 100). The differentiation between attachment and dependency was summarized by Bornstein (1992) with two main points:

First, attachment behaviour is manifested primarily by proximity seeking, versus dependence behaviour which is manifested primarily by help seeking. Second, attachment behaviours are object-specific and are constantly directed toward the same person. In contrast, dependent behaviour maybe directed toward any number

of people who represent, in the eyes of the dependent person, potential nurturers, protectors, or caretakers (p.4).

Attachment theory has always been closely tied to objective observations of babies or children interacting with their parents in a natural environment. The developmental distortion of an attachment has a strong relationship with a variety of psychological problems. The disturbance of attachment in infancy by itself is not only viewed as a major diagnostic criteria for psychological disorder (DSM-IV, 1994) but also is related to psychopathology or maladjustment that emerges later in life (Colin, 1996).

Attachment theory incorporates the concept of transference from the classical psychoanalytical perspective in which the individual seeks and engages in the relationships that are very similar to the model of the relationship with their primary caregivers. One of the major hypotheses in attachment theory is that early attachment experience constitutes the individual's "internal working models" (Bowlby, 1969, 1973, 1980 in Colin, 1996). Attachment theorists use internal working models as a schema to explain how individuals view themselves and create expectations for future relationships with others in adolescence and adulthood (Armsden & Greenberg, 1987; Bartholomew, 1990; Bowlby, 1973; Cassidy & Shaver, 1998; Hazan & Shaver, 1994; Schwartz & Buboltz, 2004).

Contradicting classical psychoanalytical prospective, Bowlby (1980, 1988 in Colin, 1996) argues that individuals do not fixate or regress to an early stage of development, but rather continue to move from one stage to another. From this point of view, even though the development does not stop as a result of adverse circumstances in infancy or early childhood, the degree to which individuals are ready for the next stage

largely depends on their early adaptation. Therefore, the adverse circumstances such as unresponsive caregivers can manifest in maladjustment later in life.

Based on the Strange Situation Test (SST), Ainsworth and her colleagues (1978) identified three styles of attachment in children: *secure*, *avoidant*, and *anxiety/resistant*. Main and Solomon (1990) identified an additional group of attachment styles and labeled it *disorganized*. These categories have served as a foundation for two different approaches used to classify the attachment styles in adulthood. The first one is based on a semi-structured interviewing technique, the Adult Attachment Interview (AAT), with a focus on individuals' early attachments accessed through their present thoughts about childhood experiences (George, Kaplan, and Main, 1985; Main and Goldwyn, 1985). The second approach was a self-report measure, initially developed by Hazan and Shaver (1987) and later adapted by a number of researchers (see Bartholomew and Horowitz, 1991; Brennan, Clark, and Shaver, 1998).

Hazan and Shaver (1987) describe *secure adults* as those who can easily get close to others and are comfortable with depending on others and others depending on them. They neither worry if somebody gets close to them, nor do they fear abandonment. *Avoidant adults* not only feel uncomfortable in close relationships but also have problems with trusting others and allowing themselves to depend on others. They feel nervous when others try to get close to them and feel that their partners often demand too much from them. *Anxiety/resistant* adults find that others are reluctant to get close with them. They often worry that their partners do not love them and fear abandonment, as well as complain that others are afraid to merge with them completely.

Based on Bowlby's (1973) suggestion that internal working models differ in terms of images of self and others, Bartholomew (1990) derived four categories of attachment styles by combining the two levels of self-image dimensions (positive vs. negative) and two levels of the image of others (positive vs. negative). The four categories include *secure* (positive image of self and others), *preoccupied* (negative image of self, positive image of others), *dismissing-avoidant* (positive image of self, negative image of others), and *fearful-avoidant* (negative images of self and others) attachment styles.

Bartholomew (1990) provided the following descriptions of the proposed four types:

...the prototypically *secure* individual values intimate friendships, is able to maintain close relationships without losing personal autonomy, and can discuss relationships coherently and thoughtfully. The prototypically *preoccupied* individual is over-involved in close relationships, is dependent on others' acceptance for a sense of personal well-being, tends to idealize other people, and discusses relationships incoherently and with exaggerated emotionality. The prototypically *dismissing-avoidant* individual downplays the importance of close relationships, restricts emotionality, emphasizes independence and self-reliance, and discusses relationships in a way that lacks clarity or credibility. The prototypically *fearful-avoidant* individual avoids close relationships because of a fear of rejection, a sense of personal insecurity, and a distrust of others. (p. 316)

More recently in a study that explored for commonalities across these various conceptualizations, Brennan et al. (1998) conducted a large-sample factor-analytic study

where they included all existing self-report measures of attachment and derived two main dimensions, *anxiety* and *avoidance*, that conceptually corresponded to Bartholomew's models of self and other. The anxiety dimension is characterized by *fear for rejection and abandonment*; the avoidance dimension is characterized by *discomfort depending on others*. Figure 1 provides a schematic representation of these dimensions.

Figure 1. *Four attachment styles in a two-dimensional framework (adapted from Shaver and Fraley, 2006)*

The findings of Bartholomew and Horowitz (1991) in reference to the important correlates of individuals exhibiting four attachment styles are shown in Table 1.

Table 1. *Correlates of Bartholomew's attachment styles (adapted from Bartholomew and Horowitz, 1991, p. 236)*

Important correlates of Bartholomew's attachment styles	1	2	3	4
Self-confidence	.41	.52	-.35	-.70
Balance of control in a relationship	.29	.40	-.35	-.40
Warmth	.59	-.68	n.s.	n.s.
Intimacy and love relationships	.77	-.35	.34	-.52
Reliance on others or using others as a secure base	n.s.	-.57	.64	-.30

1-Secure; 2-Dismissing; 3-Preoccupied; 4-Fearful

A strong correlation between quality of attachment and self-esteem, psychological adjustment, and physical health has been reported (Greenberg, Siegal, and Leitch, 1983; Leonardi and Kiosseiglou, 2000). This positive relationship has also been found between secure attachment style and personal, social, and academic success in college students (Armsden & Greenberg, 1987; Kenny 1987; Lapsley, Rice, & FitzGerald, 1995). Not surprisingly, insecure attachments were found to correlate with anxiety or avoidance of environment exploration and relating to others (Lopez & Brennan, 2000; Pietromonaco & Feldman-Barrett, 2000; in Schwartz & Buboltz, 2004).

Overall, attachment styles relate differentially to adjustment outcomes. For example, Collins and Read (1990) demonstrated that the ambivalent/anxious attachment style is likely to be associated with self-esteem deficits and a mistrustful view of others.

There is only one study (Flett and Blankstein, unpublished cite in Ferrari et al., 1995) done to date that directly examined the relationship between attachment styles and procrastination (see Ferrari et al., 1995). The results indicated that there is a significant *negative* relationship between adult secure attachment style and both general and academic procrastination. There is a significant *positive* relationship between

anxious/ambivalent attachment style and academic procrastination. As well, there is a significant *positive* relationship between an avoidant attachment style and both general and academic procrastination.

The attachment styles in the above study, however, were measured using Simpson's (1990) multi-item questionnaire, created by breaking Hazan and Shaver's three prototypes into questions that can be answered using a Likert-type scale (Bartholomew and Shaver, 1998). This measure has been criticized for not adequately capturing Bartholomew's dismissing style. In fact, the avoidant and anxious/ambivalent correspond to Bartholomew's fearful-avoidant and preoccupied attachment styles, respectively (Cassidy and Shaver, 1998).

As I have discussed, individuals with a dismissing attachment style have a positive image of self and negative image of others. They place an emphasis on independence and self-reliance and consider close relationships as not important (Bartholomew, 1990). Research shows that this prototype is highly correlated with self-confidence and balance of control in a relationship and negatively with intimacy/love relationships, reliance on others (Bartholomew and Horowitz, 1991) and emotional dependency (Alonso-Arbiol, Shaver, and Yarnoz, 2002). Following this, it can be expected that there is a negative relation between procrastination and both dismissing and secure attachment styles as well as a positive relationship between procrastination and both preoccupied and fearful-avoidant attachment styles.

Connectedness versus Autonomy

In attachment theory, closeness or connectedness to parents can create a secure foundation for development of healthy identity (Kenny 1987; Schwartz and Buboltz,

2004). Paradoxically, in separation-individuation theory, shedding dependencies, deidealization of parents (i.e., internal and external love objects) and achievement of independency are all prerequisites for having healthy development and functioning (Blos, 1979; Bloom 1980).

At first glance, these two processes seem to be mirror opposites of each other; in order for the person to have autonomy (independence) he or she ought to detach from others (i.e., parents). Similarly, attachment is almost synonymous with the notion of dependency on others. Although there is some overlap between these constructs, recent studies have demonstrated that only low to moderate ($r=.40$ at most) correlations between different aspects of these two phenomena exist (e.g., Lapsley and Edgerton (2002).

As I reviewed earlier, both separation and attachment play an important role in human development and adaptive psychological functioning in adolescence and young adulthood. The relationship between attachment and separation-individuation and its effect in the academic setting has become focal in the past decade. However, controversial findings have been reported in reference to the significance and the direction of this relationship (e.g., Lapsley and Edgerton, 2002; Rice and Fitzgerald, 1995).

As well, there is a great deal of controversy regarding gender differences in both theories. Attachment research has produced no consensus on this issue (e.g., Kenny and Donaldson, 1991; Alonso-Arbiol, Shaver, and Yarnoz, 2002). Bartholomew and Horowitz (1991) showed that there was an equal distribution of females and males within the secure attachment style. They also demonstrated that females were found more frequently in the preoccupied classification, while males were more frequently classified

in the dismissing insecure attachment styles. In the field of psychological separation, the majority of researchers are firm in their claim that there is a gender difference in separation-individuation, with females being generally more dependent on their parents than males (e.g., Lopez, et al., 1986; Geuzain, Debry and Liesens, 2000; Lapsley et al., 1989). And, most of the time, this finding has been linked to female maladjustment (e.g., Hoffman, 1984; Hoffman and Weiss, 1987).

Some psychologists have criticized the conceptualization of psychological separation and argued that separation-individuation (i.e., independence) as a psychological maturity index has a gender (Gilligan, 1982; Surrey, 1991) and culture (Geuzaine et al., 2000; Dadsetan, et al., 2004) bias. They dispute the negative position of the separation-individuation theory on connectedness and suggest that the maintenance of emotional ties to a family is a positive developmental marker for women. In their view, women's normal desire for attachment has been mistaken for dependency in separation-individuation research.

Along similar lines, other researchers have suggested that the process of development related to separation-individuation for both males and females is not linear (see Glover, 2000) and a singular attention to individuation is not appropriate (Jossanson, 1988; Leonardi and Kiosseoglou, 2000; Lopez and Gover, 1993). From this point of view, the normative developmental task does not equate to losing emotional ties with parents, but encompasses a healthy balance between autonomy and connectedness within interpersonal relationships.

This theoretical proposition, to some degree, has been supported by empirical research. The combination of a supportive form of attachment (secure attachment) and a

satisfying form of psychological separation (healthy separation) affected positively adaptive psychological functioning, academic adjustment, and can predict several indices of adolescent development (Leonardi and Kiosseoglou, 2000, Lopez, et al., 1998; Jossanson, 1988; Vivona, 2000; Schwartz and Buboltz, Jr., 2004).

Moreover, the construct of “internal working models” can serve as a theoretical and chronological link between attachment and separation-individuation. Internal working models are assumed to be relatively stable (Lapsley and Edgerton, 2002, Leonardi and Kiosseoglou, 2000). However, it has been suggested that these relational patterns can be updated or reconstructed during the transition period of a second separation-individuation process (Lapsley and Edgerton, 2002). This transitional period, which is concurrent with late adolescence/early adulthood (corresponding to the first years of attending a university), is accompanied by physical separation from parents, facing identity crisis and career options, as well as managing and performing responsibly and independently on daily tasks. Therefore, it can be assumed that young adults not only try to pass the process of separation-individuation, but also attempt to make a new and optimal regulation between autonomy and connectedness (i.e., independence and attachment) to perform at their best possible in the new situation.

There are several ways to study the “optimal” intra-psyche integration of autonomy and connectedness and its relation to adjustment and relational functioning in young adults. One of the most fundamental investigations focuses on distal developmental factors (i.e., independence from parents or parental attachment), others look at the existing constellation of the developed personality (i.e., dependency trait) or

current status of interpersonal patterns (i.e., destructive overdependence) adopted by an individual.

The majority of researchers who focus on developmentally distal factors (and realize the importance of considering both autonomy and connectedness) have attempted to investigate the relationship between psychological separation and attachment, but they have examined the effects of these two constructs on adjustment *separately* (Lapsley and Edgerton, 2002; Rice and Fitzgerald, 1995; Rice, et al., 1995). In my view, it is a primary and an important step of any investigation to explore the separate contributions of these variables, and I have taken this approach in constructing the first set of my hypotheses. However, the combined or conjoint effects of the two variables are also centrally important in understanding the developmental outcome of these two basic processes. Exploring these relationships encompasses my final set of hypotheses geared towards identifying an optimal independence-attachment combination that can explain academic procrastination.

Summary of Hypotheses and Overview of the Study

The present research was an exploratory study. Based on the research review, I hypothesized that different aspects of psychological separation and attachment correlate with procrastination. Specifically, I predicted that conflictual, emotional, and functional independence would negatively related to academic procrastination, while there would be no relationship between attitudinal independence from parents and procrastination (first hypothesis). I also expected to find a negative correlation of procrastination with secure and dismissing attachment style, and positive correlation with preoccupied and fearful

attachment prototypes (second hypothesis). Finally, the findings related to the first two hypotheses were summarized in order to explore the relationship between combinations of independent variables (both attachment and independence) and a combination of the dependent variables (indices of procrastination) with the intent to extract an optimal independence-attachment combination that can account for variation in scores on measures of procrastination (third hypothesis).

In order to test these hypotheses, I collected data from a fairly large sample of undergraduate students in both the first and second year of their studies. These volunteers completed a battery of measures that operationalized my three constructs of interest: separation, attachment and procrastination. I turn now to a more detailed description of the procedure and materials for the study followed by the results of my data analysis.

METHOD

Participants

Data were collected from 201 first- or second-year Carleton University undergraduate students. After removing the data from a few participants who provided incomplete responses or who were well beyond the age of interest for this study, the mean age of the remaining 196 participants (78 males and 118 females) was 21 ($M = 21$, $SD = 3.28$). Fifty nine percent of the participants were in their first year of undergraduate studies and 36% in their second year. The participants were predominantly Caucasian (35%), followed by Asians (30%), Blacks (12%), Hispanics (7%), and Aborigines (.5%). Forty one students reported having immigrated to Canada in the 12-year period preceding the study. Forty six percent of the sample were single, 40% dating, 5% married and the rest were either separated or divorced. The majority of participants (60%) reported a “B” or above Grade Point Average. The Majority of the participants resided off-campus, either on their own (42%) or with their parents (37%). Only 5% of student reported residing on-campus at the time of the experiment.

Procedure

Some participants were recruited through the on-line experiment sign-up system (SONA) available to all 1st or 2nd year undergraduate students registered in the Introductory Psychology courses. These students were encouraged to participate in experiments offered by the Department of Psychology and received a credit for their participation (i.e., an increase in their final grade for PSYCH 1001 and 1002 courses, which for the present study was a 1.5% increase). Other participants were recruited using conventional methods of advertisement (e.g., flyers, e-mail lists, in-class presentations,

word of mouth) from the remaining pool of 1st or 2nd year undergraduate students (e.g., did not have to be PSYCH 1001/1002 students) and these participants received \$10.00 for their participation in lieu of grade-raising participation credit.

Time slots and locations were arranged prior to the recruitment efforts. Willing participants either made an appointment for a convenient testing session or took part right after recruitment. The testing sessions were conducted either in groups or individually depending on candidates' availability. All students first reviewed and signed an informed consent form introducing the procedure and time of the experiment as well as explaining students' rights. The consent form also offered contact information for the experimenter, thesis supervisor, ethics committee, and health clinic. All students were assured of complete confidentiality and asked to answer all of the questions accurately. To control for tardiness, all students were encouraged to take short breaks. Given the cultural and linguistic diversity of the participating students, a dictionary was provided for students whose English was not their first language.

After signing the consent form, each student received a questionnaire package that took on average 45-70 minutes to complete (details about the measures are provided below). To control for order effect, four order types (i.e., A, B, C, D) were generated and randomly given to students (see Table 2).

Table 2. *Order of questionnaires in the package*

Order A	Order B	Order C	Order D
GI	GI	GI	GI
PSI	PASS	RQ	RS
RQ	MAPS	RS	PASS
RS	PSI	PASS	PSI
PASS	RQ	PSI	RQ
MAPS	RS	MAPS	MAPS

After completing the questionnaire package, each student was given a debriefing from explaining in detail the full scope and goals of the study and hypotheses of interest. The debriefing form also offered references for current attachment and procrastination investigations for those individuals who might have further questions.

Measures

Psychological Separation Inventory (PSI). The Psychological Separation Inventory (Hoffman, 1984) is a 138-item self-report questionnaire (see Appendix). Participants rate the items on Likert-type scale format ranging from 1 (*not at all true of me*) to 5 (*very much true of me*). The PSI is designed to assess the degree of four aspects of participants' independence from their parents that theoretically underlie the construct of separation-individuation: emotional independence (EI – 17 items), conflictual independence (CI – 25 items), attitudinal independence (AI – 14 items), and functional independence (FI – 13 items). Each scale is scored separately regarding independence from mother (69 items) and from father (69 items).

Another way of scoring this instrument could be according to parents, combining mother and father items on each aspect of independence (e.g., Lopez et al., 1988; Rice et al., 1990). A higher score in each dimension indicates a participant's greater independence from parents on that aspect.

Cronbach alpha reliability coefficients were reported by Hoffman as ranging from .84 to .92 for each of the four subscales (Hoffman, 1984). The 2- to 3- week test-retest of 4 scales of independence from mother and 4 scales of independence from father ranged

from .49 to .94 for male, with a median of .83 as well as from .69 to .96 for female, with median of .83 (Hoffman, 1984).

The following are Cronbach alpha reliability coefficients obtained in this study for each subscale of PSI: .89 for CM, .91 for CF, and .93 for CP; .87 for EM, .91 for EF, and .92 for EP; .87 for FM, .88 for FF, and .90 for FP; .86 for AM, .91 for AF, and .93 for AP. Note that the first letter in the abbreviation refers to the aspect of independence (e.g., C for conflictual) and the second letter points to relational reference (e.g., F for father).

Relationships Structures (RS) Questionnaire. The Relationships Structures questionnaire (Fraley, 2006) is a new 40-item version of the ECR-R measuring two underlying dimensions of attachment patterns, attachment-related avoidance and attachment-related anxiety, in different close relationships (see Appendix). The same 10 items are used to assess two dimensions (*anxiety* and *avoidance*) underlying attachment styles with respect to 4 relational references (i.e., mother, father, romantic partner, and best friend). Participants rate the extent to which they agree or disagree with each statement on a 7-point scale. Sample items for anxiety and avoidance dimensions are, respectively, “I’m afraid that this person may abandon me” and “It helps to turn to this person in times of need”. In addition to anxiety and avoidance score related to mother and father separately, the general avoidance and anxiety score is obtained by averaging the relevant dimensional scores computed in 4 relational targets.

This self-report measure has revealed that the scales are associated to various relational variables (e.g., relationship satisfaction, likelihood of experiencing a breakup, the perception of emotional expressions), as well as to one another (Fraley, 2006). The 30-

day test-retest reliability of the scales is approximately .80 in the parental domain and .65 in romantic relationships (counting those who experienced breakups during the 30-day period; Fraley, 2006).

The following are Cronbach alpha reliability coefficients obtained in this study for relevant to the study subscale of RS: .85 for Anxiety_M, .85 for Anxiety_F, .87 for Anxiety_P, and .88 for Anxiety; .83 for Avoidance_M, .84 for Avoidance_F, .84 for Avoidance_P, and .84 for Avoidance. Note that M, F, and P refer to mother, father, and parents, respectively.

Relationship Questionnaire (RQ). The RQ (Bartholomew and Horowitz, 1991) is a well-known measurement developed to obtain four attachment prototypes. Each prototypical attachment pattern is described in a separate paragraph (see Appendix). Participants are first asked to identify the attachment style best describing them. Since the attachment styles can be viewed in terms of prototypes, participants are then asked to rate each style description on the 7-point Likert scale ranging from “not at all like me” to “very much like me”. Even though the 8-month test-retest reliability (Scharfe & Bartholomew, 1994) and internal consistency (Griffin & Bartholomew, 1994) are moderate, the RQ is the original measure of four prototypes of attachment that has demonstrated high construct validity (for a review, see Crowell et al., 1999; Scharfe & Bartholomew, 1994). The secure, preoccupied and fearful styles match quite well with the three styles (secure, anxious-ambivalent, anxious-avoidant) of the attachment questionnaire developed by the Hazan and Shaver (1987) (Zhang & Labouvie-Vief, 2004).

The Procrastination Assessment Scale-Students (PASS). The PASS is the well-known instrument of academic procrastination developed by Solomon & Rothblum (1984). The PASS is composed of 38 items and uses a five-point Likert-type scale format (see Appendix). The PASS contains two sections. The first section, 18 items, measures possible procrastinating behaviour of participants in six academic areas (writing a term paper, studying for an exam, keeping up with weekly reading assignments, performing administrative tasks, attending meetings, and performing academic tasks in general). Across each of the six academic areas, students are asked about prevalence (e.g. “to what degree do you procrastinate on this task”), problem severity (e.g. “to what degree is procrastination on this task a problem for you”) and desire to change (e.g. “to what extent do you want to decrease your tendency to procrastinate on this task”) the procrastinating behaviour related to a particular task.

In the second section of 26 items, participants are asked to rate 13 possible reasons for procrastinating on a given scenario about essay assignment. The responses to these items load on two factors: fear of failure and task-aversiveness. Both sections of PASS have demonstrated adequacy level of internal scale consistency ranged from .70 to .80 (Solomon & Rothblum, 1984). The Cronbach alpha coefficients were somewhat lower in this study, ranging from .63 to .84. Test-retest reliability over a 6-week interval ranged from .65 to .74. The PASS has also demonstrated construct and predictive validity (see Ferrari, Keane, Wolfe, and Beck, 1998). The first section of PASS was used only in the present study.

Multidimensional Academic Procrastination Scale (MAPS). The MAPS is a newly designed self-report measure of academic procrastination (Rotblatt & Pynchyl,

2006). Three key theoretical aspects of procrastination - behaviour, cognition, and affect - are measured separately through 135 items each using a 5-point Likert-type rating format (see Appendix). Sample items in each of these sections respectively include: "I typically procrastinate on academic tasks", "When I procrastinate on academic tasks, I typically think, I'll have more time later", and "When I procrastinate on academic tasks, I typically feel ashamed." The Cronbach alphas obtained in this study were .93, .91, and .94 for behaviour, cognition, and affect subscales of MAPS respectively.

RESULTS

Case Inclusion Criterion

Participants who showed a clear trend of the random answering (e.g., majority of questions had the same answer, 1) were extracted from the data set. All of the remained 196 cases were included for the analysis of the relationship between attachment and procrastination. However, the analyses that involved the relationship between independence from parents required current contact with mother and father in order to complete the Psychological Separation Individuation questionnaire. Those individuals who responded to the general question of whether or not they were currently in contact with their parents with “Neither” were omitted from the analyses related to PSI.

Missing Data

SPSS Missing Value Analysis (MVA) was used to identify patterns of missing values. For those variables that had more than 5% of missing values, a *t* test was requested to see if missing data were related between variables. The result showed no systematic relationship between missing variables.

Where data were missing, two methods were used to correct the data set. Mean substitution for each missing value was used for the principal component analyses as part of SPSS procedures to protect for the inflation of component loading. Twenty five sequential regression procedures were conducted to estimate missing values for each questionnaire considering the best predictors of each item. The substitutions obtained from these two procedures created a new data set used for testing hypotheses. In addition, I tried to use other approaches of missing data substitutions such as list-wise case

exclusion and expectation maximization estimation to check if the obtained data set from previous procedures differed significantly. There were not significant differences between the data sets when different approaches to data substitution were applied.

Principal Component Analyses of Outcome Measures

A number of principle component analyses (PCA) were performed to identify conceptually and empirically meaningful indexes of procrastination. In each case, components (or factors) were chosen on the basis of an examination of the scree plots and eigenvalues associated with each component as recommended by Stevens (1997) and Tabachnick & Fidell (2007).

Index of problem procrastination. Usually PASS generates two total scores, problem (PROB_Total) and frequency (FREQ_Total), resulting from the aggregation of items across six sections. To understand and clarify the aggregated score of PROB_Total, the first principal component extraction with Varimax rotation was performed using the items of PROB_Total in the PASS. Table 3 and table 4 provide a summary of the two components (problems on educational tasks, PROB_EDU, and problems on administrative tasks, PROB_ADMIN). PROB_EDU was clearly indicative of problems in academic tasks related to main educational activities such as writing a term paper, studying for exams, and weekly reading assignments. The second component, PROB_ADMIN, pointed to procrastination problems in academic tasks related to school administrative activities such as registration, making an appointment with a supervisor, and general school activities. These two components explained 61% of variance of procrastination problem items.

Table 3. *Principal components of the PASS problem items*

Component	Eigenvalue	Percentage of Variance	Cumulative Percentage
1	2.60	43.36	43.36
2	1.04	17.25	60.61

1= procrastination problems on educational tasks (PROB_EDU)

2= procrastination problems on administrative tasks (PROB_ADMIN)

Table 4. *Principal components loadings of the PASS problem items*

Item	Component Loading		Communality
	1	2	
2. Procrastination on writing a term paper is a problem	.79		.61
5. Procrastination on studying for exams is a problem	.78		.62
8. Procrastination on keeping up with weekly reading assignments is a problem	.73		.64
11. Procrastination on administrative tasks is a problem		.84	.62
14. Procrastination on attendance tasks is a problem		.77	.71
17. Procrastination on school activities is a problem		.61	.44
Chronbach Alpha Coefficient	.70	.64	

The reliability (internal consistency) test produced Cronbach alpha of .70 for the first factor, PROB_EDU, .64 for the second factor, PROB_ADMIN, and .74 for PROB_Total. All alphas were in the acceptable range for research purposes.

Index of Procrastinating Behaviours. To extract underlying components of procrastinating behaviours, both PASS_Frequency (6) and MAPS_Behaviour (43) items were used. These items of both PASS and MAPS are conceptually similar and probe to what extent an individual procrastinate in general (PASS) or in different stages (MAPS) of performing various academic tasks. Moreover, the correlation between total scores of PASS_Frequency and MAPS_Behaviour was high ($r=.60$) indicating considerable

overlap. Before performing principle component analysis, corrected inter-item correlations were obtained for each item. None of the items showed low corrected inter-item correlations ($<.30$), indicating acceptable internal consistency.

Table 5 provides a summary of the principal component extraction with Varimax rotation of three components. The first and third factors captured two type of procrastination behaviour in educational activities such as writing a term paper or preparing for an exam. More specifically, the first factor (B_Delay_EDU) reflected the dilatory behaviour in starting educational tasks while the third factor (B_Persev_EDU) reflected the perseveration on these tasks. The second factor (B_ADMIN) included items that reflected general procrastinating behaviours on administrative tasks such as selecting and registering for a course. The component loading and communality related to the extracted items are reported in Table 6.

Table 5. *Principal Components of the PASS-Frequency and MAPS-Behaviour Items*

Component	Eigenvalue	Percentage of Variance	Cumulative Percentage
1	12.37	25.25	25.25
2	4.47	9.13	34.38
3	3.07	6.26	40.63

1=Dilatory behaviour in starting educational tasks (B_Delay_EDU);

2= Procrastinating behaviours on administrative tasks (B_ADMIN)

3= Perseverating behaviour on educational tasks (B_Persev_EDU)

Table 6. *Principal Components Loadings of the PASS & MAPS Behaviour Items*

Item	Component Loading			Communality
	1	2	3	
M27. Start to study for exam at the last minute	.76			.62
M25. Delay starting exam	.75			.31
M23. Starting assignment at the last minute	.73			.59
M1. Procrastinating on academic tasks	.73			.54
M19. Start essays at the last minute	.69			.53
M21. Delay starting on assignment	.68			.53
P1. Procrastinate on writing a term paper	.67			.48
P4. Procrastinate on studying for exam	.67			.46
M2. Delay starting on essay	.67			.53
M31. Starting reading assign. at the last minute	.62			.44
M29. Delay starting weekly reading assignments	.57			.36
M34. Delay completing administrative tasks		.78		.64
M42. Do administrative tasks at the last minute		.78		.66
M36. Delay selecting courses		.78		.64
M37. Delay registering for the courses		.77		.66
M33. Delay starting administrative task		.77		.64
M35. Delay making appointment		.72		.55
P10. Procrastinate on academic admin. tasks		.66		.44
M40. Delay making schedule		.65		.48
M38. Delay getting course materials		.64		.50
M39. Delay paying tuition		.57		.39
M43. Fail to do admin. tasks at all		.52		.32
M9. Perseverate at reading materials for essay			.71	.53
M7. Perseverate at collecting reading materials for essay			.64	.43
M13. Perseverate at making outline			.59	.40
M17. Perseverate at proofreading			.58	.34
M15. Perseverate at writing			.57	.33
M6. Delay collecting reading materials			.56	.40
M5. Perseverate at the research stage			.55	.36
M10. Avoid making notes on reading material			.53	.35
M11. Perseverate at making notes			.52	.33
Chronbach Alpha Coefficient	.89	.91	.80	

M= MAPS items; P= PASS items

The Cronbach alphas for all three factors were high indicating high level of internal consistency.

Index of emotions associated with procrastination. The preceding analyses were conducted to prepare the outcome variables covering two main PASS sections (frequency and problem) and two MAPS sections, behaviours and cognitions. The final section of MAPS, emotions, was subjected to principle component analysis as well. It is important to note that MAPS is at the first stages of its development and consists of a large set of items. The emotions section alone consists of 62 items and clearly requires modifications. Therefore, 17 items were omitted for various reasons. Nine items were omitted due to low internal consistency ($<.30$). 3 items (active, attentive, and concentrating) could describe either cognitive or emotional processes, and 5 items (e.g., bashful, sheepish) were difficult to understand for many native and foreign students during the experiment (experimenter's observation). The principal component analysis of the remaining 45 items produced two clear-cut factors, negative (e.g., angry at self, ashamed, disgusted) and positive (e. g., joyful, proud) emotions towards procrastinating behaviour, that could explain 42% of the total variance. Table 7 presents the component loadings of the items.

Table 7. Principal components loadings of the MAPS emotion items

Factor	Item Loading	Items
1	> .70	– scared, angry, discussed with self, ashamed, helpless, upset
	> .60	–disgusted, angry at self, afraid, nervous, sad, frightened, dissatisfied with self, hopeless, downhearted, alone
	>.50	– irritable blameworthy, guilty, blue, distressed, shaky, sluggish, hostile, drowsy
2	> .70	– inspired, proud, lively
	> .60	– enthusiastic, interested, delighted, amazed, excited, strong, fearless, bold
	>.50	– daring, surprised, astonished

1= Negative emotions related to procrastination ; 2=Positive emotions related to procrastination

The Cronbach alphas for factors one (negative emotions) and two (positive emotions) were .94 and .90 respectively, indicating high internal consistency.

Before presenting the results of the hypothesis testing, I would like to quickly review and summarize the independent and dependent variables of this study (see Table 8). Psychological Separation contained four factors which represent different aspects of independence (conflictual, emotional, attitudinal, and functional) that were measured independently for mother and father. Attachment was measured by two methods. One revealed the dimensions of attachment: anxiety and avoidance. The second identified four prototypical attachment styles: secure, fearful, preoccupied, and dismissing.

Similarly, the final measures of procrastination included the following general categories: procrastination problems, procrastinating behaviours, and emotions related to procrastination. Each general category in turn can be viewed as consisting of the following subcategories: procrastination problems in educational tasks, procrastination problems in administrative tasks, dilatory behaviour in starting educational tasks,

perseverating behaviour on educational tasks, procrastinating behaviour on administrative tasks, as well as negative and positive emotions related to procrastinating behaviours.

Table 8. *Abbreviations and descriptive statistics: independent and dependent variables*

Variables	Mean	SD
Independent Variables		
<i>Separation-Individuation</i>		
Conflictual Independence from mother (CM)	71.67	15.71
Emotional Independence from mother (EM)	38.31	13.57
Functional Independence from mother (FM)	31.54	15.71
Attitudinal Independence from mother (AM)	28.69	11.61
Conflictual Independence from father (CF)	71.72	18.42
Emotional Independence from father (EF)	43.31	15.53
Functional Independence from father (FF)	35.07	11.36
Attitudinal Independence from father (AF)	71.67	15.71
Conflictual Independence from parents (AP)	143.39	30.07
Emotional Independence from parents (EP)	81.62	26.00
Functional Independence from parents (FP)	66.62	18.90
Attitudinal Independence from parents (AP)	59.18	23.36
<i>Attachment</i>		
Anxiety total (Anxiety)	2.25	1.01
Anxiety related to mother (Anxiety_M)	1.84	1.33
Anxiety related to father (Anxiety_F)	1.96	1.35
Anxiety related to parents (Anxiety_P)	3.80	2.35
Avoidance total (Avoidance)	2.93	.84
Avoidance related to mother (Anxiety_M)	2.92	1.34
Avoidance related to father (Anxiety_F)	3.69	1.48
Avoidance related to parents (Anxiety_P)	6.60	2.30
Secure	4.45	1.81
Fearful	3.98	1.91
Preoccupied	3.00	1.73
Dismissing	3.62	1.75
Dependent Variables		
<i>Problems associated with procrastination</i>		
Procrastination Problems (PROB_Total)	17.87	4.13
Problems in educational tasks (PROB_EDU)	10.31	2.44
Problems in administrative tasks (PROB_ADMIN)	7.62	2.56
<i>Behaviours associated with procrastination</i>		
Delay in starting educational tasks (B_Delay_EDU)		
Perseverating behaviour on educational tasks (B_Persev_EDU)		
Procrastinating behaviours on administrative tasks (B_ADMIN)		
<i>Emotions associated with procrastination</i>		
Negative emotions		
Positive emotions		

* means and SDs of the estimated variables by regression methods in PCA were 0 and 1 respectively

Testing the 1st Hypothesis: The relation between PSI and procrastination

Prior to each analysis, all of the dependent and independent variables were checked for the presence of univariate and multivariate outliers. For predictor variables, the leverage values and Cook's distance scores did not show the presence of multivariate influential outliers. The assumptions of normality, linearity, and homogeneity of variance were checked using scatter plots of standardized residuals against predicted values. The residual plots did not indicate any violations of the regression assumptions. As well, the multicollinearity assumption was not violated according to the set criteria of condition index < 20 ; tolerance $> .1$ (Tabachnick & Fidell, 2007; SPSS 13 help manual)

Bivariate correlation analyses. The bivariate correlation analyses were performed for the four aspects of independence from parents and the various procrastination variables. As well, the same analyses were conducted for males and females separately and included the relationship between four aspects of independence from mother as well as four aspects of independence from father. The dependent variables were the same as in the first general analysis.

The result showed that conflictual independence from parents had a significant negative correlation with general reports of procrastination problems ($r = -.15$), procrastination problems on administrative tasks ($r = -.19$), negative emotions related to procrastinating behaviours ($r = -.47$), and positive emotions related to procrastination ($r = -.33$).

For the male sample, conflictual independence from mother had a negative significant correlation with negative ($r = -.42$) and positive ($r = -.32$) emotions related to procrastination. Similarly, conflictual independence from father had significant negative

correlations with negative ($r=-.43$) and positive ($r=-.30$) emotions related to procrastination. As well, CF had a significant negative correlation with procrastinating behaviour on administrative tasks ($r=-.25$).

For the female sample, conflictual independence from mother was significantly correlated with negative emotions related to procrastination ($r=-.32$). In addition to negative emotions ($r=-.34$), conflictual independence from father in females had significant negative correlations with procrastination problems ($r=-.20$), behaviours ($r=-.22$) related to administrative tasks, and positive emotions ($r=-.19$).

Emotional independence from parents was significantly correlated in the opposite direction with total procrastination problems ($r=-.18$), problems on administrative tasks ($r=-.16$), perseverating behaviour on educational tasks ($r=-.17$), negative ($r=-.41$) and positive ($r=-.22$) emotions. Interestingly, there was a significant positive correlation between emotional independence from parents and dilatory behaviour in starting educational tasks ($r=+.19$).

For the male sample, emotional independence from mother had a significant correlations with PROB_Total ($r=-.28$), PROB_ADMIN ($r=-.22$), perseverating behaviour on educational tasks ($r=-.35$), negative ($r=-.32$) and positive ($r=-.37$) emotions. Emotional independence from father in the male sample had significant relations with PROB_Total ($r=-.32$), PROB_ADMIN ($r=-.35$), negative ($r=-.36$) and positive ($r=-.48$) emotions. For the female sample, emotional independence from mother ($r=-.32$) and father ($r=-.29$) were only significantly correlated with positive emotions.

As predicted, attitudinal independence from parents did not show any significant association with the majority of procrastination indices. The only significant correlation

was between AP and positive emotions ($r=-.21$). Similar results were obtained when I split the sample by gender. A few significant relationships were as follows, AM with positive emotions ($r=-.30$) and PROB_ADMIN ($r=-.27$), and AF with PROB_ADMIN ($r=-.29$) for the male sample.

Functional independence from parents demonstrated significant relations with procrastinating behaviours on administrative tasks ($r=-.18$), negative ($r=-.22$) and positive emotions ($r=-.30$). In the male group, functional independence from mother significantly correlated with procrastinating behaviours on administrative tasks ($r=-.27$), negative ($r=-.31$) and positive emotions ($r=-.30$) while functional independence from father significantly correlated with negative ($r=-.25$) and positive ($r=-.43$) emotions. In the female group, functional independence from mother significantly correlated with procrastinating behaviours on administrative tasks ($r=-.23$) and positive emotions ($r=-.24$), while functional independence from father significantly correlated only with procrastinating behaviours on administrative tasks ($r=-.20$). All of the other cross correlations between different aspects of separation-individuation and procrastination were not significant.

Regression Analyses. After making sure that none of the assumptions were violated, standard multiple regression analyses between different procrastination indices and four aspects of independence from mother as well as four aspects of independence from father were performed. Table 9 reports standardized regression coefficients (β), semipartial coefficients (r_{sem}), Pearson r coefficients, as well as F and R^2 .

The regression between the total procrastination problems and 8 subscales of independence (CM, EM, FM, AM, CF, EF, FF, and AF) was significant, $F(4, 180) =$

2.49, $p=.014$, with R^2 at .10 indicating that about 10% of variability in problem procrastination is predicted by different aspects of psychological separation. The separate multiple regression analyses of four independence aspects from mother and from father and subscales of procrastination problem revealed that independence from mother, particularly in the emotional and functional aspects had a significant relationship with procrastination problems in educational tasks (see Table 9). Independence from father, particularly conflictual, has a significant association with procrastination problem in administrative tasks (see Table 9). These results produced support for the first hypothesis in terms of the procrastination problems.

In terms of procrastination behaviour, multivariate multiple regression between three procrastinating behaviours indices and all eight components of independence from mother and father revealed a significant association between these two sets of variables, *Wilk's* $F(25, 505) = 1.84$ $p=.01$. More specifically, multiple regressions between different aspects of independence from mother only showed a significant relation with perseverating behaviour on educational tasks, with emotional independence mostly contributing to this association in the inverse direction; the more emotional independence from mother, the less perseveration on academic task (see Table 9). The independence from father, particularly attitudinal and conflictual, was significantly associated with both delay starting educational activities and procrastination on administrative tasks, but not with perseveration (see table 9). In general, the overall effect size (R^2) of different aspects of independence from parents on different indices of procrastination ranged from .04 to .06 which is an equivalent to small effect size (Cohen, et al., 2003). These results

partially supported the first hypothesis in reference to behavioural aspects of procrastination.

Multivariate regression between both negative and positive emotions related to procrastination as dependent variables and four components of independence from mother and father as independent variables indicated the presence of highly significant relationship between overall emotional aspect of procrastination and psychological separation $F(16, 372)=5.25$ $p=.000$. All of the possible multiple correlations between each of negative and positive emotions related to procrastination as a criterion variable and different aspects of independence from mother and father as separate set of predictors were significant even after adjusting for Type-I error based on Bonferroni procedure (see Table 9). Independence from mother and father explained, respectively, 15% and 13 % of the variance in responses related to negative emotions as well as 10% and 16% of variance in responses related to positive emotions during procrastinating behaviour on academic tasks. The shared variance between independence and negative emotions were mainly related to conflictual independence from mother ($r_{sr}^2=.11$) and father ($r_{sr}^2=.11$), where higher conflictual independence was associated with lower negative emotions (see Table 9). In terms of positive emotions, the shared variance mainly came from emotional independence from mother ($r_{sr}^2=.07$) and emotional independence from father ($r_{sr}^2=.10$) (see Table 9). These results provided complete support for the first hypothesis in terms of the emotional aspects of procrastination.

Table 9. Multiple regressions of psychological separation individuation variables on procrastination indices

Predictors	Procrastination Problems									Emotions Related to Procrastination					
	PROB_Total			PROB_EDU			PROB_ADMIN			Negative Emotions			Positive Emotions		
	β	r_{sem}	r	β	r_{sem}	r	β	r_{sem}	r	β	r_{sem}	r	β	r_{sem}	r
CM	-.08	-.08	-.09	-.05	-.04	-.05	-.10	-.10	-.11	-.33***	-.32	-.36***	-.11	-.11	-.14
EM	-.35***	-.23	-.13*	-.31**	-.20	-.06	-.20	-.13	-.13	-.05	-.03	-.20**	-.27**	-.18	-.30***
FM	.33***	.22	.05	.35**	.23	.11	.17	.11	-.03	-.17	-.11	-.23**	.03	.02	-.22**
AM	-.02	-.02	-.02	-.01	-.01	.02	-.07	-.05	-.08	.03	.02	-.06	-.06	-.05	-.18**
R ²		.07			.06			.04			.15			.10	
F		3.43**			2.90*			1.75			8.95***			5.10***	
N		185			185			185			185			185	
CF	-.17*	-.17	-.18*	-.10	-.10	-.09	-.22**	-.22	-.23**	-.33***	-.33	-.36***	-.19**	-.19	-.23**
EF	-.25*	-.16	-.18*	-.22	-.14	-.11	-.15	-.10	-.15*	-.14	-.09	-.14	-.31**	-.31	-.35***
FF	.15	.09	-.10	.20	.12	.02	.10	.06	-.11	-.06	-.04	-.14	-.01	-.01	-.29***
AF	-.04	-.03	-.10	-.05	-.03	-.06	-.06	-.05	-.11	.14	.10	.00	.00	.00	-.21**
R ²		.07			.03			.07			.13			.16	
F		3.14*			1.48			3.38**			7.67***			8.30***	
N		185			185			185			185			185	

Table 9. *Continued*

Procrastination Behaviours										
Predictors		B_Delay_EDU			B_Persev_EDU			Behav_ADMIN		
		β	r_{sem}	r	β	r_{sem}	r	β	r_{sem}	r
CM		.00	.00	.05	-.01	-.01	-.05	-.07	-.07	-.08
EM		.30**	.19	.17*	-.36**	-.23	-.21**	.02	.01	-.13
FM		-.07	-.05	.08	.15	.10	-.08	-.16	-.10	-.17*
AM		-.14	-.11	-.02	.07	.05	-.05	-.04	-.03	-.10
	R ²		.05			.04			.01	
	F		2.30			2.97*			1.57	
	N		185			185			185	
CF		.01	.01	.05	-.11	-.11	-.14	-.19**	-.19	-.21**
EF		.22	.14	.17*	-.04	-.02	-.09	-.04	-.03	-.12
FF		.10	.06	.13	-.12	-.07	-.11	-.06	-.04	-.14
AF		-.22*	-.16	-.02	.08	-.06	-.02	-.01	-.01	-.08
	R ²		.06			.01			.03	
	F		2.62*			1.41			2.58*	
	N		185			185			185	

* $p \leq .05$. ** $p \leq .01$. *** $p \leq .001$; r_{sem} – semi-partial correlation; see Table 8 for variables' abbreviation

In summary, it can be concluded that there is substantial support for the first general hypothesis of this study which stated that there is a relationship between different aspects of psychological independence from parents and procrastination. Specifically, the results demonstrated partial support of the association between predictor variables and three indices of procrastination problems as well as procrastinating behaviours. Emotional independence from mother and conflictual independence from father appeared to be the strongest predictors of procrastination problems, behaviours, and emotions among eight aspects of PSI.

An interesting and counterintuitive finding was that emotional independence from mother and father related positively to the dilatory behaviour in starting educational tasks, while in all other cases (other aspects of procrastination) emotional independence had negative relationships. As well, functional independence demonstrated both positive and negative relationships with different dependent variables. Another interesting finding was that the valence and sometimes direction of beta coefficients did not correspond with the Pearson r coefficients. As indicated in Table 9, the values of some standardized regression coefficients and semipartial correlations were much higher than Pearson r coefficients for the same variables. For example, the predictive value of emotional independence from mother in PROB_EDU improved from $r = -.06$ to $\beta = -.35$, while functional independence improved from $r = .11$ to $\beta = .35$. This trend of *suppression* was observed in the relationships between emotional and functional independence from mother with the majority of procrastination indices. Emotional and functional independence from father also showed several cases of suppression but to a lesser degree. Also, there was one case of *negative suppression*, the relationship between FF and

PROB_ADMIN changed from $r = -.11$ to $\beta = +.10$ after entering EM in the regression analysis. The violation of multicollinearity assumption was ruled out based on the concurrent tests (i.e., tolerance and condition index). Even though, the correlations between emotional and functional independence were high, it did not contribute to the assumption violation. Therefore, this relationship between these independent variables might have reduced redundant variance when entered multiple regression.

Gender Differences

To check the hypothesis related to the presence of gender differences in psychological separation from parents, the multivariate analysis of variance (MANOVA) was used. Before conducting MANOVA, I tested for any violation of the relevant MANOVA assumptions. Kolmogorov-Smirnov and Shapiro-Wilk at $p = .01$ tests revealed a violation of normality in EF for the male group and in the following variables, CM, CF, EF, FF, AF, for the female group. Although, the equality of error variance was held according to the Levene's test, the equality of covariance matrices assumption was violated as indicated by Box's test at $p = .004$.

A number of transformations were made to achieve normality of distribution and homogeneity of variance. Although the transformation solutions (e.g., $X_i^* = \arcsin(X_i)^{1/2}$) were found to make the distribution of most of the variables normal, the correction for homogeneity could not be achieved at the same time. Nevertheless, MANOVA with both original [$F(8, 176) = 3.08, p = .003$] and transformed [$F(8, 176) = 2.71, p = .008$] variables revealed similar results confirming the hypothesis that there is a gender difference related to independence from parents. The contribution in gender difference

can be mainly attributed to the emotional and functional independence from mother with females showing less independence than males. After performing the Bonferroni adjustment, the gender difference held only for functional independence from mother, $F(1, 183) = 8.19, p = .005$.

All of the regression assumptions (i.e., linearity, normality and homogeneity of error variance, as well as multicollinearity) held for both male and female groups for all of the singular regression analyses that were performed thereafter using original data. The results showed that the male and female groups differed in the presence of significant relationships between independence from father and procrastination problem total. The regression was significant for the male, $F(4,67) = 2.78, p = .034$ and $R^2 = .14$ but not for the female groups. Emotional independence from father ($\beta = -.52, p = .012$) significantly contributed to 14% of variance. Neither regression for male nor female groups were significant when independence from mother was considered.

The male and female groups did not differ in reporting relationships between independence from both mother and father with procrastination problems on educational tasks. Both regressions were not significant. However, the groups did differ in the relationships between independence from parents and procrastination problems on administrative tasks. The male but not the female group demonstrated a significant relationship between PROB_ADMIN and both independence from mother [$F(4, 67) = 2.73, p = .04$ & $R^2 = .14$] and father [$F(4,67) = 3.8, p = .007$ & $R^2 = .19$]. Emotional ($\beta = -.39$) and functional ($\beta = .24$) independence from mother and emotional independence from father ($\beta = -.42$) were the main contributors to the procrastination problems on administrative tasks in male group.

In terms of type of procrastinating behaviours, there was a difference between male and female groups in the relation between delay starting educational tasks and independence from mother and father. The multiple regressions between dilatory behaviour in starting educational tasks and different aspects of independence from both mother [$F(4, 67)=2.50, p=.046$] and father [$F(4,67) = 3.57, p=.009$] were significant and predicted 9 and 12 % of variance respectively in the female but not in the male group. The contributing aspects of independence were emotional ($\beta=.36$), attitudinal ($\beta=-.26$) independence from mother and attitudinal ($\beta=-.38$), functional ($\beta=.38$) independence from father.

Four multiple regressions were conducted to predict both perseverating behaviour on educational tasks and procrastinating behaviour on administrative tasks in male and female groups. Multiple correlations between independence from mother and perseveration [$F(4, 67)] = 2.81, p=.032$ & $R^2 = .14$] only in the male group as well as independence from father and procrastinating behaviour on administrative tasks [$F(4, 67)] = 2.55, p=.04$ & $R^2 = .09$] only in the female group were significant. The main contributing factors in the former relation were emotional independence from mother ($\beta=-.46$) and in later relationship was conflictual independence from father ($\beta=-.21$). No differences existed between the results of male and female groups in the case of independence from mother and Behav_ADMIN and independence from father and B_Perserv_EDU. The two latter regression analyses were not significant.

There was also no difference between results for male and female groups when regression analyses were performed to predict both negative and positive emotions related to procrastination from different aspects of independence from mother and father.

However, in this case, all of the regressions were significant for both male and female groups. Independence from mother was a significant predictor of negative emotions in females [$F(4, 67)=4.04, p=.004$ & $R^2 = .13$] as well as males [$F(4, 67)=5.19, p=.001$ & $R^2 = .24$] with conflictual independence from mother as a main contributing factor ($\beta_{female} = -.34$; $\beta_{male} = -.33$). Similar results were obtained when independence from father was analyzed as a predictor variable of negative emotions, $F_{female}(4, 67) = 3.81, p=.006$ & $R^2 = .12$ and $F_{male}(4, 67) = 5.80, p=.000$ & $R^2 = .26$ with conflictual ($\beta_{female} = -.32$) and emotional ($\beta_{female} = -.42$) independence as the main predictors for the female group and conflictual ($\beta_{male} = -.31$) independence for the male group.

Finally, independence from mother was also a significant predictor of positive emotions in females [$F(4, 67) = 3.23, p = .015$ & $R^2 = .11$] as well as males [$F(4, 67) = 3.94, p=.006$ & $R^2 = .19$] with emotional independence from mother as a main contributing factor ($\beta = -.34$). When independence from father was analyzed as a predictor variable of positive emotions, the following results were obtained: $F_{female}(4, 67) = 3.81, p=.006$ & $R^2 = .12$ and $F_{male}(4, 67) = 3.79, p=.006$ & $R^2 = .12$ with conflictual ($\beta_{female} = -.20$) and emotional ($\beta_{female} = -.36$) independence as the main predictors for the female group, and emotional ($\beta_{male} = -.41$) independence for the male group.

In summary, for the female group, conflictual independence from father and attitudinal independence from both parents were important predictors of procrastination. The more females gain conflictual independence from father, they report less procrastination on administrative tasks and the more they are attitudinally independent from both parents, they delay starting educational tasks less.

For the male group, on the other hand, emotional aspect of independence from both parents is more important in predicting procrastination. The more males become emotionally independent from their parents, they present less procrastination problems and less perseveration on educational tasks.

A few unexpected relationships should be also noted related mostly to functional independence. In the female group, functional independence from father enhanced delay in starting educational tasks. In the male group, functional independence from mother enhanced procrastination problems on administrative tasks.

Testing 2nd Hypothesis: The relation between attachment and procrastination

Bivariate Correlation Analyses. Bivariate correlation analysis produced partial support for the second hypothesis that predicted a significant positive relationship of fearful and preoccupied prototypes with procrastination and a significant negative relation between secure and dismissing attachment prototypes with procrastination. Although only two out of three indices of procrastination, procrastination problem and emotions, significantly correlated with attachment prototypes, the majority of non-significant correlations were in the expected direction (see Table 10). For example, results showed a significant positive correlation of PROB_ADMIN with fearful ($r=.16$) and preoccupied ($r=.19$) attachment prototypes as well as a significant negative relation with secure attachment style ($r=-.15$). The relationship between PROB_ADMIN and dismissing was not significant.

In comparison to attachment prototypes, the anxiety dimension (fear of rejection) of attachment had significant relations with behaviour indices of procrastination as well as emotions related to procrastination and not with procrastination problems, indicating

that dimensional and prototypical conceptualization of attachment have a complimentary quality. There was a significant positive relation of anxiety dimension with negative emotions ($r=.27$), perseverating behaviour on educational tasks ($r=.15$), and procrastinating behaviour on administrative tasks ($r=.16$).

Consistent with the counterintuitive finding of a positive relation between independence from parents and dilatory behaviour in starting educational tasks, the relationship between anxiety and delay in starting ($r= -.16$) was negative and significant suggesting that a greater fear of rejection contributes to less delay in starting educational tasks. No significant relations were observed for the avoidance dimension of attachment and procrastination.

Table 10. *Multiple regressions of attachment variables on procrastination indices*

Predictors	Procrastination Problems									Emotions Related to Procrastination					
	PROB_Total			PROB_EDU			PROB_ADMIN			Negative Emotions			Positive Emotions		
	β	r_{sem}	r	B	r_{sem}	r	β	r_{sem}	r	β	r_{sem}	r	β	r_{sem}	r
Secure	-.09	-.08	-.14*	-.08	-.06	-.11	-.10	-.09	-.15*	-.01	-.01	-.07	.13	.11	.03
Fearful	.07	.06	.15*	.05	.04	.11	.07	.06	.16**	.08	.07	.13*	.17	.14	.11
Preoccupied	.19**	.18	.19**	.12	.11	.11	.18**	.18	.19**	.22**	.21	.24***	.07	.06	.09
Dismissing	.09	.09	.03	.08	.08	.04	.09	.09	.03	-.01	-.01	-.07	-.02	-.02	-.04
R ²		.06			.03			.07			.06			.03	
F		3.12*			1.53			3.30**			3.26**			1.48	
N		196			196			196			196			196	
Anxiety	.00	.00	-.09	-.09	-.08	-.08	.05	.04	.10	.36***	.32	.27***	.17*	.15	.11
Avoidance	.06	.05	-.11	.01	.01	-.03	.10	.09	.13*	-.19*	-.17	-.02	-.13	-.11	-.05
R ²		.00			.01			.02			.10			.03	
F		.29			.70			1.78			11.04***			2.54	
N		196			196			196			196			196	

Table 10. *Continued*

Procrastination Behaviours									
Predictors	β	B_Delay_EDU		β	B_Persev_EDU		β	B_ADMIN	
		r_{sem}	r		r_{sem}	r		r_{sem}	r
Secure	.01	.01	-.03	-.09	-.07	-.09	-.07	-.05	-.09
Fearful	.12	.10	.09	.01	.01	.05	.03	.03	.09
Preoccupied	-.11	-.11	-.11	-.07	-.07	-.05	.13	.12	.13
Dismissing	.08	.08	.10	-.04	-.04	-.03	.03	.03	.00
R^2		.03			.01			.03	
F		1.52			.68			1.28	
N		196			196			196	
Anxiety	-.19*	-.17	-.16**	.22**	.20	.15*	.14	.12	.16**
Avoidance	.07	.06	-.01	-.17	-.15	-.06	.05	.04	.11
R^2		.03			.03			.02	
F		2.89			4.39**			2.71	
N		196			196			196	

* $p \leq .05$. ** $p \leq .01$. *** $p \leq .001$. r_{sem} - semi-partial correlation; see Table 8 for variables' abbreviation

Regression Analyses. The regression between PROB_Total and four prototypes of attachment was significant, $F(4, 191) = 3.12, p = .015$, with R^2 at .06 indicating that only 6% of variability in problem procrastination is predicted by different attachment prototypes. The separate multiple regression analyses of four attachment prototypes and subscales of PROB_Total revealed that out of four prototypes, only the preoccupied profile contributed significantly to the predicted portion of variance in both PROB_Total and PROB_ADMIN. This contribution did not reach the level of significance for PROB_EDU (see Table 10).

The multiple regression analyses of the four attachment prototypes and the remaining indices of procrastination (emotions and behaviours) was only significant for negative emotions, once again with preoccupied attachment style ($\beta = .22$ at $p = .003$), indicating that the higher degree of the preoccupied prototype relates to a higher amount of negative emotions related to procrastination. Negative emotions related to procrastination were also predicted by anxiety and avoidance dimensions of attachment with anxiety's higher contribution to the significant result (Table 10).

Correlation and regression analyses revealed the importance of the total anxiety dimension of attachment in explaining procrastination behaviours (see Table 10). To explore the effect of the total score in greater detail, the multiple regression analyses of four predictors, anxiety and avoidance related to mother and father separately, on the different aspects of procrastinating behaviour (i.e., delay starting on educational tasks, perseverating behaviour on educational tasks, and procrastinating behaviour on administrative tasks) were conducted. The regression was significant for the delay starting educational tasks $F(4, 191) = 2.45, p = .05$ with anxiety related to both mother ($\beta = -.12$)

and father ($\beta = -.15$) explaining most of the 5% of total variance; and perseveration on educational tasks $F(4, 191) = 2.45, p = .02$ with a significant contribution of anxiety ($\beta = .26$) and avoidance ($\beta = -.22$) related to only father in explaining 6% of the total variance. No other significant relationships were observed.

Multiple regression analysis conducted to predict perseverating behaviour on educational tasks revealed yet another case of classic suppression. The Pearson r correlations for anxiety and avoidance related to father were $.15 (p < .05)$ and $-.10 (ns)$ respectively, prior to entering regression. Once they entered a four-factor multiple regression, the beta coefficients became $.26 (p < .01)$ and $-.22 (p < .01)$ respectively, indicating that both variables, fear of rejection and discomfort in father's presence, contributed to the suppression of redundant error. In terms of the anxiety and avoidance dimensions related to mother, both multiple regression and bivariate correlations did not show any significant relationship with perseveration.

Testing 3rd Hypothesis: Optimal combinations of independent and dependent variables and its relationship

The third hypothesis (question) of the study intended to summarize the two previous hypotheses by exploring the relationship between the combinations of independent variables (both attachment and independence variables) and the combinations of the dependent variables (indices of procrastination). To find these combinations, two set of principle component analyses (PCA) were conducted to identify components that could summarize the dependent and components that could summarize the independent variables used in this study. Then, the relations between the extracted components were examined by using multiple regression.

Principal Component Analysis. In terms of dependent variables, the initial PCA for the dependent variables- “procrastination problems in educational tasks”, “procrastination problems in administrative tasks”, “dilatory behaviour in starting educational tasks”, “perseverating behaviour on educational tasks”, “procrastinating behaviours on administrative tasks”, “negative emotion related to procrastination” and “positive emotion related to procrastination- produced a three factor solution using an eigenvalue > 1 criterion, which explained 64% of the total variance. The positive emotion positive emotion related to procrastination was omitted due to low commonality (.40). This omission increased the explanatory ability of variance for the three component solution to 73%. To maximize high and minimize low correlations between factors and variables, both orthogonal (uncorrelated) and oblique (correlated) solutions were obtained. Even though the oblique solution reduced unwanted low correlations in procrastination problems in educational tasks, the difference from the orthogonal solution (varimax with Kaiser normalization) was marginal, and I decided for the latter solution due to its simplicity and clarity (Tabachnick & Fidell, 2007).

The three extracted components and their loadings are presented in Table 11. The first and third components encompassed “overall procrastination on administrative tasks” and “overall delay starting educational tasks”, respectively, by way of combining the relevant behaviour and problem aspects. Consistent with Solomon & Rorthblum (1984), summing the procrastination behaviour with the degree to which it presents problems is justifiable based on the definition of procrastination that stresses both behavioural and psychological distress. The second component is a bit difficult to classify because it contains both perseverating behaviour on educational tasks and negative emotions related

to procrastination. However, the same rationale can be applied here as well if we assume that the negative emotion is also a construct describing psychological distress, emotional distress in this case, related to perseveration. Since perseveration had the highest loading, this component was considered as describing overall perseveration on educational tasks (Tot_Persev_EDU).

Table 11. *Principal components loadings of the dependent variables (procrastination indices)*

Dependent Variable	Component Loading			Communality
	1	2	3	
Procrastinating behaviour on administrative tasks	.88			.79
Problems in administrative tasks	.84			.79
Perseverating behaviour on educational tasks		.86		.75
Negative Emotion		.63		.49
Dilatory behaviour in starting educational tasks			.90	.83
Problems in educational tasks			.67	.72

1 = overall procrastination on administrative tasks (Tot_Proc_ADMIN)
 2 = overall perseveration on educational tasks (Tot_Persev_EDU)
 3 = overall delay starting educational tasks (Tot_Delay_EDU)

In terms of predictor variables, two principal component analyses were conducted for all the variables related to independence (conflictual, emotional, functional, and attitudinal) and attachment dimensions (anxiety and avoidance). The first analysis included the four aspects of independence and two dimensions of attachment separately for mother and father, for a total of 12 variables. The second analysis included the four aspects of independence and two dimensions of attachment related to parents, with a total of 6 variables.

The first analysis (12 variables) produced a three-factor solution explaining 70% of the variance. The first two components contained the highest loadings of the same

variables (emotional, functional, and attitudinal independence; avoidance), but all five variables in the first component related to mother, and in the second component to father. The third component contained four variables, a combination of conflictual independence from mother and father as well as anxiety related to both mother and father.

The second PCA (6 variables) produced a two-factor solution explaining 74% of the variance, which was a clearer factor solution without a need for rotation. Avoidance related to parents as well as emotional, functional, and attitudinal independence from parents loaded highly on the first factor, while anxiety related to parents and conflictual independence from parents loaded on the second (see Table 12).

Table 12. *Principal components loadings of the independent variables (separation-individuation aspects and attachment diminutions)*

Independent Variable	Component Loading		Communality
	1	2	
Functional independence from parents (FP)	.89		.84
Emotional independence from parents (EP)	.86		.81
Attitudinal independence from parents (AP)	.80		.64
Avoidance related to parents (Avoidance_P)	.75		.74
Conflictual independence from parents (CP)		.84	.73
Anxiety related to parents (Anxiety_P)		-.77	.68

1= overall independence from parents (Independence);

2= freedom from emotional conflict and relational anxiety (Conflict-free)

The second solution was chosen because it had a higher cumulative percent of the variance, it was more close to the original data (no need for rotation), and the unwanted moderate loadings between the first and second components of the three factor solution were reduced. As well, the third component of the three-factor solution was the same as the second component of the two factor solution, not only in the combination of items but

also in terms of the item loadings. Moreover, the two factor solution was similar to that obtained by Rice et al. (1990) for the measures of separation-individuation and anxiety.

It was odd to see, however, that the avoidance dimension (which is defined as both discomfort with and negative image of others) loaded positively with the items of independence from parents. Examining the items closely revealed that avoidance construct is not really different from that of independence. For example, such items as “it helps to turn to my parents in times of need” or “I usually discuss my problems and concerns with my parents” or “I find it easy to depend on this person” of avoidance subscale do not capture only discomfort with others but also independence from others as do the items from PSI such as “I ask for my parents advice when I am planning for vocation” or “I consult with my parents when deciding about part-time employment” or “I ask my parents what to do when I get into the tough situation”. Similar to Rice et al. (1990), the first component was labeled overall independence from parents (Independence) and the second one, freedom from emotional conflict and relational anxiety (Conflict_Free).

Regression Analysis. In three separate analyses, the extracted dependent variables - overall procrastination on administrative tasks (Tot_Proc_ADMIN), overall perseveration on educational tasks (Tot_Persev_EDU) and overall delay starting educational tasks (Tot_Delay_EDU) - were regressed on the two predictor variables; Independence and Conflict_Free (see Table 13). Similar to the findings of the first two hypotheses, both “overall procrastination on administrative tasks” and “overall perseveration on educational tasks” significantly related to the freedom from conflict and anxiety component (i.e., conflict-free). This finding implied that those individuals who

resolved emotional conflicts with their parents and achieved anxiety and negativity-free states exhibited less procrastination. However, there was no relationship of these variables and “overall delay starting educational tasks” (see Table 13).

These regression analyses also indicated that the conflict-free combination, which included the conflictual independence from parents and anxiety dimension of attachment, was important in explaining 6% of total variance in the overall procrastination on administrative tasks and 9% of total variance in explaining the overall perseveration on educational tasks.

Table 13. *Multiple regressions of the independence and conflict-free component on procrastination components*

Predictors	Procrastination								
	Tot_Proc_ADMIN			Tot_Persev_EDU			Tot_Delay_EDU		
	β	r_{sem}	R	B	r_{sem}	r	β	r_{sem}	r
Independence	-.13	-.13	-.16*	-.13	-.16	-.17**	.10	.10	.11
Conflict_free	-.20**	-.20	-.22***	-.24***	-.26	-.26***	.05	.05	.07
R ²		.06			.09			.02	
F		6.10**			8.44***			1.36	
N		185			185			185	

* $p \leq .05$. ** $p \leq .01$. *** $p \leq .001$. r_{sem} – semi-partial correlation
see Table 11 and 12 for variables' abbreviation

Additional Analyses. To resolve the ambiguity around the interpretation of the avoidance subscale and to make sure that prototypical nature of attachment construct are represented in the components for testing the third hypothesis, I also ran a principal component analysis with varimax rotation for the prototypical scale of attachment and

different aspects of psychological separation from parents. Three clear components with eigenvalues > 1 were extracted explaining 67 % of initial variance (see Table 14).

Table 14. *Principal components loadings of the independent variables II (separation-individuation aspects and attachment prototypes)*

Independent Variable II	Component Loading			Communality
	1	2	3	
Functional independence from parents (FP)	.91			.84
Emotional independence from parents (EP)	.89			.82
Attitudinal independence from parents (AP)	.81			.68
Secure		.88		.78
Fearful		-.86		.76
Preoccupied			-.81	.67
Conflictual independence from parents (CP)			.66	.50
Dismissing			.54	.31

Emotional, functional, and attitudinal independence from parents loaded positively on the first component similar to the first component identified in the former component analysis of this study and to Rice's (1990) factor analysis. *Independence*, the label given to this component early was maintained.

The second extracted component was compatible with attachment theory where fearful and secure prototypes have an inverse direction in terms of image of self and others. Fearful was defined as a negative image of self and others, and secure was defined as a positive image of self and others. Both fearful and secure prototypes, with opposite signs, loaded highly on the second component which was labeled *healthy attachment* due to the positive correlation of the component with the secure attachment prototype.

As well, preoccupied (defined as a positive image of others and negative image of self) and dismissing (defined as negative image of others and positive image of self) mirror each other according to attachment theory. Both dismissing and preoccupied

prototypes, with opposite signs, loaded highly on the third component confirming the theoretical proposition. Conflictual independence from parents was also positively loaded on the third component suggesting that dismissing, preoccupied and conflictual independence are related via presence/absence of negativity mainly towards the self, since dismissing displays a positive image of self, preoccupied displays a negative image of self and conflictually independent individuals have resolved their conflictual negative feelings towards parents. Therefore, this component was labeled *freedom from negative relational feelings and parental conflict (freedom from negativity)*. It is necessary to mention that the communality of the dismissing variable (.31) was low in comparison other variables, and it was omitted from the final factor solution which in turn increased cumulative variance (sums of squared loadings) to 75 % (see Table 15).

Table 15. *Improved principal components loadings of the independent variables II*

Independent Variable II	Component Loading			Communality
	1	2	3	
Functional independence from parents (FP)	.91			.83
Emotional independence from parents (EP)	.88			.82
Attitudinal independence from parents (AP)	.84			.72
Secure		.89		.79
Fearful		-.86		.77
Preoccupied		.	-.81	.66
Conflictual independence from parents (CP)			.78	.66

1= overall independence from parents (Independence)

2 = healthy attachment

3 = freedom from negativity

The regression analysis (Table 16) revealed a significant multiple correlation between the attachment-independence components and overall procrastination on administrative tasks and overall perseveration on educational tasks, and no relationship

with overall delay starting educational tasks. Out of three composite predictors, the pure attachment component, “healthy attachment”, did not show any significant contribution in the regression analysis. “Independence” as a pure separation-individuation component, however, produced a better predictive capacity than healthy attachment. *Freedom from negativity* was the main contributor to the significance of regression analysis of both the overall procrastination on administrative tasks (Tot_Proc_ADMIN) and the overall perseveration on educational tasks (Tot_Persev_EDU).

Table 16. *Multiple regressions of the independence, healthy attachment, and negativity-free component on procrastination components*

Predictors	Procrastination								
	Tot_Proc_ADMIN			Tot_Persev_EDU			Tot_Delay_EDU		
	B	r _{sem}	r	β	r _{sem}	r	β	r _{sem}	r
Independence	-.15*	-.15	-.14*	-.16*	-.16	-.16*	.10	.10	.09
Healthy Attachment	-.13	-.13	-.14*	-.06	-.06	-.06	-.09	-.09	-.09
Negativity Free	-.23**	-.23	-.23**	-.22**	-.22	-.21**	.08	.08	.08
R ²		.09			.08			.03	
F		6.02***			4.97**			1.64	
N		185			185			185	

* $p \leq .05$. ** $p \leq .01$. *** $p \leq .001$. r_{sem} – semi-partial correlation; See Table 11 and 15 for variables’ abbreviation

Final “Omnibus” Hypothesis Test

As the reader probably noticed, so far I reported the results for various aspects or components of procrastination which I believe is more a meaningful approach to understanding the complex phenomenon of procrastination. However, some of you might

desire a simple answer to a simple question as “is there a relationship between academic procrastination and the attachment-independence construct?”

To answer this question in a parsimonious manner, instead of going through PCA and trying to “push” data into one component (which, in any case, explains only about 20% of total variance of all of the procrastination items), I used a “quick and dirty” traditional way of summing the scores (Tabachnick & Fidell, 2007). Taking into consideration the unequal number of items between PASS and MAPS related to two aspects of procrastination, behaviour (PASS-frequency items and MAPS-behaviour items) and psychological distress (PASS – problem items and MAPS – negative emotion items), the means of items in each subscale were added to produce one composite score of academic procrastination. The composite score of academic procrastination had high correlations with MAPS_Behaviour (.80), MAPS_Neg. Emotion (.70), PASS_Frequency (.74), and PASS_Problem (.79). The internal consistency of the resulted scale (84 items) was very high (Cronbach alpha = .95).

This *overall academic procrastination* score correlated significantly with conflictual independence ($r = -.30$), emotional independence ($r = -.16$), functional independence ($r = -.15$), fearful ($r = +.19$), and preoccupied ($r = +.16$) prototypes, as well as anxiety – fear of rejection scores ($r = +.16$). There was no significant relationship between academic procrastination and attitudinal independence. These findings strongly support the first and second hypotheses, predicting the relation of independence and attachment with academic procrastination. However, the prediction about secure and dismissing prototypes was not supported; there was no relationship between dismissing prototype and academic procrastination; and although the relationship between the secure prototype

and academic procrastination was in the right direction, it did not reach the level of significance ($r = -.13$).

Summary of Results

Overall, 11 % of the variance in academic procrastination was explained by the multiple correlation of three independence-attachment combinations: independence, healthy attachment, and freedom from negativity ($F(3, 192) = 8.02, p = .000$). Before Bonferroni adjustment, all three combinations significantly contributed to the total explained variance (independence - $\beta = -.14, p = .04$; healthy attachment - $\beta = -.16, p = .02$; negativity_free - $\beta = -.26, p = .000$). When taking into account the Bonferroni adjustment, only the freedom from negativity combination was a significant predictor of academic procrastination. This component, a combination of attachment and psychological separation, was the optimal meaningful combination of predictor variables in this study. It consistently demonstrated its effect through testing all of the hypotheses as conflictual independence, preoccupied prototype, anxiety dimension, as well as freedom from conflict and anxiety. All these names point out to one important construct which seems to encompass freedom from negativity related to self and parents.

To explore the result in light of gender difference, two multiple regression analyses were conducted for male and female separately (see Table 17). The result showed significant multiple correlations of psychodynamic factors and procrastination in both groups. However, the pattern of correlations and unique contributions of the factors and total explained variance were different for male and female groups. In the female group, the only significant contributing component in explaining procrastination was

freedom from negativity and conflict, while in the male group healthy attachment and independence were more important in explaining procrastination. This result implies that psychodynamic factors are more important for males ($R^2 = .19$) than females ($R^2 = .08$) in explaining academic procrastination.

Table 17. *Multiple regressions of the independence, healthy attachment, and negativity-free component on total academic procrastination by gender*

Predictors	Procrastination					
	Females			Males		
	β	r_{sem}	r	β	r_{sem}	r
Independence	-.12	-.12	-.09	-.22*	-.21	-.24*
Healthy Attachment	-.07	-.07	-.07	-.31**	-.31	-.29**
Freedom from negativity	-.27**	-.27	-.25**	-.20	-.19	-.26**
R^2		.08			.19	
F		3.45*			5.89***	
N		77			117	

* $p \leq .05$. ** $p \leq .01$. *** $p \leq .001$. r_{sem} – semi-partial correlation

DISCUSSION

It will be recalled that the purpose of this study was to examine developmental and relational constructs (i.e., independence and attachment) related to procrastination. My overall hypothesis was that measures of independence and attachment would account for significant variance in the measures of procrastination. In addition to the verification of this general hypothesis, the results of the study confirmed my specific expectations. In terms of the conflictual aspect of separation-individuation, the results demonstrated that as the freedom from excessive guilt, anxiety, resentment, and anger towards parents increases, total academic procrastination decreases. The results also showed that as freedom from excessive need for approval, closeness, and emotional support from parents (i.e., emotional independence) as well as the ability of managing and directing personal affairs without the parental involvement (i.e., functional independence) increase, overall academic procrastination decreases. There was no relationship between the level of the individual's differentiation in attitudes and beliefs from their parents (i.e., attitudinal independence) and the level of academic procrastination.

In terms of attachment, the following expectations were confirmed: the ability to maintain close relationships without losing personal autonomy (i.e., secure prototype) negatively related to procrastination; the over-involvement in close relationships, accompanied by an exaggerated negative image of self and worries about abandonment (i.e., preoccupied) had a positive association with procrastination; as well, the avoidance of close relationships due to fear of rejection and a sense of personal distrust (i.e., fearful prototype) had a positive correlation with the delay of an intended task. However, my hypothesis related to the existence of a positive relation between procrastination and the

dismissing prototype, which refers to downplaying the importance of close relationships, restricting emotionality, emphasizing independence and self-reliance was not confirmed.

Theoretically, I would like to use these findings as tentative evidence for the importance of the psychodynamic constructs in the etiology of procrastination. In order to provide a better picture of these findings, it is necessary not only to compare the results with the existing body of literature, but also to discuss some findings such as gender differences in greater detail to clarify the general results.

In the following section, after positioning my findings in relation to the existing body of literature, I discuss the necessity of considering gender differences in interpreting the findings related to psychological separation-individuation (parental independence). In the next section, I demonstrate that procrastination is a complex phenomenon and it will be worthwhile and informative for researchers to consider such factors as context and type of procrastinating behaviour in future research. Since attachment and independence have a conceptual and theoretical link with each other, I discuss empirically and theoretically meaningful combinations of these two sets of predictors and their contribution to procrastination. This provides a summary of the findings as well as a base for positioning procrastination in psychodynamic perspective. Finally, the clinical implications and methodological limitations of this study are summarized and recommendations for the future research discussed.

Independence and Attachment Findings in Light of Previous Research

As far as I know, this study was the first to examine the relationship between psychological separation-individuation and procrastination. However, there is an

impressive body of literature that studied the relation between separation-individuation and outcome variables similar to procrastination such as academic adjustment, which refers to the degree of students' problems in their academic tasks.

The result related to conflictual independence is compatible with the consistent previous research findings indicating the existence of a significant inverse association between negative feelings towards and conflict with parents and such outcome variables as personal and academic adjustment (e.g., Choi, 2002; Hoffman, 1984; Rice & Fitzgerald 1995; Lopez & Gover, 1993). The result related to the cognitive aspect of separation-individuation is compatible with previous investigations that have reported no relationships between attitudinal independence and academic adjustment or achievement (e.g., Lapsley & Edgerton, 2002; Dadsetan, et al., 2004).

Previous research, however, produced inconsistent results related to emotional and functional independence from parents indicating the presence of the relationship with fewer academic problems, higher academic achievement, psychological adjustment in some studies (e.g., Dadsetan, et al., 2004; Hoffman & Wise, 1987) and the absence of such in others (e.g., Lapsley & Edgerton, 2002; Hoffman, 1984). This inconsistency in findings related to the emotional and functional independence in the literature can be explained statistically. Comparing simple bivariate correlations between these variables and procrastination indices with the relevant standardized regression coefficients reveals the existence of the clear case of suppression. This might explain why some researchers did not report significant result in terms of these variables. In this study, even though when considered separately emotional and functional independence from parents produced no or low significant relationships with some of the procrastination subscales

(e.g., procrastination problem in educational activities), they had a significantly stronger association with procrastination subscales in the multiple regression. It is possible that the researchers who have relied only on the bivariate association of these variables with outcome variables failed to report the significance of these relations.

Although there is some controversy, statisticians generally consider suppressors as a good set of predictor variables (Stevens, 2002), as these variables reveal the true nature of relationships by means of error reduction (Kline, 2005; Cohen, et al., 2003). Therefore, I think that researchers should rely on the explanation that comes from regression analyses.

The results in reference to significant associations between attachment prototypes and overall procrastination and how much procrastination is considered a problem supported previous findings of the unpublished study by Flett & Blankstein (1995 as cited in Ferrari et al., 1995) that examined relations of three attachment styles, secure, avoidant (equivalent to fearful prototype), and anxious/ambivalent (equivalent to preoccupied) with procrastination. Flett and Blankstein, however, failed to account for the dismissing attachment style.

It is important to note that both the dismissing prototype and procrastination have similar correlates. Bartholomew & Horowitz (1991) reported a positive relationship between the dismissing prototype and both self-confidence and balance of control. As well, in the procrastination literature, there is strong support for the negative relationship of self-confidence and self-control with procrastination (e.g., Ferrari, 2004; Steel, 2002). Based on these findings, I expected to see a negative relation between the dismissing prototype and procrastination. However, the results showed that there was no significant

relationship in this regard. This finding implies that although an individual with a dismissing attachment style might have high levels of self-confidence, self-reliance, and self control, he or she can not benefit from these characteristics in relation to procrastination. That is, the relational problems such as detachment and avoidance of close emotional involvement, so to speak, cancel out the effects of a positive self image manifesting in the null relationship with procrastination. This interpretation highlights the negative effect of relational-emotional detachment and the necessity for researchers to differentiate between individuals displaying high level of self-confidence (or self-control) without relational problems and self-confident individuals with relational-emotional problems. There is a possibility that the level and quality of relatedness can moderate the relation between self-confidence or self-control and some outcome variables such as procrastination.

Gender Differences

Examining the gender differences related to the procrastination factors did not reveal any significant results. This finding is consistent with a number of studies (e.g., Pychyl, et al., 2002) suggesting that there is no difference between males and females in the level of procrastination. The findings related to gender differences in psychological separation variables demonstrated that there was no gender difference in attitudinal independence, a contradictory finding to Lapsley, et al. (1989), as well as conflictual independence, a finding supported by other researchers (Dadsetan, et al., 2004; Lopez, et al., 1986; Leonardi & Kiosseoglou 2000).

In terms of emotional and functional independence, however, this study, consistent with previous research, supported the presence of gender differences. Females were found to be more dependent on emotional and functional support of their parents, particularly their mother, than males (Lopez & Gover, 1993; Lopez et al., 1986; Geuzain, et al., 2000; Lapsley, et al., 1989; Hoffman, 1984). It is interesting to note that emotional and functional dependence on parents did not predict procrastination in the female group, as oppose to the male group, suggesting that “closeness” constructs such as emotional and functional dependence are not pathological in the female group.

This conclusion challenges the separation-individuation theory (Blos, 1967, 1979; Hoffman, 1984) that views dependence as a pathology, and supports the models of female development proposed by feminist psychologists (e.g., Gilligan 1982; Surrey, 1991) who believe that connectedness is not only far from pathology but central for female development and later psychological adjustment. This conclusion also is compatible with a large amount of empirical research that has shown a positive relationship between emotional proximity with parents and well-being and adjustment in females (e.g., Geuzaine, et al., 1999).

In the male group, however, there was a significant negative relation between procrastination and both emotional and functional independence from parents, similar to the findings of previous research (e.g., Dadsetan et al., 2004). It can be concluded that dependence on parents can be somewhat pathological for males, which in turn supports the idea of separation-individuation theory. In sum, the findings in terms of the gender differences imply that separation-individuation conceptualization has a gender bias and works much better for explaining male rather than female negative outcome variables.

Procrastination is A Complex Phenomenon

The results of the principal components analysis supported the assertion that procrastination is a complex and multifaceted phenomenon encompassing different aspects, including procrastinating behaviour and psychological distress related to this behaviour (Solomon and Ruthblum, 1984). For example, psychological distress, both in terms of negative emotions and procrastination problems, was related similarly to attachment profiles, while overall procrastination behaviour was not. In addition to different aspects, the results of the principal component analyses and hypotheses testing showed that each aspect of procrastination should be considered in relation to the tasks at hand or context, administrative and educational in this case. For example, while procrastination problems on administrative tasks were related to independence from father, particularly the conflictual aspects of this relation, procrastination problems on educational tasks were related to independence from mother, emotional and functional aspects of it.

Moreover, the results of this study highlight the necessity of differentiation between various procrastinating behaviours. “Delay starting” and “perseveration” were identified as separate types of procrastinating behaviours. Conceptually, both behaviours may result in a delay completing an intended educational task (i.e. academic procrastination), however the delay starting items and perseverance items loaded consistently on different factors and demonstrated only low positive correlations between their composite (i.e., aggregated) scores. In addition, correlates of the delay starting a task

and perseverance on a task were not only different, but often in opposite direction. For example, anxiety and emotional dependence on mother showed significantly negative relationships with delay starting, but significantly positive relationships with perseverance. Having a positive relationship with each other and inverse relationship with their correlates might explain why the aggregation of these two scores under one category of “procrastination behaviour in educational tasks” did not produce any results in previous research. Therefore, it might be more meaningful for researchers to consider and study delay starting and perseverance separately.

Optimal Independence-attachment Combinations

Three meaningful components, overall independence from parents, healthy attachment, and freedom from negativity, were extracted by the principal component analysis of all predictor variables. Variables related to attachment were split into two components, healthy attachment (secure/fearful) and freedom from negativity (preoccupied). As well, variables related to psychological separation-individuation were split into two components, independence and freedom from negativity. Independence covers the emotional, functional, and attitudinal aspects of independence from parents, while freedom from negativity involves conflictual independence.

The factor solution related to psychological separation variables matches exploratory and confirmatory factor analyses examined by Rice et al. (1993) and Beyers & Goossens (2003). This consistency of findings can be considered as a good index for the reliability of the data collected for this study, and at the same time, the reliability of the factor solution. My overall independence factor is equivalent in terms of composition,

the importance of loadings, and definition with the overall independence factor obtained by the above authors. However, since in addition to independence from parents, attachment variables were used in this study, there is a difference in the loaded items and interpretation of the third factor (i.e., freedom from negativity and conflict).

Separation anxiety and cognitive detachment loaded negatively on the same factor with conflictual independence from parents in the research reported by Rice et al. (1993) and Beyer & Goossens (2003), respectively. Both authors referred to this factor as “positive separation feelings” suggesting that conflictual independence captures feelings associated with separation experience (i.e., transition to university). In the present study, the preoccupied prototype loaded negatively on the same factor with conflictual independence. I believe that high “conflictual independence” in this context should not necessarily be considered as positive emotions associated with a successful separation process, but as an overall freedom from negative feelings and conflict related to the relationship with parents and internalization of this relationship over time. These negative feelings can result from both detachment (i.e., extreme, unhealthy independence) and enmeshment (i.e., pathological closeness). According to attachment theory (e.g., Bartholomew & Horowitz, 1991) another variable that loaded on this factor, the preoccupied prototype, encompasses the need for extreme closeness, a negative image of self, fear of rejection or abandonment, shame, as well as excessive worries about close relationships including parents and partners,. From this perspective, what conflictual dependence and a preoccupied prototype have in common is a constellation of internal conflict accompanied by negative feelings towards self and/or an internalized other (i.e., parent). Therefore, the combination of conflictual independence from parents and

preoccupied prototype can be conceptualized as an emotional-relational construct that is different from general independence.

Independence-attachment Components and Procrastination

The analysis of the relationship between the independence-attachment combination of variables and procrastination showed that freedom from negativity and emotional conflict with parents had a significant negative relationship with overall academic procrastination, procrastination on administrative tasks, and perseveration on educational tasks; and it contributed more to the prediction of these behaviours than the level of independence from parents or healthy attachment. There is no direct research as of yet that examines these relationships. However, considering the correlates of procrastination such as anxiety, fear of failure, and feelings of guilt (see Ferrari, 2004; Steel, 2002), the significant relationship between freedom from negativity and procrastination found in this study is expected.

The overall independence from parents did not reach statistical significance in predicting procrastination. This result is consistent with procrastination research that found dependency, a personality variable, had no significant relationship with behavioural procrastination (Ferrari, 1994). However, looking only at these results obtained for the whole sample without considering gender differences might limit one's interpretation or lead to misinterpretation. Analyzing data separately for males and females once again confirmed the early assertion that independence was an important variable for the males but not the females. Similarly, healthy attachment was an important predictor of procrastination in the male but not the female group. These

findings imply that young males who manage to develop a certain degree of independence from their parents and at the same time maintain closeness (healthy attachment) with their parents are at lower risk for developing procrastinating behaviours and problems. Furthermore, the result generally support the conclusions that negativity and conflict related to parents have a negative effect on both males and females in terms of completing an intended task without delay.

Potential theoretical Explanations and Implications of the Findings

According to different psychodynamic theorists (Missildine, 1964; McIntyre, 1964; Spoke, 1971), overcontrolling parents or those parents who place unrealistic expectations and link their parental love to children's achievements cause hostile and aggressive feelings in their children. These aggressive feelings towards parents manifest in children's disregard for parental authority through rebelling against timely completion of a task. The reaction towards authoritarian parents is exercised throughout childhood and leads to trait procrastination, a habitual rebellion against the authority of the clock. Children who have permissive or neglectful parents, on the other hand, feel anxious in dealing with real tasks and develop an anxious or nervous style of approaching a task which also might result in procrastination. In sum, a psychodynamic perspective of procrastination emphasizes the role of child-parent conflict, the discrepancy between parents' demands and the child's performance, as well as the discrepancy between parental attention or care and the child's demand as roots of procrastination (see Figure 2).

Child-parent conflicts are accompanied by negative emotions towards parents (e.g., aggressive and hostile feelings) and/or self (e.g., anxiety fear, and shame). It can be

hypothesized that if this psychodynamic explanation is valid, we should, at least, find some relation between procrastination and parenting styles (external variables) and we should also find the relation between procrastination and emotional conflict or negative feelings (internal variables) towards parents and self. Following this line of reasoning, several researchers have tried to investigate this theoretical proposition by examining the relationship between parenting styles and procrastination. The results of these efforts have generally supported the existence of the relationship between procrastination and authoritarian but not permissive parenting (e.g., Pychyl, et al. 2002). The present study was the first to examine parental conflict and procrastination by investigating the effects of intrapsychic variables, such as conflictual independence towards parents, anxiety dimension of attachment and freedom from negativity. The results initially supported the general assumption of the psychodynamic explanation that had highlighted the role of emotional conflict with parents as a trigger of procrastinating behaviour.

Figure 2. The existing psychodynamic explanation of procrastination

Further investigation, however, is required to examine parenting style and parental conflict simultaneously in relation to procrastination. Since this study did not differentiate between the types of negative emotions and the previous investigations have not examined the neglectful parenting style, it is important to consider these variables in the future research as well. Nevertheless, at this point we can generally accept that emotional and relation conflict with parents is an enduring problem that has a significant statistical relationship with measures of procrastination even in adulthood.

In addition to general support for a psychodynamic perspective, the findings of this study in terms of gender differences might develop the existing framework further. As will be recalled, in addition to negative emotions and conflict, dependency, particularly in the male group, was identified as an important factor for procrastination. This potentially suggests a separate path from authoritarian parenting style via dependency to procrastination (see Figure 3). Further research needs to explore whether the male's dependence on parents has a direct effect on procrastination or has an indirect effect through a mediational process such as self-regulation.

Figure 3. *A potential extension for the existing psychodynamic explanation of procrastination, based on gender findings*

Another potential extension of the existing psychodynamic perspective can be derived when the types of procrastinating behaviours are considered. One aspect of procrastinating behaviour identified in this study, perseveration, is particularly relevant to this discussion. Perseveration is defined as “a form of delay, such that continuing one action inappropriately delays other actions” (Rotblatt & Pychyl, 2006, p 1). This definition of perseveration can be redefined in terms of a common student’s task (i.e., homework), such that putting time inappropriately in one stage of a task delays completion of that task in other stages. Based on the latter definition, it can be assumed, in the case of authoritarian parents or aversive imposed tasks, children might show “surface compliance” with the authority figure, by starting and engaging a task on time. At the same time, their negative emotions and conflict with parents unconsciously drives them to rebel against the authority of the clock, and delay finishing the task through perseveration. Based on this conceptualization, perseveration is a disguised rebellious act that can not be easily detected and punished by the parents and can work as a “defence mechanism” to cope with strong negative emotions towards parents and the imposed task. After exercising this behavioural strategy through the childhood, these children are likely to display perseveration, and not necessarily delay starting, as the main form of procrastinating behaviour in the adulthood.

I should emphasize that this is a hypothetical explanation and to test the validity of this assumption we need a series of systematic observations and inquiries that could capture the existence of this behavioural strategy or defence mechanism in children particularly in the face of authoritarian parenting. At this point in time and based on the

existing data, however, if my hypothetical explanation is true, I should find a negative association between fear of rejection from parents and delay starting tasks as well as a positive relation between indices of conflict and perseveration.

The findings suggested that higher negativity towards and conflict with parents result in higher perseveration on a task. In contrast, there is no relation between indices of conflict and starting a task with delay. Furthermore, the results showed that as the level of attachment-anxiety or fear of rejection increases one might show less delay in starting but more perseveration.

Potential Clinical Implications

The interpretation of these results at the case level may be beneficial for counsellors and clinical psychologists. For example, when working with young women, it might be important to focus on resolving emotional conflicts and negative emotions towards parents instead of pushing them to become independent. When working with this group, it is important while stressing independence not to push these individuals to the extreme level of independence (detachment) where no family ties are maintained or negative emotions towards self and internalized parents are developed.

In a clinical setting, it is also worthwhile to differentiate procrastinators according to the type of behaviour they struggling with, and match our intervention based on these behaviours. For example, in the case of delaying starting, motivational strategies might work. But, in the case of perseveration, it is important to focus on the reduction of deeper negative intrapsychic factors such as emotional-relational conflicts and attachment-related anxiety, and at the same time enhancing time management skills.

Limitations and Future Research

The effect sizes for the significant findings in this study were low, ranging from .06 to .19. However, the presence of low effect sizes for relationships between psychodynamic factors and procrastination might have several explanations. First, procrastination is a complex phenomenon that might have multiple potential causal factors or correlates and therefore could not be simply explained by considering just one set of variables. Second, the sample in this study is heterogeneous in terms of family status (e.g., intact, single parent, stepfamily) and social-cultural background (e.g., ethnicity) which potentially can affect the psychological separation variables and their relationship to outcomes in an inverse direction. In fact, when I controlled for gender differences, the effect sizes increased significantly. Therefore, considering moderators or control variables such as culture may be important for investigation in future research. Third, most of the independent variables in this study are distal variables. It is quite possible that some mediating variables such as self-control, self-esteem, state-trait anxiety, or pattern of current interpersonal relationships exist and can theoretically explain the relationship between the psychodynamic factors and procrastination. Testing mediational models in this setting can be worthwhile for the future research. For example, a mediational model that uses variables such as parenting style, independence-attachment components, self-regulation and procrastination as well as perseverance might be informative.

Another limitation of this study is that it measures the effect of psycho-dynamic factors on procrastination at one point in time (cross-sectional). It can be beneficial to

study these effects employing a longitudinal examination, which considers gender as an important moderator or a control variable. For example, it can be argued that the non-significance of the results related to the relationship of procrastination with independence and healthy attachment factors in the female group, in comparison to the male group, is due to chronological differences in the development of independence or maturity between females and males. It can be assumed that measuring these relations at an early age might show different results in a female sample as discussed above. Furthermore, as was shown in this study, freedom from negativity had a significant correlation with procrastination in both gender groups. Hence, it can be hypothesized that freedom from negativity and conflict is a more stable variable and has long lasting effects in comparison to independence. These hypotheses can only be explored using longitudinal methods in future research.

A number of researchers have emphasized the importance of distinguishing detachment and autonomy (e.g., Geuzaine, et al. 2000). This study, however, failed to draw a clear differentiation between detachment and healthy independence. It can be argued that a high level of independence according to self-report measures such as PSI is not necessarily an indicator of healthy independence in the male group. The findings of case studies based on clinical interviews and projective tests revealed that some males who report high level of independence on the PSI have unhealthy detachment from their families as well as academic and relational problems (Geuzaine, et al., 2000). Also, it has been mentioned that some male self-reports of high independence from parents on the PSI could be due to a social desirability effect where the males are trying to depict themselves as independent according to the widely accepted social norms (Geuzaine, et

al. 2000). Future research might need to either include the reports of parents or social desirability inventories.

It is relatively uncontroversial that early attachment style affects adult attachment style (Fraley, 2006). However, there is still a debate in terms of the stability of an attachment style over time (e.g., Hazan & Shaver, 1987; Hamilton, 2000; Fraley, 2006b; Lewis et al., 2000; Waters, et al., 2000; Weinfield, et al., 2000). The self-report measures utilized in this study assess current attachment style. Therefore, one needs to exercise caution when trying to generalize the results to explain the relationship between early parental attachment and procrastination. Using thorough interviews (e.g., adult attachment interview) at minimum or, better yet, a longitudinal study may explain this relationship more accurately.

Finally, as mentioned earlier, procrastination is a complex phenomenon that can be looked at as either a trait or dilatory behaviour. In addition, procrastination can be differentiated according to context, general versus academic. The present study explored the nature of procrastination on administrative and educational tasks in academic setting. It may also be worthwhile to examine general procrastination as well as trait procrastination (chronic procrastinators) in relationship to psychodynamic factors. As well, it may be useful to add items to the existing procrastination measure reflecting the status of starting and continuing tasks simultaneously. For example, the items such as “I start gathering materials for a term paper on time but I persevere in writing it” might be used for this purpose. It might also be valuable to develop a parents’ version of the questionnaire tapping into their children’s procrastinating behaviours in order to capture the early stages of dilatory behaviour development.

Summary and Conclusion

In sum, the exploration of two important psychodynamic processes, attachment and separation-individuation, in relation to procrastination indicates that individuals who tend to procrastinate can be characterized as having unresolved emotional and relational conflict with their parents, and negative emotions towards self and parents. In addition, important gender differences emerged revealing that young adult males can suffer from procrastination if they are raised in a way to be dependent on their parents in a culture that values individualism. For males, a balance between independence from and attachment to parents seems to be the optimal condition for adaptive functioning in terms of timely completion of intended goals. Furthermore, the results of my research indicate that starting a task without delay (i.e., not procrastinating on initiating a task), but perseverating on aspects of the task at the expense of other necessary subtasks (resulting in procrastination overall) might be considered a learned behavioural strategy adopted to cope with parental conflicts and negative emotions in childhood.

Overall, I conclude that it is important to consider these unconscious and psychodynamic aspects of our functioning in understanding procrastination because they can potentially shed light on the origin of this dilatory behaviour and how we learn adaptive behavioural and emotional strategies to self-regulate our volitional action. To the extent that we can learn more about how these more distal developmental processes affect our sense of self in terms of self regulation and self efficacy, we may develop a better understanding of why, despite our best intentions, we seem to deliberately delay the completion of important tasks in our lives.

REFERENCES

- Ainsworth M. D. S., (1972). Attachment and Dependency: A comparison. In J. L. Gewirtz(Ed.). *Attachment and Dependency* (pp. 97-137). New York: Wiley.
- Ainsworth M. D. S., (1979). Infant-mother attachment. *American Psychologist*. 34, 932-937.
- Ainsworth, M. D. S., & Bell, S. M. (1974). Mother-infant interaction and the development of competence. In IC. Connolly & I. Bruner (Eds.), *The growth of competence* (pp. 97-118). New York: Academic Press.
- Ainsworth, M. D. S., Blehar, M.C., Waters, E. and Wall, S., (1978). *Patterns of attachment: A psychological study of the strange situation*. Hillsdale, NJ: Erlbaum
- Aitken, M., (1992). A personality profile of the college student procrastinator. Unpublished doctoral dissertation, University of Pittsburgh.
- Alonso-Arbiol, I., Shaver, P.R., & Yarnoz, S., (2002). Insecure attachment, gender roles, and interpersonal dependency in the Basque Country. *Personal Relationships*, 9, 479-490.
- Arnsden, G.C., & Greenberg, M.T., (1987). The inventory of parent and peer attachment: Individual differences and their relationship to psychological wellbeing in adolescence. *Journal of Youth and Adolescence*, 16, 427-454.
- Bartholomew, K. (1990). Avoidance of intimacy: An attachment perspective. *Journal of Social and Personal Relationships*, 7, 147-178.
- Bartholomew, K. & Horowitz, L. M., (1991). Attachment styles among adults: A test of a four-category model. *Journal of Personality and Social Psychology*, 61, 226-244.

- Bartholomew, K. & Shaver, P. R., (1998). Methods of assessing adult attachment. In J.A. Simpson & W.S. Rholes (Eds.), *Attachment Theory and Close Relationships* (pp. 25-45). New York: Guilford Press
- Beyers, W. & Goossens, L. (2003). Psychological separation and adjustment to university: Moderating effects of gender, age, and perceived parenting style. *Journal of Adolescent Research*, 18(4), 363-382.
- Bloom, L. V., (1980). *Adolescent Parental Separation*. New York : Gardner Press.
- Blos, P., (1962). *On adolescence: A psychoanalytic Interpretation*. New York: Free Press.
- Blos, P., (1967). The second individuation process of adolescence. *The Psychoanalytic Study of the Child*, 14, 113-121.
- Blos, P. (1979). *The adolescent passage*. New York: International Universal Press.
- Blustein, D. L., Walbridge, M.M., Friedlander, M.L., & Palladino, D.E., (1991). Contributions of psychological separation and parental attachment to the career development process. *Journal of Counseling Psychology*, 38, 39-50.
- Blunt, A.K. & Pychyl, T.A. (2000). Task aversiveness and procrastination: a multi-dimensional approach to task aversiveness across stages of personal projects. *Personality and Individual Difference*, 28, 153-167.
- Blunt, A. & Pychyl, T. A., (2005). Project systems of procrastinators: a personal project-analytic and action control perspective. *Personality and Individual Differences*, 38, 1771-1780.
- Bornstein, R. F., (1992). The dependent personality: developmental, social, and clinical perspectives. *Psychological Bulletin*, 112, 3-23.

- Bowlby, J., ([1969]/1982). *Attachment and loss: Vol. I. Attachment*. New York: Basic Books.
- Bowlby, J., (1973). *Attachment and loss: Vol. 2. Separation: Anxiety and anger*. New York: Basic Books.
- Bowlby, J., (1980). *Attachment and loss: Vol. 3. Loss: Sadness and depression*. New York: Basic Books.
- Bowlby, J., (1988). Developmental psychiatry comes of age. *American Journal of Psychiatry*, 145, 1-10.
- Brennan, K.A., Clark, C.L., & Shaver, P.R., (1998). Self-report measurement of adult attachment: An integrative overview. In J.A., Simpson & W.S. Rholes (Eds.), *Attachment Theory and Close Relationship* (pp. 46-76). New York: Guilford Press.
- Calkins, S. D. (2004). Early attachment processes and the development of the emotional self-regulation. In Baumeister, R. F. & Vohs, K. D. (Eds.), *Handbook of Self-Regulation: Research, Theory, and Application*, pp. 324-339. New York: The Guildford Press.
- Cassidy, J. & Shaver, P. R., (1998). *Handbook of attachment, theory, research and clinical applications*, New York: Guilford Press.
- Carver, C.S., & Scheier, M.F., (1990). Origins and functions of positive and negative affect: A control-process view. *Psychological Review*, 97, 19-35.
- Choi, K.H. (2002). Psychological Separation-individuation and adjustment to college

- among Korean American students: The roles of collectivism and individualism. *Journal of Counseling Psychology*, 49(4), 468-475.
- Cohen, J., Cohen, P., West, S. G., & Aiken, L. S. (2003). *Applied Multiple Regression / Correlation Analysis for the Behavioural Sciences, 3rd Edition*. New Jersey: Lawrence Erlbaum Associates.
- Colin, V.L. (1996). *Human Attachment*. Philadelphia: Temple University Press
- Collins, N.L., & Read, S.J. (1990). Adult attachment, working models, and relationship quality in dating couples. *Journal of Personality and Social Psychology*, 58, 644-663.
- Dadsetan, P., Haghbin, M., Bazaziyan, S., & Tavakoli, M.R.H., (2004). Psychological separation from parents and academic achievement: A survey based on sex and culture differences. *Journal of Iranian Psychologists*, 1(1), 3-20.
- Ellis, A., & Knaus, W. J. (1977). *Overcoming procrastination*. New York: Institute of Rational Living.
- Ferrari, J. R. (1994). Dysfunctional procrastination and its relationship with self-esteem, interpersonal dependency, and self-defeating behaviours. *Personality & Individual Differences*, 17, 673-679.
- Ferrari, J.R., (2004). Trait procrastination in academic setting: An overview of students who engage in task delays. In H.C., Schouwenburg, , C., Lay, T.A. Pychyl, & J.R., Ferrari (Eds.), *Counseling the Procrastinator in Academic Setting*. Washington, D.C.: American Psychological Association.

- Ferrari, J. R., Keane, S. M., Wolfe, R. N., & Beck, B. L., (1998). The antecedents and consequences of academic excuse-making: Examining individual differences in procrastination. *Research in Higher Education*, 39, 199-215.
- Ferrari, J.R., & Olivette, M.J. (1993). Perceptions of parental control and the development of indecision among late young adolescent females. *Adolescence*, 28, 963-970.
- Ferrari, J.R. & Olivette, M.J., (1994). Parental authority influences on the development of female dysfunctional procrastination. *Journal of Research in Personality*, 28, 87-100.
- Ferrari, J. R. & Patel, T., (2004). Social comparison by procrastinators: rating peers with similar or dissimilar delay tendencies. *Personality and Individual Differences*, 37, 1493-1501
- Ferrari, J.R., Johnson, J.L., & McCown, W.G., (1995). Procrastination and task avoidance: Theory, research, and treatment. New York: Plenum Press.
- Flett, G.L., & Blankstein, K.R. (1995). Unpublished data. In Ferrari, J.R., Johnson, J.L., & McCown, W.G., (Eds.). *Procrastination and task avoidance: Theory, research, and treatment*. New York: Plenum Press.
- Fraley, R. C., (2006). Relationships Structures (RS) Questionnaire. Retrieved March 2, 2006, from <http://www.psych.uiuc.edu/~rcfraley/measures/relstructures.htm>.
- Fraley, R. C., (2006b). A brief overview of adult attachment theory and research. Retrieved August 20, 2006, from <http://www.psych.uiuc.edu/~rcfraley/attachmnet.htm>.

- Gilligan, C. (1982). *In a different voice: Psychological theory and women's development*. Harvard University Press, Cambridge, MA.
- Griffin, D., & Bartholomew, K. (1994). Models of the self and other: Fundamental dimensions underlying measures of adult attachment. *Journal of Personality and Social Psychology*, 67, 430--445.
- George, C., Kaplan, N., & Main, M. (1985). *The adult attachment interview*. Unpublished manuscript, Department of Psychology, University at Berkley.
- Glover, R. J. (2000). Relational needs in late adolescent separation – individuation. *Community College Journal of Research & Practice*, 24 (6).
- Greenberg, M.T., Siegal, J.M., & Leitch, C.J. (1983). The nature and importance of attachment relationships to parents and peers during adolescence. *Journal of Youth and Adolescence*, 12, 373-386.
- Hamilton, C. E. (2000). Continuity and discontinuity of attachment from infancy through adolescence. *Child Development*, 71, 690-694.
- Hazan, C. & Shaver, P. R. (1987). Romantic love conceptualized as an attachment process. *Journal of Personality and Social Psychology*, 52.
- Hazan, C. & Shaver, P. R. (1994). Attachment as an organizational framework for research on close relationships. *Psychological Inquiry*, 5.
- Hoffman, J. A. (1984). Psychological separation of late adolescents from their parents. *Journal of Counseling Psychology*, 3 (2).
- Hoffman, J. A. & Weis, B. (1987). Family dynamics and presenting problems in college students. *Journal of Counseling Psychology*, 34 (2).
- Johnson, J., & Bloom, M. (1993). *Procrastination and the five-factor theory of*

- personality*. Paper presented at the meeting of the Society for the Study of Individual Differences, Baltimore, MD.
- Josselson, R. (1988). The embedded self: I and though revisited In D. K. Lapsley & F. C. Power (Eds.), *Self, ego, and identity: Integrative approaches* (pp. 91–108). New York: Springer.
- Karavasilis, L., Doyle, A.B., & Markiewicz, D. (2003). Associations between parenting style and attachment to mother in middle childhood and adolescence. *International Journal of Behavioural Development*, 27 (2), 153–164.
- Kenny, M. E. (1987). The extent and function of parental attachment among first-year college students. *Journal of Youth and Adolescence*, 16, 17–27.
- Kenny, M.E., & Donaldson, G.A. (1991). Contributions of parental attachment and family structure to the social and psychological functioning of first-year college students. *Journal of Counseling Psychology*, 38, 479-486.
- Kinnier, R.T., Brigman, S.L., & Noble, F. (1990). Career indecision and family enmeshment. *Journal of Counseling and Development*, 68, 309-312.
- Kline, R. B. (2005). *Principles and Practice of Structural Equation Modeling*, 2nd Edition. New York: The Guilford Press.
- Lapsley, D. K., & Edgerton, J. (2002). Separation-individualization, adult attachment style, and college adjustment. *Journal of Counseling and Development*, 80, 484–495.
- Lapsley, D.K., Rice, K.G., Shadid, G.E. (1989). Psychological separation and adjustment to college. *Journal of Counseling Psychology*, 36, 286-294.
- Lapsley, D. K., Rice, K. G., & FitzGerald, D. (1990). Adolescent attachment, identity,

- and adjustment to college: Implications of the continuity of adaptation hypothesis. *Journal of Counseling and Development*, 68, 1556–1565.
- Lay, C. H. (1986). At last, my research article on procrastination. *Journal of Research in Personality*, 20, 474-495.
- Lay, C.H. (1997). Explaining low order traits through higher order factors: The case of trait procrastination, conscientiousness, and specificity dilemma. *European Journal of Personality*, 11, 267-278.
- Leonardi, A. & Kiosseoglou, G. (2000). The relationship of parental attachment and psychological separation to the psychological functioning of young adults. *The Journal of Social Psychology*, 140 (4).
- Lewis, M., Feiring, C. & Rosenthal, S. (2000). Attachment over time. *Child Development*, 71(3), 707-720.
- Lopez, F. G., & Brennan, K. A. (2000). Dynamic processes underlying adult attachment organization: Toward an attachment theoretical perspective on the healthy and effective self. *Journal of Counseling Psychology*, 47, 283-301.
- Lopez, F. G. & Gover, M. R. (1993). Self-report measures of parent-adolescent and separation – individuation. *Database: Professional Development Collection*.
- Lopez, F.G., Watkins, C.E., Manus, M. & Hunton-Shoup, J. (1992). Conflictual independence mood regulation, and generalized self-efficacy: Test of a model of late adolescent identity. *Journal of Counseling Psychology*, 39, 375-381.
- Lopez, F. G., Campbell, V.L., & Watkins, C.E. (1986). Depression, psychological separation and college adjustment: An investigation of sex differences. *Journal of Counseling Psychology*, 33, 52-56.

- Lopez, F. G., Campbell, V.L., & Watkins, C.E. (1988a). Family structure, psychological separation and college adjustment: A canonical analysis and cross – validation. *Journal of Counseling Psychology*, 35, 402-409.
- Lucas, M. (1997). Identity development, career development and psychological separation from parents: Similarities and differences between men and women. *Journal of Counseling Psychology*, 44, 123-132.
- MacIntyre, P. (1964). Dynamic treatment of passive-aggressive underachiever. *American Journal of Psychotherapy*, 18, 95-108.
- Mahler, M.S. (1960). Symposium on psychotic object relationships: III. Perceptual dedifferentiation and psychotic “object relationship.” *International Journal of Psycho-Analysis*, 41, 548-553.
- Mahler, M. S. (1968). *On human symbiosis and the vicissitudes of individuation*. New York: International Universities Press.
- Mahler, M.S., Pine, F., & Bergman, A. (1975). *The Psychological Birth of the Human Infant*. New York: Basic Books.
- Main, M., & Goldwyn, R. (1985). *Adult attachment classification and rating system*. Unpublished manuscript, University of California, Berkley.
- Main, M., & Solomon, M. (1990). Procedures for identifying infants as disorganized/disoriented during the Ainsworth Strange Situation. In M. T. Greenberg, D. Cicchetti, & E. M. Cummings (Eds.), *Attachment in the preschool years* (pp. 121 – 160) Chicago: University of Chicago Press.
- Mann, L., Radford, M., Burnett, P., Ford, S., Bond, M., Leung, K., et al. (1998). Cross-

cultural differences in self-reported decision-making style and confidence.

International Journal of Psychology, 33, 325-335.

McCardy, S.J. & Sherman, A. (1996). Effects of family structure on the adolescent separation-individuation process. *Adolescence*, 31, 307-319.

McCown, W. (1995). The relationship between venturesomeness, impulsivity, and procrastination in college students and adults. Integral/Apogee Technical Research Paper No. 95-08. Randor, PA: Integral/Apogee, Inc.

McCown, W., & Johnson, J., (1989a). *Validation of an adult inventory of procrastination*. Paper presented at the Society for Personality Assessment, New York.

McCown, W., & Johnson, J., (1989b). *Differential arousal gradients in chronic procrastination*. Paper presented at the American Psychological Society, Alexandria, VA.

McCown, W., & Johnson, J., (1989c). *Nonstudent validation of an adult inventory of procrastination*. Paper presented at the American Psychological Association, New Orleans, LA.

McCown, W., Johnson, J., & Petzel, T. (1989). Procrastination, a principal components analysis. *Personality & Individual Differences*, 10, 197-202.

McCown, W., Petzel, T., & Rupert, P. (1987). An experimental study of some hypothesized behaviours and personality variables of college student procrastinators. *Personality & Individual Differences*, 8, 781-786.

McCown, W., Patzel, T. & Rupter, P. (1987). Personality correlates and behaviours of chronic procrastinators. *Personality and Individual Difference*, 11, 71-79.

- McKean, J.J. (1990). An investigation of academic procrastination as a behaviour manifestation of learned helplessness. Unpublished doctoral dissertation, Seton Hall University, South Orange, NJ.
- Milgram, N. A., Sroloff, B., & Rosenbaum, M. (1988). The procrastination of everyday life. *Journal of Research in Personality*, 22, 197-212.
- Milgram, N., Mey-Tal, G., & Levison, Y. (1998). Procrastination, generalized or specific, in college students and their parents. *Personality & Individual Differences*, 25, 297-316.
- Missilidine, H. (1964). Your inner child of the past. New York: Simon & Schuster.
- Moore, W. (1987). Parent – adolescent separation: The construction of adulthood by late adolescents. *Developmental Psychology*, 23.
- Pietromonaco, P. R., & Feldman Barrett, L. (2000). The internal working models concept: What do we really know about the self in relation to others? *General Review of Psychology*, 4, 155–175.
- Pychyl, T.A., Coplan, R.J. & Reid, P.A. (2002). Parenting and procrastination: Gender differences in the relations between procrastination, parenting style and self-worth in early adolescence. *Personality and Individual differences*, 33, 271-285.
- Rice, K.G., Cole, D.A., & Lapsley, D.K., (1990). Separation-individuation, family cohesion, and adjustment to college: Measurement validation and test of a theoretical model. *Journal of Counseling Psychology*, 37(2), 195-202.
- Rice, K. G. & Fitzgerald, D. P. (1995). Cross sectional and longitudinal examination of attachment, separation – individuation and college student adjustment, *Journal of Counseling and Development*, 73 (4).

- Richards, P.S. (1985). Construct Validation of the Self-Control Schedule. *Journal of research in personality*, 19, 208-218.
- Rosenbaum, M. (1980a). A schedule for assessing self-control behaviours: Preliminary findings. *Behaviour Therapy*, 11, 109-121.
- Rosenbaum, M. (1980b). Individual differences in self-control behaviours and tolerance of painful stimulation. *Journal of Abnormal Psychology*, 89, 581-590.
- Rosenbaum, M., & Rolnick, A. (1983). Self-control behaviours and coping with seasickness. *Cognitive Therapy and Research*, 7, 93-98.
- Rotblatt & Pychyl, (2006). *Multidimensional Academic Procrastination Scale (MAPS)*. Unpublished manuscript, Carleton University.
- Scharfe, E., & Bartholomew, K. (1994). Reliability and stability of adult attachment patterns. *Personal Relationships*, 1, 23-43
- Schouwenburg, H.C., (2004). Procrastination in academic setting: General introduction. In H.C., Schouwenburg, , C., Lay, T.A. Pychyl, & J.R., Ferarri (Eds.), *Counseling the Procrastinator in Academic Setting*. Washington, D.C.: American Psychological Association.
- Schwartz, J.P., & Buboltz, W.C. Jr., (2004). The relationship between attachment to parents, psychological separation in college students. *Journal of College Student Development*, 45(5), 566-577.
- Shaver, P. R., & Fraley, R. C., (2006). Self-Report Measures of Adult Attachment. Retrieved March 2, 2006, from <http://www.psych.uiuc.edu/~rcfraley/measures/measures.html>

- Simpson, J.A. (1990). Influence of attachment styles on romantic relationships. *Journal of Personality and Social Psychology*, 59, 971-980.
- Skowron, E. A., & Friedlander, M. L., (1994). Psychological Separation, Self-Control, And Weight Preoccupation among elite woman athletes. *Journal of Counseling & Development*, 72, 310-316.
- Solomon, L. J., & Rothblum, E. D. (1984). Academic procrastination: Frequency and cognitive-behavioural correlates. *Journal of Counseling Psychology*, 31, 503-509.
- Spivak, K.M. (1995). *Attachment and self-efficacy at four stages of life*. Unpublished Ph.D., Pacific Graduate School of Psychology.
- Spock, B., (1971). *Helping the procrastinating child*. Redbook, 36, 20.
- Sroufe, L. A. (1996). *Emotional development: The organization of emotional life in the early years*. New York: Cambridge University Press.
- Sroufe, L. A., Duggal, S. Weinfield, N. & Carlson, E (2000). Relationships, Development, and Psychopathology. A. J. Sameroff, M. Lewis, and S. M. Miller (Eds). Kluwer Academic/ Plenum *Handbook of Developmental Psychopathology (2nd Ed)*, Kluwer Academic/ Plenum Publishers, New York.
- Steel, P. (2002). *The measurement and nature of procrastination*. Unpublished Ph.D., University of Manitoba.
- Steinberg, L. & Silverman, S. (1986). The vicissitudes of autonomy in early adolescence. *Child Development*, 57. 841-851
- Stevens, J. P. (2002). *Applied Multivariate Statistics for the Social Sciences*, 4th Edition. New Jersey: Lawrence Erlbaum Associates.
- Surrey, J. (1991). Self-in-relation: A theory of women's development. In: Jordan J,

- Kaplan A, Miller J, Stiver I, Surrey J, (Eds.), *Women's Growth in Connection*. New York, NY: Guilford Press.
- Tabachnick, B. G. & Fidell, L. S. (2007). *Using Multivariate Statistics, 5th Edition*. USA: Pearson Education, Inc.
- Taylor, R. (1979). Procrastination: The personality and situational correlates of procrastination behaviour for achievement task. *Dissertation Abstracts International*, 40(4-b), 1967.
- Tokar, D.M., Withrow, J.R., Hall, R.J., & Moradi, B. (2003). Psychological separation, attachment security, vocational self-concept crystallization, and career indecision: A structural equation analysis. *Journal of Counseling Psychology*, 50(1), 3-19.
- van Eerde, W. (2003). A meta-analytically derived nomological network of procrastination. *Personality and Individual Differences*, 35, 1401-1418.
- Vivona, J. M. (2000). Parental attachment styles of late adolescents: Qualities of attachment relationships and consequences for adjustment. *Journal of Counseling Psychology*, 47, 316–329.
- Waters, E., Merrick, S. Treboux, D., Crowell, J. & Albersheim, L. (2000). Attachment security in infancy and early adulthood: A twenty year longitudinal study. *Child Development*, 71(3), 684-689.
- Weinfield, N. S., Sroufe, L. A. & Egelund, B. (2000). Attachment from infancy to early adulthood in a high risk sample: Continuity, discontinuity, and their correlates. *Child Development*, 71, 695-702.
- Zahng, F. & Labouvie-Vief, G. (2004). Stability and fluctuation in adult attachment style over 6-year period. *Attachment and Human Development*, 6(4), 419-437.

APPENDICES

Measures**The “Psychodynamic Factors of Procrastination” Questionnaire Package**

Dear student!

Thanks a lot for agreeing to participate in this project. We are confident that your participation will contribute a great deal to the understanding of the phenomenon under the study and in turn to the advancement of psychology as a science.

This questionnaire package contains a number of measures that will provide us with the necessary information to answer empirically the questions of this experiment. It is extremely important for the success of our endeavor that you give completely honest answers to all of the questions. As you have been informed earlier, any information that you provide when completing this package will be coded and will not be associated with your name in any way. Your answers are entirely confidential and will be useful only if they accurately describe you. Please, take your time and read the instructions carefully before answering each questionnaire.

There is no obligation to continue this experiment. Feel free to withdraw or take a break at any point. The experimenter will be happy to assist you if you might have any questions or concerns.

Have a great testing session,
Experimental Team

General Information

Before starting the first questionnaire, please provide your current demographic information below. Please **circle** the applicable answer or **fill in** the blanks.

Gender: Male ☐ Female ☐

Age: _____

Ethnicity:

Caucasian ☐ African-American ☐ Hispanic ☐ Asian ☐ Native-American ☐

Other _____

School Information:

Year: First Second

Semester(s) in Carleton University: First Second Third Fourth Other (please specify) _____

Major: _____

Grade Point Average (G.P.A.):

Below 5.0 5.0 – 5.9 6.0 – 6.9 7.0 – 7.9 8.0 – 8.9 9.0–9.9 10.0 – 10.9 11.0 – 11.9 12.0 ☐

Parent(s) you are in close contact with:

Mother ☐ Father ☐ Both ☐ Neither ☐

Romantic Relationship Status:

Single ☐ Dating ☐ Engaged ☐ Married/Common Law ☐ Separate ☐ Divorced ☐

Widowed ☐

How long have you been in this relationship (if applicable)? _____

Residence:

On-Campus ☐ Off-Campus/On your own ☐ Off-Campus/Romantic Partner ☐

Off-Campus/Parents ☐ Other _____

How long have you been away from home (if applicable)? _____

If you are an international student or a new immigrant, how long have you been in Canada? _____ years _____ months

PSI**Please read the Instructions**

Instructions: The following list of statements describes different aspects of students' relationship with both their mother or mother-like figure (69 items) and father or father-like figure (69 items).

Imagine a scale ranging from 1 to 5 that tells how well each statement applies to you. In the space next to the statement, please enter a number from "1" (Not at all true of me) to "5" (Always true of me). If the statement does not apply enter "1". Please be completely honest. Your answers are entirely confidential and will be useful only if they accurately describe you.

Not at all or a little bit true of me: 1

Moderately true of me: 2

Quite a bit true of me: 3

Very true of me: 4

Always true of me: 5

- ___ 1. I like to show my friends pictures of my mother.
- ___ 2. Sometimes my mother is a burden to me.
- ___ 3. I feel longing if I am away from my mother for too long.
- ___ 4. My ideas regarding racial equality are similar to my mother's.
- ___ 5. My mother's wishes have influenced my selection of friends.
- ___ 6. I feel like I am constantly at war with my mother.
- ___ 7. I blame my mother for many of the problems I have.
- ___ 8. I wish I could trust my mother more.
- ___ 9. My attitudes about obscenity are similar to my mother's.
- ___ 10. When I am in difficulty I usually call upon my mother to help me out of trouble.
- ___ 11. My mother is the most important person in the world to me.
- ___ 12. I have to be careful not to hurt my mother's feelings.
- ___ 13. I wish that my mother lived nearer so I could visit her more frequently.
- ___ 14. My opinions regarding the role of women are similar to my mother's.
- ___ 15. I often ask my mother to assist me in solving my personal problems.
- ___ 16. I sometimes feel like I'm being punished by my mother.
- ___ 17. Being away from my mother makes me feel lonely.
- ___ 18. I wish my mother wasn't so over protective.
- ___ 19. My opinions regarding the role of men are similar to my mother's.
- ___ 20. I wouldn't make a major purchase without my mother's approval.
- ___ 21. I wish my mother wouldn't try to manipulate me.
- ___ 22. I wish my mother wouldn't try to make fun of me.
- ___ 23. I sometimes call home just to hear my mother's voice.
- ___ 24. My religious beliefs are similar to my mother's.
- ___ 25. My mother's wishes have influenced my choice of major at school.
- ___ 26. I feel that I have obligations to my mother that I wish I didn't have.
- ___ 27. My mother expects too much from me.
- ___ 28. I wish I could stop lying to my mother.

Not at all or a little bit true of me: 1

Moderately true of me: 2

Quite a bit true of me: 3

Very true of me: 4

Always true of me: 5

- _____ 29. My beliefs regarding how to raise children are similar to my mother's.
- _____ 30. My mother helps me to make my budget.
- _____ 31. While I am home on a vacation I like to spend most of my time with my mother.
- _____ 32. I often wish that my mother would treat me more like an adult.
- _____ 33. After being with my mother for a vacation I find it difficult to leave her.
- _____ 34. My values regarding honesty are similar to my mother's.
- _____ 35. I generally consult with my mother when I make plans for an out of town weekend.
- _____ 36. I am often angry at my mother.
- _____ 37. I like to hug and kiss my mother.
- _____ 38. I hate it when my mother makes suggestions about what I do.
- _____ 39. My attitudes about solitude are similar to my mother's.
- _____ 40. I consult with my mother when deciding about part-time employment.
- _____ 41. I decide what to do according to whether my mother will approve of it.
- _____ 42. Even when my mother has a good idea I refuse to listen to it because she made it.
- _____ 43. When I do poorly in school I feel I'm letting my mother down.
- _____ 44. My attitudes regarding environmental protection are similar to my mother's.
- _____ 45. I ask my mother what to do when I get into a tough situation.
- _____ 46. I wish my mother wouldn't try to get me to take sides with her.
- _____ 47. My mother is my best friend.
- _____ 48. I argue with my mother over little things.
- _____ 49. My beliefs about how the world began are similar to my mother's.
- _____ 50. I do what my mother decides on most questions that come up.
- _____ 51. I seem to me closer to my mother than most people my age.
- _____ 52. My mother is sometimes a source of embarrassment to me.
- _____ 53. Sometimes I think I am too dependent on my mother.
- _____ 54. My beliefs about what happens to people when they die are similar to my mother's.
- _____ 55. I ask for my mother's advice when I am planning my vacation time.
- _____ 56. I am sometimes ashamed of my mother.
- _____ 57. I care too much about my mother's reactions.
- _____ 58. I get angry when my mother criticizes me.
- _____ 59. My attitudes regarding sex are similar to my mother's.
- _____ 60. I like to have my mother help me pick out the clothing I buy for special occasions.
- _____ 61. I sometimes feel like an extension of my mother.
- _____ 62. When I don't write my mother often enough I feel guilty.
- _____ 63. I feel uncomfortable keeping things from my mother.
- _____ 64. My attitudes regarding national defense are similar to my mother's.

Not at all or a little bit true of me: 1

Moderately true of me: 2

Quite a bit true of me: 3

Very true of me: 4

Always true of me: 5

- _____ 65. I call my mother whenever anything goes wrong.
- _____ 66. I often have to make decisions for my mother.
- _____ 67. I'm not sure I could make it in life without my mother.
- _____ 68. I sometimes resent it when my mother tells me what to do.
- _____ 69. My attitudes regarding mentally ill people are similar to my mother's.
-
- _____ 70. I like to show my friends pictures of my father
- _____ 71. Sometimes my father is a burden to me.
- _____ 72. I feel longing if I am away from my father for too long.
- _____ 73. My ideas regarding racial equality are similar to my father's.
- _____ 74. My father's wishes have influenced my selection of friends.
- _____ 75. I feel like I am constantly at war with my father.
- _____ 76. I blame my father for many of the problems I have.
- _____ 77. I wish I could trust my father more.
- _____ 78. My attitudes about obscenity are similar to my father's.
- _____ 79. When I am in difficulty I usually call upon my father to help me out of trouble.
- _____ 80. My father is the most important person in the world to me.
- _____ 81. I have to be careful not to hurt my father's feelings.
- _____ 82. I wish that my father lived nearer so I could visit him more frequently.
- _____ 83. My opinions regarding the role of women are similar to my father's.
- _____ 84. I often ask my father to assist me in solving my personal problems.
- _____ 85. I sometimes feel like I'm being punished by my father.
- _____ 86. Being away from my father makes me feel lonely.
- _____ 87. I wish my father wasn't so over protective.
- _____ 88. My opinions regarding the role of men are similar to my father's.
- _____ 89. I wouldn't make a major purchase without my father's approval.
- _____ 90. I wish my father wouldn't try to manipulate me.
- _____ 91. I wish my father wouldn't try to make fun of me.
- _____ 92. I sometimes call home just to hear my father's voice.
- _____ 93. My religious beliefs are similar to my father's.
- _____ 94. My father's wishes have influenced my choice of major at school.
- _____ 95. I feel that I have obligations to my father that I wish I didn't have.
- _____ 96. My father expects too much from me.
- _____ 97. I wish I could stop lying to my father.
- _____ 98. My beliefs regarding how to raise children are similar to my father's.
- _____ 99. My father helps me to make my budget.
- _____ 100. While I am home on a vacation I like to spend most of my time with my father.
- _____ 101. I often wish that my father would treat me more like an adult.
- _____ 102. After being with my father for a vacation I find it difficult to leave him.
- _____ 103. My values regarding honesty are similar to my father's.

Not at all or a little bit true of me: 1

Moderately true of me: 2

Quite a bit true of me: 3

Very true of me: 4

Always true of me: 5

- ___ 104. I generally consult with my father when I make plans for an out of town weekend.
- ___ 105. I am often angry at my father.
- ___ 106. I like to hug and kiss my father.
- ___ 107. I hate it when my father makes suggestions about what I do.
- ___ 108. My attitudes about solitude are similar to my father's.
- ___ 109. I consult with my father when deciding about part-time employment.
- ___ 110. I decide what to do according to whether my father will approve of it.
- ___ 111. Even when my father has a good idea I refuse to listen to it because he made it.
- ___ 112. When I do poorly in school I feel I'm letting my father down.
- ___ 113. My attitudes regarding environmental protection are similar to my father's.
- ___ 114. I ask my father what to do when I get into a tough situation.
- ___ 115. I wish my father wouldn't try to get me to take sides with him.
- ___ 116. My father is my best friend.
- ___ 117. I argue with my father over little things.
- ___ 118. My beliefs about how the world began are similar to my father's.
- ___ 119. I do what my father decides on most questions that come up.
- ___ 120. I seem to be closer to my father than most people my age.
- ___ 121. My father is sometimes a source of embarrassment to me.
- ___ 122. Sometimes I think I am too dependent on my father.
- ___ 123. My beliefs about what happens to people when they die are similar to my father's.
- ___ 124. I ask for my father's advice when I am planning my vacation time.
- ___ 125. I am sometimes ashamed of my father.
- ___ 126. I care too much about my father's reactions.
- ___ 127. I get angry when my father criticizes me.
- ___ 128. My attitudes regarding sex are similar to my father's.
- ___ 129. I like to have my father help me pick out the clothing I buy for special occasions.
- ___ 130. I sometimes feel like an extension of my father.
- ___ 131. When I don't write my father often enough I feel guilty.
- ___ 132. I feel uncomfortable keeping things from my father.
- ___ 133. My attitudes regarding national defense are similar to my father's.
- ___ 134. I call my father whenever anything goes wrong.
- ___ 135. I often have to make decisions for my father.
- ___ 136. I'm not sure I could make it in life without my father.
- ___ 137. I sometimes resent it when my father tells me what to do.
- ___ 138. My attitudes regarding mentally ill people are similar to my father's.

Relationships Questionnaire (RQ)

1. Following are descriptions of four general relationship styles that people often report. Please read each description and **CIRCLE** the letter corresponding to the style that *best* describes you or is *closest* to the way you generally are in your close relationships. Please choose only one style.

A. It is easy for me to become emotionally close to others. I am comfortable depending on them and having them depend on me. I don't worry about being alone or having others not accept me.

B. I am uncomfortable getting close to others. I want emotionally close relationships, but I find it difficult to trust others completely, or to depend on them. I worry that I will be hurt if I allow myself to become too close to others.

C. I want to be completely emotionally intimate with others, but I often find that others are reluctant to get as close as I would like. I am uncomfortable being without close relationships, but I sometimes worry that others don't value me as much as I value them.

D. I am comfortable without close emotional relationships. It is very important to me to feel independent and self-sufficient, and I prefer not to depend on others or have others depend on me.

2. Please rate **each** of the following relationship styles according to the *extent* to which you think each description corresponds to your general relationship style.

A. It is easy for me to become emotionally close to others. I am comfortable depending on them and having them depend on me. I don't worry about being alone or having others not accept me.

Not at all like me				Somewhat like me			Very much like me
1	2	3	4	5	6	7	

B. I am uncomfortable getting close to others. I want emotionally close relationships, but I find it difficult to trust others completely, or to depend on them. I worry that I will be hurt if I allow myself to become too close to others.

Not at all like me				Somewhat like me			Very much like me
1	2	3	4	5	6	7	

C. I want to be completely emotionally intimate with others, but I often find that others are reluctant to get as close as I would like. I am uncomfortable being without close relationships, but I sometimes worry that others don't value me as much as I value them.

Not at all like me				Somewhat like me			Very much like me
1	2	3	4	5	6	7	

D. I am comfortable without close emotional relationships. It is very important to me to feel independent and self-sufficient, and I prefer not to depend on others or have others depend on me.

Not at all like me				Somewhat like me			Very much like me
1	2	3	4	5	6	7	

Relationships Structures (RS)

This questionnaire is designed to assess the way in which you mentally represent important people in your life. You'll be asked to answer questions about your parents, your romantic partners, and your friends. Please indicate the extent to which you agree or disagree with each statement by circling a number for each item.

Please answer the following 10 questions about your **mother or a mother-like figure**

1. It helps to turn to this person in times of need.
strongly disagree 1 2 3 4 5 6 7 strongly agree
2. I usually discuss my problems and concerns with this person.
strongly disagree 1 2 3 4 5 6 7 strongly agree
3. I talk things over with this person.
strongly disagree 1 2 3 4 5 6 7 strongly agree
4. I find it easy to depend on this person.
strongly disagree 1 2 3 4 5 6 7 strongly agree
5. I don't feel comfortable opening up to this person.
strongly disagree 1 2 3 4 5 6 7 strongly agree
6. I prefer not to show this person how I feel deep down.
strongly disagree 1 2 3 4 5 6 7 strongly agree
7. I often worry that this person doesn't really care for me.
strongly disagree 1 2 3 4 5 6 7 strongly agree
8. I'm afraid that this person may abandon me.
strongly disagree 1 2 3 4 5 6 7 strongly agree
9. I worry that this person won't care about me as much as I care about him or her.
strongly disagree 1 2 3 4 5 6 7 strongly agree
10. I don't fully trust this person.
strongly disagree 1 2 3 4 5 6 7 strongly agree

Please answer the following 10 questions about your **father or a father-like figure**

1. It helps to turn to this person in times of need.
strongly disagree 1 2 3 4 5 6 7 strongly agree
2. I usually discuss my problems and concerns with this person.
strongly disagree 1 2 3 4 5 6 7 strongly agree
3. I talk things over with this person.
strongly disagree 1 2 3 4 5 6 7 strongly agree
4. I find it easy to depend on this person.
strongly disagree 1 2 3 4 5 6 7 strongly agree
5. I don't feel comfortable opening up to this person.
strongly disagree 1 2 3 4 5 6 7 strongly agree
6. I prefer not to show this person how I feel deep down.
strongly disagree 1 2 3 4 5 6 7 strongly agree
7. I often worry that this person doesn't really care for me.
strongly disagree 1 2 3 4 5 6 7 strongly agree
8. I'm afraid that this person may abandon me.
strongly disagree 1 2 3 4 5 6 7 strongly agree
9. I worry that this person won't care about me as much as I care about him or her.
strongly disagree 1 2 3 4 5 6 7 strongly agree
10. I don't fully trust this person.
strongly disagree 1 2 3 4 5 6 7 strongly agree

Please answer the following 10 questions about your **dating or marital partner**.

Note: If you are not currently in a dating or marital relationship with someone, answer these questions with respect to a former partner or a relationship that you would like to have with someone.

1. It helps to turn to this person in times of need.
strongly disagree 1 2 3 4 5 6 7 strongly agree
2. I usually discuss my problems and concerns with this person.
strongly disagree 1 2 3 4 5 6 7 strongly agree
3. I talk things over with this person.
strongly disagree 1 2 3 4 5 6 7 strongly agree
4. I find it easy to depend on this person.
strongly disagree 1 2 3 4 5 6 7 strongly agree
5. I don't feel comfortable opening up to this person.
strongly disagree 1 2 3 4 5 6 7 strongly agree
6. I prefer not to show this person how I feel deep down.
strongly disagree 1 2 3 4 5 6 7 strongly agree
7. I often worry that this person doesn't really care for me.
strongly disagree 1 2 3 4 5 6 7 strongly agree
8. I'm afraid that this person may abandon me.
strongly disagree 1 2 3 4 5 6 7 strongly agree
9. I worry that this person won't care about me as much as I care about him or her.
strongly disagree 1 2 3 4 5 6 7 strongly agree
10. I don't fully trust this person.
strongly disagree 1 2 3 4 5 6 7 strongly agree

Please answer the following 10 questions about **your best friend or your close friend**

1. It helps to turn to this person in times of need.
strongly disagree 1 2 3 4 5 6 7 strongly agree
2. I usually discuss my problems and concerns with this person.
strongly disagree 1 2 3 4 5 6 7 strongly agree
3. I talk things over with this person.
strongly disagree 1 2 3 4 5 6 7 strongly agree
4. I find it easy to depend on this person.
strongly disagree 1 2 3 4 5 6 7 strongly agree
5. I don't feel comfortable opening up to this person.
strongly disagree 1 2 3 4 5 6 7 strongly agree
6. I prefer not to show this person how I feel deep down.
strongly disagree 1 2 3 4 5 6 7 strongly agree
7. I often worry that this person doesn't really care for me.
strongly disagree 1 2 3 4 5 6 7 strongly agree
8. I'm afraid that this person may abandon me.
strongly disagree 1 2 3 4 5 6 7 strongly agree
9. I worry that this person won't care about me as much as I care about him or her.
strongly disagree 1 2 3 4 5 6 7 strongly agree
10. I don't fully trust this person.
strongly disagree 1 2 3 4 5 6 7 strongly agree

Procrastination Assessment Scale for Students (PASS)

Areas of Procrastination

For each of the following activities, please rate the degree to which you delay or procrastinate. Rate each item on an "a" to "e" scale according to how often you wait until the last minute to do the activity. Then indicate on an "a" to "e" scale the degree to which you feel procrastination on that task is a problem. Finally, indicate on an "a" to "e" scale the degree to which you would like to decrease your tendency to procrastinate on each task.

I. WRITING A TERM PAPER

1. To what degree do you procrastinate on this task?

Never	Almost Never	Sometimes	Nearly Always	Always
a	b	c	d	e

2. To what degree is procrastination on this task a problem for you?

Not At All a Problem	Almost Never	Sometimes	Nearly Always	Always a Problem
a	b	c	d	e

3. To what extent do you want to decrease your tendency to procrastinate on this task?

Do Not Want to Decrease		Somewhat		Definitely Want to
Decrease				
a	b	c	d	e

II. STUDYING FOR EXAMS

4. To what degree do you procrastinate on this task?

Never	Almost Never	Sometimes	Nearly Always	Always
a	b	c	d	e

5. To what degree is procrastination on this task a problem for you?

Not At All a Problem	Almost Never	Sometimes	Nearly Always	Always a Problem
a	b	c	d	e

6. To what extent do you want to decrease your tendency to procrastinate on this task?

Do Not Want	Somewhat	Definitely
-------------	----------	------------

to Decrease				Want to
Decrease				
a	b	c	d	e

III. KEEPING UP WITH WEEKLY READING ASSIGNMENTS

7. To what degree do you procrastinate on this task?

Never	Almost Never	Sometimes	Nearly Always	Always
a	b	c	d	e

8. To what degree is procrastination on this task a problem for you?

Not At All a Problem	Almost Never	Sometimes	Nearly Always	Always a Problem
a	b	c	d	e

9. To what extent do you want to decrease your tendency to procrastinate on this task?

Do Not Want to Decrease		Somewhat		Definitely Want to
Decrease				
a	b	c	d	e

IV. ACADEMIC ADMINISTRATIVE TASKS: FILLING OUT FORMS, REGISTERING FOR CLASSES, GETTING ID CARD

10. To what degree do you procrastinate on this task?

Never	Almost Never	Sometimes	Nearly Always	Always
a	b	c	d	e

11. To what degree is procrastination on this task a problem for you?

Not At All a Problem	Almost Never	Sometimes	Nearly Always	Always a Problem
a	b	c	d	e

12. To what extent do you want to decrease your tendency to procrastinate on this task?

Do Not Want to Decrease		Somewhat		Definitely Want to
Decrease				
a	b	c	d	e

V. ATTENDANCE TASKS: MEETING WITH YOUR ADVISOR, MAKING AN APPOINTMENT WITH A PROFESSOR

13. To what degree do you procrastinate on this task?

Never	Almost Never	Sometimes	Nearly Always	Always
a	b	c	d	e

14. To what degree is procrastination on this task a problem for you?

Not At All a Problem	Almost Never	Sometimes	Nearly Always	Always a Problem
a	b	c	d	e

15. To what extent do you want to decrease your tendency to procrastinate on this task?

Do Not Want to Decrease		Somewhat		Definitely Want to
Decrease				
a	b	c	d	e

VI. SCHOOL ACTIVITIES IN GENERAL

16. To what degree do you procrastinate on this task?

Never	Almost Never	Sometimes	Nearly Always	Always
a	b	c	d	e

17. To what degree is procrastination on this task a problem for you?

Not At All a Problem	Almost Never	Sometimes	Nearly Always	Always a Problem
a	b	c	d	e

18. To what extent do you want to decrease your tendency to procrastinate on this task?

Do Not Want		Somewhat		Definitely
-------------	--	----------	--	------------

31. You couldn't choose among all the topics. _____
32. You were concerned that if you did well, your classmates would resent you. _____
33. You didn't trust yourself to do a good job. _____
34. You didn't have enough energy to begin the task. _____
35. You felt it just takes too long to write a term paper. _____
36. You liked the challenge of waiting until the deadline. _____
37. You knew that your classmates hadn't started the paper either. _____
38. You resented people setting deadlines for you. _____
39. You were concerned you wouldn't meet your own expectations. _____
40. You were concerned that if you got a good grade, people would have higher expectations of you in the future. _____
41. You waited to see if the professor would give you some more information about the paper. _____
42. You set very high standards for yourself and you worried that you wouldn't be able to meet those standards. _____
43. You just felt too lazy to write a term paper. _____
44. Your friends were pressuring you to do other things _____

Multidimensional Academic Procrastination Scale (MAPS)

General Instructions

What this questionnaire measures

The items in this questionnaire focus on procrastination. Procrastination is defined as *a voluntary and needless delay of an intended action*.

Delay as it is used here also means such things as avoid, postpone, put off, defer, etc. Perseveration is also considered a form of delay, such that continuing one action inappropriately delays other actions.

Voluntary delay is when *you choose* to needlessly delay the task. For example, “I decided to needlessly delay my homework despite the approaching deadline.”

Needless delay is when the delay is *for no good reason* and is contrary to your intention (e.g., your goal). For example, “I continued to engage in a trivial activity when I knew I had an important assignment to do.”

An intended action (e.g., tasks, projects, assignments) is defined as one which you decide, plan, need, or ought to begin and finish.

Please **keep these distinctions in mind** when responding to the items in this questionnaire.

The design for the questionnaire

The items in this questionnaire are presented in three sections: 1) your behaviour, 2) your thoughts, and 3) your emotions. Each section begins with specific instructions. Please read these carefully.

The questionnaire will take about 20 minutes to complete. Please don't rush. Most students tell us they learn about themselves as they complete the questionnaire, so we think you'll find this very interesting.

SECTION 1: BEHAVIOUR

Instructions: These items are concerned with **your typical behaviour** regarding procrastination. Please consider each statement carefully before responding. Note that persevere means to persist on an action even when you should stop. You stay on a task long after it is really finished or appropriate.

On a scale of 0 (Not at all) to 4 (Extremely) please answer each of the items below **by circling the number** beside each question that best describes you.

	Not at all	A little	Moderately	Quite a bit	Extremely
1. I typically procrastinate on academic tasks.	0	1	2	3	4

When I procrastinate on essays, I typically,	Not at all	A little	Moderately	Quite a bit	Extremely
2. Delay starting.	0	1	2	3	4
3. Delay choosing the topic.	0	1	2	3	4
4. Delay researching the topic.	0	1	2	3	4
5. Persevere at the research stage.	0	1	2	3	4
6. Delay collecting the reading material.	0	1	2	3	4
7. Persevere at collecting the reading material.	0	1	2	3	4
8. Delay reading the material.	0	1	2	3	4
9. Persevere at reading the material.	0	1	2	3	4
10. Avoid making notes on the reading material.	0	1	2	3	4
11. Persevere at making notes.	0	1	2	3	4
12. Delay making the outline.	0	1	2	3	4
13. Persevere at making the outline.	0	1	2	3	4
14. Delay writing.	0	1	2	3	4
15. Persevere at writing.	0	1	2	3	4
16. Avoid proof reading.	0	1	2	3	4
17. Persevere at proof reading.	0	1	2	3	4
18. Delay finishing.	0	1	2	3	4
19. Start essays at the last minute.	0	1	2	3	4
20. Fail to hand in essays at all.	0	1	2	3	4

When I procrastinate on assignments, I typically,	Not at all	A little	Moderately	Quite a bit	Extremely
21. Delay starting.	0	1	2	3	4

22. Delay finishing.	0	1	2	3	4
23. Start assignments at the last minute.	0	1	2	3	4
24. Fail to hand in assignments at all.	0	1	2	3	4

When I procrastinate on studying for exams , I typically,					
	Not at all	A little	Moderately	Quite a bit	Extremely
25. Delay starting.	0	1	2	3	4
26. Delay finishing.	0	1	2	3	4
27. Start to study for exams at the last minute.	0	1	2	3	4
28. Fail to study for exams at all.	0	1	2	3	4

When I procrastinate on weekly reading assignments , I typically,					
	Not at all	A little	Moderately	Quite a bit	Extremely
29. Delay starting.	0	1	2	3	4
30. Delay finishing.	0	1	2	3	4
31. Start reading assignments at the last minute.	0	1	2	3	4
32. Fail to do the reading assignments at all.	0	1	2	3	4

When I procrastinate on administrative tasks (e.g., making appointments, registering) , I typically,					
	Not at all	A little	Moderately	Quite a bit	Extremely
33. Delay starting.	0	1	2	3	4
34. Delay completing.	0	1	2	3	4
35. Delay making appointments (e.g., meetings).	0	1	2	3	4
36. Delay selecting courses.	0	1	2	3	4
37. Delay registering for courses.	0	1	2	3	4
38. Delay getting course materials (e.g., books).	0	1	2	3	4
39. Delay paying tuition (i.e., for no good reason).	0	1	2	3	4
40. Delay making my schedule (e.g., to do list).	0	1	2	3	4
41. Perseverate at making my schedule (e.g., to do list).	0	1	2	3	4
42. Do administrative tasks at the last minute.	0	1	2	3	4
43. Fail to do administrative tasks at all.	0	1	2	3	4

SECTION 2: THOUGHTS

Instructions: These items are concerned with **your typical thoughts** regarding procrastination. Please consider each statement carefully before responding.

On a scale of 0 (Not at all) to 4 (Extremely) please answer each of the items below **by circling the number** beside each question that best describes you.

When I procrastinate on academic tasks , I typically think,					
	Not at all	A little	Moderately	Quite a bit	Extremely
1. I just don't feel like doing it.	0	1	2	3	4
2. I'll have more time later.	0	1	2	3	4
3. I can do a better job later.	0	1	2	3	4
4. I'll be more interested in it later.	0	1	2	3	4
5. There's still time left to do it.	0	1	2	3	4
6. I need to have a large uninterrupted chunk of time available to work.	0	1	2	3	4
7. I'm not in the right state of mind to study.	0	1	2	3	4
8. I work better under pressure.	0	1	2	3	4
9. I just can't do it.	0	1	2	3	4
10. I worry that there won't be adequate time left later.	0	1	2	3	4
11. It won't take very long to do later.	0	1	2	3	4
12. I don't have enough time to do it now.	0	1	2	3	4
13. I will do worse as a result of the delay.	0	1	2	3	4
14. I know I won't do well anyway.	0	1	2	3	4
15. I don't know what to do.	0	1	2	3	4
16. It's too difficult.	0	1	2	3	4
17. It's unpleasant.	0	1	2	3	4
18. I'll delay it now and worry about it later.	0	1	2	3	4
19. I have too much work to do.	0	1	2	3	4
20. I'm too stressed out right now.	0	1	2	3	4
21. I just don't care.	0	1	2	3	4
22. There's always tomorrow.	0	1	2	3	4
23. I delay things for no good reason.	0	1	2	3	4
24. I'll regret this later.	0	1	2	3	4
25. I really ought to do my work.	0	1	2	3	4
26. I'm going to need a miracle.	0	1	2	3	4

27. I still do OK when I procrastinate.	0	1	2	3	4
28. I'm really frustrated.	0	1	2	3	4
29. I don't like to make decisions.	0	1	2	3	4
30. I'm worried I won't do well.	0	1	2	3	4

SECTION 3: EMOTIONS

Instructions: These items are concerned with **your typical emotions** regarding procrastination. Please consider each statement carefully before responding.

On a scale of 0 (Not at all) to 4 (Extremely) please answer each of the items below **by circling the number** beside each question that best describes you.

When I procrastinate on academic tasks , I typically feel,					
	Not at all	A little	Moderately	Quite a bit	Extremely
1. Cheerful	0	1	2	3	4
2. Sad	0	1	2	3	4
3. Active	0	1	2	3	4
4. Angry at self	0	1	2	3	4
5. Disgusted	0	1	2	3	4
6. Calm	0	1	2	3	4
7. Guilty	0	1	2	3	4
8. Enthusiastic	0	1	2	3	4
9. Attentive	0	1	2	3	4
10. Afraid	0	1	2	3	4
11. Joyful	0	1	2	3	4
12. Downhearted	0	1	2	3	4
13. Bashful	0	1	2	3	4
14. Tired	0	1	2	3	4
15. Nervous	0	1	2	3	4
16. Sheepish	0	1	2	3	4
17. Sluggish	0	1	2	3	4
18. Amazed	0	1	2	3	4
19. Lonely	0	1	2	3	4
20. Distressed	0	1	2	3	4
21. Daring	0	1	2	3	4
22. Shaky	0	1	2	3	4
23. Sleepy	0	1	2	3	4
24. Blameworthy	0	1	2	3	4
25. Surprised	0	1	2	3	4
26. Happy	0	1	2	3	4
27. Excited	0	1	2	3	4
28. Determined	0	1	2	3	4
29. Strong	0	1	2	3	4
30. Timid	0	1	2	3	4

31. Hostile	0	1	2	3	4
32. Frightened	0	1	2	3	4
33. Scornful	0	1	2	3	4
34. Alone	0	1	2	3	4
35. Proud	0	1	2	3	4
36. Astonished	0	1	2	3	4
37. Relaxed	0	1	2	3	4
38. Alert	0	1	2	3	4
39. Jittery	0	1	2	3	4
40. Interested	0	1	2	3	4
41. Irritable	0	1	2	3	4
42. Upset	0	1	2	3	4
43. Lively	0	1	2	3	4
44. Loathing	0	1	2	3	4
45. Delighted	0	1	2	3	4
46. Angry	0	1	2	3	4
47. Ashamed	0	1	2	3	4
48. Confident	0	1	2	3	4
49. Inspired	0	1	2	3	4
50. Bold	0	1	2	3	4
51. At ease	0	1	2	3	4
52. Energetic	0	1	2	3	4
53. Fearless	0	1	2	3	4
54. Blue	0	1	2	3	4
55. Scared	0	1	2	3	4
56. Concentrating	0	1	2	3	4
57. Disgusted with self	0	1	2	3	4
58. Shy	0	1	2	3	4
59. Drowsy	0	1	2	3	4
60. Dissatisfied with self	0	1	2	3	4
61. Helpless	0	1	2	3	4
62. Hopeless	0	1	2	3	4