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An Analysis of Personal Project Commitment

By

Laura Ann Goodine

**A thesis submitted to
the Faculty of Graduate Studies and Research
in partial fulfillment of the requirements
for the degree of
Doctor of Philosophy**

**Department of Psychology
Carleton University
Ottawa, Ontario
August 24, 1999**

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Abstract

Two studies, one employing undergraduates and one employing public service executives, were conducted to explore several aspects of a comprehensive model of commitment as viewed from the perspective of contemporary personality psychology. The first empirical exploration sets up a model of commitment and uses two levels of personality analysis, the trait level assessed by the NEO-PI-R (Costa & McCrae, 1992) and the middle level as assessed by a personal action construct methodology, Personal Projects Analysis (PPA) (Little, 1983), to explore the centrality of commitment and its motivational strength and gendered nature in the postmodern context of individual lives. The second empirical study extends the model by examining the domains of academics/work and interpersonal relationships and expands the sample with a group of Canadian executives.

Support for commitment as a central, broad and motivational construct in everyday lives is suggested by the findings that four of the five PPA factors, including the new factors of constraint and hedonism and the new process variables (stage, automaticity, flexibility), as well as four of the NEO-PI-R (Costa & McCrae, 1992) domains contribute to the prediction of commitment. Further support for the extensive breadth of commitment is evidenced in an examination of the PPA factors underlying the work and non-work projects of our executive sample.

Several other lines of enquiry, again assessed at these two levels of personality analysis, determine more subtle aspects of the gendered, motivational and experiential nature of commitment. An enquiry into *gender* reveals commonalities and differences in

several linkages between personal project commitment and both the PPA factors and the NEO-PI-R domains. The *motivational* aspect is evident in thought accessibility as well as higher order linkages of commitment with roles and job needs and aspirations. The trait of Openness and a self-reflective state seen in the evaluation of self-defining activity as well as the new measure of PPA affect serve to support the *experiential* aspect of commitment wherein fathomed choices are formed by situated individuals.

Specific domain focus on academics/work considers extremes of Brickman and Karuza, Jr.'s (1987) control and commitment cycles of action operationalized by the work pattern of Workaholism and the construct of self-aggrandizement. Discussion centers around a conative perspective on commitment as a central psychological construct and patterns of commitment.

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To the kids, Karim, Vince, Julie and Stephane who have always made me more than aware that life goes on despite the fact that Laura/Maman has not completed her dissertation. Finally, thanks to other family members, Mom and John, Dad and Barb, Magdy and Michelle Mohanna and especially to my sister, Kim. And finally, thanks and love to Sami, my life partner.

Dedication

I would like to dedicate this work to three important and influential men in my life: to my father, Bill Goodine, for giving me the courage to pursue my commitments; to my stepfather, John Kelly, whose commitment was without question and who gave us all a sense of humour (“Here’s to eternal cosmic laughter!”) and finally to Sami whose patience, love and commitment is constant.

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CHAPTER 1

Commitment: Towards a Comprehensive Model and Methodology

Introduction

What does it mean when we say we are committed to something? Is being committed to playing the saxophone similar in any way to being committed to furthering the cause of human rights? Or being committed to my partner? Or to finishing my Ph.D.? What exactly is the nature of commitment? And does this vary depending on the domain (work, interpersonal relationships) or stage of life we are talking about? Is adversity necessary for commitment to occur? How does commitment relate to well-being? Finally, and, perhaps most importantly, why study commitment at all? Two salient reasons for studying commitment are: one, it has close ties to meaning and identity (Burke & Reitzes, 1991) and therefore is important to well-being (Brunstein, 1993); and two, it impacts widely across several domains (Wicklund & Gollwitzer, 1982), suggesting its utility in predicting and understanding a broad spectrum of behaviour (Bielby, 1992).

The focus of this dissertation is on the motivational and gendered nature of commitment and its centrality and patterns in the lives of individuals. These features are analyzed primarily in individual purposive undertakings¹ although the more stable trait-like dimensions are also considered. Purposive undertakings are operationalized as personal projects (Little, 1983), a middle level analytic unit (Buss & Cantor, 1989) -- between behavioural acts and more molar projects and constructs -- depicting individuals' everyday activities and concerns. Personal projects, related to other cognitive-motivational units known as personal action constructs or "PAC units" (Little, 1989), are designed to

emphasize what Cantor (1990) has referred to as the "doing" side of personality as opposed to the more traditional "having" component depicted by the study of the underlying dispositional structures (traits) of individuals. What individuals "do", of course, is reflected in action, but also in cognition, motivation and affect, and PAC units offer a contextual view of these features. Other PAC units which evidence a shift to a conative² orientation in psychology (Bruner, 1990; Little, 1993) include life tasks (Cantor, Norem, Niedenthal, Langston & Brower, 1987), personal strivings (Emmons, 1986), current concerns (Klinger, 1977), possible selves (Markus & Nurius, 1986) and personal goal systems (Karoly, 1990, 1993). The personal project, however, is well suited to the focus here on "what people are up to" (Kelly, 1955), how committed they are to it and how the latter is reflected in other levels of personality. Put more formally, using the PPA methodology, we adopt a credulous approach in which the individual is assumed to have privileged status with respect to explaining aspects of her behaviour (Kelly, 1955). Further, we will argue that the personal project is well suited to an investigation of commitment as it is more integrative than the other PAC units allowing for both horizontal and vertical access to human action. The horizontal impact of commitment will be examined by its ability to suffuse the factors which underlie the covariation between the project dimensions; the motivational strength of commitment will be examined by its vertical impact, i.e., its ability to access other levels of personality.

Indeed, personal projects are broader in scope and tense (or verbal aspect) than the other units of analysis (Chambers, 1997), for example, they range from "changing the world" to "possibly buying a collar for my cat on Saturday" and reflect what people are

doing, what they are thinking about doing, what they "ought to be doing" (life tasks) and what they "are trying to do" (personal striving). Current concerns occur only insofar as they meet very specific criteria, and are perhaps most akin to a dispositional state (Klinger, 1977). Of particular relevance to this study is the onset of commitment as a hallmark feature of a current concern. This is discussed further in this chapter where several of the PAC units are compared.

In sum, how one thinks and feels about the fabric of everyday life as it relates to commitment is of interest in this dissertation. More specifically, the intent is to move towards Kiesler's original formulation of commitment (Kiesler, 1971; see section in this Chapter entitled "Kiesler on Commitment", p. 10), a comprehensive model of commitment, as viewed from the perspective of contemporary personality psychology. As will be seen, this perspective provides a rich source of linkages with disciplines from various cognate fields. Finally, we anticipate additional refinement of the commitment construct through the use of a contextual methodology.

Our general methodological strategy can be seen in Figure 1 which illustrates the components of the social ecological framework guiding this research. It includes stable person features (traits, demographics), other contextual person variables (gender, job needs and aspirations), stable contextual features (culture, organizational culture), PAC unit variables (PPA factors) as well as outcome measures (academic satisfaction, work satisfaction, affect). These features, which will be elaborated on throughout Chapters 1 and 2, are postulated to have direct, indirect, bi-directional and interactive effects upon

Figure 1: Components of a Social Ecological Model of Commitment

well-being (Little, in press b; Bronfenbrenner, 1970).

Analytically, our strategy is to examine the amount of variance explained in project commitment by separate blocks of variables (Blocks 1, 2 and 3) including key project factors (Box 4), and to use incremental variance as a measure of the non-redundant increase in predictability. A similar analytic strategy is used for the analysis of work satisfaction; in particular, we are interested in the relevancy of PPA commitment (incremental variance) to this prediction. The first set of empirical explorations using an undergraduate sample will employ commitment as an outcome measure and other PPA factors, trait measures and contextual measures will act as predictor variables (See boxes 1 through 4). In the second set of empirical studies, which employs both undergraduate students and an executive sample, commitment will also act as a predictor variable with subjective well-being (See box 5) as an outcome measure. Commitment will also be used as a classification variable (self-aggrandizement) and an outcome variable (work patterns) in assessing patterns of commitment in the second study.

Definition

Although commitment has been defined widely, the commonalities point in two directions. The first set of definitions focus on the behavioural outcome of commitment or the fact that individuals engage in "consistent lines of activity" (Becker, 1960). For example, Brickman (1987) sees it as "a force that stabilizes individual *behaviour* under circumstances where the individual would otherwise be tempted to change that *behaviour*" (p. 2), or Abramson et al. (1958, cited in Becker, 1960) suggest "Committed lines are those lines of *action* the actor feels obligated to pursue by force of penalty....Committed

lines...are sequences of *action* with penalties and costs so arranged as to guarantee their selection" (p. 16). The second set of definitions focus on the motivational aspect of action, i.e., the identity or personal meaning component as the locus of individual action (Burke & Reitzes, 1991; Mowday, Steers & Porter, 1979). The latter is evident in Kanter's sociological perspective (1972) "the *attachment of the self* to the requirements of social relations that are seen as self expressive...a person is committed to the extent that he sees it as *expressing or fulfilling* some fundamental part of himself" (p. 66). It is noteworthy that even the behavioural oriented definitions do not escape the motivational component, e.g., "a *force* which stabilizes ..." (Brickman, 1987, p. 2), and "lines of action the actor feels *obligated* ..." (Abramson et al., 1958, p. 16, cited in Becker, 1960). Kiesler's (1971) definition combines elements of both perspectives, "a pledging or binding of the individual to behavioral acts." As will be seen, both the motivational and action components of these definitions are fundamental to the prediction and understanding of commitment.

In sum, the most common definitions of commitment are those which emphasize sustained lines of activity (Becker, 1960) and those which emphasize identity or personal meaning where the focus is placed on involvement (Lodahl & Kejner, 1965) and attachment (Kanter, 1972). Finally, Brickman (1987) suggests that we consider a definition as an end point, "as a climax or culmination of our understanding of a phenomenon rather than a necessary and necessarily arbitrary or restrictive starting point" (p. 1). He points out that what is truly important from a psychological perspective is to observe how people behave vis à vis what they purport to be committed to. This is in line

with the Kellian credulous approach (Kelly, 1955) taken in this study where an individual is asked "What are you up to?" and "How committed are you to it?" Similarly, Reichers (1985) argues that we need to understand how individuals in organizations experience their attachments to organizational life, attempting "to understand commitment from the standpoint of the committed" (p. 69).

Overview of Chapters

This dissertation investigates commitment by examining individuals' everyday activities and concerns using Personal Projects Analysis (PPA) (Little, 1983, 1989), a methodology that Omodei and Wearing (1990) argue validly represents individuals' "total life space" (p. 768). Two samples, one of undergraduates and one of executives in the Canadian Public Service, are used to: a) establish a comprehensive model of commitment, b) assess the centrality of commitment in people's lives, c) examine the motivational and gendered nature of commitment and, d) assess patterns of commitment. Specific domain focus brings academic projects and interpersonal projects into view for analyses related to the role of commitment as a mediator between efficacy and academic/work satisfaction and between meaning and PPA affect, respectively. Patterns of commitment and the experiential nature of commitment, are also investigated in academic and interpersonal projects, respectively.

The next section in this chapter, "Historical Antecedents," presents the original formulation of commitment as presented by Kiesler and his colleagues. Using this as a basis, the following section sets up our framework with a discussion of the multiple strands of commitment from the perspective of several different lines of research. The

final section of Chapter 1 presents a brief overview of the relation between middle and other levels of analysis in personality and highlights selected similarities and differences between various PAC units. The main point of this review is to suggest the personal project as an appropriate unit of analysis in the study of commitment. The thread of Meaning from Chapter 1 is expanded upon in Chapter 2 in a discussion of commitment as it relates to the self, gender and identity. The nature of the incentives to which one commits is discussed and gender is again brought into focus in these domains. The primary focus in the following section of Chapter 2 is on the dispositional and motivational nature of commitment. A focus is placed on the affective component of motivation and a potential role for commitment in the process of guiding action through emotional attunement. Finally, patterns of commitment are examined in the last section of Chapter 2. An action model depicted by Brickman and Karuza, Jr. (1987), is introduced as it serves as the basis for exploring two cycles: one dominated by meaning and commitment (self-aggrandizement (Wicklund & Gollwitzer, 1982)) and one dominated by control (Workaholism (Spence & Robbins, 1992)).

Chapters 3 and 4 present the methods and results of two empirical explorations. Chapter 3 outlines the undergraduate sample which was used to develop a generic, comprehensive model of commitment, taking into consideration gender differences and the influence of trait measures. The motivational nature of PPA commitment is assessed by examining the 'whys' of commitment, the extent to which highly committed projects are available in thought and the relation of PPA commitment to other levels of personality. In Chapter 4, further elaboration of the basic model ensues. First, using the undergraduate

sample, a focus in the domains of academics and interpersonal relationships serves to establish mediation roles for commitment between the established efficacy and SWB relation and between meaning and a proximal measure of emotional attunement, respectively. Again in the domain of academics, patterns of commitment -- self-aggrandizement and work profiles--are examined. Finally, the executive sample is introduced to further elaborate on: gender differences in commitment and the PPA factors; a mediation role for commitment between efficacy and SWB; and, the motivational nature of commitment.

Chapter 5 integrates the findings reported on commitment in these studies with that in the existing literature. The implications of the current study for a comprehensive understanding of commitment and its related processes from a conative psychological perspective are discussed. In particular, the gendered nature of commitment and its role as a central psychological feature with links to moral philosophy are underscored. Further, patterns of commitment and their relevance to academic life are discussed. Limitations of the present studies and suggestions for future research complete this dissertation.

Historical Antecedents

Overview

This dissertation draws broadly from several different theoretical perspectives and empirical investigations on commitment across a range of disciplines within psychology (i.e., experimental social psychology (Kiesler & Samukara, 1966; Kiesler, 1971), action theory (Gollwitzer, Heckhausen & Steller, 1990); meaning theory (e.g., Baumeister, 1991;

Little, in press a); control theory (Brunstein, 1993) feminist theory (e.g., Marshall, 1993; Chodorow, 1978, cited in Markus and Oyserman, 1989), motivation theory (Deci & Ryan, 1991; Wicklund & Gollwitzer, 1982; organizational psychology (e.g., Meyer & Allen, 1991) and interpersonal relationships (e.g., Rusbult, 1983)) and provides a view of this construct from the perspective of contemporary personality psychology. The antecedents of commitment that were developed by Kiesler and his colleagues in experimental social psychology (Kiesler & Samukara, 1966; Kiesler, 1971) are presented to provide a historical perspective on commitment. Our framework for commitment, a framework that touches on several of the original notions of commitment follows this. Several discourses and empirical analyses on commitment contribute to our model. As will be seen, the pervasive nature of commitment generates a diverse group of variables for investigation. PPA's feature of systemic measurement permits assessment of this broad array of variables using the same unit of analysis. Indeed, as Little (1987) has noted, a primary goal in developing the methodology was to enable the commensurability of constructs taken from diverse explanatory systems. Two additional sections, one that examines the relation between the middle level and other personality levels of analyses and one which examines similarities and differences between several other PAC units and the personal project are presented to introduce our methodology. Several hypotheses related to this multidimensional perspective and integrative framework for commitment complete this chapter.

Kiesler on Commitment

The notion of commitment to a specific line of behaviour has its contemporary

psychological roots in social psychology, specifically cognitive dissonance theory (Festinger, 1957); indeed, a thorough understanding of commitment was deemed to be necessary in working towards an adequate theory of attitude change (Kiesler and Sakumara, 1966; Secord & Backman, 1964, Brehm & Cohen, 1962). Kiesler and his colleagues established their working definition of commitment as *a pledging or binding of the individual to behavioral acts* (Kiesler & Sakumara, 1966, p. 349). Commitment was viewed as a continuous variable, i.e., individuals are more or less committed, not simply committed or not³. Their assumptions and propositions regarding commitment in order to "nose around in the empirical world" (Kiesler, 1971, p. 30) serve to point in the direction of our own multifaceted framework of commitment.

In brief, their assumptions suggest commitment to be important in the resolution of inconsistency between attitude and behaviour (a link with cognitive dissonance theory). Kiesler's most critical assumption is that commitment makes an act less changeable by making cognitions more change-resistant. He and his colleagues further argue that behavior which is explicit and in line with one's attitude must be accepted as "integral to the self" (Kiesler, 1971, p. 31). "The magnitude of the effect of commitment should be positively and monotonically related to the degree of commitment" (p. 32) is a further working assumption regarding the relation between the level of commitment and its effects. From these assumptions, they developed the following propositions to operationalize this construct; they are deemed to increase the degree of commitment:

- a) the publicness or explicitness of the act (or to use a Lewinian term, an act "particularly freezing in its effect" (p. 16)),

- b) the importance of the act for the subject;
- c) the degree of irrevocability of the act, the latter which has implications for cognition (commitment is the "pillar around which the cognitive apparatus must be draped", p. 31),
- d) the number of acts of this nature performed by the subject; and,
- e) the degree of volition⁴

In sum, the assumptions and propositions put forward by Kiesler and his colleagues suggest commitment is related to important or salient action, has an external, public component yet is intimately tied to the self, has a high degree of irrevocability and is positively correlated with volition. Finally, they suggest that for commitment to be evident, subjects should have performed a number of acts in the relevant domain. In short, commitment appears to have both an inner and outer face (Brickman, 1987).

Even in this early formulation of commitment, the importance of context was evident. Kiesler and his colleagues distinguished between a behavioral unit, "a naturally occurring segment of behavior, part of the ordinary stream" and behavioral tesserae (Barker, 1963, cited in Kiesler, 1971) or "artificial pieces or bits of behaviors that are selected or instigated by an investigator and are a consequence of research methods which cut off or isolate a segment of behavior from its place in a naturally occurring stream" (p. 44)⁵. In this study, we offset these problems by using a unit of analysis, the personal project, which is personally salient and contextually rich. The framework that we use to conceptualize commitment and examine the literature bears a strong resemblance to the one proposed by Kiesler and his colleagues in their pioneering work on commitment. A

primary contribution of this dissertation will be to empirically examine Kiesler and his colleagues' comprehensive formulation of commitment and to further refine this model from the perspective of contemporary personality psychology.

A Framework for Conceptualizing Commitment

In order to provide a framework for the conceptualization of commitment and to set up our model, it is necessary for a moment to take a step forward and examine some features of the methodology of PPA as well as some relevant empirical research. Personal projects, the units of analysis to be used in this study, are described as "extended sets of personally relevant action" (Little, 1989, p. 15). They are personally generated rather than provided by the experimenter, temporally extended and contextually imbedded (Little, 1989); thus, personal projects are ideal as units of analysis for investigating features relevant to commitment already evidenced such as personal meaning and identity. The methodology involves both the elicitation and evaluation of personal projects. The appraisal aspects reveal how individuals think and feel about their projects. Each of the dimensions upon which one evaluates his/her personal projects has been chosen on theoretical and/or pragmatic grounds to reflect aspects of psychological concern (Little, 1983)⁶.

Many of the dimensions used in appraising personal projects have been found to be interrelated (Little, 1988) but with factor analysis⁷, they can usually be reduced to between three and five components (Little, 1988, 1989; Ruehlman & Wolchik, 1988). Four factors that have been found to underlie the covariation between the standard 17 project-rating dimensions are indicated in Table I. These factors include project

meaning, community, stress, structure and efficacy⁸. In addition, the component of 'constraint' will be introduced as it is relevant to the commitment construct (e.g., Rusbult, 1983; Meyer & Allen, 1991).

A central contention of this dissertation is that commitment is implicated in each of these constructs in various current perspectives. The relative importance of each of these factors is considered in our broad model of commitment and a more specific focus will emphasize the meaning and structure/efficacy (or control) factors since these factors play a role in Brickman and Karuza, Jr.'s (1987) control and commitment cycles of action. This cycle is described in Chapter 2.

Table 1.

Standard PPA Dimensions grouped by Project Factor^a

<u>Theoretical Factors</u>	<u>PPA Dimensions</u>
Meaning	enjoyment, value congruency, self-identity absorption, importance
Community	visibility, other's view of importance
Stress	stress, challenge, difficulty
Efficacy ^b	progress, outcome
Structure ^b	initiation, control, time adequacy, positive impact, negative impact

Note. ^aAdapted from Little, 1989; ^bThe discussion of Efficacy and Structure variables are linked together in this chapter.

Meaning

Individuals with projects high in meaning see their projects as self- expressive, enjoyable and value congruent. Two elements of Kiesler's framework are relevant here.

They are the elements of *importance* or personal saliency as well as the degree to which commitment is integral to the self. Projects which are important to individuals and are strongly held in their identity are likely reflective of this inner sense of commitment. The meaning factor comprises a set of dimensions that vary in their affective tone or valence from those that are clearly affectively charged (e.g., enjoyment, fun) to those that are more neutral (e.g., value congruency, importance). We will adopt the convention of referring to the latter dimensions as neutrally valenced (Little, 1988, in press a).

Several models of commitment, in both the interpersonal and organizational literature, strongly emphasize components of meaning (Rusbult, 1983; Stanley & Markman, 1992; Johnson, 1991; Meyer and Allen, 1991). Rusbult's (1983) investment model describes satisfaction and reward associated with a relationship; Stanley & Markman's (1992) model describes personal dedication to a relationship; and Johnson's commitment framework describes a component of personal commitment composed of attitude toward partner, attitude towards the relationship and relational identity. In the organizational domain, Meyer and Allen (1991) have described attachment to an organization as a primary component of commitment. These models are further detailed in Appendix B.

In the PPA research and literature, several authors have included commitment in their studies either as a central focus (e.g., Lydon & Zanna, 1990), or as a subsidiary one (e.g., MacDiarmid, 1987; Blake, 1994; Pychyl, 1995; Jackson, 1994; Melia-Gordon, 1992; Phillips, Little & Goodine, 1993) and emphasized the importance of meaning to this construct. In our Social Ecology Lab, McDiarmid (1987) first used commitment to

examine its relation to Antonovsky's (1979, 1983) sense of coherence scale⁹ and reports "commitment to the *successful completion* of the project" to be moderately correlated with the meaningfulness subscale. Following from McDiarmid's work, the following studies also included the dimension of "commitment to the successful *completion* of the project." Blake (1994), in her investigation of depressive affect and coping styles, notes that commitment loads on a meaning cluster, and correlates significantly with *self-worth*, *value congruency* and *initiation*¹⁰. Similarly, Melia-Gordon (1994) in her examination of creativity, found commitment to load highly on her personal meaning factor as well as to be correlated with the dimension of creativity. Jackson (1994) reports commitment to load on a personal meaning factor in the context of academic, interpersonal and leisure projects but not on projects related to home; commitment loaded on an efficacy factor for the latter. Phillips, Little and Goodine (1993) in their investigation of the work projects of women managers note that commitment loads on the meaning cluster and is significantly correlated with project enjoyment, challenge and outcome. Anomalies in these findings are studies by Melia-Gordon (1992) and McGregor (1994)¹¹ who both found commitment to load on efficacy and agency factors, respectively.

Lydon and Zanna (1990) have emphasized the importance of meaning in predicting commitment. Both their cross-sectional and longitudinal studies report that value relevance predicts commitment under adverse conditions. We note that their criterion measured included commitment (How committed are you to this project?) as well as a component of meaning (How attached are you to this project?) (Brickman, 1987) and one of constraint (How obligated do you feel to pursue this project?) (Meyer & Allen, 1984).

Attachment and obligation were both highly correlated with commitment and not with each other suggesting separate components depict this construct. In this study, our criterion measure consists of commitment alone (How committed are you to this project?"); we then consider the relative importance of these other threads of commitment. This study will expand upon their findings by adopting a five component model of commitment to assess the relative strengths of meaning and other factors related to commitment. Further, a mediation role for commitment between meaning and emotional attunement (see Chapter 2) using interpersonal personal projects is assessed. As meaning is considered integral to commitment, it is expanded upon in Chapter 2, in particular as it relates to the self, a component which we will argue is central to the understanding of commitment.

Constraint

The temporal nature of commitment is perhaps most evident in elements of constraint. These elements are intimated in Kiesler's discussion of the "degree of irrevocability of the act". Constraints cannot be depicted as 'one shot things'; rather it is more often the case that both internal and external constraints have been 'picked up along the way'. Here, commitment may best be located in the process of retrospection (Bielby, 1992) that "binds an individual to behavioural acts" (p. 264, Bielby, 1992; Becker, 1960; Salancik, 1977). As one engages in a particular line of activity, one accumulates increasing obligations such that the abandonment of the particular activity would be costly.

Several constraint variables are evident in both models of interpersonal relations (Rusbult, 1983; Johnson, 1991) and organizational commitment (Staw, 1976; Meyer &

Allen, 1991). The degree of 'investment', 'costs' and 'available alternatives' has been strongly implicated in "the process by which satisfaction and commitment develop and deteriorate over time in interpersonal relationships." (p. 115, Rusbult, 1983). Indeed, these features interact with the meaning features of satisfaction and reward noted in Rusbult's model, a model that predicts commitment and continuance in a relationship. In brief, the investment model predicts that one's commitment to maintain a relationship will increase to the extent that one is satisfied with the relationship (rewards minus costs) has no acceptable alternative and has a high degree of investment in it.

Following from Rusbult's (1983) work, Lydon and Zanna (1990), using the PPA methodology, included investment, rewards and costs in their model to predict commitment and found indeed that these variables did explain 33% of the variance in commitment. However, their interaction term of value and adversity (see below) still added incremental variance to the prediction of commitment. In the current concerns methodology, where commitment is a definitional component of the unit of analysis, the importance of investment is underscored by the use of three dimensions that inquire about "previous investment", "anticipated emotional investment" and "future investment of effort, time, money and materials" (Klinger, Barta & Maxeiner, 1980, p. 1226; Chambers, 1997).

In the organizational literature, Staw's (1976) well-cited simulation of a business investment decision reports that individuals who experience negative consequences in their business decisions increase rather than decrease their commitment of resources as a result of their reluctance to lose the investment. Existing employment alternatives has been

noted as a variable in organizational models of commitment with respect to continuance commitment. Lack of employment alternatives contributes to the employee's continuance commitment or need to stay in an organization (e.g., Meyer & Allen, 1991).

Yet another constraint element which has been noted in models of commitment is obligation, the feeling that one ought to continue the relationship (Johnson, 1991), and its organizational counterpart, "commitment as an obligation to remain in the organization" (Meyer, Allen & Smith, 1993, p. 539). In sum, we anticipate that these new dimensions of constraint will be fundamental to the prediction and understanding of personal project commitment.

Community

A sense of community in one's personal projects would suggest that others are aware of one's projects, support them and view them as important. Kiesler's ideas concerning the publicness or explicitness of the act are relevant in depicting this outer face of commitment. He says, "Behaviour if explicit enough, freezes one, in Lewin's terms." (Kiesler, 1971, p. 17).

Much of the contemporary research on this external or outer face of commitment, particularly that in the organizational domain, follows Kiesler's ideas. Publicness, or the extent to which significant others are aware of one's goal, tends to increase commitment (Salancik, 1977; Hollenbeck, Williams, & Klein, 1989). As individuals do not want to appear inconsistent, they do not easily abandon goals when important others are aware of them. More specifically, Salancik (1977) points out that acts which are seen as public, volitional and irrevocable intensify commitment. Several authors provide empirical

support for this prediction in the nonorganizational literature (Dweck & Gilliard, 1975; Pallak & Cummings, 1976).

In the interpersonal relationships literature, we see this outer face of commitment depicted in other's concern about the relationship. For example, Johnson's model includes the notion of social reaction¹² and Stanley and Markman's (1992) model includes social pressure. Both project visibility and other's view of importance likely have a role to play in determining commitment.

Structure/Efficacy

Project structure entails an evaluation of one's personal projects as manageable and under control. Structure includes the dimension of initiation ("how much you feel responsible for having initiated each project"), again suggesting a link with Kiesler's model, specifically in the relevancy of volition ("a conscious or deliberate decision or choice thus made" (Webster, 1982)) to commitment. In the organizational realm, (Salancik, 1977) reports that volition works together with publicness towards intensifying commitment (Salancik, 1977). Bobocel and Meyer (1994) report choice to be an important variable in terms of the escalation of commitment to a failing course of action.

Competency in carrying out one's projects, a sense of progress, and a likely outcome of completing them encompass the notion of project efficacy (Little, 1988). Kiesler does not touch on the relation between commitment and competency but some domain experience is suggested in the proposition that for commitment to be present, an individual must have performed acts in the particular subject area (see also Wicklund & Gollwitzer, 1982) thus emphasizing the importance of action in the commitment process. Indeed, a

recent preliminary analysis of commitment over project stage (Goodine, 1998a) reports the level of commitment to be significantly greater across project stages, ranging from inception to action^{13,14}.

The link between personal efficacy and subjective well-being has been well established in the PAC literature (e.g., Palys & Little, 1983; Emmons, 1986; Wilson, 1990; Little, 1988). For example, Wilson (1990) conducted a meta-analysis of twenty-four studies and reports that the PPA dimensions of outcome and control along with stress (negative) are the best predictors of well-being. In contrast, the project meaning dimensions (value congruency, self-identity) are among the worst predictors of SWB. More recent research, however, has expanded and refined these findings (e.g., McGregor & Little, 1996; Sheldon & Kasser, 1998; Sheldon & Elliot, 1999; Brunstein, 1993; Lydon & Zanna, 1990) and emphasized the importance of meaning as a moderator of this relationship (see Little, in press c for a review). For example, Sheldon and Kasser's (1998) longitudinal research reports that goals which were self-integrative enhanced well-being and conversely those which were not self-integrative did not enhance well-being despite the degree of progress. Brunstein's (1993) longitudinal study reports a role for commitment as a moderator in its relation with the outcome component of efficacy. More specifically, commitment (as assessed by determination, urgency to pursue the goal, and willingness or effort)¹⁵ was found to moderate the extent to which differences in the attainability of goals affected subjective well-being (SWB) over the course of one semester in a group of undergraduate students.

In this study, we will assess a mediator or process role for commitment between

efficacy and SWB. As noted, both theory and empirical analyses have noted a relation between efficacy and commitment (e.g., Kiesler, 1971; Melia-Gordon, 1992; McGregor, 1994; Bobocel and Meyer, 1994), a necessary condition for a mediation analysis.

Several authors emphasize the process of attainment of meaning and value through action with the resultant commitment (Lydon & Zanna, 1990; Brickman, Janoff-Bulman & Rabinowitz, 1987). As will be discussed further in Chapter 2, ideally action is imbued with both control or efficacy and commitment, both of which serve to further sustain action (Brickman & Karuza, Jr. (1987). In agreement with Brickman (1987), we suggest commitment to operate not as a fixed variable but as a "process by which people attach value--positive and negative--to events in their lives" (p. 9)¹⁶. Further, we anticipate that this relation will be stronger in a more mature group of individuals as compared to a younger group where identity is more fluid and commitment is less crystallized (See Chapter 2 on "Identity").

Brickman and Karuza, Jr's (1987) work on a model for the development of commitment is based on the premise that the 'energizing' component of commitment may involve different features, depending on the stage of the behaviour--initiation, sustained activity, or completion. Although their model is best analyzed in a longitudinal study, several components related to the structure/efficacy factors will be highlighted. In the exploratory or precommitment stage of their model, the construct of 'control' is relevant as it is assumed to function as an extrinsic motivator. Later, control is thought to diminish at the mid-stages and more mature, integral stages¹⁷. The notion of 'automaticity' has been suggested to be relevant to commitment (Brickman, 1987; Brickman, Dunkel-Schetter &

Abbey, 1987; Bielby, 1992). In the mature stage of its development, Brickman (1987) sees commitment as a "device for automating things, simplifying them, and putting them out of awareness" (p. 17) or simply allowing activity to proceed in a "mindless" fashion (p. 45) thereby permitting attention to be reallocated to other tasks or pursuits. Similarly, in the mature stage of commitment, the notion of 'flexibility' is anticipated to permit commitments to move in and out of awareness.

Relatedly, Bielby (1992) discusses a noncognitive response in the committing process. In Bielby's words,

Noncognitive responses to committing situations emphasize the degree to which subjective orientation and intentions are habitual, rulelike, or taken for granted (p. 286, Pieffer, 1982).

These noncognitive responses are evident in certain social behaviours that are considered "scripted" where activity is triggered by environmental cues. Action may also take on this rulelike status in milieus with widely shared norms—e.g., traditional societies sharing concerns regarding orientations toward work and family.

Certain salient cognitive processes likely take place out of awareness (e.g., Langer, Blank & Chanowitz, 1978; Nisbett & Wilson, 1977; Lazarus, 1991). However, it is at the level of action where commitment plays itself out. Thus, this dissertation is concerned with personal projects such as commitment to "taking my daughter to her appointment" and a first line of reflection on 'why', e.g., the need to "be a good mother" rather than, for example, the underlying concern with overcompensating for not having been taken care of herself in her incestuous family. We anticipate that the process variables of automaticity and flexibility will add incremental variance to our model of commitment.

Stress

Project stress involves the extent to which one's current activities are demanding, difficult, and challenging. Early work by Kiesler and Samukara (1966) investigated the role of commitment in attitude change; the stress¹⁸ or pressure to change an attitude was introduced in the form of a countercommunication to an expressed opinion. Indeed, several authors have suggested that one needs to create or experience adverse conditions in order to be truly certain that one is committed (Lydon & Zanna, 1990; Brickman, Dunkel-Schetter & Abbey, 1987; Thibaut & Kelley, 1959, cited in Brickman, Dunkel-Schetter & Abbey, 1987; Hollenbeck & Klein, 1987); this 'test' of commitment is evident in both interpersonal relationship and organizational literature.

Lydon and Zanna's (1990) investigations (both cross-sectional and longitudinal) emphasize both the meaning and stress components of commitment. Using PPA, they demonstrated that perceived value relevance of students' personal projects interacts with the degree of experienced adversity in predicting latent commitment.

In sum, it is several elements of these factors -- meaning, stress, constraint, community and structure/efficacy -- which suggest commitment to be a central, multidimensional and dynamic construct. Much of the research has focussed on only one or two factors related to commitment. We anticipate that the use of the PPA methodology will permit an assessment of a broad array of variables across several domains and serve to clearly formulate and refine the conceptualization of commitment from a contemporary personality perspective.

Next, we want to establish the personal project as an appropriate unit of analysis in

the study of commitment, a construct which we argue is a core one for understanding people's lives. We turn to a brief overview of the relation between the middle level unit of analysis as illustrated by the personal project and other aspects and levels of personality. A selected comparison of the personal project and other middle level units of analysis in the personality psychology literature follows this.

The Middle Level of Personality

As commitment has been conceptualized as a "broad theoretical construct" rather than a specific variable (Lydon, 1996), an analysis of it necessitates a molar perspective of personality. Our entry point into the study of personality is considered middle level (Buss & Cantor, 1989; Little, 1989), representative of higher order meanings such as values and needs¹⁹, reflective of our 'havings' or traits (Cantor, 1990; Little, Lecci & Watkinson, 1992; Caspi & Moffitt, 1993) as well as 'tuned in' to an individual's social ecology (Little, 1989). Situated at this middle level of personality, personal projects to which we are committed, are anticipated to cause a reverberation throughout the personality system. For example, commitment to the personal project of "doing well on my Psych 100 test"²⁰ is grounded in Anne-Marie's social ecology of being a single parent, having a full time job and working as a volunteer, as well as having a higher order meaning of her identity as a student, her value of education and her trait of Conscientiousness. Figure 2 illustrates the relation of the personal project²¹ to other aspects of personality – values, identity, needs, roles and behavioural acts as well as dispositional traits. It further situates the personal project within an individual's social ecology or personal context such as that of Anne-Marie's described above²².

Figure 2: The relation of personal projects to other aspects of personality

The nature of context as it relates to various personality features is also depicted in Figure 2. The more abstract dispositions (top) such as traits are illustrated as highly decontextualized and noncontingent (e.g., McCrae & Costa, 1996; McAdams, 1996); values and needs are depicted as abstract but more contextualized; personal projects are yet more contextualized and finally (bottom) behaviours are shown as more specific and

highly contextualized. Self identity, considered to have a strong temporal feature, is depicted as evolving across the life span, particularly from late adolescence through adulthood (McAdams, 1996).

In sum, to understand commitment more fully, it is important to know which personal projects are at stake and how they are related to both higher order and more behavioural features within the larger personality framework. We will argue further that the motivational strength and breadth of PPA commitment will be apparent through its ability to readily access these other levels of personality by showing a pattern of significant correlations with measures of individual differences (NEO-PI-R) and a new PPA measure (PPA affect) as well as with contextual features (gender, culture) and the PPA factors which underlie the covariation between the project dimensions.

Are Personal Projects more Middle than other Middle Level

Cognitive-Motivational Units of Analysis?

Over the past twenty years, a number of purported 'middle level units of analysis' (Buss & Cantor, 1989), sometimes termed cognitive-motivational units or personal action constructs (PAC units) (Little, 1989) have emerged in the literature. With the exception of current concerns, all have arisen in an attempt to provide a wider focus to the study of personality, more specifically as viewed through a conative lens. An innovative aspect of the various PAC units is that they seek to provide a bridge between nomothetic and idiographic methods of investigating personality (Krahe, 1992) by using a person's idiographically defined 'slice of life' as their starting point. In addition to personal projects (Little, 1983), current concerns (Klinger, 1977), personal strivings (Emmons, 1986), life

tasks (Cantor, Norem, Niedenthal, Langston & Brower, 1987) and possible selves (Markus & Nurius, 1986) are included in this group of units of analysis. How different and/or similar are these units from and to one another? What is the 'right' level of analysis for the study of commitment? The primary focus of this review is the level of molarity captured by the various PAC units in relation to other levels of personality analysis and each other. An analysis of the motivational nature of commitment requires an optimally situated unit of analysis, i.e., one between more molar and more molecular levels of personality.

It is apparent that there is some conceptual and methodological overlap between all of the cognitive motivational units. However, it seems that at least two, personal projects and life tasks, may be siblings, the others (personal strivings, possible selves and current concerns) being first or second cousins of the former. Despite their similarities, however, each has distinctive theoretical roots, a specific range and focus of convenience²³, and suggests a slightly different perspective on human nature (Goodine, 1998b). Current concerns differ from the other PAC units including possible selves on the basis of being state-like in their nature. In addition, current concerns are launched at a specific stage of action. Possible selves, as the name implies, are future-oriented mental representations of self. As such, they are much less in the 'here and now' than the other members of the PAC group. Figure 3 provides an overview of the PAC units in relation to each other and other aspects of personality²⁴.

Life Tasks

Life tasks, described as the "set of tasks that the person sees himself or herself working on and devoting energy to solving during a specified period in life" (Cantor et al., 1987) have their roots in cognitive social learning theory (Rotter, 1954; Kelly, 1955; Mischel, 1984). Recognizing the richness of Kelly's personal constructs yet searching for a way to incorporate nomothetic comparisons, Cantor et al. (1987) settled upon the examination of life transitions where clear normative demands were evident (e.g., "becoming independent," "finding a career"). In short, life tasks are what one ought to be doing. Although personal projects share Kellian roots with life tasks, the personal project

reflects a broader range of human functioning, "from trivial pursuits to magnificent obsessions" (Little, 1989). Although a life task is always a personal project, the inverse is not necessarily true (e.g., the personal project of "quit smoking" would not be considered a life task whereas a life task such as "doing well academically" would be considered a personal project) (Chambers, 1997). In Figure 3, life tasks are situated at a somewhat higher level than personal projects (again, if we consider the prototypical personal project of a university student) but lower than personal strivings.

Personal Strivings

Personal strivings, "the things you typically or characteristically are trying to do in your everyday behavior" (Emmons, 1989, p. 96) are founded in motivation theory (Allport, 1937; Murray, 1938). The uniqueness of personal strivings (as compared to motive dispositions) lies in their ability to be both idiographic and nomothetic representations of the major motives. Hierarchically, personal strivings, like values, have a more superordinate nature; thus, they are situated higher on Figure 3 -- between trait dispositions and life tasks. Indeed, a striving can be subsumed by a personal project but a personal project is not necessarily a striving (e.g., the personal project "feeding the cat" is not a striving but "trying to be a better person," clearly a striving, is also a personal project) (Chambers, 1997). To a large degree, personal strivings describe "what one is trying to do" in contrast to "what one ought to do" (the life task). Of note in terms of family resemblance (cousin-like) are the similar roots of personal strivings and current concerns (to be described) -- human motivation.

Personal Projects

Personal projects, as mentioned, have strong Kellian roots as evidenced in both its credulous approach, in assuming that the individual has privileged status with respect to his behaviour, (simply asking subjects to tell us their everyday activities and pursuits) and in its assessment of an individual's construal of his projects. Like Murray's serials -- extended plans of action operating in a temporal and spatial context -- Little's personal projects consider the doings of personality in personal niches. Personal projects have been formally set in a social ecological framework (Little & Ryan, 1979) placing the individual within a biological, social, psychological and physical-environmental context²². The model is interactive, considering the individual in the role of integrator of these diverse sources of influence in search of a sense of coherence. Unlike personal strivings and life tasks, personal projects cover a broader range of everyday activities and concerns, from the extremely molar (e.g., "finding a new world order") to the more molecular (e.g., "buying some Crest toothpaste"). As such, personal projects along with current concerns may be shifted up or down on Figures 2 and 3 to match the individual's expressed level of molarity. In short, personal projects tell us what individuals "are up to."

Current Concerns

The current concern, a unit of analysis that was developed contemporaneously with personal projects albeit independently and stemming from a different theoretical orientation, is described as "the state of an organism between the time it becomes committed to pursuing a particular goal and the time that it either consummates the goal or abandons its pursuit and disengages from the goal." (Klinger, 1987b, p. 34). The

theoretical underpinnings of current concerns are in motivation theory and its design was intended to fill a gap that existed between short-term drive states (e.g., hunger) and long-term motivational dispositions (e.g., Murray's need for achievement) (Klinger, 1987a). A current concern is always a state with respect to a particular goal, e.g., "going to the dry cleaners," "establishing a friendship," etc. Current concerns function to maintain goal striving until the goal is either attained (consummated) or abandoned (disengagement). The act of commitment is said to launch this internal state, a state which functions to permit survival of various challenges and obstacles. With the onset of commitment, there is a corresponding change in an individual's response tendencies such that changes in attainability of a goal pursuit affect behaviour differently (See Chapter 2, "The Motivational Nature of Commitment"). Although Klinger and his colleagues view commitment as a discrete variable, (it is actually measured on a continuum²⁵), we have chosen to follow Kiesler's (1971) and other's (Wicklund and Gollwitzer, 1982) lines of thinking and view it as a continuous variable.

Theoretically, current concerns refer to an underlying state about an unmet goal (e.g., concern about career) and therefore should not necessarily be associated with action deeming them outside the realm of personal action constructs (Chambers, 1999). However, the methodology requests an individual to associate a concern with a verb (see methodology section) thereby likening current concerns to personal projects in content and form.

Personal projects capture a broader range of human functioning in that, (unlike current concerns) they do not require commitment by definition and are not restricted to

having particular end states or incentives. For example, being committed to "finishing my Ph.D." has a particular end state in mind whereas being committed to "spending time with my daughter" does not. Also, unlike a current concern, one may have a personal project, such as the aforementioned "finishing my Ph.D." or "spending time with my daughter" to which one is not committed. It is this broader view of project systems which gives us more acuity with respect to individuals' lives and, we anticipate, to the construct of commitment.

In sum, it seems that current concerns may be personal projects²⁶ but personal projects are not always current concerns particularly those projects that one is just beginning to think about, i.e., those that are at the initial stages of action where the inklings of commitment may be apparent but not in full force. In Figure 3, current concerns are depicted as somewhat to the right of personal projects emphasizing their developmental nature. They are similar to personal projects in that they may also be depicted at varying levels of molarity. As such, they may 'slide' to higher or lower levels of abstraction.

Possible Selves

Possible selves are cognitive representations of what individuals "might become, what they would like to become, and what they are afraid of becoming..." (p. 954, Markus & Nurius, 1986). As such, possible selves tap into self-representations of the past as well as the future and are able to provide a link between cognition and motivation. It is the relation of possible selves to motivation that likens this unit of analysis to both current concerns and personal strivings. As Chambers (1997) has pointed out, possible selves are

closer to personal strivings than current concerns in terms of their level of molarity. He contends that strivings may be articulated as possible selves and vice versa. For example, the personal striving, "striving to lose 20 lbs" may be phrased as the possible self, "myself svelte and fit." Or, the possible self, "myself as a primary school teacher" may be phrased as the personal striving, "striving to complete teachers' college." Possible selves are situated at the same level as personal strivings but further to the right in Figure 2 to emphasize their future orientation.

Methodological Features

Methodologically, four of these units of analysis operate in a similar fashion (personal projects, personal strivings, life tasks and current concerns). All involve the elicitation of activities/strivings/life tasks/current concerns that individuals are currently engaged in or moving towards or concerned about and all involve the assessment of these units of analysis based on researcher-provided dimensions²⁷. The methodology for current concerns requests an individual to indicate her wish regarding the goal, i.e., a subject is requested to write down the description of each concern using a verb drawn from one to twelve verb classes (e.g. do find new friendships, do more reading, do start exercising), resulting in a PAC-like unit (Klinger, 1987b). Unlike the other PAC units which elicit personalized goal units, possible selves are for the most part²⁸ determined by the endorsement of self adjectives, physical descriptors, life-style possibilities, general abilities, occupational possibilities and possibilities tied to the opinions of others (Markus & Nurius, 1986).

An important methodological consideration which was alluded to earlier in

considering the relation of more superordinate features of personality to PAC units is the accessibility of each unit of analysis¹⁹. As individuals are reported to be cognizant of their temporally extended goals, (Murray, 1938; Pervin, 1983) this bodes well for capturing valid representations of people's lives through personal projects (asking individuals what they're up to), life tasks (finding out what people construe as their life tasks (at least as articulated at the stage of the first elicitation procedure))²⁹ and current concerns³⁰ (finding out what they are concerned about). Personal strivings and possible selves which are more abstract notions and more internal representations of self are not necessarily ways in which people construe their everyday life^{31,32}. Thus, there may be a ceiling on the usefulness of these constructs in all individuals and groups.

Temporal Features

Temporally, although we can depict both life tasks and personal strivings in the present, their focus is on the future. Life tasks invoke a vision of the individual proceeding developmentally from one life transition to the next. Similarly, personal strivings such as "trying to seek new and varied experiences" and "trying to avoid being noticed by others," have their envisioned end states in the future. In fact, on attainment, these strivings may be construed as possible selves (Chambers, 1997) which clearly are in the future. Personal projects and current concerns, however, more readily belong to both the present ("completing this questionnaire") and the future, near or far ("going to visit my grandmother tomorrow;" and "deciding what to do with the rest of my life")³³.

In sum, there is some conceptual overlap between personal strivings, life tasks, personal projects, current concerns and possible selves. The former four units of analysis

also have some methodological overlap. Possible selves are different from the others in that they are primarily determined by endorsement of given items. All are concerned with individual purposive behaviour and are temporally extended, with life tasks (what one should be doing), personal strivings (what one is trying to do) and possible selves (what one may become) having more of a future focus while personal projects (including the former but not neglecting what one is doing or thinking about doing) and current concerns (the state one is in while pursuing a concern) having both present and future focus.

Finally, human nature is depicted somewhat differently depending on the unit of analysis we choose to access. With life tasks, personal strivings and possible selves, we have a picture of the individual "zooming ahead" (or at least trying to) with an achievement focus and a specific image in mind whereas with personal projects and current concerns, although both allowing for the former orientation, we have a view of the individual more in the 'here and now' with a kind of gentler "muddling through" (Little, 1989) orientation. As noted, life tasks, personal strivings and current concerns may be subsumed under personal projects (possible selves may or may not be) whereas personal projects may not always be life tasks, personal strivings or current concerns. Thus, the personal project may not necessarily be viewed as more "middle" (on average this may indeed be so) but rather more 'broad and flexible' than the other PAC units in that it captures a fuller range of human functioning. A personal project captures the broad strokes of human experience but does not forget the interstitial components.

Omodei and Wearing (1990) offer further support for the validity of the PPA methodology in representing the centrality of people's lives. In their research, subjects

rated each of their ten personal projects on selected dimensions (related to need satisfaction, involvement, positive and negative affect); they also rated their life as a whole on each of these dimensions. No mean level differences between project ratings and life as a whole were found suggesting the ten projects to be indicative of individual life experience. Correlations of the ratings for life as a whole and the ten personal projects were greater than .61 again substantiating the latter finding. Finally, the average interproject correlations were all less than .26 suggesting that individual personal projects tap into relatively independent components of well-being. Subjectively, participants in their study and others (e.g., Phillips, Little & Goodine, 1997; Goodine et al., 1993) have commented on the meaningful process of completing PPA, offering subjects new insights and affordances into their personal lives. Overall, personal projects were found to be valid indicators of a "total life space" which provides a solid *point de départ* in substantiating commitment as a critical facet of life and goal pursuit. We anticipate that the lens of the personal project will be well suited to view the broad theoretical construct of commitment and serve to capture a full range of concerns and activities, both horizontally and vertically.

Research Questions

The following lines of enquiry emerge from this overview of a comprehensive model of commitment and methodological considerations:

1. What is the relative importance of the various PPA factors both in predicting commitment and assessing its centrality in people's lives? We anticipate that Meaning will play a primary role in this prediction. However, the breadth of this

construct will be evident in the extent to which the other factors also contribute to the prediction of commitment.

2. Are individual personal projects typically driven by only one or more than one thread (factor) of commitment? Brickman (1987) suggests these different threads of commitment to co-occur.
3. How integral are the constraint-related variables -- investment, rewards, costs, available alternatives, obligation and guilt--to the prediction of commitment? We hypothesize that they will act in concert and be fundamental to this prediction.
4. Is there any evidence that the process aspect of commitment relates to several new dimensions (automaticity, flexibility, stage) and do these contribute incremental variance over and above our generic model?
5. Does commitment play a role in mediating the relation between efficacy and SWB?
6. Does the argued optimal situation of the personal project serve to illustrate the motivational nature of commitment by capturing other levels of personality?

Endnotes

1. Thus, we are addressing commitment to a personal project and not commitment to an individual (although the personal project may relate to intimate others, e.g., "spending time with Sean") and not necessarily commitment to obtaining a particular incentive or endstate although the latter may indeed be the case.
2. Conation has its basis in the Latin conatio (to try) and refers to "the act of faculty of striving or making an effort." (Webster, 1982; Hershberger, 1988).
3. This view of commitment contrasts with that of Klinger's current concern state which will be discussed in the section differentiating PAC units in this Chapter.
4. From the dissonance literature, the degree of volition is seen to be inversely related to the amount of external pressure experienced in engaging in the act (e.g., Kiesler & Sakumara, 1966).
5. Empirical work using the PPA methodology had been carried out prior to our awareness of Kiesler's theorizing.
6. In two studies in the Social Ecology Lab (Cameron, 1994; Pychyl, 1996) subjects have generated their own dimensions and these have provided support for the theoretically generated dimensions.
7. Other factor models have emerged upon factor analysis -- a three factor structure consisting of personal meaning, social meaning and stress and a two factor structure consisting of one positive and one negative factor (Little, 1988). Explorations with confirmatory factor analysis (LISREL) were conducted and results indicated both a five and a two factor model fit the data on project dimension intercorrelations fairly well. As methodological problems have influenced these analyses, Little (1988) concludes that the results thus far indicate a fairly stable set of dimensions across the studies and that the standard dimensions of PPA are composed of a few relatively robust, interpretable factors. Thus, Little (1988, 1993) has recommended that the 5 factor structure be retained for analytic purposes.
8. The discussion links together variables from the Efficacy and Structure factors as several empirical investigations using PPA are discussed where loadings from both sets of variables have emerged in a single factor or blended factor (e.g., Blake, 1994; Phillips, Little & Goodine, 1993).

9. The Sense of Coherence Scale is a short version of Antonovsky's (1979, 1983) Orientation to Life Scale. It consists of four global questions regarding the subject's perception regarding comprehensibility, manageability, meaningfulness of events and the extent to which things are perceived as being under control and expected to work out as well as can be expected.
10. See Appendix F for description of the dimensions.
11. McGregor's prompt for commitment was "To what extent are you committed to the completion of this project?"; as Chambers (1997) notes, it eliminated the descriptor of "successful."
12. Social reaction is part of the structural component of commitment in Johnson's framework. The individual's experience of this and the other forms of commitment (personal and moral) affects his/her motivation to continue the relationship and ultimately plans of action. The latter, plans of action, brings into play a conative perspective in his model. Others may create plans around a relationship. For example, "divorcing my partner" is now seen to conflict heavily with the neighbours' project of "playing bridge on Friday evenings in our four-some." Or, in the case of a family, we see the cherished family projects of "having pizza at grandma's on Friday nights" or "going to the cottage in Huntsville" as being heavily impacted upon by the project "divorcing my partner."
13. Note that this was not a longitudinal study, i.e., different projects were assessed across the various stages
14. In this study, the dimension of 'stage' was substituted for the dimension of 'progress' in order to consider temporal aspects of the development of commitment. The connotation of stage is related to that of progress but clearly not identical.
15. Note that Brunstein's (1993) definition of commitment primarily depicts the perseverant nature of commitment.
16. As Baron and Kenny (1986) point out, the introduction of a moderator variable involves a relatively static classification procedure. Here, we are interested in commitment as a psychological mechanism or mediator.
17. An ongoing study in the Social Ecology Lab is presently assessing the dimension of 'control' in the context of the various stages of commitment (Goodine, 1998a).

18. In Kiesler and Sakumara's (1966) experiment on commitment, subjects were differentially paid for the performance of an act (reading his/her opinion into a tape recorder) which was consistent with his/her beliefs ("The legal age of voting should be lowered to 18 years of age.") Subsequently, all of the subjects received a strong countercommunication on the same topic. The results indicated that those who were paid at a higher level showed greater attitude change in the direction suggested by the countercommunication.
19. Whether individuals are entirely aware of their more superordinate values and needs is unsure and likely variable. However, individuals do seem to be aware of their extended plans of action (Murray, 1938; Pervin, 1983) and this is likely where commitment plays itself out. Further, it is anticipated that a probe of "why are you committed to this project?" may allow for a first line of self-reflection to capture aspects of these more abstract levels.
20. Note that the personal project of "doing well on my Psychology 100 test" has been chosen as a prototypical project of an undergraduate student. As will be seen, the PPA methodology is flexible in that it can accommodate more molar personal projects such as "finding my identity as a graduate student" or more molecular projects such as "going to the bookstore to buy my Pervin text." Thus, this prototypical personal project of "doing well on my Psychology 100 test" has been selected to illustrate the possible connections of more abstract aspects of personality and more molecular aspects of behaviour with it. It is acknowledged that personal projects may be phrased at higher or lower levels of molarity both within and between individual personal project systems.
21. A more molar or molecular project would be reflected in the sliding of the project to a higher or lower level, respectively.
22. Note that Little (in press b) has recently expanded upon his social ecological model to include a more detailed account of environmental features or personal contexts.

23. As described in Goodine (1998b), both range and focus of convenience are technical terms referring to Kelly's (1955) personal constructs. For example, a more generic construct such as "bad-not bad" has a broad range of convenience as it may apply to many "elements", for e.g., individuals, songs, lectures, etc. However, a more specific construct such as "fat-thin" has a narrow range of convenience and is most conveniently applicable to human bodies (Little, 1997, personal communication). Thus, these terms are far from their original roots as we are applying them to both the generic domain of personality and the specific realm (e.g., subjective well-being in a university population) to which the various PAC units optimally apply. In Kelly's theory, we could say that the range of convenience was restricted to human personality and more specifically to problems of interpersonal relationships. The focus of convenience is in the realm of human readjustment to stress.
24. Importantly, McAdams (1995) has suggested another level of personality analysis, the narrative level or Level III (Traits and middle level units of analysis are considered Levels I and II, respectively in McAdams' system.) Although this level of analysis is undoubtedly important in terms of understanding identity through the 'selfing' process, we have chosen to remain at Level II for the primary reason that our population is an undergraduate one where the process of 'selfing' is likely in its beginning stages. Rather than nudging a coherent identity story, we have chosen to leave the subjects with more degrees of freedom by simply asking them "what they're up to?" with a further probe of "why are you committed to this particular project?" Further, there is a considerable amount of methodological complexity in analyzing life stories; for a meaningful analysis, life stories need to be broken down to the second level (i.e., "nuclear episodes").
25. Commitment is scored on a 6 point scale ranging from "I fully intend to" pursue it to "I do not intend to" pursue it. Although this may be varied, a score of between 3 and 4 ("will only try if it is convenient and if it fits in with my other plans" and "will make a moderate effort") is used to meet the criterion of commitment.
26. Current concerns, however, that may be unconscious, for example, "Do not appear stupid to my friends" may never gain the status of a coherently phraseable project thereby placing limits on the validity of this statement.
27. In PPA research, Cameron (1984) compared spontaneously generated dimensions regarding personal projects with standard provided ones and concluded that "all of the Personal Project Analysis' 17 theory-based dimensions were substantially represented among these personal constructs" (p. 92).

28. Oyserman and Markus (1990) have described a methodology where they do provide for an open-ended self-concept measure in addition to the questionnaire described above.
29. Individuals define their life tasks in their own words but subsequently categorize these tasks into six more abstract, consensually shared tasks subsumed under the achievement and interpersonal domains. The further categorization into more abstract tasks may not be intuitive for certain populations or individuals.
30. As with life tasks, the step of moving to non-trivial current concerns may pose problems for some individuals or groups.
31. However, in an educated population, the construct of possible selves can indeed be poignant which has proven to be the case in our sample of female managers (e.g., Phillips, Little & Goodine, 1993).
32. To facilitate accessibility to the more abstract notion of possible selves, we have attempted to link these two PAC units (Goodine et al., 1993) and suggest several advantages from this, one being a more enriched view of the "distributed self" (Little, 1993) through the linking of the internalized possible selves with the more externalized view of self in one's daily activities as seen through personal projects.
33. For more detailed analyses of the PAC units, in particular from a linguistic perspective, see Chambers (1997, 1999).

CHAPTER 2

Meaning, Motivation and Patterns of Commitment: A Theoretical Framework

Meaning, Commitment and the Relational Self

An Inner Face of Commitment

...a world-defining commitment not only makes a difference to me; it also tells me what difference everything else in my life makes to me.

Kierkegaard, 1846

A sense of meaning is a basic human need, the lack of which leads to alienation and a complete lack of motivation (Lazarus, 1991; Baumeister, 1991; Kuhl & Beckmann, 1994). Commitment has been conceptualized as being intimately connected to personal meaning and identity (Bielby, 1992) and several authors offer empirical support for this relation (e.g., Lydon & Zanna, 1990; Rusbult, 1983; Meyer & Allen, 1991). Action that generates meaning and value strengthens commitment which in turn sustains action (see "Patterns of Commitment, this chapter, Brickman & Karuza, Jr., 1987). The search for an internal value or standard points us in the direction of the self, a fundamental piece of the puzzle in understanding commitment.

The self in context. The notion of the self cuts to the core of meaning and identity (e.g., Deci & Ryan, 1991; McGregor & Little, 1998; Harter, 1993; Greenwald, Bellezza & Banaji, 1988) and, we will argue, ultimately commitment. Although the self has been depicted as "a set of cognitive appraisals and schemata and as a "reflection of social evaluations," Deci and Ryan (1991, p.238), these authors argue that it goes deeper than this.

In their words,

...it is not a set of cognitive mechanisms and structures but rather a set of motivational processes with a variety of assimilatory and regulatory functions. In addition, the self does not simply reflect social forces; rather, it represents intrinsic growth processes whose tendency is toward integration of one's own experience and action with one's sense of relatedness to the selves of others. Thus, the self is not simply an outcome of social evaluations and pressures but instead is the very process through which a person contacts the social environment and works toward integration with respect to it (Deci & Ryan, 1991).

We argue that it is this deeper notion of self which is reflected in commitment, a self which from a conative psychology's perspective has been termed the distributed self (Bruner, 1990; Little, 1993) – a contextualized self, evidenced in our intentional action but emanating from this internal core. Further, as Ryan (1992) has pointed out, "whether activity is experienced as stemming from the self is of great psychological significance to the individual" (p. 5). Attaining a sense of coherence depends strongly on a sense of integrated autonomous action coming together with the self (Ryan, 1992; McGregor & Little, 1998). An integrated self, we will argue, is instrumental to commitment and reflected in our salient personal projects.

To understand commitment, which we, and others (e.g., Lydon, 1996), suggest is so intimately connected to the self, it is necessary to macro-contextualize the self at the end of the 20th century. To truly understand the self, as Lewis (1992) has pointed out, we need to accept "that a person is easiest to define within a context or a group of contexts." (p. 219). McAdams (1996) has neatly mapped out the experience of the self in modernity, a period depicted as belonging to the 19th and 20th centuries and greatly influenced by the Industrial Revolution, a period which esteemed science and progress, a

period which encouraged a "positivistic, technocratic, and rationalistic outlook on the world" (Gergen, 1992; McAdams, 1996, p. 297). Baumeister's (1987) historical outline of identity suggests that it was around the beginning of the 19th century that individuals began to experience difficulties with selfhood, both a lack of a sense of an integrated self and a lack of continuity of the self. Although the modern period witnessed the abandonment of more traditional anchors for self (e.g., the disillusionment with organized religion; the decline of the family (see for example, Furstenberg and Cherlin, 1991); loss of respect for political institutions)), this balance was offset in part by the concomitant rise of other symbols (e.g., the rapid development of technology, scientific advancement and increased globalization) to provide sustenance for the self.

As we move into what some authors have referred to as a postmodern era (although Smith (1994) prefers to call this a high modern era)), a period which challenges the possibility of objectivity, challenges the notion of only one reality, challenges the very possibility of knowing reality, there is much concern for the dilemma of the modern self (Baumeister, 1987; Smith, 1994; Lewis, 1992; Cushman, 1990). Whether the self is lost in a multiphrenic swirl (Gergen, 1992) or whether there is a thread of hope (Smith, 1994) that will sustain it, will play itself out in the 21st century. The implications of our Western context for the understanding of commitment are great in that commitment and the self are likely threads from the same fabric. Soren Kierkegaard, writing 150 years earlier, foresaw the predicament of modern individuals' identity problems. For him, loss of identity was related to loss of commitment. It is within this modern or post-modern context that the process of selfing (McAdams, 1996) occurs and within which we seek to

provide an interpretive framework for the understanding of commitment in everyday lives.

Gender and the self. Contributing to the questioning of modernity is the voice of the women's movement. Smith (1994) suggests that feminism has had a major impact on "questioning the preeminent values of instrumentalism and macho autonomy" (p. 410) and degendering Bakan's (1966) principles of agency and communion. Much has been written regarding gender and self. In particular, the focus has been on the significance of relationships in women's lives. Three different perspectives have been offered as possible mechanisms through which women's sense of self differs from men's -- a developmental perspective, a power perspective and a moral perspective (Markus & Cross, 1990). The developmental perspective introduced by Chodorow (1978) proposes that mothers and daughters experience a sense of sameness and connection with each other, unlike that of mothers and sons. Daughters look to their mothers to confirm their sense of self; sons are socialized to see themselves as separate and differentiated from their mothers at an early age (Markus & Cross, 1990; Block, 1984). Thus, Chodorow (1978) argues that relationships are more central and valued in women's lives, strongly contributing to the formation of a self-other interdependence.

Power issues are at the heart of a second theory on gender differences in self (Miller, 1986; Marshall, 1993). As males continue to hold the legitimate power in society and organizations, females must somehow accommodate to their lower status. They do this by becoming highly 'attuned' to the dominants (Miller, 1986) in order to achieve their goals. Marshall (1993) has illustrated this phenomenon in her model of stages of

awareness patterns in women managers. She suggests four stages women go through in interfacing with the dominant culture -- from 'muted' where there is an unawareness or lack of willingness to accept the reality of the male dominated organizational culture to 'embattled', the first recognition of inequality, to 'rebellious', where women openly challenge inequality, to 'meaning-making' where true equality has been achieved and women have equal power to change and shape cultures. Our findings in a group of women executive managers in the Canadian Public Service provide support for women's 'attunement' in that women were found to be much more sensitive to the relation between their personal work projects and their organizational culture (Phillips, Little & Goodine, 1997)¹. In addition, our observation that over thirty percent of the women that we interviewed in executive positions in the Canadian public service discussed concerns of credibility (Phillips, Little & Goodine, 1993) or what has been identified as the "invisible women phenomenon" (Travis, 1988, cited in Heaney, 1993) provides support for Marshall's ideas of women being "strangers in a strange land" (Korabik, 1993). The theory of power differential suggests an adaptive mechanism in strongly connecting the self to other.

Finally, Gilligan (1982) and others (e.g., Brown & Gilligan, 1992; Belenky, Clinchy, Goldberger & Tarule, 1986) have written extensively about gender differences in morality. As men and women attach different meaning to relationships, Gilligan (1982) has argued that they likely have different approaches to morality. A masculine perspective born of separation and individuality would tend to emphasize rights, fairness and justice related to the abstract "other" in moral considerations; a feminine perspective

with an attachment and caring basis would emphasize a consideration of others and personal responsibility in moral judgments (Markus & Cross, 1990)².

Culture and the self. The self has been described as having "intrinsic growth processes whose tendency is toward integration of one's own experience and action with one's sense of relatedness to the selves of others" (Deci & Ryan, 1991). Analyses of the self across different cultures have determined, as with gender, that cultures vary in the degree to which the self is depicted as separate or connected to others (Markus & Cross, 1990; Kitayama, Matsumoto, Markus & Norasakkunkit, 1997; Iyengar & Lepper, 1999)³. The Western emic⁴ notion of rising above the crowd and being autonomous contrasts with the Eastern emic idea that self belongs to and has responsibility towards one's group. For example, Lebra (1976, cited in Markus & Cross, 1990) suggests the Japanese have a sense of self most fully in the context of others. Various cultural dimensions are suggested to contribute to self-definition (see for example, Triandis, 1997)⁵. Again, we see that context can influence one's sense of self and this may be reflected in the nature of commitment as depicted in action particularly through the notion of Community (see Chapter 1).

Identity. The contextual process of selfing unfolds across the lifespan (e.g., McAdams, 1993) with peaks of critical phases (Erikson, 1968). Erikson's stages of relevance to commitment are likely those of: "identity versus role diffusion" in early adulthood, "generativity vs stagnation" in middle adulthood and "integrity vs despair" from middle adulthood until death. Indeed, recent research in the PPA literature, indicates a shift from efficacy as a primary influence on SWB in an undergraduate

sample, i.e., an early adulthood group, to integrity as a primary influence on SWB in a mature sample (McGregor & Little, 1998). Similarly, we anticipate developmental differences⁶ in our sample of undergraduate students who are more likely in the "identity versus role diffusion" stage (where their sense of self is not as stabilized) as compared to the executive group who are more likely concerned with issues of generativity and productivity. Commitment is expected to mediate the relation between personal project efficacy and well-being in our younger sample and to have a stronger relation with these variables in our executive sample as the latter is likely to have a more defined identity, a more integrated sense of self and a more sculpted commitment to their activities and goal pursuits.

Roles. Tightly associated with meaning and identity and of relevance to a discussion of the self in postmodernism is the concept of roles. Indeed, Sarbin's (1954) early work on role theory describes role as the unit of culture in his "self-and-role-in-interaction thesis" (p. 223). The extent to which we are committed to a role is usually indicative of the centrality of that role, whether it is an identification with a behaviour, value, or institution. A central identity or role implies one that is particularly meaningful or salient within an individual's hierarchy of identities or self-meanings (Burke, 1980; Burke & Reitzes, 1991). A role to which one is highly committed is likely to be enacted, thus having consequences for sustained behaviour (Stryker, 1981). Johnson's (1991) interpersonal commitment framework contains an element of relational identity or role, the degree to which one's involvement in a relationship is integrated into one's self concept. A personal project which has consequences for several roles or identities is

likely to be strongly imbedded in one's social ecology and to reflect a high degree of commitment (MacDiarmid, 1990).

As discussed in the section on gender and self, a number of theories have suggested women's sense of self to be more interdependent than that of men's. To a degree, this is theorized to be a function of the significance of relationships in women's lives. Following from this, it is likely that the relation between commitment and "role" ("thinking of your own roles (e.g., wife, father, daughter, boyfriend, student, employee), how strongly is each project linked or associated with the roles in your life?") may differ as a function of gender. Further, by querying "why" individuals are committed to personal projects we hope to tap into the higher order reflection of roles.

Thus far, we have argued that an understanding of commitment is connected to an understanding of the self, a self which emanates from an internal core yet which is situated within a context or a group of contexts (Lewis, 1992). The influence of the macrosocial context (gender, culture) and development on self may influence the degree to which it is gendered or interdependent or fully integrated. What are the implications of these connections to our understanding of personal project commitment? We anticipate that the sensitivity of the PPA methodology will more clearly depict these subtle aspects of the nature of commitment at the level of action across two different life stages. Further evidence for the integral relation of self and commitment will be seen in the notion of self-aggrandizement in our discussion of patterns of commitment in this chapter.

Domains of Commitment

Primary or multiple domains of meaning and commitment. Relevant to our

discussion of the contemporary self and its reflection in committed action is the nature of the incentives we choose (Klinger, 1977; Baumeister, 1991; Bibby, 1983; Triandis, 1989). Both the primacy of interpersonal relationships and work have been emphasized by several researchers, i.e., "sources of meaning and identity to which men and women balance commitment" (Bielby, 1992, p. 283) and "central features of adult life" (Almquist & Angrist (1971, p. 2763, cited in Bielby, 1992). Indeed, both work and interpersonal relationships are central in models of commitment (Rusbult, 1983; Stanley & Markman, 1992; Meyer and Allen, 1991).

However, several authors have focussed on the theme of multiple meanings in life. Baumeister (1991) has depicted individuals as being actively engaged in constructing their own personal meaning, meaning which is typically not a single thread. He quotes Kaufman's (1986) work where a group of elderly people recounted the stories of their lives. Most life stories had between four and six themes. Dilthey (1910/1977), has also emphasized that individuals construct their own meaning in life, that there is no one "meaning of life." Bibby (1983) echoes these findings in his study of Canadians. He investigated to what extent people's meaning systems provided a sense of coherence in their lives. Bibby (1983) concluded that a large number of Canadians (and presumably Westerners) do not exhibit highly integrated lives; i.e., they do not have a single thread of meaning which runs through all aspects of their lives. Triandis (1989), again, recounting the theme of multiple meanings, suggests that the latter can be problematic. One has difficulty in making a choice among so many competing viewpoints. Thus, these authors suggest that people do not necessarily have a single thread of meaning which provides a

sense of coherence in life, rather they appear to commit themselves to, or at least find meaning in, a number of different areas. Whether the self is sustained by the more traditional anchors of work and relationships as primary sources of commitment or whether there is a multitude of meanings to sustain the self are of interest in this dissertation.

The PPA module of project categorization (Appendix A) allows us to look at particular project types which are reported to be high in commitment. This permits our analysis of meaning themes to be done at a more proximal, personalized level, rather than a distal, global level and these may be considered both idiographically and normatively. For example, the generic category of "interpersonal projects" may manifest itself in the personal project of "having coffee with Sally after History class to get to know her better". Thus, one is provided with a lens through which to examine a personalized meaning theme of an individual in his/her context (Little, 1987).

Gender differences in domains of commitment. Early work on women in management depicted women as less committed and deriving less meaning from work than men (e.g., Moen & Smith, 1986). Women were found to have slightly more identification with family whereas the reverse held true for men. One theoretical explanation suggests gender differences in work commitment are a result of gender socialization (e.g., Moen and Smith, 1986) while another explanation is that of structural constraints (work conditions and opportunities) in the market and in the job (e.g., Kanter, 1976; Lorence, 1987). In short, large organizations operated on the premise that women, when faced with trade-offs in balancing home and work, would always favour the former.

Thus, they were not willing to advance significant numbers of women into the upper echelons of the corporation (Task Force, 1990). Later research reports these differences in identification with work to disappear when women have the same work status and experiences as men (e.g., Bielby & Bielby, 1989). Thus, we have gone beyond questioning gender differences in the degree of commitment to work (Bielby and Bielby, 1989; Phillips, Little & Goodine, 1998). However, given the literature review suggests gender differences in the nature of self, and the self is a primary component of commitment, it will be instructive to determine how and if these differences play out in the work and non-work lives of our more mature, career-established, executive sample.

Bielby (1992) points out that less research is available on family commitment. The focus on recent research has been on strategies for *balancing* home and work (e.g., Duxbury and Higgins, 1991) as well as benefits of multiple roles (e.g., Thoits, 1983; Baruch & Barnett, 1986). Roles that one takes on in each of these domains, however, do not occur in isolation and rather than assessing each one separately as has been done in the stress literature⁷, research on commitment to work and non-work roles may be more meaningful if commensurate measurement is used.

Gender commonalities in the work domain. A finding across gender in the work force of the 1990's is that individuals increasingly want more meaningful work (Bell & Staw, 1989; Offerman & Gowing, 1990; Auditor General, 1990), a commonality that may well transcend any differences in styles of management, levels of aspiration and role conflict and prove to be more fundamental in 'good' managing and more balanced organizations. Indeed, Korabik (1993) has argued that androgyny likely makes managers

more well-rounded and promotes harmonious organizations. The connative approach that we take in this research enables us to determine what kinds of work projects male and female managers find meaningful and efficacious and further, to determine how their personal projects relate to other more traditional intrinsic and extrinsic job needs and aspirations, features that have been found to relate to both work commitment and satisfaction (e.g., Tubbs & Ekeberg, 1991; Stewart, 1990). Indeed, the Auditor General of Canada (1990) suggests that improved organizational performance must be achieved an understanding of individual's values and aspirations⁸.

As discussed, several lines of research (in both personality and social as well as organizational psychology) have emphasized the link between successful goal completion and SWB (e.g., Locke & Latham, 1990; Bandura, 1977; McGregor & Little, 1998). We are interested in the relation between commitment and well-being in this group of executives, specifically in commitment's role in the well-established link between efficacy and SWB (See Figure 1).

In sum, it is apparent that the essence of commitment lies in meaning. The self is a central construct in the process of commitment, resonating in our social context and interweaving our values, roles and identities as these are made manifest through our projects, goals and life tasks. To the extent that the latter are experienced as arising from the self, one may experience a sense of coherence in life. Whether individuals seek out multiple meanings in life or whether traditional anchors for self continue to be major domains to which individuals commit is queried. A focus on gender and work, suggests that there is no need to question differences in the degree of commitment; rather it is the

nature of that commitment that we seek to understand. Finally, the use of commensurate measurement in work and non-work projects is anticipated to more clearly depict the balancing of commitment in the lives of our executive sample.

Dispositional and Motivational Aspects of Commitment

The trait-linked nature of commitment is perhaps one of its most well documented features (e.g., Brickman, 1987; Dubé and Kairouz, 1994; Meyer & Allen, 1991). Brickman and his colleagues have conceptualized both an inner and outer face of commitment, primarily defined by the features of enthusiasm and persistence, respectively. "*Persistence* characterizes behavior that people continue to enact despite their sense that it calls for them to make sacrifices and resist temptations..." (Brickman, 1987, p. 19). "*Enthusiasm* characterizes behavior that people enact without ambivalence about what the behavior costs, out of a sense that the behavior itself is meaningful." (Brickman, 1987, p. 19). In brief, "Persistence in commitment reflects the call of duty; enthusiasm goes beyond the call of duty." (Brickman, 1987, p. 19). Importantly, these different formulations of commitment are not conceptualized as contradictory but rather more complementary in their co-occurrence (Brickman, 1987). More recently, Dubé and Kairouz (1994), following from Brickman's work, have developed a three-dimensional model of commitment which includes attraction and attachment towards a social object; perseverance in a line of action with reference to a social object and, acceptance and assimilation of the positive and negative aspects related to the social object. Johnson (1973) has differentiated between personal commitment and behavioral commitment. Personal commitment depicts a "strong *personal dedication* to carrying out a line of

behaviour" whereas *behavioral* commitment refers to "prior actions by the individual that force him or her to continue a line of action." (p. 6). An examination of these trait-linked features— enthusiasm, persistence, personal dedication, and constraint or obligation -- is undoubtedly critical to an understanding of the decontextualized nature of commitment (See Figure 2, Chapter 1). Although the primary focus in this dissertation is on the "doings" of personality, where features such as enthusiasm and obligation are considered as they relate to personal project commitment, for a complete depiction of personality, we cannot ignore the "havings".

The first section includes a brief overview of the trait domains, possible linkages through which they may exert their influence through personal projects, in particular, on the process of commitment and some recent empirical findings on the relation between traits as assessed by the NEO-PI-R and personal project commitment. Hypotheses regarding the relation of the five factors to personal project commitment are also included.

It is anticipated that an examination of traits as they relate to commitment will lead us in the direction of its motivational nature. The essence of motivation stemming from the Latin, *movere* ("to move"), is well evidenced in the trait-like features of commitment such as persistence and obligation and thus offers support for this relation. Linkages with, for example, the trait of Conscientiousness will serve to inform us as to its proactive and inhibitory forces (Costa & McCrae, 1992). Further, an understanding of the motivational nature of commitment and its influence on goal directedness necessitates an analysis of its affective component. Several lines of research have linked PAC units to

affective consequences (e.g., Omodei & Wearing, 1990; Ruehlman & Wolchik, 1988; Brunstein, 1993; Emmons, 1986; Palys & Little, 1983; Chambers, Goodine, & Little, 1999). However, our concern is less with the *outcome* of effective or non-effective action but rather with the *process* by which action is guided through emotion (Oatley & Jenkins, 1992) and the role of commitment in this process (Brickman, 1987). The section entitled "The Motivational Nature of Commitment" includes a discussion of the relevance of emotion to action, an examination of Klinger and his colleagues' work on the relation of commitment to emotional reactivity and a discussion of research related to attunement and its adaptational value. This section ends with some methodological and measurement issues relevant to the elicitation of affect using PPA and proposes a more proximal measure of analysis.

Traits and PPA commitment

Traits or "pervasive consistencies in thoughts, feelings, and behaviors" (Costa & McCrae, 1992, p. 39) have seen their demise (Mischel, 1968) and resurrection (e.g., Digman, 1990; Wiggins, 1996) in the last three decades of personality research. Although there is still ongoing debate in the literature concerning whether or not the five factor model of personality traits represents the basic structure of personality (see for example, Pervin, 1994a, 1994b), an impressive program of research has been launched by those adhering to the "Big Five" model (e.g., Wiggins, 1996; Digman, 1990; Goldberg, 1993), a model which is generally accepted by most personality researchers. Further, it is generally agreed that traits, particularly those associated with temperament have a strong genetic component (see for example, Plomin, Chipuer, & Loehlin, 1990; Krahé, 1992).

Although traits may offer us an invaluable, decontextualized (see Figure 2), noncontingent and comparative view of the individual, they are not enough to know and understand an individual and his/her aspirations (Costa & McCrae, 1992; Thorne, 1989; McAdams, 1995). As McAdams (1995) puts it, "A person cannot be known without knowing traits. But knowing traits is not enough." (p. 371). Similarly, by knowing the traits of an individual we may have some idea of their potential for commitment but no idea of the where, when, why, what and how it arises in everyday life. To do that we need to include other levels of analysis in personality such as that represented by PAC units. Research in the Social Ecology lab has shown both trait and PAC levels of analyses to be coherently associated (Little et al., 1992b; Melia-Gordon, 1992; Girard, 1994). Similarly, in this study, we anticipate meaningful linkages between these two levels of analyses.

The five factors. The five factors or domains of personality as operationalized by Costa & McCrae (1992) include Neuroticism (N), Extraversion (E), Openness (O) Agreeableness (A) and Conscientiousness (C) (Appendix C contains a description of the NEO-PI-R Five-factor Facets and Descriptors). N contrasts emotional stability with maladjustment. Those scoring high on this dimension have a general tendency to experience negative emotions such as fear, anger and disgust, although they do not necessarily have neuroses, as N is a dimension of normal personality. Nevertheless, they may be more at risk for certain disorders. The opposite end of this spectrum is characterized by people who are emotionally stable, calm and even-tempered and able to withstand stressful situations (Costa & McCrae, 1992). We anticipate that the emotional

instability of the individual high in N will be antithetic to the commitment process.

Extraversion is characterized by a continuum ranging from strong affiliation to reservedness. Individuals scoring high on E enjoy interacting with people preferably in large groups, are outgoing, energetic and optimistic. Importantly, introverts are not polar opposites of extraverts (e.g., friendly/unfriendly); rather they tend to have a lack of some of the extraversion attributes. Introverts are described as reserved, independent and even-paced individuals who prefer to be alone (Costa & McCrae, 1992). The literature suggests an enthusiastic, bonding component of commitment (e.g., Brickman, 1987; Dubé and Kairouz, 1994; Meyer & Allen, 1991) intimating possible linkages between PPA commitment and the E facet of positive emotions. However, this must be tempered with other features of commitment which may co-occur. It is more likely that commitment is associated with the neutrally valenced dimensions of meaning such as value congruency.

The similarity between E and A lies in their relation to interpersonal tendencies⁹. Altruism is the core feature of A, with high scorers inclined to be helpful and supportive of others and to expect reciprocal behaviour. In contrast, low A scorers tend towards egocentrism, scepticism of others' inclinations and competitiveness (Costa & McCrae, 1992). Several other theoretical perspectives demonstrate convergent validity with A; Adler's (1938/1964) *social interest*, Horney's (1945) *moving toward* and Erikson's (1950) *basic trust* are all related to A (McCrae & Costa, 1996). It is anticipated that a relation between A and personal project commitment may exist through several of its facets (trust, altruism and tender-mindedness), particularly in personal projects of an interpersonal

nature.

C can be differentiated from N in that it is not related to a lack of impulse control; rather, it is through C that impulse control is regulated in an active, planful fashion. Purposefulness and determination are attributes of high scorers on Conscientiousness. Conscientiousness has been depicted as being composed of two forces, a facilitating dimension suggested in its active, directive and organizing energy in the service of goal attainment and an inhibitive component evident in its restraint and control of impulse in the movement towards goals (Wiggins & Trapnell, 1996). Costa & McCrae (1992) characterize these two sides of high C as related to high academic and occupational achievement on one hand and "fastidiousness, compulsive neatness, or workaholic behavior" (p. 16) on the other hand. Clearly, both facilitating and inhibiting forces may operate in either manifestation of the trait. Both the facilitative and inhibiting forces manifest in several of the facets of C are anticipated to significantly relate to commitment in one's personal projects.

Openness to experience is perhaps the most controversial and the least uniformly conceptualized of the five factors of personality (McCrae, 1993-1994); it is a domain which is "broader in scope and looser in structure than the other four factors." (Trapnell & Wiggins, 1990, p. 782). Individuals who are high in O are described as having active imaginations, exhibiting a preference for variety, having an independence of judgment, being attentive to inner feelings, having an intellectual curiosity and having an aesthetic sensitivity. Open individuals are depicted as having experientially richer lives in terms of their ability to play with novel ideas, hold unconventional values and feel both positive

and negative emotions more profoundly than those who are less open (Costa & McCrae, 1992). Personal dedication, an ascribed component of commitment (Johnson, 1973, 1991) suggests a relation with Openness, in particular its facet of values. Indeed, several lines of empirical research have reported a relation between Openness and values (Little, Lecci & Watkinson, 1992; Dollinger, Leong & Ulicni, 1996). As Dollinger and his colleagues state "As openness is the most cognitive of the "Big Five" factors, values particularly should reflect levels of this trait because, according to Rokeach (1973, 1979), values are central to a person's cognitive organization." (p.25). In the PPA literature, Openness has been found to correlate with engagement in personal projects that are congruent with life values (Little, Lecci, & Watkinson, 1992). Thus, we anticipated linkages between PPA commitment and the facets of values as well as feelings (see the following section on motivation for a discussion of the relation of commitment to emotion).

Possible linkages from traits to PPA commitment. As discussed, in order to better understand human behaviour and aspirations, and we would suggest, commitment, we need traits and we need a more contextualized, temporal unit of analysis. What are the connections which link traits to PAC units? McCrae & Costa (1989) have suggested that traits may influence well-being by three routes – temperamental, experiential and instrumental. Little et al. (1992) have extrapolated these as possibly critical conduits which link traits with personal projects, thereby mapping out the linkages to adaptation and well-being; several of their empirical findings are described below. Similarly, these routes may potentially link specific trait measures and commitment to personal projects.

The temperamental effect operates when a stable, physiologically based affective disposition such as N (Watson & Clark, 1984) influences an individual's well-being. N has been shown to be negatively related to positively oriented personal project dimensions such as enjoyment, self-identity and progress (Little, et al., 1992; Melia-Gordon, 1992; Melia-Gordon, 1994), and positively related to stress (Little et al., 1992; Melia-Gordon, 1992; Girard, 1994). Research in the Social Ecology lab has shown that Neuroticism's temperamental effect generalizes across different project domains (Little et al., 1992; Melia-Gordon, 1992), a finding which was anticipated due to its association with strong negative affectivity (Watson & Clark, 1984). Similarly, N is anticipated to be negatively associated with personal project commitment across project domains as the lack of emotional stability of an individual high in N would likely be incompatible with the commitment process. A focussed examination of patterns of overcommitment in the specific domain of work/academics (e.g., workaholism, see Chapter 4) (Spence & Robbins, 1992) is anticipated to further delineate the trait of N and its relation to personal project commitment. E is also suggested to operate through this temperamental linkage; its association with generalized positive affectivity (Watson & Clark, 1992) suggests a relation to the enthusiastic component of commitment (Brickman, 1987; Dubé and Kairouz, 1994; Meyer & Allen, 1991). However, of the affectively and neutrally toned meaning dimensions (e.g., enjoyment, fun compared to value congruency, self-identity, respectively), we anticipate that commitment will be more strongly associated with the latter (Lydon & Zanna, 1990; Little et al., 1992).

The experiential effect which traits may have on personal projects is exemplified

by the trait of Openness to Experience. O has been found to be associated with project Meaning dimensions (enjoyment, value congruency, self-identity) as well as control, initiation and lack of difficulty in personal projects (Little et al., 1992). Further evidence for its relation to Meaning is shown in Dollinger et al.'s (1996) research; they report a positive relation between several values (e.g., world of beauty, imaginative) ascertained by the Rokeach Values Survey and O. Relatedly, Melia-Gordon (1994) has found O to be positively correlated with personal project creativity. Finally, the experiential route of Openness to Experience is evidenced in recent findings relating Openness along with experience (training and practice in clinical psychology) to wisdom-related performance (Staudinger, Maciel, Smith & Baltes, 1998)¹⁰. Unlike N and E, each denoting a particular affective orientation, O "involves a disposition to explore deeply and feel sharply a diversity of life experiences -- irrespective of their valence -- and to actively seek out such experiences" (Little et al., 1992, p. 508). It is anticipated that the trait of O will operate through the experiential link and be positively associated with commitment and other Meaning dimensions across all project domains. Several of its facets --feelings, ideas and values--are hypothesized to be related to commitment.

Finally, the third trait effect proposed by McCrae and Costa (1989) is their instrumental influence on well-being and by implication, personal projects (Little et al., 1992). C, for example, may push one to make progress on personal projects and complete them on time. Much of the commitment literature denotes the trait-like aspect of perseverance as being strongly related to commitment (e.g., Dubé & Kairouz, 1994; Brickman, 1987). Previous research in the Social Ecology Lab has found C to be linked

to *commitment to personal project completion*¹¹ (Girard, 1994), a finding which is supported in the goal-setting literature. Hollenbeck and Klein's (1987) research uses a model of the antecedents and consequences of goal commitment which builds on expectancy value theory. The personal factor side of the model includes two trait-like features, high need for achievement and endurance or perseverance, which are thought to operate either through increasing attractiveness or increasing expectation of goal attainment and ultimately affect goal commitment. A positive association between C and commitment to one's personal projects as processed through its facilitating and inhibiting forces evidenced in several of its facets (e.g., dutifulness, self-discipline and deliberation) is anticipated. Following from Little et al.'s (1992) research, it is not anticipated that C will show any domain specificity.

In sum, three links between personal project commitment and trait measures are postulated: first, the experiential route, linking the trait of O and A to personal project commitment; second, the trait of C as an instrumental route in the process of commitment and; third, the temperamental route linking N negatively to PPA commitment. All of these linkages are suggested to function across project domains. A broad association between PPA commitment and the NEO-PI-R trait measures will provide evidence for the centrality of commitment in people's lives. Further, it is the optimal situation of the personal project within the framework of personality (Figure 2) and the motivational strength of commitment that anticipates accessibility to the trait level of personality as well as to the slightly more contextualized 'why's' of commitment (role, needs, values), the latter of which was discussed in Chapter I.

Although traits may be said to access the "dispositional signature" (McAdams, 1996) of the individual, PAC's access the playing out of personality activity within a dynamic context. Further, it may be argued that PAC units and trait measures offer conflicting views on human action (e.g., Cantor & Harlow, 1994), however, both likely have a role to play in a comprehensive view of personality (Little et al., 1992; Wakefield, 1989; Cropanzano et al., 1992, McAdams, 1995, 1996) and of relevance to this research, in an understanding of commitment.

The Motivational Nature of Commitment

The relevance of emotion to action. Both Darwinian (1872) and Jamesian (1884) notions of emotion endorse the view that emotions are endpoints, that they go no further than the organism (Oatley & Jenkins, 1992). Recently, however, the contribution emotions make to controlling action has been recognized and it is in that context that emotions are most relevant to this research (Oatley & Jenkins, 1992). Greenberg, Rice & Elliot (1993) emphasize the importance of emotion's relation to action:

Although cognitive processes are of crucial importance in understanding human information processing and meaning construction, the emotions are crucial in understanding human action (p. 49).

Three features of emotion underscore its importance in understanding both cognition and interaction with the environment. First, emotion has *attentional* properties which serve to selectively influence the relevancy of information; second, its *motivational* properties influence the establishment, maintenance and disengagement of goals and; finally, its *communicational* properties influence interaction with others (Greenberg et al., 1993). Emotion and cognition are not orthogonal but rather tightly intertwined. Although

emotion may occur without awareness, for *emotional experience* to occur, the interpretation and evaluation of states or the symbolization of experience (Greenberg et al., 1993) is necessary, a phenomenon which necessarily involves cognition (Lewis, 1992)¹². Thus, we see the constructivist influence on emotion. Indeed, the social constructionist view of emotion as a "cognitively mediated complex emotional-experience system" has more recently emerged and complements the more traditional view of emotion, that of a biologically based adaptive emotion-reaction system (Greenberg et al., 1993)¹³.

Of particular interest in an analysis of the motivational nature of personal project commitment is its relation to emotions, because emotions are related to action tendencies. Lazarus (1991) has described emotions as "first and foremost reactions to the fate of active goals in everyday encounters of living and in our lives overall" (p. 92). Frijda, Kuipers and ter Schure's (1989) work emphasizes emotions as changes of action readiness. Here, the conditions which distinguish the emotion are relevant: "achievements tend to cause happiness, losses tend to cause sadness, frustration tends to cause anger, threats or goal conflicts tend to cause fear" (Oatley & Jenkins, 1992, p. 60). Further the specific emotion may direct the action — e.g., happiness leading to continuation, sadness eliciting cessation, anger producing aggression. Clearly, this process of appraisal-emotion-action is relevant for understanding adherence or non-adherence to both "trivial pursuits and magnificent obsessions" (Little, 1989). Our analysis is concerned with the role of commitment in this process.

Towards a measure of emotional attunement. The thwarting or facilitating of

goals or projects to which we are committed triggers emotion (Klinger, 1977) and the stronger or more important the goal and presumably the stronger the commitment, the more intense the emotion (Lazarus, 1991; Carver & Scheier, 1990). Indeed, Klinger (1987), in discussing current concerns, (an underlying state that persists from the beginning to the end of a pursuit after a goal) (p. 124) postulates that the onset of commitment involves a change in responsivity toward goal stimuli and this appears to involve a specific change in emotional reactivity. For Klinger, the onset of commitment is coterminous with the advent of a current concern. The disengagement of a current concern may offer some insight into the relation of commitment to emotion. Klinger (1987) describes the process he calls the incentive disengagement cycle as follows:

...following frustration people (and other mammals) go through a predictable sequence of states: invigoration of the behavior, in the form of increased effort or alternative operants; next, anger and increasingly primitive operants, often including aggression; with continued failure, a downswing into disappointment and depression, still accompanied by anger but most marked by reduced interest in other incentives, reduced activity levels (or sometimes aimless agitation), and feelings of helplessness and hopelessness; and finally, after the passage of time, a gradual recovery to essentially normal functioning. This incentive disengagement cycle is accompanied by changes in the perceived value of the blocked goal: an increase in its value during the early phases following frustration and a gradual decline to baseline during the recovery phase (pp. 345-346).

Several empirical investigations have linked PAC units to affect (Omodei & Wearing, 1990; Ruehlman & Wolchik, 1988; Brunstein, 1993; Emmons, 1986; Palys & Little, 1983). For example, Emmons (1986) notes that positive emotion is positively associated with striving importance. (His study considered importance to be synonymous with commitment due to their high correlation.) Pychyl's (1995) investigation of the lives

of doctoral students reports a positive relation between the extent to which one is committed¹⁴ to a project and the degree to which it affects one's mood¹⁵. Recently, Chambers, Goodine & Little (1999) report that specific cognitive appraisal dimensions are systematically related to specific emotions triggered by individual personal projects. For example, personal projects perceived as having a low likelihood of successful outcome are significantly associated with greater anger. Brickman, Dunkel-Schetter and Abbey (1987) point out that it is not simply the case that increased commitment leads to greater satisfaction or happiness. Rather, "the archetypal sequence is early idealism and later reshaping in light of reality." Following these lines of research as well as the strong evidence for the relation between commitment and meaning, (a more neutrally valenced construct), our measure of affect was not biased towards a negative or positive affect.

Cantor and Harlow (1994) suggest that the link between emotional experience and involvement associated with a current concern or life task may serve as an indirect measure of 'attunement', a construct that they argue has adaptational value. Cantor et al. (1991) have provided empirical support for this in their study employing a daily experience-sampling method with a group of college sorority women. When a particular event was associated with a current life task, the women were found to be more affectively aroused. Emmons (1991) work on personal strivings also provides support for this selective attunement with achievement oriented or affiliative oriented individuals responding affectively in achievement or affiliative strivings, respectively. Importantly, further analyses of Cantor et al.'s (1991) data, suggest that it is indeed the goal pursuit

which is related to affect rather than the context alone. In other words, engaging in the personal project of "doing well academically" has affective consequences whether pursued in a social context, academic context, alone or with others, on weekends or weekdays (Fleeson & Cantor, 1995).

Klinger (1987) has elaborated on the relation of emotion and cognition to action, in particular to life tasks and current concerns:

There is reason to believe that emotion mediates at least a part of the relationship between motivation [*i.e., life tasks, current concerns*] and cognition, and, furthermore, that emotional processes are integrated into the very microstructure of cognition. (p. 125).

Several lines of experimental evidence are reviewed by Klinger (1987) to support his contention regarding the linkage between PAC units, emotion and cognition. Klinger and his colleagues' earlier research has provided empirical evidence for the relevance of current concerns in attention and recall and in focussing thoughts (Klinger, 1978; Klinger, Barta & Maxeiner, 1980). Further, concern-related words (as compared to non-concern related words) have been documented to be incorporated into and even change the direction of dreams suggesting automatic processing (Hoelscher, Klinger & Barta, 1981). The insertion of concern-related words into a lexical decision task requiring a subject to press a button on the appearance of a word, resulted in an increased reaction time for important concerns as compared to less important ones (Young 1988a, 1988b, cited in Klinger, 1989). Other investigations support the involuntary cognitive processing of information which is emotionally arousing, information which has been processed to be self-referent (e.g., Bargh, 1982) or emotionally tinged (e.g., Nielsen & Sarason, 1981).

More recently, Nikula, Klinger & Larson-Gutman (1993) report that physiological arousal as assessed by electrodermal reactivity is associated with current concern-related words.

Klinger (1987) summarizes the research and concludes with:

Current concerns--and hence also life tasks--influence cognitive processing because the concern state predisposes the individual to react with emotional arousal to many cues associated with the corresponding goal pursuit. The emotional arousal, in turn, provides a kind of priority tag for cognitive processing. It is therefore the emotional response to a cue that provides the direct influence on cognition.

From a measurement and statistical perspective (with the exception of Omodei & Wearing's (1990) work) typically the dimensions of relevance in the studies to date have been collapsed across projects and related to a global measure of affect (e.g. Diener's negative and positive affect scales, e.g., Diener & Emmons, 1985). Omodei & Wearing have used a more proximal level of affective assessment by asking subjects to rate the individual projects on each of the provided affective measures (e.g., Diener's positive affect scale -- happy, joyful, etc.)¹⁶. A particular strength of this procedure was the option of removing the intersubject variance in the variables of interest thus permitting an assessment of the strength of the processes *within* individuals rather than patterns *between* individuals. The idiographic level of measurement (originally developed by Little, 1983; Palys & Little, 1983) was retained in this study for similar purposes; in addition, subjects were permitted to indicate their own personalized assessment of the affect involved when pursuing a particular personal project¹⁷.

In sum, emotional experience appears to result from the interpretation or

evaluation of events assessing the extent to which an individual's goals of particular importance or commitment are facilitated or thwarted. Emotion appears to play an adaptive role in 'attuning' us to our goals, plans and actions. It is anticipated that the use of an idiographic, proximal level of assessment may serve to more readily 'unpack' the role of commitment in guiding action through emotion. Further assessment of the motivational strength of commitment will be obtained through an analysis of thought accessibility.

Patterns of Commitment

"...we need the extremes fixed clearly in our minds in order to recognize elements that are common to all instances in more gentle and blurred form." (p. 5). (Brickman, 1987)

In Chapter I, a generic framework for commitment based on Little's (1988,1989) PPA factors was presented. A more specific focus on two of these factors, Meaning and Efficacy/Structure (the dimension of control is included in this factor), permits an analysis of "extremes" in order to better understand the range of commitment in everyday lives. This focus is presented under the rubric of Brickman and Karuza, Jr.'s (1987) "Control and Commitment Cycles of Action." Following this brief overview of their model, the phenomenon of self-aggrandizement (Wicklund and Gollwitzer, 1982) and the work pattern of workaholism (Spence and Robbins, 1992) are introduced as examples of extreme patterns of the commitment and control cycles of action, respectively.

A Framework within our Framework: the Control and Commitment Cycles of Action

Brickman and Karuza, Jr.'s (1987) model (Figure 4)¹⁸ has two components that

serve to sustain action: the control and commitment cycles, referring to the

Figure 4. The Control and Commitment Cycles of Action

external and internal correspondence of an act, respectively. Control or "the ability to influence the environment" may take on various forms (e.g., indirect or direct) and degrees of strength but what is key is the belief that reinforcements are a product of one's responses or action. In contrast, the internal correspondence of action is related to the meaning it takes on for an individual and the value one attaches to the act. Action, the starting point for each of these cycles, is thus seen to result in two possible consequences, attaining a sense of control which results in reinforcement and sustainment of action or attaining a sense of meaning and value which generates commitment and, in turn, results

in further action. The ideal action cycles have a sense of commitment along with control (Brickman & Karuza, Jr., 1987), i.e., "individuals feel both committed to and effective in their actions." (p. 110).

In this study, we will analyze extremes in these cycles within the realm of everyday activities, specifically in the work/academics domain. Brickman and his colleagues have noted that there are some life events which are unalterable by nature (e.g., the death of a loved one) in which case exclusive reliance on the meaning cycle may be the only course of action. "Only a structure of meaning and commitment sustains behavior in the absence of control." (p. 136) (Brickman, 1987). Reliance on the meaning cycle has been well illustrated in the pain literature perhaps most remarkably by those who have suffered in Nazi concentration camps (e.g., Frankl, 1969).

As control may be defined in various ways (e.g., "cognitive control" and "reinterpretive control") and its endpoint may vary (e.g., decreasing pain, maximizing rewards or attempts at gaining meaning and value), the authors provide further criteria on this point,

The extent to which control, however it is defined, is aimed at gaining reinforcements is the extent to which we see it as part of the control cycle. The extent to which control attempts to generate a sense of meaning (in our sense of the term) is the extent to which we see it as part of the commitment cycle. (p. 109).

Spence and Robbins (1992) have empirically examined the profile of the Workaholic – high scores on measures of work involvement and driveness and low scores on a measure of enjoyment of work--in an attempt to gain consensus on the meaning of this construct. We suggest that the Workaholic pattern may be akin to

Brickman and Karuza Jr's (1987) control in the absence of meaning cycle and this will be depicted in the section following.

Two Extremes of the Control and Commitment Cycles of Action

Self-aggrandizement. Illustrative of an over-reliance on the meaning-driven cycle of commitment (Brickman, & Karuza, Jr, 1987) is Wicklund & Gollwitzer's (1982) notion of self-aggrandizement, a process-related phenomenon which arises out of symbolic self-completion theory or more generically, motivation theory. Symbols provide meaning to individuals and are considered necessary ingredients in the evolution of a culture (Schiffman & Nelkenbrecher, 1994). Further, they act to signify the competencies that an individual has or would like to attain, e.g., "a competent musician." Communication is inherent in this process.

...Persons communicate by self-report, or by showing material possessions, such as certain kinds of watches or clothes, that they possess specific competencies or abilities (Schiffman & Nelkenbrecher, 1994, p. 318)

Symbolic self-completion theory suggests an individual is motivated to pursue certain symbols when in a state of *incompleteness* with respect to a particular self-definition¹⁹. They do this by *self-symbolizing* or searching for and attaining various symbols associated with this self (Schiffman & Nelkenbrecher, 1994)²⁰. For example, an individual who strives for a self-concept as a "competent, professional dancer," yet feels incomplete with respect to this self, would *self-symbolize* (i.e., given a state of incompleteness, would search for and implement various symbols) by "taking dance courses," "belonging to a dance troupe," "rehearsing on a daily basis," and "performing in a major role in *Giselle* from January to March 1999." Wicklund and Gollwitzer (1982)

distinguish this goal oriented behaviour which is self-defining (e.g., "self as a competent landscape architect") and often has multiple indicators of its attainment from that which is not self-defining and usually has a single indicator of its attainment (e.g., "cut down the tree")^{21,22}.

In striving to define the self in a specific manner, individuals are described as rather impatient due to their strong commitment to that particular self definition. "It is as though the person wants to *be* that self-definition at the very moment that there is a commitment to that self-defining condition." (Wicklund & Gollwitzer, p. 7). A significant trade-off or "destructive side" (p. 10) to the self-symbolizer's behaviour is that the impatience to arrive at a particular self-definition may interfere with the development of behavioural competencies; in addition, "the course of self-symbolizing is damaging to communication and interpersonal relations." (Wicklund & Gollwitzer, 1982, p. 10; Gollwitzer & Wicklund, 1985).

There are several conditions which bring self-symbolizing into play: an individual is committed to a self-defining goal (e.g., "a competent student"); an individual has at his or her disposal a set of socially acknowledged symbols related to the available self-definitions (e.g., "obtaining an Honour's B.A."); the individual experiences incompleteness, a state which is activated by self-evaluation resulting from an interruption toward the self-defining goal (e.g., "an F on the Psychology test") and, an individual has available at least one route of self-symbolizing (e.g., "complete my collection of the works of Heidegger") (Wicklund & Gollwitzer, 1982; Schiffman & Nelkenbrecher, 1994).

Of interest to this dissertation is the *process* of maintaining commitment through self-reflection. The theory is rooted in Lewin's notion of a tension state whereby a disruption in a line of self-defining activity creates a tension state and directs one toward an inner sensing via self-examination and evaluation or what Lewin refers to as "leaving the field."

To be forced to look inward at the tension or motivation that has been brought to the situation, is to realize a quality of the self that stands for certain realms of activity. (Lewin, cited in Wicklund & Gollwitzer, 1982, p. 192).

Several authors provide experimental evidence for disruption to be the basis for self-reflection (Shibutani, 1961; Gibbons, Carver, Scheier & Hormuth, 1979). This self-evaluative state may be experimentally manipulated, for example, by providing self-discrepant feedback (e.g., Schiffman, Nelkenbrecher, 1994) ensuring that the individual's attention is focussed on a particular self-definition (e.g., feminist, not feminist; successful manager, not successful manager (Wicklund & Gollwitzer, 1982)); by comparing individuals who have accomplished more (or less) with regard to the particular symbol of concern (e.g., education), the assumption being that the person's attention is occasionally directed toward that lack; and by simply asking the individual about their level of competence (or lack thereof). In short, the inducement of a self-reflective or self-evaluative state is achieved through different routes.

Wicklund and Gollwitzer's (1982) work on symbolic self-completion theory has reported an interesting phenomenon. In their investigation of the self-report validity of self-completion concepts, they have reported a qualitatively different shift at higher levels of commitment. One study used to illustrate this phenomenon involved a measure of

degree of commitment to the self-definition of "being physically fit," a standard self-report measure of the level of physical development and an objective assessment of physical development. Although there was a positive correlation between the self-report of physical fitness and the independent criterion of physical fitness (demonstrating a valid scale), when the groups were broken down into different levels of commitment, and mean discrepancy scores between self-report and fitness criterion were examined, an interesting pattern emerged. The low commitment group exhibited a negative mean discrepancy score, (indicating these subjects rated themselves lower than the criterion), the low-moderate and high-moderate groups had increasing mean discrepancy scores, with the high commitment group having the highest mean discrepancy score (indicating that these subjects rated themselves much higher than the criterion fitness measure). Thus, subjects who were highly committed to "being physically fit" self-symbolized by reporting themselves to be at a higher degree of physical fitness than they actually were.

Several studies provide further support for this self-aggrandizing phenomenon (Gollwitzer, 1983; Schiffmann & Nelkenbrecher, 1994). Gollwitzer (1983) investigated students who had an occupational goal of "becoming a successful manager." When these students were provided with 'objective' personality feedback that suggested they had personality traits unlike those of an ideal manager (incompleteness group) or very like those of an ideal manager (control group), the former group self-symbolized by aspiring to higher occupational positions (e.g., director) than those in the control group. Similarly, Schiffman and Nelkenbrecher (1994) report that female subjects who were provided with self-discrepant feedback regarding their feminist attitudes self-symbolized

by having a higher subscription rate to a feminist journal as compared to the control group. In essence, the symbolic incompleteness of the experimental groups resulted in self-symbolizing behaviour among those who were highly committed to the self-definition of "being a successful manager" or "being a feminist."

These findings suggest that high levels of commitment result in a strong self-aggrandizing tendency, a tendency which works in the service of commitment to the self-definition in symbolic self-symbolizing terms. The trade-off for self-aggrandizing, likely related to the impatience of the individual to achieve a particular self-definition, however, is seen in a lack of competence in the particular domain and in the potentially damaging interpersonal relationships (e.g., Gollwitzer & Wicklund, 1985). In sum, self-aggrandizing may be apparent when the meaning/commitment cycle of action is dominant and the control/reinforcement cycle becomes blocked.

More recently, Taylor & Brown (1988) have developed the notion of 'positive illusions', a notion that shares some similarities with self aggrandizement. Their extensive review of the social, personality, clinical and developmental literature suggested normal individuals to have "...*unrealistically* positive views of themselves (e.g., Greenwald, 1980), an exaggerated belief in their ability to control their environment (e.g., Langer, 1975) and a view of the future that maintains that their future will be far better than the average person's." (p. 197) (e.g., Lund, 1975). Clearly, the aspect of "*unrealistically* positive view of themselves" relates to self-aggrandizement. Their substantiation for this distorted view of self ranges from the literature on aspirations to positive rather than negative personality adjectives to describe self (e.g., Brown, 1986), poor information

recall for failure related tasks as compared to success related ones (e.g., Silverman, 1964), a tendency to see the self as better than others in terms of traits and abilities (e.g., Brown, 1986) to higher self-ratings on personality dimensions higher than others' ratings (e.g., Lewinsohn, Mischel, Chaplin & Barton, 1980).

Taylor and Brown (1988) further intimate that 'positive illusions' may have adaptational value in that they enhance mental health by increasing self-worth, encouraging care of others, reducing stress and enhancing creative work (Taylor & Brown, 1988). This link between positive illusions and mental health is *contradictory* to traditional views of mental health that suggest it must be grounded in reality, that "well-adjusted individuals possess relatively accurate perceptions of themselves, their capacity to control important events in their lives, and their future," (p. 197). Taylor and Brown (1988) juxtapose the well-adapted if somewhat illusory-oriented individuals with those who are low in self-esteem or moderately depressed. Indeed, the latter appear to be more accurate in self-perception (e.g., Coyne & Gotlieb, 1983; Watson & Clark, 1984), more realistic in their view of personal control (e.g., Abramson & Alloy, 1981) and more balanced in their view of the future i.e., they do not demonstrate the self-aggrandizement tendency to see positive events as more likely for self and negative events as less likely for self (e.g., Alloy & Ahrens, 1987). In sum, Taylor & Brown (1988) suggest their findings to "appear *inconsistent* with the notion that accurate self-knowledge is the hallmark of mental health." (p. 197).

One study in this dissertation is on assessing the notion of self-aggrandizement in the domain of academics, a domain that is likely a personally salient one yet one where

the degree of commitment is variable. The advantage of using the personal project as a unit of analysis is that it is a naturally occurring segment of behaviour thus somewhat offsetting the concern of generalizability in experimental environments. We are able to assess the degree of self aggrandizing by using an objective measure, Grade Point Average, as a basis for comparison with self reported competency. Further, the methodology demands a degree of self-reflection ("To what extent are you committed to the project of e.g., "studying for my Chemistry exam"?) thereby inducing the tension state necessary to self-symbolize. Specifically, we are interested in replicating a high commitment pattern evidenced in experimental social psychology by using a contextualized unit of analysis to illustrate over reliance on the meaning-driven cycle of commitment. This pattern will be further related to measures of SWB.

The control cycle gone awry.

Commitment and the acceptance of some lack of control is the only way out of an endless control cycle, the only escape from the consuming imperative of Nietzsche's (1973) will to power." (Brickman & Karuza, Jr., 1987, p. 132).

As discussed, individuals need to feel both committed and effective in their action. However, it is possible for this balance to go awry -- an individual may have external control over actions without these actions generating a sense of meaning to, in turn, stimulate the cycle of commitment (Brickman & Karuza, Jr., 1987). This imbalance is evident in the somewhat popularized notion of Workaholism (Spence & Robbins, 1992; Lowman, 1993) or the associated action-emotion complex of Type-A behaviour (Friedman & Rosenman, 1974; Jamal, 1990) or work *overcommitment* (Jodoin & Dubé,

1996). Kofodimos (1993) describes the mastery/intimacy imbalance as "a way of being in the world that both emphasizes mastery and shuts out intimacy." (p. 39). Lowman (1993) has commented on the sometimes fine distinction between the work behaviour of individuals who are achievement and success oriented and those who are driven in an overly compulsive and neurotic fashion. Change does not come easily for "workaholics," as society sanctions and rewards work which is associated with compulsive behaviour and overachievement syndromes (Lowman, 1993).

Recently, Jodoin & Dubé (1996) have compared the correlates of work overcommitment, i.e., "excessive and detrimental work involvement" (p. 2) and high work commitment, i.e., "intense but beneficial work involvement." (p. 2) in terms of subjective well-being. After controlling for demographic variables, job characteristics and social desirability, work commitment was found to be positively related to psychological well-being. In contrast, work overcommitment was found to be negatively related to both psychological well-being and physical well-being. Structure equation modelling suggests further that work overcommitment exerts its effects on psychological well-being through its impact on exhaustion, job stress, work-family conflict and alienation. The negative effects of work overcommitment on physical well-being appear to operate through exhaustion and job stress.

An examination of items on Jodoin and Dubé's (1996) work commitment scale (adapted from Dubé & Kairouz's (1994) disposition for commitment scale), e.g., "I am enthusiastic towards my work," (the Enthusiasm-towards-one's-work factor) and "Even if my work requires a lot of effort, I do not give up until I have done what is required," (the

Perseverance-in-one's-work factor), suggest a strong resemblance to traditional trait-like measures albeit exclusively in the work domain. Although their research agenda includes an examination of personality traits as they relate to work commitment patterns (Jodoin & Dubé, 1996), it appears that their measure of work commitment is already assessing individual trait-like measures. Thus, for example, as Extraversion is posited to be rooted in positive affectivity (Watson & Clark, 1992), it is possible that their measure of "enthusiasm" is simply measuring Extraversion as it relates to SWB rather than assessing the relation between the more neutrally valenced commitment and SWB. To examine trait-like aspects of commitment, this study incorporates their general disposition to commitment scale. A comparison of the contribution of this scale to that of the NEO-PI-R's (Costa & McCrae, 1992) to the prediction and understanding of PPA commitment, will serve to assess the nature and utility of the work commitment scale.

Spence and Robbins (1992) provide a broader framework for understanding various patterns of work, among which Workaholism is perhaps most akin to the work overcommitment pattern. These authors contrast the Workaholism pattern, defined in terms of high scores on measures of work involvement and a driven-like quality and low scores on a measure of enjoyment of work with that of Work Enthusiasts, defined in terms of high work involvement and enjoyment and a low driven-like quality. Using a group of male and female social workers, Spence & Robbins (1992) were able to retrieve these and four other profiles through cluster analysis. Further, they report workaholics to be higher on outcome measures of perfectionism, nondelegation of responsibility, job stress and health complaints.

To assess patterns of overcommitment (or reliance primarily on the control cycle of action), one study in this dissertation seeks to replicate Spence and Robbins' (1992) patterns of work in an undergraduate sample and to relate them to personal project commitment, PPA factors, trait domains and SWB.

In line with Brickman's opening quote, we have chosen to illustrate excessive reliance on the meaning/commitment cycle by the phenomenon of self-aggrandizement and extreme focus on the control cycle by the workaholism pattern. The flexibility of the PPA methodology is evident in these analyses as it permits us to focus on a specific domain (academics/work) and, to use PPA dimensions as both classification and criterion measures to better understand patterns of commitment. Finally, the personal project has been depicted as having both instrumental and symbolic functions (McGregor & Little, 1998) and as such is ideal to analyze the control and commitment model of action.

Research Questions-Meaning, Commitment and the Relational Self

1. a. Does the proposed five factor PPA model demonstrate sensitivity to gender and culture? As these factors are derived from units of analysis which tap into people's daily lives, it is anticipated that the personal project will be sensitive to these social contextual features.
- b. What role does gender play in clarifying the nature of commitment? If commitment is tightly connected to the self, we anticipate that gender differences will be evident in the PPA factor of Meaning.
- c. How does the undergraduate sample compare to the executive sample with respect to these gender differences?

- d. Are there any gender differences in the type of personal projects to which males and female commit? For example, are women more committed to projects of an interpersonal nature?
 - e. Are there any cultural differences apparent in the PPA factors which predict commitment? The literature suggests differences may be apparent in the personal project factor of Community.
2. When we analyze life domains at a more proximal level of analysis, what are the primary domains to which individuals commit? Although we have been given a distal thematic picture of what individuals find meaningful in life, it has not been considered at a more proximal or everyday level.
 3. Are personal projects to which we are highly committed strongly related to "roles"? Although the construct of "roles" is highly associated with identity and sometimes used interchangeably, we anticipate that "roles" is a more accessible notion for individuals. By querying "why" individuals are committed to individual personal projects, we hope to tap into the higher order levels of meaning. Does gender come into play with respect to "roles"?
 4. In Chapter I, we queried whether commitment has a role in mediating the relation between efficacy and SWB. How does this relation differ between the two samples, i.e., is commitment more integral to work satisfaction in a more mature, highly functioning group of executives?

5. a. What is the relative importance of commitment to work satisfaction, i.e., in relation to demographics, organizational culture, and job needs and aspirations?
- b. What specific job needs and values are linked to personal project commitment? We anticipate that those related to values will be associated with commitment.
6. a. Does an examination of the work and non-work lives of individuals (executive sample) using the same unit of analysis contribute to our understanding of the relation between gender and commitment?
- b. Are there any differences in the types of work or non-work projects to which men and women commit?

Research Questions—Dispositional and Motivational Aspects of Commitment

The following lines of enquiry emerge from the literature review on the dispositional and motivational features of commitment:

1. a. How do the NEO-PI-R domains of Neuroticism, Extraversion, Openness, Agreeableness and Conscientiousness relate to commitment as it is determined in individual purposive undertakings?
- b. Is there evidence that N is negatively associated with PPA commitment? It is anticipated that the emotional instability of the high N individuals is incompatible with commitment.
- c. No links are anticipated with the E domain and PPA commitment primarily due to the former's relation with positive affect.
- d. Does PPA commitment correlate positively with the domain of O? We anticipate links with the facets of values, feelings and ideas.

- e. Is A positively associated with PPA commitment, particularly through the facets of trust, altruism and tender-mindedness?
 - f. Is PPA commitment positively associated with C, in particular through the dutifulness, self-discipline and deliberation facets?
2. Does Dubé and Kairouz' (1994) three-component commitment scale (which has recently been introduced into the commitment literature), composed of attraction and attachment, perseverance and, acceptance and assimilation contribute to additional variance to the prediction of PPA commitment beyond that of the NEO-PI-R (Costa & McCrae, 1992)? Perusal of the items, for example, "I am an enthusiastic person", "Even if an activity requires a lot of effort, I do not give up before having reached the target objective" and "I am able to see the positive aspects of things which seem very negative at first" indicates this measure to be more of a global trait-like measure than one specifically concerned with commitment.
 3. Are personal projects to which individuals are highly committed foremost in individuals' thoughts? Following from Klinger's work on thought frequency, we anticipate that this measure will serve to provide an additional assessment of the motivational strength of commitment, i.e., when we expose subjects to an open-ended project elicitation module, will their attention and focus be on the personal projects to which they are highly committed?
 4. How does the adoption of a more proximal measure of affect (PPAS) aid in understanding the role of commitment in emotional attunement? More specifically, we assess a role for commitment in mediating the relation between project meaning and affect.

Research Questions--Patterns of Commitment

1. a. Are we able to replicate the phenomenon of self-aggrandizement by assessing self-ratings on commitment and competence in academic personal projects?
- b. Is there any evidence for the more experiential process aspect of commitment as assessed by a self-reflective state seen in the evaluation of self-defining activity?
- c. Are there any implications for self-aggrandizement in terms of SWB?

When queried, subjects are expected to be directed to self-reflect on the degree of commitment they have to their academic projects. We anticipate that those who are highly committed to their academic projects will generally direct their responses towards the pursued self-definition, i.e., "being a competent student."

For the group that is highly committed to their academic projects, the interference in accuracy between self-determined competency and an objective criterion (grade point average) will be due to the self-aggrandizement effect. Those who have a moderate amount of commitment will be more accurate in the assessment of their competency in academic projects. In the low commitment, group, an interference in accuracy in the opposite direction, i.e., actually having a higher objective criterion of competency than a self-determined one will be due to a lack of self-affirming tendencies in this area. In short, it will result in "sloppy answering" (Wicklund & Gollwitzer, 1982, p. 188).

2. a. Are Spence and Robbins' (1992) patterns of work replicable in an undergraduate sample?

- b. What is the relation of these work patterns to personal project commitment, PPA factors and trait domains? Do they differ in terms of SWB?

We anticipate that individuals who are "driven" although highly committed, will have less meaningful academic projects, exhibit more stress in these projects and score lower on SWB. We anticipate that the trait measures of Conscientiousness and Agreeableness will separate the more "driven" groups from the others. The "driven" groups are hypothesized to be low in Agreeableness and high in Conscientiousness. The trait measure of Openness is hypothesized to be related to patterns associated with a high degree of Work Involvement.

Endnotes

1. In fact there was a three fold difference (greater for women) between the total number of personal project to organizational climate linkages for women compared to men.
2. Although Gilligan's claims are still controversial, there is growing acceptance of the utility of using these distinctions in considering beliefs and moral values from a gender perspective (McAdams, 1996). For further discussion see Ford, M.R. & Lowery, C. (1986).
3. Some deconstructionists (e.g., Shweder & Sullivan, 1993) argue that cultures cannot be compared as there is no common frame of reference (Funder, 1997).
4. An idea or concept is said to have both universal and particular aspects to it. The universal or objective component is referred to as 'etic' and the subjective or particular aspect is referred to as 'emic' (see Triandis, 1997).
5. Three cultural dimensions which likely contribute to self-definition include complexity, tightness vs. looseness (the degree to which deviation from cultural norms is tolerated) and collectivism vs. individualism (see Triandis, 1997).
6. Clearly, this study does not rule out cohort differences in these two groups of individuals.
7. For example, work roles have been assessed using various job stress and strain scales and non-work roles have been assessed using daily hassles scales and life events measures.
8. As Dawis and Lofquist (1968) point out, two individuals may have the same level of work satisfaction for entirely different reasons thus necessitating the use of a more individualized measure of work needs.
9. In fact, Wiggin's two axes of the Interpersonal Circumplex are associated with A and E (Wiggins, Trapnell & Phillips, 1988).
10. Wisdom-related performance is a construct which was assessed by highly trained evaluators assessing two open-ended life planning tasks.

11. Our interest in this study is on commitment to the personal project rather than commitment to personal project *completion*. Although previous research in the Social Ecology Lab has examined "commitment to personal project *completion*," (e.g., Little, 1988) the theoretical emphasis was more closely connected to Bandura's (1977) notion of efficacy. This is in contrast to the broader perspective of commitment which we adopt here which not only includes efficacy but also personal meaning and obligation or constraint (Burke & Reitzes, 1991; Keisler, 1971, Lydon & Zanna, 1990). Recent research concerned with commitment that has used a PAC unit methodology (e.g., Brunstein, 1993; Lydon & Zanna, 1990; Emmons, 1986) emphasizes commitment to the personal project or striving.
12. Lewis (1992) has classified emotions in relation to the role of the self. In his system, the elicitation of primary emotions (e.g., fear, joy, disgust, interest, anger, and sadness) do not require introspection or self-reference. More complex emotions such as jealousy, envy, empathy, embarrassment, shame, pride and guilt do require introspection or self-reference.
13. This entwining of emotion and cognition is evidenced in, for example, a complex emotion such as envy which may have a basis in a primary emotion such as fear; further, cognitive input, input which is influenced by self in relation to culture (e.g., "Thou shalt not covet thy neighbour's house...") (Exodus 34:28) plays a hand in the evocation of the emotion (Greenberg, Rice & Elliot, 1993).
14. In Pychyl's (1995) investigation of the lives of doctoral students, using a grounded theory approach, commitment emerged as a theme in their lives.
15. It is important to note that mood may not have the same adaptational significance as emotion. Frijda (1986) maintains that unlike emotion which involves action readiness and may serve to change the flow of action, mood serves to maintain a state of action readiness despite what events are happening.
16. Although Omodei and Waring (1990) have used project-level discrete measures, they collapsed them into higher order positive and negative affect for analysis.
17. The elicitation of 'feelings' using an open-colum format has been done in previous research (Melia-Gordon, 1994). However, this dissertation expands upon this earlier work by introducing a rating scale for each discrete emotion (see Chapter 3, Measures Section, page 94).
18. This figure is adapted from Brickman and Karuza, Jr. (1987).
19. Clearly, these self-defining goals share a degree of similarity with the PAC unit of possible selves described in Chapter I.

20. These authors have used attitudes as a proxy for self-definition in their investigation of reactions to self-discrepant feedback on feminist attitudes.
21. The methodological advantage in linking units of analysis such as that described earlier where personal projects were linked to possible selves (Goodine et al., 1993) is apparent i.e., the personal project of "cut down the tree" may work in the service of attaining the possible self or self-concept of "a competent landscape architect."
22. It is certainly the case that "cut down the tree" may be a self-defining goal depending upon the individual's construal of this project.

CHAPTER 3

Empirical Explorations I: Tests of a Model of Personal Project Commitment

Overview

This study employs an undergraduate sample and is outlined as follows: First, the nature and strength of commitment is assessed by: a) exploring the life domain categories of personal projects to which individuals commit and their reasons for committing; b) introducing new personal project dimensions related to commitment; c) determining the relative strength of the factor model both in predicting commitment and ascertaining its breadth; d) examining the extent to which highly committed projects are readily available in thought; and, e) exploring the process aspect of commitment as it relates to the new dimensions of automaticity, flexibility and stage. Second, we examine the role of trait measures in contributing to the understanding of commitment. Third, we enquire into gender by examining its relation between PPA commitment and both the PPA factors and the NEO-PI-R domains.

Method

Sample

One hundred and eighty-three students ($n=183$) were recruited from the undergraduate psychology pool at Carleton University over two academic semesters, a total time period of five months. Subjects were given experimental credits in exchange for their participation in the study, partially fulfilling the requirements for the introductory course. The first group of students ($n=63$) was recruited from the Fall/Winter session

(March to April 1995) of Introductory Psychology; they were from on-campus classes as well as a televised section. The second group of students ($n=113$) was recruited from the summer session (May to August 1995) of an Introductory Psychology course which constituted one on-campus section and a televised section^{1,2}.

Comparison of fall/winter and summer groups. Table 2 presents a breakdown of the Fall/Winter and Summer sub-samples by demographic feature. Our analysis reveals that these two groups of subjects (Fall/Winter and Summer) differ in several ways. Subjects in the Summer group are, on average, significantly older than those in the Fall/Winter group ($M=24.8$, $SD=6.5$ compared to $M=20.8$, $SD=2.1$, respectively), ($t(147) = -5.97$, $p<.001$). There is also a significant difference in the percentage of subjects who are Canadian-born, 52.7% compared to 87.1% for the Summer and Fall/Winter groups, respectively [$\chi^2(1, N=172) = 20.62$, $p<.001$]. Table 3 reveals that

Table 2.

Comparison of the Demographic Features of the Sub-samples from the Undergraduate Psychology Pool³

<u>Demographic Feature</u>	<u>Fall/Winter subjects^a</u>	<u>Summer subjects^b</u>
Age	20.8 (SD 2.1)	24.8 (SD 6.5)***
% male	51	61
% female	49	39
% married/common-law	8	13
% with children	3	6
% Canadian-born	85.7	51.3 ^{c,d}
% non-Canadian born	12.8	46***
% full-time status	79.4	59.3
% part-time status	15.9	16.8
% special status	4.8	23.0**

Note. ^a $n=63$; ^b $n=113$

^cFour participants ($n=4$) failed to indicate their place of birth.

^dA further breakdown of birthplace is given in Table 3.

this difference is reflected primarily in the increased proportion of Asian-born students in the Summer group[†]. Finally, an examination of the academic status of the Fall/Winter and Summer groups reveals a difference in academic status. Although both groups have an equivalent percentage of part-time students, 15.9% and 16.8% for the Fall/Winter and Summer groups, respectively, the Summer group has a much higher percentage of special status students (23%) than the Fall/Winter group (4.8%) [$\chi^2(2, N = 175) = 10.61, p < .01$].

Table 3.

Birthplace Comparison of the Fall/Winter Respondents and the Summer Respondents

<u>Birthplace</u>	<u>Fall/Winter subjects^a</u> <u>(%)</u>	<u>Summer subjects^b</u> <u>(%)</u>
Canada	85.7	51.3
Asia	4.8	35.4
Europe	3.2	6.2
USA	1.6	0
South America	1.6	0
Africa	1.6	4.4

Note. ^a $n=63$; ^b $n=113$

In sum, a number of significant demographic differences are evident between the Fall/Winter and the Summer groups. Subjects in the summer group, on average, are older than the Fall/Winter group; a higher percentage of Asian-born subjects are present in the Summer group and finally, a greater percentage of subjects classified as special status students are found in the summer group. In further analyses, both age and birthplace are considered as covariates in the total sample.

In the overall sample of 176 subjects, 57.4 % are male and 42.6 % are female (Table 4). They range in age from 18 to 56 years ($M=23.4, SD=5.9$). The majority of the

sample participants are single, (85.8%), live with other people (85.8%) and are full-time students (66%). The demographic features of this sample are similar to other groups assessed in the Social Ecology Laboratory (Goodine, Little, Sourani & Melia-Gordon, 1992; McGregor, 1994; Blake, 1994)⁵. An assessment of this sample with statistics from the Office of Planning and Statistics conducted by Makinen (1996) reveals it to be reflective of the undergraduate population at Carleton University.

Table 4.

Comparison of the Demographic Features of the Sample and the Undergraduate Population at Carleton University³

	<u>Sample^a</u>	<u>Population^b</u>
<u>Age</u>		
All subjects	23.26 (SD=5.90)	23.90(SD=7.03)
Male	23.89 (SD=6.20)	23.39 (SD=5.91)
Female	22.68 (SD=4.76)	24.46 (SD=8.06)*
<u>Gender</u>		
Male	57.4%	52.6%
Female	42.6%	47.0%
<u>Academic Status</u>		
Full-time	66.5%	75.3%
Part-time	16.5%	10.8%
Special	16.5%	13.9%
<u>Living Situation^c</u>		
Alone	13.6%	
With others	85.8%	

Note. ^an=176; ^bn=19,279

^cNo statistics are available for living situation for undergraduate students at Carleton University.

Measures

Each subject was asked to complete a questionnaire package (Appendix F) consisting of the following: (More detail on each of the measures is provided immediately following this overview.)

- Demographic Information
- Revised NEO-Personality Inventory (Costa & McCrae, 1992);
- General Disposition to Commitment Scale (Dubé & Kairouz, 1994);
- Workaholism Scale (Spence & Robbins, 1992)

Work Involvement, Work Enjoyment and Driveness subscales;

- Measures of Well-being: CES-D depression scale (Radloff, 1977, 1991);

Domain Specific Life Satisfaction Scales (Lecci, 1990; Wilmut, 1993); PPA Affect Scale;

- Social Desirability Scale (Crowne & Marlowe, 1960) and;
- A modified PPA package consisting of the standard PPA dimensions (Table 1) as well as the new dimensions added for this study (10 personal projects were rated on both the standard PPA dimensions in addition to the new dimensions). Two additional interpersonal projects were rated by those who met the criterion of current involvement in an intimate personal relationship.

Demographic information. This section of the questionnaire was designed to elicit basic demographic information such as age, gender, marital status, place of birth, number of children, job status (full or part-time), academic status, faculty, major and grade point average.

The revised NEO personality inventory (NEO-PI-R) (Costa & McCrae, 1992).

The NEO-P-I-R, Form S, a 240-item instrument designed to operationalize the five-factor model of personality is included in the questionnaire. These five factors or domains -- **Neuroticism (O), Extraversion (E), Openness (O), Agreeableness (A) and Conscientiousness (C)** -- have been identified as the "Big Five" in personality research (e.g., Costa & McCrae, 1988b, Digman, 1990; Goldberg, 1990, 1993). Each of these five domains of the NEO-PI-R is represented by six scales that measure facets of the domain. The facets of N include **anxiety, angry hostility, depression, self-consciousness, impulsiveness and vulnerability**; E facets are comprised of **warmth, gregariousness, assertiveness, activity, excitement-seeking, and positive emotions**; the domain of O contains **fantasy, aesthetics, feelings, actions, ideas and values** facets; the facets of A are **trust, straightforwardness, altruism, compliance, modesty and tender-mindedness** and facets of C include **competence, order, dutifulness, achievement striving, self-discipline and deliberation**. See Appendix C for a description of each of the facets. Extensive research has reported the NEO-PI-R to have acceptable reliability (internal consistency and test-retest reliability) and to be a valid measure (i.e., to have content, divergent and discriminant validity) of the five factor model (Costa & McCrae, 1992). Each item is measured on a five-point Likert scale, ranging from 0 (**strongly disagree**) through 2 (**neutral**) to 4 (**strongly agree**). Facet ratings may be totalled to give five domain scores. The inclusion of the NEO-PI-R (Costa & McCrae, 1992) in the questionnaire package permitted an analysis of the relation between stable trait measures assessed by a standardized inventory (NEO-PI, Costa & McCrae, 1985) and a trait-like

measure (Dubé & Kairouz, 1994) and commitment assessed by a personal action construct (PAC). Thus, both the structural and dynamic aspects of personality as they relate to commitment were investigated.

The general disposition to commitment scale. The General Disposition to Commitment Scale (GDC) (Dubé & Kairouz, 1994) has its roots in Brickman's General Commitment Scale (Brickman, 1987). Nine of Brickman's (1987) original 30 item scale were adapted in the development of the GDC. The scale consists of 12 items which represent three underlying factors -- **attraction and attachment** towards a certain object, **perseverance** in a certain line of action; and **acceptance and assimilation** of the positive and negative aspects of things in life. All items are rated on a 9-point Likert scale anchored by 0 (disagree completely) and 8 (agree completely). The scale has been found to demonstrate reasonable internal consistency -- .75, .72 and .62 -- for the subscales Attraction, Perseverance and Assimilation, respectively. Test-retest reliability suggests a high stability of the scale over a three week period ($r=.87$). The GDC has been used across a diversity of samples (cultural groups and different age ranges) demonstrating homogeneity across the samples in terms of stability of the means and variance accounting for individual differences. This study attempts to determine the relation between this general measure of commitment, traits as assessed by the NEO-PI-R and personal project commitment as determined by PPA.

The workaholism battery (Spence & Robbins, 1992). Spence and Robbins' (1992) research has demonstrated various work profiles, two of which are of interest in this study, that of **Workaholism**, defined in terms of high scores on measures of work

involvement and driveness and low scores on a measure of **enjoyment** of work and that of **Work Enthusiasm**, defined as high **work involvement** and **enjoyment** and low **driveness**. Three self-report scales -- **Work Involvement**, **Driveness**, and **Work Enjoyment** -- are used to identify the Workaholic and the Work Enthusiast as well as any other patterns of work which emerge in this undergraduate sample.

Examples of items from the Work Involvement Scale include "Wasting time is as bad as wasting money" and "I like to relax and enjoy myself as often as possible." Two items on the Driveness Scale include: "I seem to have an inner compulsion to work hard, a feeling that it's something I have to do whether I want to or not" and "I feel guilty when I take time off work." Finally, the Work Enjoyment Scale includes items such as "My job is so interesting that it often doesn't seem like work" and "I lose track of time when I'm engaged in a project."

In the development of these three scales, Spence and Robbins (1992) considered these properties to be relatively independent of each other, i.e., the individual who is work involved is not necessarily driven nor does s/he necessarily lack enjoyment in work. Spence and Robbins (1992) have reported on the psychometric properties of the scales. Cronbach alphas, inter-item correlations and item-total correlations have been found to be acceptable. The scales were originally developed and given to college students where reference was made to school and school work rather than jobs and the work place. As the sample in this study was primarily undergraduate students, the references to school and school work were used. However, mature students who were employed were given the option of assessing either school related or job and work related

referents.

In sum, three scales from the Workaholism Battery were used to identify patterns of commitment in academics/work. In particular, we were interested in the profiles of Workaholism and Work Enthusiasm in this sample of undergraduate psychology students. Item responses, scored on a five point Likert scale ranging from 1, (strongly agree) to 5, (strongly disagree) are summed to yield a total score for each scale.

Measures of subjective well-being. The Centre for Epidemiologic Studies Depression Scale (CES-D) (Radloff, 1977, 1991) is also included as a measure of SWB. The CES-D is a 20-item self-report depression scale designed to measure depressive symptomatology in the general population. Psychometric aspects (i.e., validity, reliability and factor structure) of the CES-D have been established across a wide range of demographic features in samples of the general population (Radloff, 1977, 1991)⁶. The CES-D has been used extensively in research involving PPA (Gee, 1993). A total score is obtained by summing the ratings across the 20 items (4 items are reversed).

The Global Satisfaction Scale includes five separate items which assess satisfaction across a variety of domains (Palys & Little, 1983). A ten-point Likert-type scale which ranges from 0 (completely dissatisfied), through 5 (neutral) to 10 (completely satisfied) globally assesses satisfaction with life as a whole, physical health, social life, emotional state and academic life. Subjects were asked to respond to these items in the following fashion: "In general, how satisfied or dissatisfied are you with your life as a whole", etc. These global measures of well-being are standard ones used in the Social Ecology Laboratory. Each global measure provides a single score.

The PPA Affect Scale was introduced as a means of providing a more social ecologically sensitive measure of affect. Respondents were instructed to think about each project and to "see if there is a particular emotion you feel when you are engaged in it." If this was the case, the respondent was to write down the actual emotion experienced, e.g., "happiness, joy, hope, confusion, cynicism." Subsequently, they were asked to give this emotion a rating on a scale anchored by 0 (no feeling) through 5 (a moderate amount of the feeling) and 10 (an extreme amount of the feeling). Total scores for feelings are obtained for each individual by summing the scores associated with each of the rated feelings. Total feeling scores for each subject are also obtained for each project type (e.g., interpersonal, academic) by collapsing across specific project types in each individual's matrix and taking the mean scores for each category.

Social desirability scale. Crowne and Marlowe's (1960) scale of social desirability was employed to examine the potential influence of response style or of the social desirability properties of the dimensions of PPA as well as the items of the GDC.

Personal projects analysis. Personal Projects Analysis (PPA) is composed of interrelated modules, several of which are relevant to this study. The PPA package is typically presented as a paper-and-pencil task although more recently individual interviews have formed the basis for data collection (Phillips, Little & Goodine, 1993, 1997; Blake, 1994). The Project Elicitation List, the initial module, takes a Kellian credulous approach (Kelly, 1955) by asking subjects 'what they are up to?' (Appendix D details the instructions for this). Subjects typically list approximately fifteen personal projects which range in level from the mundane (e.g., "floss my teeth") to the more abstract or philosophical (e.g.,

"discover what life is all about"). From the Project Elicitation List, subjects select 10 personal projects based on the criteria provided by the investigator (Appendix D) and transfer these to the PPA rating matrix. In this study, two additional projects (closely related to the nature of an interpersonal relationship) were solicited for those who met the criterion of current involvement in an intimate personal relationship. These were added in order to provide a conative perspective on interpersonal relationships⁷. The PPA rating matrix is typically a 10 x 17 matrix with the 10 personal projects serving as the rows and the 17 dimensions as the columns. Two additional rows were added to accommodate projects 11 and 12. Dimensions are rated on an 11 point scale (i.e., 0 to 10). Table 1 lists the standard dimensions in PPA. Several different levels of analysis were used in this study -- nomothetic, project level and idiographic. A nomothetic analysis, where respondents' dimension ratings are scored normatively by calculating the mean score across the ten projects for each dimension, was used when examining project systems as a group. Analyses related to specific project types were conducted at the level of the individual project, i.e., the individual project is considered as a case. Finally, the idiographic level of analysis was used to examine individual cases.

The standard personal project dimensions were chosen on both theoretical and/or pragmatic grounds to reflect aspects of psychological concern (Little, 1983). For example, dimensions such as stress, control and time adequacy have been included as they are hypothesized to link with various well being measures such as life satisfaction, stress and depression. Other measures have been postulated to link closely with Little's (1983) description of project stages -- inception (e.g., initiation), planning (e.g., time adequacy),

action (e.g., control) and termination (e.g., outcome)⁸.

As discussed in Chapter 1, theory development in PPA as well as exploratory factor analysis has suggested five factors to underlie the covariation between the standard 17 project-rating dimensions⁹. These factors include project **meaning, structure, community, efficacy** and **stress** (Table 1 provides the standard dimensions which comprise each factor).

In this study, three of the standard personal project dimensions were deleted (progress, negative impact, positive impact) due to space limitations or new dimensions of a similar nature. 'Stage' replaces 'progress' of project (although it is understood that the connotation is not identical); negative and positive impact have been eliminated due to space limitations. Several new dimensions identified in the literature review as being relevant to an understanding of commitment have been added to the PPA package.

The new dimensions which are included in this study, subsumed under the PPA factors, are: **meaning** (self-worth, fun, fulfillment, rewards, passion), **community** (role, support), **stress** (costs and ambivalence), **efficacy/structure** (competence), **constraint** elements related to commitment (guilt, obligation, investment, alternatives) and **process** features of commitment (automaticity, flexibility and stage). An open ended column of **feelings** experienced when being engaged in each project was added. See Appendix F, (pages 6-11) for a description of the dimensions.

The dimension **commitment** acts as a criterion measure in Studies 1 and 2. In Study 2 (see Figure 1, Box 4) an examination of the patterns of commitment uses commitment as a classification measure (low, medium and high commitment groups) and

as a descriptor of the patterns (work profiles). Directly asking subjects "to what extent are you **committed** to this project?" is in line with the PPA philosophy of taking a Kellian credulous approach (Little, 1989). Five of the dimensions (fun, fulfillment, flexibility, passion and ambivalence) were introduced as they were expected to correlate with commitment at different project stages (Brickman, Dunkel-Schetter & Abbey, 1987) although the temporal nature of commitment is not discussed in this dissertation (Goodine, 1998). Two of the latter, fulfillment and passion, as well as absorption were added as measures of the **enthusiastic, bonding** component of commitment (Brickman, 1987) in contrast to the **obligation and guilt** (Lydon & Zanna, 1990) component subsumed under the constraint factor. **Self-worth** was included as it is connected to meaning (e.g., Baumeister, 1991). Finally, '**feelings**' was used in order to tap into the relation of emotion to commitment (Lazarus, 1991; Klinger, 1977) at a more proximal level of analysis.

This dissertation assesses commitment in two ways "to what extent are you committed to the successful **completion** of this project" and "to what extent are you **committed** to this project?" It is the latter commitment which is of primary interest. The former is included for comparison purposes as a number of earlier studies in the Social Ecology Lab focussing on efficacy have used it (see Little, 1988).

Procedure

Several means of advertising for the study were used. In both the Fall/Winter and Summer sessions, announcements regarding the study were placed on the Psychology 100 undergraduate bulletin board (Appendix E). Students were asked to leave their initials and telephone number; the investigators then contacted them to arrange a time and

location to complete the questionnaires. Second, professors made announcements in class regarding the study. Subsequently, subjects contacted the investigators in the Social Ecology Laboratory by telephone. Again, the investigators arranged for subjects to come to the Social Ecology Lab to complete the questionnaires. In the Summer session, a large percentage of the students had summer jobs which limited their ability to come into the lab. Therefore, announcements regarding the study were made in class by the primary investigator and subjects were permitted to take questionnaires home.

All of the Fall/Winter group subjects ($n=63$) with the exception of four were assessed in groups of 10 to 15 per session¹⁰. In the summer session, 31 subjects ($n=31$) completed the questionnaires in small groups; 113 individuals ($n=113$) were given questionnaires in class and asked to return them to the Social Ecology Lab. These individuals completed consent forms indicating they would not consult with anyone while completing the questionnaire (Appendix G). Eighty-two individuals ($n=182$) completed and returned the questionnaires for a return rate of 72.6%. A MANOVA reveals no differences on criterion measures between Summer subjects who took the questionnaire home and those who completed the questionnaire in the Social Ecology Lab [$F(9,89)=1.19, p=.31$]. Similarly, no differences emerge between these two groups on the personal project mean scores [$F(33,76) = .90, p=.62$].

Subjects were informed of the nature of the study in the introductory letter (Appendix F, page 1). All subjects completed consent forms which ensured confidentiality of their individual data (Appendix F, page 2). In the group setting, investigators were present to answer any questions that arose from participation. For those completing the

questionnaires at home, investigators were available by telephone for any queries that arose. Upon completion of the package, subjects were thanked for their participation and given experimental credits. If a subject wished to discuss any personal issues which arose during the completion of the questionnaire, written debriefing included phone numbers for counselling services on campus. Individuals requesting information on the results of the study will receive a post-study letter (Appendix H).

Results

The results are presented in three main sections. The first section describes and probes the nature of the project systems of this undergraduate sample in relation to commitment. Initially, the frequency of projects reported by project category are reported. The project categories are differentiated by level of commitment. Next, the means, standard deviations and intercorrelations of the standard and new project dimensions are described at the group level. The intercorrelations are also shown at the intraindividual project level to provide a picture of the relations among variables within individuals. The reasons given for why subjects are committed to their personal projects and the extent to which they are readily available in thought are analyzed next. Section 1 concludes with a factor analysis (principal axis factoring) of the project dimensions at both the aggregate and project level.

The second section reports on the relation between commitment and the Personal Project factors. A series of multiple regression analyses using the obtained factors to predict personal project commitment are reported first. A process aspect of commitment is examined by determining if the dimensions of automaticity, flexibility and

stage, contribute incremental variance over and above our generic model. The dimension 'stage' describes project development (Little, 1983, see Appendix F, page 9) whereas the dimensions of 'flexibility' and 'automaticity' are related to Brickman's (1987) model of commitment development. Specific domains are examined to determine if this results in any differential reflection of PPA factors in the prediction of commitment. An enquiry into gender differences in personal project commitment and the Personal Project factors of Personal Meaning/Competency and Constraint is reported. Finally, an examination of the commitment threads of actual personal projects is conducted to determine if projects are typically driven by singular or multiple threads.

The third section reports the results of the analyses of the relation between NEO-PI-R, the General Commitment Scale and the PPA dimension of commitment. Gender differences are examined in relation to two of the NEO-PI domains which are associated with personal project commitment -- Openness and Conscientiousness.

Throughout the analyses all variables were assessed for outliers (univariate and multivariate), normality and homogeneity of variance. Identification of univariate outliers was obtained by using a standard score of ± 3.00 for each variable¹¹. Multivariate outliers were determined using Mahalanobis' distance. Normality was assessed by examination of stem and leaf plots, normal probability and detrended probability plots, Lilliefors statistic, and kurtosis and skewness scores¹². Any changes to data are noted in Appendices; any caveats are noted in endnotes. Note that an alpha level of .05 was used for all statistical tests. Finally, we used examples of personal projects to illustrate the data throughout; all names of individuals have been changed to ensure anonymity.

The Personal Projects of an Undergraduate Student Sample

Categorization of projects. In order to probe into the nature of projects to which individuals commit, individual projects were categorized based on a format developed in the Social Ecology Laboratory (See Appendix A). This format has been modified over the years in order to describe appropriately the various population samples which have been investigated (Little, 1983; Lecci, 1991; Little, Goodine, Sourani & Melia-Gordon, 1992; Phillips, Little & Goodine, 1993, 1997; Wilmut, 1993; Melia-Gordon, 1994). Gender, age and birthplace were taken into consideration in considering the frequency and percentage of projects across these categories using Chi-square analyses. Previous studies have demonstrated good inter-rater reliability using this coding scheme. Average concordance rates of 88% and a Kappa statistic of .87 for categorization by major category have been reported (e.g., Little, 1988; Wilmut, 1993). In this study, the principal investigator and an independent judge categorized all of the projects; the concordance rate was 88 percent. In order to assess the inter-rater reliability of the categorization of projects, Cohen's Kappa (1960) was used. The value of the Kappa statistic was .90 when categorization by major category was assessed indicating excellent agreement (Fleiss, 1981).

As can be seen from Table 5, the most frequently endorsed project types were the academic (19.2%, $n=331$) and leisure (18.0%, $n=311$). Leisure projects are closely followed by interpersonal (17.1%, $n=294$) and intrapersonal (14.0%, $n=241$) projects. The least frequently reported projects are: health (12.4%, $n=213$), administrative (11.4%, $n=196$) and vocational (7.8%, $n=134$) projects. Examples of projects from the different project domains are presented in Table 6.

No gender differences or age differences¹³ emerged in the types of projects reported [$\chi^2(6, N=1925)=4.51, p=.61$] and [$\chi^2(5, N=1912)=1.85, p=.87$], respectively). When we compared Canadian-born subjects to those who were not born in Canada, the latter group (non-Canadian born) reported more intrapersonal projects and fewer administrative projects [$\chi^2(6), N=1880, p<.001$] than the former group (Canadian-born).

Table 5.

Frequency and Percentage of Personal Projects listed by Respondents by Major Project Categories

<u>Project Category</u>	<u>Number of projects*</u> (<u>n=1723</u>)	<u>Percentage of Total</u> <u>Number of Projects</u> (<u>n=1723</u>)
Academic	331	19.2
Leisure	311	18.0
Interpersonal*	294	17.1
Intrapersonal	241	14.0
Health	213	12.4
Administrative	196	11.4
Vocational	134	7.8
Other	3	.2

Note. *Note that this figure does not include projects which were not spontaneously generated, i.e., projects 11 and 12 (See Method section, page 91).

As several analyses involved project categories, we were interested in the extent to which they were reflected in each individual's project system. Not surprisingly, the academic projects are strongly reflected in the individual project systems -- 96% of the subjects have at least one academic project. Interpersonal projects have the second strongest representation with 81% of the subjects reporting at least one of these. The

other project categories follow in decreasing magnitude: 80% of the subjects have at least one leisure project; 73% of the subjects have at least one health project; 66% of the subjects have at least one administrative project; 60% of the subjects have at least one intrapersonal project; and 59% of the subjects have at least one vocational project.

Table 6.

Random Sample of Personal Projects by Category

<u>Academic Projects</u>	<u>Health Projects</u>
Get books for essays	Keep fit
Watch at least one ITV tape for each day of the week	Quit smoking
Study for exams	Lose 20 lbs
Get accepted for graduate work at U of T	Work out more often
<u>Interpersonal Projects*</u>	<u>Leisure Projects</u>
See brother and wife (Allen & Alexandra) before they move	Write poetry
Volunteering at CAS	Take tennis lessons
Visit grandmother	Party on the weekend
<u>Intrapersonal Projects</u>	<u>Administrative Projects</u>
Become more outgoing	Fix-up the car so I have freedom
Make life happier in general sense	Finding an apartment near Carleton
Dealing with missing my dog	Brush cats more often

Note. *These interpersonal projects include *spontaneously generated* interpersonal projects but not those interpersonal intimate projects which were solicited, i.e., projects 11 and 12 (See Method section). Those in Table 7 include interpersonal intimate projects listed by those involved in an intimate relationship.

In sum, the personal project categories are well represented in the individual project systems, ranging from 59% for vocational and 60% for intrapersonal projects to 81% for interpersonal projects and 96% for academic projects.

In order to probe further into the realm of commitment in relationships, subjects

who were currently involved in a close relationship (girlfriend, boyfriend, spouse, common-law relationship, etc.) were asked to include two projects (projects 11 and 12) which were related to the relationship (e.g., "Working on my relationship with Dave," "Deciding if I want to spend the rest of my life with Xavier"). Eighty-eight subjects reported two interpersonal projects and 25 subjects reported one interpersonal project. Thus, 113 subjects (64%) described themselves as being involved in a close interpersonal relationship. Table 7 provides a sampling of Projects 11 and 12 given by the respondents.

A one-way ANOVA was conducted to determine which project category types were the highest in commitment. For this analysis, the 10 spontaneously generated personal projects were used and the project types were aggregated for each individual. A significant difference in commitment between seven project categories – Academic, Vocational, Health, Interpersonal, Intrapersonal, Leisure and Administration [$F(6,722)=4.84, p<.001$] was found¹⁴. Using an alpha level of .05, Scheffé's test indicated the differences to be between Academic projects ($M=7.93, SD=2.02$) and both Leisure ($M=6.52, SD=2.61$) and Administrative ($M=6.71, SD=2.72$) projects.

As the solicited interpersonal intimate projects (i.e., projects 11 and 12) were also of interest with respect to commitment, a second one-way ANOVA was conducted including these projects as a separate project category. Results indicate a significant overall difference [$F(7,818)=6.38, p<.001$] between categories. Using Scheffé's test (alpha level of .05), Academic projects were found to differ significantly from both Leisure and Administrative projects (as reported above). In addition, Interpersonal intimate projects (projects 11 and 12) ($M=8.09, SD=1.78$) were found to be significantly different

from both Leisure ($M=6.52$, $SD=2.6$) and Administrative ($M=6.71$, $SD=2.72$) projects. In sum, both Academic and Interpersonal intimate projects (those solicited) received the highest scores on commitment across project types, ($M=7.93$, $SD=2.02$ and $M=8.09$, $SD=1.78$, respectively). Leisure and Administrative projects have the lowest scores on commitment ($M=6.52$, $SD=2.61$ and $M=6.71$, $SD=2.72$, respectively) and are significantly different from the former two project types. Intrapersonal, Health, Interpersonal (those spontaneously generated in projects 1 through 10) and Vocational projects have mean scores of: 6.90 ($SD=2.24$), 7.09 ($SD=2.44$), 7.46 ($SD=1.98$), and 7.60 ($SD=2.31$), respectively but are not statistically significant from the other project categories using an alpha level of .05 as assessed by Scheffé's test.

Table 7.

Sample of Projects 11 and 12 (Solicited Interpersonal Projects)

Tell John how I am uncomfortable with his feelings	Plan for a drink with Keith
Spending more time with Peter	Determine my relationship with my ex
Stop letting Ian manipulate me	Getting to know Bob better
Accept Deborah's mood swings	Deciding if Carmen is the one for me
Work on relationship	Be patient with Dave
Improve conversation with Adam	Spending time together
Accept jealous streaks	Don't mess up my present relationship
Understand Xavier's point of view	Become involved romantically
Start shaping my life with my love	Time with my husband
Keep distance with Robert	Deal with Susan's faults

Personal Project dimension means and intercorrelations. Subjects rated individual projects across 33 dimensions. Mean ratings for each of the dimensions were calculated across the ten projects for each individual. Table 8 illustrates the means and standard

deviations for the project dimensions across these ten projects. Previous research in the Social Ecology Lab has reported similar ratings on the standard dimensions (Melia-Gordon, 1994; Lecci, 1990; Little, 1988; Pychyl, 1995). The intercorrelations of all project dimensions are contained in Appendix I.

In considering the mean level of project ratings, it is interesting to note that the highest mean project ratings in decreasing magnitude are: Initiation, Competence, and Importance. On average, undergraduate students in this sample report their projects as important ones which they self-initiate and feel competent in carrying out. In contrast, the lowest mean project ratings in increasing magnitude are: Ambivalence, Alternatives, and Automaticity. On average, subjects in this undergraduate sample are engaged in projects which are low in ambivalence, to which they have few alternatives and which they do not engage in in an automatic fashion. Commitment to the successful completion of the project and commitment to the project have project system means which are in the fifth and eighth positions, respectively.

Table 8.

Means and Standard Deviations for the PPA Project-System Dimension Ratings

<u>PPA Dimension</u>	<u>Mean</u>	<u>Standard Deviation</u>
Initiation	7.68	1.55
Competence	7.59	1.72
Importance	7.57	1.24
Reward	7.55	1.61
Commitment to successful project completion	7.47	1.63
Self-worth	7.37	1.57
Value Congruency	7.33	1.58
Commitment to project	7.18	1.52
Outcome	7.16	1.27
Fulfillment	7.07	1.76
Control	7.03	1.35
Absorption	6.61	1.45
Self-identity	6.54	1.47
Challenge	6.45	1.65
Obligation	6.36	1.73
Passion	6.27	1.46
Role	6.21	2.05
Other's View	6.16	1.76
Investment	6.10	1.75
Support	6.01	2.26
Enjoyment	5.98	1.70
Guilt	5.91	2.21
Flexibility	5.89	1.90
Difficulty	5.80	1.61
Cost	5.71	1.86
Time Pressure	5.57	1.89
Fun	5.39	1.88
Visibility	5.23	1.88
Stage	5.21	1.23
Stress	5.09	1.70
Automaticity	5.05	1.91
Alternatives	3.94	2.13
Ambivalence	3.48	1.93

Note. n=175

The whys of commitment. To more fully understand the higher order linkages or the 'whys' of commitment, we asked subjects to select the two projects to which they were

most committed and simply tell us the reasons why they are committed to these projects¹⁵. Academic projects (32.9%) and interpersonal projects (24.5%) followed by leisure projects (11.0%) are the categories which are most highly represented in this group of projects. When querying the reasons subjects are committed to these projects, we provided them with some examples (e.g., "Finishing my B.A." may be a project undertaken "to find a job," "to impress John," or "to please my mom.") Table 9 presents a summary of these reasons. Ninety-nine percent of the subjects completed this section.

The majority of reasons for committing to a project are related to roles. For example, a subject who writes, "Deciding how far to go with Sean" as a personal project, states that she is committed to this project because it impacts on both her and her boyfriend's future roles as partners together. In her words "...is a major decision and the

Table 9.

Summary of Primary Reasons given for Commitment to Projects

<u>Reason given related to:</u>	<u>Percentage* of Total Reasons Given</u>
Roles	50
Self-enhancement	23
Extrinsic need	21
Altruism	14
Hedonism	10

Note. *Subjects provided up to four reasons why they were committed to a particular project. Thus, the percentages do not add up to 100.

outcome could decide the future of our relationship." The role of "becoming a working person" is a reason given by another individual in relation to his personal project of committing to the "program in school." He states, "...would like to find something that will make me happy in life (job)." Note that the reasons given for commitment to a

project are often entwined. For example, one subject comments on her personal project of "finding a good career" in the following fashion: "It is important to me to find a good paying career that I will be happy with and will give me satisfaction." Clearly, moving into and committing to the role of "becoming a working person" overlaps with self-enhancement ("that I will be *happy with* and will *give me satisfaction*") and extrinsic needs ("a *good paying* job") for this individual. A random sample of other reasons given for committing to projects is provided in Table 10.

Table 10.

Random Sample of Reasons for Committing to Personal Projects^{a,b}

<u>Project</u>	<u>Why committed to this project</u>
Going to learn saxophone	Music to me means so much passion. Through saxophone, I can interpret my emotions and feelings which can't be expressed by words. [C: ^c Self-expression; Hedonism; Emotion]
Quit smoking	My grandmother died from throat cancer and I don't want to die. I want to get back into sports. [C: Health]
Thinking	Emotional 'downtime' or time alone; gives me an opportunity to evaluate ideas, opinions, experiences, and doubts and thus provides a context in which everyday events become uniquely meaningful. (C: Self-exploration]
Establishing what feelings I have for Steve	Must decide how I feel about him for the sake of our baby -- what kind of future do we have together? Can we make it together or are we better off as friends? I'm not sure if I want to spend the rest of my life with him; is he the right one? Then, I wonder if feeling this way is like cheating on him in a sense so I have to figure everything out. [C: Role]
Career decision	I need to figure out what to do with the rest of my life, what career I would be happiest doing because hopefully it will give me a sense of direction and a future to look forward to rather than dread.[C: Role, Self-Enhancement]

Note. ^a Names of individuals have been changed to ensure confidentiality.

^b Projects were selected by random sampling.

^c C=Category for reason given for being committed.

Thought accessibility. Following from Klinger's work, we assumed that when individuals are exposed to the open ended project elicitation module (Appendix D), they will more readily have highly committed projects in mind. When we determined the positioning on the project matrix (where they transcribed projects on the basis of "being of interest to explore in more detail in order to better understand your life"), 48.7% of the highly committed projects are in Positions 1, 2 or 3 thus providing support for this hypothesis.

To investigate whether or not these highly committed projects are associated with negative or positive affect, we compared the positive and negative valences¹⁶ of the projects across all of the positions (1 through 10) and the valences of the project positions 1 through 3. Across all of the project positions, there is a ratio of 2.1:1 positively valenced to negatively valenced projects; in the first three positions of the matrix, the ratio remains approximately the same, 2.3:1 positively compared to negatively valenced projects. In other words, there are no differences in the valence of the projects which first come to mind when these subjects consider personal projects to which they are most highly committed. Subjects do indeed have the projects to which they are highly committed in mind when asked to record them but these are not necessarily those which are perceived as negative ones¹⁷.

Factor analysis -- inter-individual. In order to determine the underlying structure of the personal project dimensions of the 10 personal projects, an factor analysis was conducted on the correlations among the means of the PPA dimensions. Both the standard project dimensions as well as the new dimensions were analyzed together (with

the exceptions of commitment and the 'process' variables of automaticity, stage and flexibility). Appendix J contains changes to the data conducted prior to running the exploratory factor analysis.

Principal axes extraction with varimax rotation was conducted on the correlation matrix based on the mean ratings of 28 project dimensions. An examination of the eigenvalues and the screeplot¹⁸ suggests a three-factor solution to be appropriate. Factors 4 and 5 were also retained due to their theoretical interest and the clear, interpretable clustering of dimensions. Table 11 displays the results of a five-factor varimax rotation.

Little (1988) has reported on a series of exploratory and confirmatory⁸ factor analyses conducted in order to determine the underlying structure of personal project dimensions. The empirical studies which were carried out, primarily with students in academic settings, using the sixteen standard personal project dimensions (Table 1), indicated a three factor solution -- Personal Meaning, Social Meaning and Stress (Little, Lavery, Carlsen & Glavin, 1981). Personal Meaning loaded the dimensions of **control, initiation, outcome, importance, self-identity, positive impact and value congruency**. The Social meaning factor was comprised of **project visibility, others' view, progress, enjoyment and time adequacy**. Finally, the personal project dimensions of **difficulty, stress and challenge** loaded on the Stress factor. Similarly, in the present factor analysis, a Personal Meaning factor emerges; it includes the standard dimensions of **control, initiation, outcome, absorption and importance** as well as the new dimension of **competence** (Factor 3). It is noteworthy that the dimensions of **self-identity** and **value congruency** both load, .32 and .42, respectively, on this factor thereby providing further

support for the replication of the previously reported Personal Meaning factor. Here, it is labelled as a Personal Meaning/*Competency* factor. **Project visibility** and

Table 11.

Rotated Factor Solution for the Standard and New PPA Dimensions (Project mean level)

<u>PPA Dimension</u>	<u>F1^a</u>	<u>F2</u>	<u>F3</u>	<u>F4</u>	<u>F5</u>	<u>F6</u>
Enjoyment	.75	-.06	.06	-.06	.34	-.03
Fun	.72	-.16	-.01	.01	.29	.05
Fulfillment	.68	.07	.24	.32	.09	.19
Passion	.58	.16	.14	.32	.22	.11
Reward	.53	.19	.40	.28	.06	.17
Self-Worth	.47	.21	.38	.27	.07	.30
Challenge	.17	.79	.11	.11	.02	.01
Difficulty	.11	.73	-.15	-.00	.00	.07
Stress	-.12	.73	-.05	.18	.23	.01
Time Pressure	-.06	.56	.01	.28	.26	.21
Ambivalence	.04	.38	-.35	.08	-.01	-.10
Competence	.09	-.10	.61	.26	.18	.20
Control	.07	-.34	.61	.16	.09	-.12
Initiation	.11	.12	.61	.09	.07	.15
Outcome	.21	-.15	.52	.29	.32	.07
Absorption	.33	.12	.41	.38	.16	.18
Importance	.27	.32	.36	.32	.33	-.06
Investment	.14	.12	.28	.61	.20	.08
Obligation	.08	.08	.13	.61	-.06	-.06
Guilt	.15	.14	.07	.56	-.02	.23
Cost	.07	.38	.16	.43	.04	-.02
Other's View	.20	.09	.13	.17	.55	.18
Visibility	.14	.15	.08	.05	.53	.01
Support	.20	.05	.28	.16	.47	.15
Self Identity	.24	.05	.32	.06	.33	.25
Value Congruency	.24	.06	.42	.09	.26	.64
Role	.19	.12	.14	.33	.31	.42
Alternatives	.09	-.06	.04	-.03	-.04	.00
EIGENVALUES	7.53	2.84	1.55	.85	.83	.58
PERCENTAGE OF VARIANCE	26.90	10.10	5.50	3.00	3.00	2.10

Note. ^a F1 through F6 = Factor 1 through Factor 6

other's view of importance split off from Little's social meaning factor and join with self-identity and support (the former three are standard dimensions) to designate a Community/Support factor (Factor 5). Consistent with Little's Stress factor, the Stress factor has loadings from the standard dimensions of **challenge, difficulty, and stress** in addition to the new dimensions of **time pressure and ambivalence** (Factor 2). Finally **enjoyment**, a standard dimension which was part of the Social Meaning factor, split off to form a 'Hedonistic' factor along with **fun, fulfillment, passion, reward and self-worth** (Factor 1). Four new dimensions – **investment, obligation, guilt and cost** form the Constraint factor (Factor 4). It was of interest to note that **value congruency and role** have their highest loadings on a separate factor. However, value congruency shows its face elsewhere as it loads .31 on the Community factor and most notably .42 on the Personal Meaning/Competency factor, the latter providing support for Little's previously reported Personal Meaning factor. Role also loads on both the Constraint factor (.33) and the Community factor (.31). Both of these variables, value congruency and role, are of interest with respect to gender differences and will be considered in a further analysis.

In sum, five clusters, three of which resemble factors previously reported by Little (1988) – Personal Meaning, Stress, and Social meaning – emerged. The two new factors are labelled Hedonism (Factor 1) and Constraint (Factor 4). Factor 1, the Hedonistic factor, is composed of the personal project dimensions (in decreasing magnitude of factor loadings) of **enjoyment, fun, fulfillment, passion, reward and self-worth**. The personal project dimensions of **investment, obligation, guilt and cost** comprise the new factor of Constraint (Factor 4). One other factor, Community (Factor

5), which has figured strongly in the theory development of PPA has loadings from **other's view of importance, visibility, support and self-identity**. Although the Constraint and Community factors have low eigenvalues (less than one), they are retained due to their theoretical relevance and the clear, interpretable clustering of dimensions.

Considering the new dimensions which contribute to this factor analysis, four compose the Constraint factor -- **investment, obligation, guilt and cost**. Five of the new dimensions contribute to the formation of the Hedonistic factor -- **fun, fulfillment, passion, reward and self-worth**. The latter, self-worth, is not a new dimension but not a standard one used in PPA⁷. Finally, three of the new dimensions load on separate factors - **ambivalence** loads on the Stress factor; **role** loads on both the Constraint factor and the Personal meaning/Competency factor; and **competency** loads on the Personal Meaning/Competency factor.

Factor analysis –intra-individual¹⁹. As a basis of comparison for the previous factor analysis (which was based on the subjects' mean column dimension scores) and our interest in both within-subjects analyses and personal project categories, a principal axis factoring with varimax rotation was conducted at the level of the personal project (Table 12).

The analysis of personal project matrices at the individual level raises several psychometric issues such as assumptions of independence and isomorphism between individual and normative levels of measurement which go beyond the scope of this dissertation, but which have been explored in some detail elsewhere (e.g., Gee, 1998; Little, 1988). Essentially, measurement of structure at the individual level yields results

that are robust across diverse measurement procedures differing in their formal assumptions. For example, factor analytic results of structure are highly similar to structures that emerge from less constrained measurement models of cluster analysis and minimally constrained techniques such as elementary linkage analysis. (See also Omodei & Wearing, 1990).

Note that each individual's scores were standardized to remove between-subject variance. The results of this analysis replicate with some variation several of the factors reported above. An examination of the scree plot suggests a four factor solution that we labelled as **Personal Meaning/Hedonism** (Factor 1), **Constraint** (Factor 2), **Stress** (Factor 3) and **Competency** (Factor 4). One other factor of theoretical interest is retained despite a low eigenvalue (less than 1) and is labelled as **Community** (Factor 5). The primary difference in these factor analyses is that at the mean level, the Hedonistic component is a separate factor whereas at the project level, both the Hedonistic and Personal Meaning components load on one factor (Factor 1). In the project level factor analysis, the hedonistic component composed of **passion, fulfillment, enjoyment, reward and fun** blends with the meaning dimensions of **absorption, self-identity, value congruency and self-worth** to create the Factor we labelled as **Personal Meaning/Hedonism**.

In sum, three factors are clearly identifiable at both the project mean level as well as the project level. Although there is some variation in terms of the variables that load on each factor²⁰, the factors of Stress, Community, and Constraint are evident. The primary difference in the factor analysis conducted at the project level and that conducted at the

mean level was that in the former, the Hedonism and Personal Meaning components are combined, and a separate Competency factor is formed. The latter analysis, that conducted at the mean project level, combines Personal Meaning with Competency and retains a separate Hedonism factor. In further analyses, factor scores based on the regression estimates of the analysis conducted at the project mean level are used for normative analyses. Analyses relating to the project categories use the regression based factor scores obtained from the analysis conducted at the project level.

Table 12.

Rotated Factor Solution for the Standard and New PPA Dimensions (Project Level)

<u>PPA Dimension</u>	<u>Factor 1</u>	<u>Factor 2</u>	<u>Factor 3</u>	<u>Factor 4</u>	<u>Factor5</u>
Passion	.70	.09	.02	.16	.12
Fulfilment	.65	.23	.03	.16	.03
Enjoyment	.61	-.34	-.29	.11	.17
Reward	.61	.27	.08	.09	.01
Fun	.59	-.42	-.31	.06	.17
Absorption	.52	.09	.06	.33	.25
Self-worth	.52	.23	.13	.22	.09
Self-identity	.44	-.04	-.12	.39	.09
Value Congruency	.41	.19	.10	.34	.03
Obligation	.14	.61	.14	.09	.17
Guilt	.30	.56	.09	.03	.12
Investment	.41	.45	.09	.30	.24
Alternatives	.03	-.41	-.06	-.05	-.04
Importance	.34	.40	.25	.20	.27
Role	.31	.32	.11	.10	.10
Challenge	.16	.16	.68	-.09	.16
Difficulty	-.01	.09	.67	-.17	-.02
Stress	-.06	.35	.65	-.04	.17
Time Pressure	.04	.36	.39	.07	.25
Ambivalence	-.19	-.18	.28	-.16	-.03
Cost	.21	.17	.28	.09	.15
Control	.06	.02	-.32	.50	.11
Initiation	.20	.05	.04	.46	.00
Outcome	.25	.20	-.30	.43	.19
Competence	.23	.16	-.27	.42	.16
Visibility	.10	.11	.09	.19	.44
Support	.23	.28	.09	-.01	.42
Other's view	.12	.34	.21	.01	.36
EIGENVALUES	6.05	3.28	1.13	.51	.42
PERCENTAGE OF VARIANCE	21.6	11.7	4.0	1.8	1.5

The Relation between Commitment and the Personal Project Factors

Mean level multiple regression analyses. In order to examine the contribution which the PPA factors (including both standard and new dimensions) make to the prediction of commitment and to set up a model which will be elaborated on later, commitment was regressed on the PPA factors using both a between-subjects and a within-subjects design. In keeping with our contention that commitment is a central force in people's lives, our interest is on the extent to which commitment will capture any or all of the personal project factors. As discussed, we used regression based factor scores for these analyses as the factors are orthogonal. Although factor based scales are more conservative, these scales are highly intercorrelated thus contributing to a more complex interpretation of the analyses.

i. Commitment measure. Both commitment to a project and commitment to personal project *completion* are included in the present data collection as we wanted a basis of comparison for previous research in the Social Ecology Lab where the theoretical emphasis was more closely connected to Bandura's (1977) notion of efficacy. The Pearson product moment correlation between the two commitment measures is $r=.78$ ($p < .001$, $n=175$) suggesting a substantial degree of overlap but not totally redundant measures. The following regression analyses considers only the dimension of commitment to the personal project as a criterion measure.

ii. Gender. An examination of the relation of gender to the PPA Factors (mean level) reveals a significant overall finding [$F(5,167)=3.28$, $p=.008$]. Univariate F-tests indicate the differences between males and females to be on Factor 3 (Personal

Meaning/Competency) [$F(1,171)=6.95, p=.009$] and Factor 4 (Constraint) [$F(1,171)=6.08, p=.015$]. Women, on average, in comparison to men, rate their personal projects as higher in Personal Meaning/Competency ($M=.20, SD=.86$ and $M=-.14, SD=.84$ respectively) and Constraint ($M=.18, SD=.93$ and $M=-.13, SD=.74$ respectively). In addition, gender differences are apparent (both at the mean level and the project level) on the criterion measure of commitment to the project. On average, females have a rating on commitment of 7.48 ($SD=1.63$) compared to 6.97 ($SD=1.40$) for males at the mean level [$t(173)=-2.25, p=.03$]. At the project level, females score 7.37 ($SD=2.75$) while males score 6.95 ($SD=2.58$) on commitment to the project [$t(1520)=-3.24, p=.001$].

iii. Birthplace. A MANOVA reveals a significant overall difference on PPA factors between Canadian-born and non-Canadian-born individuals [$F(5,163)=3.97, p=.002$]. Univariate F-tests reveal these differences to be on Factor 1(Hedonism) [$F(1,167)=5.04, p=.03$], Factor 3 (Personal Meaning/Competence) [$F(1,167)=4.57, p=.034$] and Factor 5 (Community) [$F(1,167)=6.72, p=.01$]. Those who were not born in Canada compared to those born in Canada report higher scores on Hedonism ($M=.21, SD=.79$ and $M=-.12, SD=.96$ respectively) and Community ($M=.20, SD=.85$ and $M=-.13, SD=.75$ respectively). Those who were Canadian-born report higher scores on Personal Meaning/Competency compared with those who were not born in Canada ($M=.11, SD=.81$ and $M=-.18, SD=.90$ respectively). There are no birthplace differences with respect to the criterion measure of commitment to the project at the mean level [$t(169)=1.00, p=.32$]. As we had not probed for cultural identification which was likely the more salient variable, we statistically controlled for birthplace (Canadian, non-

Canadian) by entering it in a fixed block of covariates in the regression analyses.

iv. Social Desirability. Several new dimensions for this study have a positive connotation (e.g., fun, passion, and fulfillment, as well as commitment itself); thus, we included the Crowne and Marlowe (1960) scale of social desirability to examine the potential influence of response style or social desirability properties of the dimensions (Crowne and Marlowe, 1960). The overall mean score for the scale is 15.09 (SD=4.96), slightly higher than that reported by Crowne and Marlowe (1960) in their sample of introductory psychology students. No gender differences are apparent on the scale scores [$t(163) = -1.22, p = .23$]. Pearson product moment correlations between the social desirability scale and the personal project dimensions reveal a minimal influence of social desirability after using Bonferroni's adjustment for type I error²².

In sum, both gender and birthplace differentially relate to several mean level personal project factors. Although both gender and birthplace exhibit mean differences on the factor of Personal Meaning/Competency, a simple factorial ANOVA reveals no interaction effect [$F(1,165) = .006, p = .94$]. Gender differences are also apparent in the ratings on commitment to the project. Therefore, both gender and birthplace are used as covariates in the following analyses. Social desirability is also entered as a covariate in order to control for any effect that this may have on the subjects' responses. Although the hierarchical multiple regressions control for the effects of the covariates, in order to more fully understand the relation of gender to commitment, subsequent analyses were conducted.

In the first analysis, using commitment as the dependent variable, hierarchical and

stepwise linear regression analyses were conducted. The covariates (gender, birthplace and social desirability) were forced into the regression equation and subsequently the five PPA factor scores were selected for entry based on an F to enter probability of .05 .

These factor scores are **Hedonism** (enjoyment, fun, fulfillment, passion, reward, and self worth), **Stress** (challenge, difficulty, stress, time pressure, and ambivalence), **Personal**

Table 13.

Pearson Product Moment Correlations of PPA Commitment with the Factor Scores of Personal Meaning/Competency, Constraint, Community, Hedonism and Stress^a (mean level)⁴

<u>Factor</u>	<u>Commitment to Project^b</u>
Personal Meaning/Competency	.52***
Constraint	.45***
Community	.27***
Hedonism	.23**
Stress	.13
<u>Covariates</u>	
Gender	.17*
Birthplace	-.08
Social Desirability	.11

Note. ^aThe correlations between the criterion measures of commitment and the covariates are also included in this table.

^b $n=173$

Meaning/Competency (competency, control, initiation, outcome, absorption, importance), **Constraint** (investment, obligation, guilt, cost), and **Community** (other's view of importance, visibility, support and self-identity). Table 13 presents the correlations among these independent variables and the dependent measure of commitment.

The results of this analysis suggest Personal Meaning/Competency (composed of competence, control, initiation, outcome, absorption and importance) to be a primary factor in the prediction of commitment (Table 14). After adjusting for the covariates, gender, birthplace and social desirability, this factor alone explains 23% of the variance in commitment. Secondly, the Constraint factor (composed of investment, obligation, guilt and cost) adds a significant incremental variance of 14% to the prediction of commitment. The Community factor (composed of other's view, visibility, support and self-identity) enters next into the equation; this accounts for an additional 4% of the variance. Finally, the Hedonism factor (composed of enjoyment, fun, fulfillment, passion, reward and self-worth) enters into the equation and also accounts for 4% of the variance in commitment. Although the Stress factor enters into the stepwise regression, it contributes minimally to the prediction of commitment with an R-square change of .01.

In sum, four of the five personal project factors, Personal Meaning/Competency, Constraint, Community and Hedonism, contribute to the prediction of commitment. After controlling for the effects of gender, birthplace and social desirability, 45% of the variance in commitment is explained by these factors.

Table 14.

Stepwise Multiple Regression Analysis of Commitment scores (mean level) on the PPAFactor Scores controlling for covariates⁴**Block 1 -- Covariates -- gender, birthplace and social desirability****Dependent Variable=Commitment to Project**

Multiple R	.22	$F(3,157) = 2.59, p=.05$
R Square	.05	
Adjusted R Square	.03	

Variables in the equation

<u>Variable</u>	<u>Beta</u>	<u>T</u>
Social Desirability	.12	1.4
Birthplace	-.10	-1.3
Gender	.16	2.0*

Variable entered on Step 1 - Personal Meaning/Competency

Multiple R	.53	$F(4,156) = 15.11, p<.000$
R Square	.28	
Adjusted R Square	.26	Adjusted R Square change .23***

Variable entered on Step 2 - Constraint

Multiple R	.65	$F(5,155) = 22.10, p<.000$
R Square	.42	
Adjusted R Square	.40	Adjusted R Square change .14***

Variable entered on Step 3 - Community

Multiple R	.68	$F(6,154) = 21.91, p<.000$
R Square	.46	
Adjusted R Square	.44	Adjusted R Square change .04***

Variable entered on Step 4 - Hedonism

Multiple R	.71	$F(7,153) = 21.68, p<.000$
R Square	.50	
Adjusted R Square	.48	Adjusted R Square change .04***

Variable entered on Step 5 - Stress

Multiple R	.71	$F(8,152) = 19.86, p<.000$
R Square	.51	
Adjusted R Square	.49	Adjusted R Square change .01*

Variables in the equation

<u>Variable</u>	<u>Beta</u>	<u>T</u>
Social Desirability	-.04	-.71
Birthplace	-.03	-.77
Gender	.01	.17
Hedonism	.20	3.42***
Stress	.12	2.04*
Meaning/Competence	.45	7.54***
Constraint	.35	6.07***
Community	.20	3.52**

Process variables. Several 'process' variables which are theoretically related to the development of commitment were entered into a hierarchical multiple regression analysis to determine if they add incremental variance to the prediction of commitment after considering the contribution of the PPA factors (Table 15). These included automaticity (the extent to which one engages in a project in an automatic fashion), flexibility (to what extent are you flexible in your approach to this project?) and stage (inception, action, termination) of the project.

This hierarchical regression model indicates that the 'process' variables of stage, automaticity and flexibility, add significantly to the prediction of commitment, i.e., after we control for gender, birthplace and social desirability and consider the contribution of the personal project factors, these variables still contribute an additional 5% to the explanation of the criterion measure [$F(12,150) = 19.10, p < .001$]. All of the Beta weights for the process variables are statistically significant. These results suggest that the further along one's projects are, and the greater the automaticity associated with them, the higher is the commitment. In contrast, the higher the flexibility in one's projects, the lower is the commitment.

Table 15.

Hierarchical Multiple Regression Analysis of Commitment scores on the PPA Factor Scores and the 'Process' Variables of Automaticity, Flexibility and Stage³

<u>Dependent variable - Commitment to Project</u>		
Block 1 – Covariates –gender, birthplace and social desirability		
Multiple R	.22	$F(3,157) = 2.59, p=.05$
R Square	.05	
Adjusted R Square	.03	
Block 2 - PPA Factors		
Multiple R	.71	$F(8,152) = 19.86, p<.000$
R Square	.51	
Adjusted R Square	.49	Adjusted R Square change .46***
Block 3 - 'Process' Variables		
Multiple R	.75	$F(11,149) = 17.39, p<.000$
R Square	.56	
Adjusted R Square	.53	Adjusted R Square change .05***
<u>Variables in the equation</u>		
<u>Covariates</u>	<u>Beta</u>	<u>T</u>
Social Desirability	-.08	-1.37
Birthplace	-.04	-.73
Gender	.07	1.17
<u>Factors</u>		
Hedonism	.21	3.57***
Stress	.15	2.82**
Personal Meaning/Competence	.39	7.14***
Constraints	.32	5.37***
Community	.12	2.35*
<u>Process Variables</u>		
Automaticity	.12	2.07*
Flexibility	-.18	-2.66**
Stage	.14	2.44*

Project level multiple regression analyses. A stepwise multiple regression analysis of commitment on the personal project factors derived at the *project level* was also conducted (Table 17). These were: **Personal Meaning/Hedonism** (passion, fulfilment,

enjoyment, reward, fun, absorption, self-worth, self-identity, and value congruency), **Competence** (control, initiation, outcome and competence), **Stress** (challenge, difficulty, stress, time pressure, ambivalence and cost), **Constraint** (obligation, guilt, investment, alternatives, importance and role) and **Community** (visibility, support and other's view of importance). The zero order correlations between these factors is illustrated in Table 16.

Table 16.

Pearson Product Moment Correlations of PPA Commitment with the Factor Scores of Meaning/Hedonism, Competency, Stress, Constraint, and Community^a (project level)[†]

<u>Factor</u>	<u>Commitment to Project</u>
Personal Meaning/Hedonism	.46***
Competency	.41***
Constraint	.39***
Community	.33***
Stress	.09***

Note. ^an=1683

Table 17.
Stepwise Multiple Regression Analysis of Commitment Scores on the PPA Factor
Scores*(project level)³

Dependent Variable=Commitment to Project

Variable entered on Step 1 - Personal Meaning/Hedonism

Multiple R	.46	$F(1,1681) = 459.10, p<.000$
R Square	.21	
Adjusted R Square	.21	

Variable entered on Step 2 - Constraint

Multiple R	.61	$F(2,1680) = 487.66, p<.000$
R Square	.37	
Adjusted R Square	.37	Adjusted R-square change .15***

Variable entered on Step 3 - Competency

Multiple R	.67	$F(3,1679) = 459.90, p<.000$
R Square	.45	
Adjusted R Square	.45	Adjusted R-square change .08***

Variable entered on Step 4 - Community

Multiple R	.70	$F(4,1678) = 400.74, p<.000$
R Square	.49	
Adjusted R Square	.49	Adjusted R-square change .04***

Variable entered on Step 5 - Stress

Multiple R	.70	$F(5,1677) = 327.67, p<.000$
R Square	.49	
Adjusted R Square	.49	Adjusted R-square change .00***

Variables in the equation

<u>Variable</u>	<u>Beta</u>	<u>T</u>
Personal Meaning/Hedonism	.39	21.91***
Constraint	.32	17.62***
Stress	.08	4.31***
Competency	.29	16.11***
Community	.17	10.77***

Note. *All of the predictor variables and the criterion measure have been standardized.

In sum, four of the five project factors – Personal Meaning/Hedonism, Constraint,

Competency and Community — contribute to the prediction of commitment, suggesting commitment to be a central component in the goal pursuits of our subjects. Personal Meaning/Hedonism and Constraint are the two major contributors to commitment. Personal Meaning/Hedonism, composed of a self component (self worth, self-identity, value congruency) and a hedonistic component (passion, fulfilment, enjoyment, reward and fun), accounts for 21 percent of the variance in commitment. Constraint, composed of an introjected controlled element (obligation, guilt) and a structural component (investment and lack of alternatives), contributes another 15% of variance to the prediction of commitment. Competency (control, initiation, outcome and competency) also contributes to the prediction of commitment (8%). Finally, the public aspect of commitment (visibility, support and other's view of importance) contributes to the prediction of commitment (4%) over and above the Personal Meaning/Hedonism, Constraint and Competency threads of commitment.

Overall, the multiple regression at both the mean project level and the project level suggest four of the five personal project factors to be relevant to the prediction of commitment. Personal Meaning, whether combined with the Competency dimensions (mean level) or the Hedonistic dimensions (project level) is a primary contributor to the prediction of commitment. Both analyses provide evidence for the importance of the Constraint and Community factors figuring in this prediction. Gender differences are evident in the mean level of commitment and the mean level of the PPA factors of Personal Meaning/Competency and Constraint. These PPA factors will be examined in further analyses to understand this gender difference more fully. The variable of

competency, clearly a primary variable in both factor analyses, will also be examined further in a more in-depth analysis of commitment to academic projects. Specifically, its role at high levels of commitment as well as its influence on academic satisfaction as mediated by commitment will be examined. Personal Meaning, a factor which is strongly emphasized in these analyses will be further examined in an analysis which considers commitment as a mediator between it (meaning) and emotional attunement. First, we turn to an examination of the PPA factors in academic and interpersonal domains.

Project domain influence on PPA factors. We anticipated that the PPA factors related to commitment would be differentially emphasized depending on the project type that was examined. Academic and interpersonal projects, the project types that were rated highest on commitment, were selected in order to examine this hypothesis. Tables 18 and 19 report the results of multiple regression analyses of commitment on the personal project factors of an academic and interpersonal nature. These were within-subjects analyses, i.e., project factors derived from scores standardized at the individual subject level using the split file procedure were used for the analyses.

This direct entry multiple regression analysis indicates that the personal project factors account for 46% of the variance in commitment to academic projects. The Beta weights suggest Competency and Personal Meaning/Hedonism to be the primary factors in the prediction of commitment to academic projects.

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Table 19.

Multiple Regression Analysis of Commitment on Interpersonal Project Factors

Dependent Variable = Commitment		
Multiple R	.60	$F(5,282) = 32.00, p < .001$
R Square	.36	
Adjusted R Square	.35	
Variables in the equation		
<u>Variable</u>	<u>Beta</u>	<u>T</u>
Personal Meaning/Hedonism	.33	6.75***
Stress	-.01	-.14
Community	.16	3.23*
Competency	.24	4.92*
Constraint	.30	6.28***

Gender differences in PPA factors revisited. It was noted earlier that males and females differ in their scores on the PPA Factors (mean level) of Personal Meaning/Competency and Constraint; females score significantly higher on both factors. In addition, gender differences are apparent (both at the mean level and the project level) on the criterion measure of commitment to the project. In order to understand more fully the relation between gender and commitment, the sample was divided by gender (101 males; 75 females).

The female subjects were selected first. Our interest was to determine the relative importance of the dimensions within the PPA Factor of Personal Meaning/Competency that contribute to the understanding of personal project commitment. All dimensions which were considered meaningful, i.e., had a loading of .3 or greater were selected (Tabachnik & Fidell, 1989, p. 639). These were: competence, control, initiation, outcome, absorption, importance, reward, self-worth, ambivalence, self-identity and

value congruency. As the dimensions comprising the PPA Factor of Personal Meaning/Competency were highly intercorrelated, semi-partial correlations between personal project commitment (mean level) and each of the dimensions which loaded onto the PPA Factor of Personal Meaning/Competency were examined in order to determine the unique contribution of each variable to commitment. Table 20 presents the results of this analysis. For women, **competency**, **self-identity**, and **importance** are the most strongly associated with personal project commitment. These results indicate that after removing the linear effects of the other independent variables, competency and self-identity each account for 4% of the variance in commitment while importance accounts for another 2.5%. It is noteworthy that **self-worth** has the next strongest association with commitment although the univariate F-test was not significant at the .05 level.

The same analysis for the male subjects indicates the variables of **importance**, **competency**, **absorption** and **ambivalence** to be of primary importance in understanding personal project commitment (Table 20). Importance alone, after removing the linear effects of the other independent variables accounts for 6% of the variance in commitment while competency and absorption each account for 4% of the variance in commitment. Ambivalence which has a negative semi-partial correlation accounts for 2.5% of the variance in commitment.

In sum, our analysis of gender differences within the PPA Factor of Personal Meaning/Competency, reveals that for both males and females, feeling competent in carrying out personal projects perceived as important, contributes to the degree of project commitment. For females, having a sense of self implicated in their personal projects

Table 20.

Semi-Partial Correlations between the Dimensions comprising the PPA Factor of Personal Meaning/Competency and Commitment by Gender³

<u>Variable</u>	<u>Semi-Partial Correlation</u>		<u>R² Change^a</u>	
	<u>Females</u>	<u>Males</u>	<u>Females</u>	<u>Males</u>
Competency	.21**	.20**	.04**	.04**
Self-identity	.20*	.01	.04*	.00
Importance	.16*	.24***	.03*	.06***
Absorption	-.09	.19**	.01	.04**
Ambivalence	.05	-.16*	.00	.02*

Note. ^a R² change is included here to further clarify the unique contribution of each variable to the prediction of commitment. The signed square root of the R² change is the semi-partial correlation.

further enhances their degree of commitment. For males, being absorbed in one's projects and not being ambivalent about them are also highly associated with commitment.

Turning to the personal project Factor of Constraint (Table 21) which has significant loadings ($\geq .3$) from the personal project dimensions of **investment, obligation, guilt, cost, fulfilment, passion, absorption, importance and role**, we see that for both males and females, the extent to which they have **invested** in their personal projects (accounting for 2.5 % and 3.75 % of the variance in commitment for males and females, respectively) strongly contributes to their degree of commitment. For females, being involved in projects which they are **passionate** about (accounting for 5% of the variance in commitment) and which are linked to several life **roles** (accounting for 8% of the variance in commitment) also enhances their degree of personal project commitment. For males, again the relevancy of pursuing personal projects which are deemed as

important (3.5% of the variance in commitment) is associated with their degree of commitment.

In sum, an enquiry into gender differences within the PPA factors of Personal Meaning/Competency and Constraint reveals both commonalities and differences. Clearly, feeling competent and being involved in personal projects one perceives as important and in which one has a degree of investment is associated with commitment to personal projects for both groups. For females, commitment to personal projects is connected with self identity, passion, and linkage to various life roles. For males, being absorbed in and lacking ambivalence about their personal projects is associated with commitment. In sum, there are generic themes for both sexes which are associated with personal project commitment. However, both males and females have their own sub-themes which arise in their committed pursuit of personal projects.

Table 21.

Semi-Partial Correlations between the Dimensions comprising the PPA Factor of Constraint and Commitment to Personal Projects by Gender

<u>Variable</u>	<u>Semi-Partial Correlation</u>		<u>R² Change^a</u>	
	<u>Females</u>	<u>Males</u>	<u>Females</u>	<u>Males</u>
Role	.28**	.06	.08**	.00
Passion	.23**	.13	.05**	.02
Investment	.19*	.16*	.04*	.02*
Importance	.15	.19*	.02	.03*

Note. * R² change is included here to further clarify the unique contribution of each variable to the prediction of commitment. The signed square root of the R² change is the semi-partial correlation.

The commitment threads of individual projects. In order to examine the relation between commitment and its components at the project level, project factors were standardized at the individual subject level using the split file procedure, i.e., the ten personal projects for each person were used to create z-scores for the personal project factors. Next, a minimum z-score of 1.0 for commitment to the project and a minimum z-score of 1.0 for the particular project factor were used to select individual projects. The personal project factors of Personal Meaning/Hedonism, Competency and Constraint were selected for this analysis as they were identified as the most important contributors to commitment at the project level.

Overall, only a small percentage of projects were both high in commitment and one PPA factor (using the criterion of a minimal z-score of 1 on the factor). Fifteen percent of highly committed projects were defined by the Constraint factor alone; 26% of the projects were defined only by the Personal Meaning/Hedonism thread and 15% of the projects were solely defined by the Competency factor. More typically, projects with high commitment have at least two themes. Of the projects high in Competency and commitment, 48% had one other factor with a z-score greater than or equal to 1 and 24% had two other factors with z scores greater than or equal to 1. Of the projects high in Personal Meaning/Hedonism commitment, 40% had one other theme while 21% had two other themes. Finally, in the Constraint commitment projects, 56% had one other thread while 16% had two threads. Examples of projects which are high in commitment and contain two themes along with the feeling associated with this project are listed in Table 22.

Table 22.

Examples of the Associated Themes and Feelings of Personal Projects High in Commitment^a and High in the PPA Factors^b

<u>Factor</u>	<u>Projects with 1 other Associated Factor</u>	<u>Associated factor</u>	<u>Feeling^c</u>
Competency	Budget my remaining money for this term	Community	Anxiety
Competency	Abstaining from cigarettes and alcohol for Lent	Constraint	Redemption
PM/H ^d	Watching my weight	Competency	Confidence
PM/H girlfriend	Overcome the fear of getting a	Community	Sour, bitter
Constraint	Be a better son to my parents	PM/H	Fulfilment
Constraint	Attend to legal matters	Competency	Confidence

Note. ^{a,b} High in commitment and high in a project factor are defined by standardized scores of ≥ 1.0 from the personal project matrix of each subject.

^cThe feeling column was an open-ended column where the subject was asked to indicate how they feel when engaged in this project (Appendix F, page 11).

^dPM/H=Personal Meaning/Hedonism

In sum, although the factors of Competency, Personal Meaning/Hedonism and Constraint are each important in the prediction of commitment, at the project level we see that most often, commitment to the pursuit of a personal project is played out with two threads of this construct.

Trait Aspects of Commitment

In order to delineate linkages between trait or structural components of

commitment and 'doing' commitment, the Revised NEO Personality Inventory (NEO-PI-R) (Costa & McCrae, 1992) and the General Disposition to Commitment Scale (Dubé, 1994) were compared to the PPA derived dynamic construct of commitment. Table 23 displays the correlations between the NEO-PI-R domains and the personal project dimension of commitment as calculated across 10 personal projects. The highest correlations between personal project commitment and the NEO-PI-R domains are: Openness ($r=.29$, $p<.001$), Conscientiousness ($r=.25$, $p<.001$) and Agreeableness ($r=.22$, $p<.01$). No differences in this pattern are noted after controlling for age, gender and birthplace. However, as gender differences are of theoretical interest in this study, we will examine them in the two highest correlates with commitment, the domains of Openness and Conscientiousness.

Table 23.

Pearson Product Moment Correlations between NEO-PI-R Domains and PPA Commitment^a

<u>NEO Scale</u>	<u>Commitment to Project^a</u>
Neuroticism (N)	-.02
Extraversion (E)	.16*
Openness (O)	.29***
Agreeableness (A)	.22**
Conscientiousness (C)	.25***

Note. ^a $n=175$

A further breakdown of the domains which were significantly correlated with personal project commitment (E, O, A and C) is shown in Table 24. In sum, four of the

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Table 24.

Pearson Product Moment Correlations between the Facets of Openness, Agreeableness, Conscientiousness and Personal Project Commitment[†]

<u>NEO Scale</u>	<u>Commitment to Project</u>	
Extraversion		
Warmth	.16*	
Gregariousness	.08	
Assertiveness	.12	
Activity	.16*	
Excitement-Seeking	-.04	
Positive Emotions	.21**	
Openness		
Fantasy	.17*	
Aesthetics	.26***	
Feelings	.30***	
Actions	.10	
Ideas	.17*	
Values	.17*	
Agreeableness		
Trust	.08	
Straightforwardness	.22**	
Altruism	.21**	
Compliance	.02	
Modesty	.18*	
Tender-Mindedness	.20**	
Conscientiousness		
Competence	.26***	<u>Note.</u> [†] n=175
Order	.15*	
Dutifulness	.26***	
Achievement Striving	.24**	
Self-Discipline	.20**	
Deliberation	.02	

Gender differences in the relation of NEO-PI-R to PPA Commitment. Although we statistically controlled for gender in our analysis of the relation between personal project commitment and the NEO-PI-R, we endeavoured to explore gender further in the strongest links that we had found. In this study, we have already noted (see Section 2 on

The Relation of Commitment to Personal Project Factors - Gender Differences in PPA

Factors Revisited) gender differences in commitment and self; for females, commitment to personal projects is connected with self identity and linkage to various life roles. For males, no such strong linkage with self and commitment appears; rather, lack of ambivalence and a high degree of absorption in their personal projects is associated with commitment. Thus, we are interested in the degree to which the structural components of personality, in particular those comprising the domains of Openness and Conscientiousness (the two strongest links), will be differentially emphasized according to gender in their relation to personal project commitment.

An examination of the Pearson product moment correlations of the NEO-PI-R domains and personal project commitment reveals females to have a higher correlation ($r=.37$, $p < .001$, $n=74$) than males ($r=.18$, $p=.08$, $n=101$) in the domain of Openness. The reverse findings are evident for the NEO-PI-R domain of Conscientiousness where males have a higher correlation ($r=.31$, $p < .01$, $n=101$) with personal project commitment than females ($r=.23$, $p < .05$, $n=74$).

Examining the individual facets of the Openness domain, it is evident that **feelings**, **aesthetics**, **fantasy** and **values** are significantly correlated with personal project commitment for females. The correlations are: $.33$ ($p < .01$, $n=74$), $.32$ ($p < .01$, $n=74$), $.26$ ($p < .05$, $n=74$) and $.23$ ($p < .05$, $n=74$) for the facets of **feelings**, **aesthetics**, **fantasy** and **values**, respectively. For the male sample, only the facet of **feelings** is significantly correlated with personal project commitment ($r=.20$, $p < .05$, $n=101$).

In the domain of Conscientiousness, we see a stronger association of both domain

and facets for males. **Achievement Striving, self-discipline, dutifulness and competence** are all associated with personal project commitment for males with correlations of .33 ($p < .001$, $n = 101$), .29 ($p < .01$, $n = 101$), .28 ($p = .01$, $n = 101$) and .27 ($p = .01$, $n = 101$), respectively. For females, it is only **competence** ($r = .29$, $p < .01$, $n = 74$) that is significantly associated with personal project commitment.

In sum, when we selectively examine the domains of Openness and Conscientiousness by gender, we find some striking differences. For females, the trait of Openness to Experience and in particular its facets of **feelings and aesthetics** is strongly associated with the degree to which females are committed to their personal projects. For males, the correlation between personal project commitment and Openness to Experience is much lower and not statistically significant. When we examine the facet level of Openness, we again see **feelings** as a contributor to personal project commitment for males. Conscientiousness and several of its facets were found to be strongly associated with personal project commitment for males. In particular, the facets of **achievement striving, self-discipline, dutifulness and competence** are associated with personal project commitment. For females, only the facet of **competence** is associated with personal project commitment. Thus, it is apparent that the experiential trait of Openness to Experience is strongly associated with personal project commitment for females whereas for males, it is the instrumental trait of Conscientiousness which provides a strong link to commitment.

Endnotes

1. Three males and four females ($n=7$) completed materials improperly and their data were deleted from the analyses resulting in a sample size of 176 ($n=176$). Three of these subjects were from the Fall/Winter group and four were from the Summer group.
2. A sub-sample of the Summer group ($n=113$) was permitted to take questionnaires home in order to accommodate their work schedules. Eighty-two of these subjects ($n=82$, 73%) completed and returned the questionnaires. Note that the procedure section reports an analysis of several measures between subjects who took questionnaires home and those who completed them in the Social Ecology Lab. Of the 31 individuals who did not return their questionnaires, one individual dropped the class, seven completed another experiment and one indicated that his marks were high enough and thus did not require the experimental credits. No reasons for not returning the questionnaires were given by the other 22 individuals.
3. The following symbols are used to designate significance in a table: * $p<.05$; ** $p<.01$; *** $p<.001$.
4. Although the Office of Planning Analysis and Statistics at Carleton University makes distinctions with respect to citizenship and geographic origins, they do not have comparable statistics for birthplace.
5. These data are contained in SEAbank (Social Ecological Assessment data bank).
6. Four factors of the CES-D which have been reported include **depressed affect** (i.e., blues, depressed, lonely, cry, sad), **positive affect** (i.e., good as other people, hopeful, happy, enjoy life), **somatic and retarded activity** (i.e., bothered, eating, mind on things, effort, sleep, can't get going) and **interpersonal features** (i.e., people unfriendly, people dislike me). Only total scores of the CES-D are used in this study.
7. We were not assessing commitment to an individual. Nevertheless, individuals still maintain plans of action closely related to the relationship. For example, "Spending more time with Sean;" "Accepting Sharon's faults."
8. For a detailed account of the origins of PPA dimensions, see Chambers (1997).

9. Other factor models have emerged upon factor analysis – a three factor structure consisting of personal meaning, social meaning and stress and a two factor structure consisting of one positive and one negative factor (Little, 1988). Explorations with confirmatory factor analysis (LISREL) were conducted and results indicated both a five and a two factor model fit the data on project dimension intercorrelations fairly well. As methodological problems have influenced these analyses, Little (1988) concludes that the results thus far indicate a fairly stable set of dimensions across the studies and that the standard dimensions of PPA are composed of a few relatively robust, interpretable factors. Thus, Little (1988, 1993) has recommended that the 5 factor structure be retained for analytic purposes.
10. Four individuals who were unable to come to the campus were mailed packages and asked to sign a consent form indicating they would not consult with anyone while completing the questionnaire (Appendix G).
11. Note that with a large N a few standardized scores in excess of 3.00 are expected (Tabachnik & Fidell, 1989).
12. With large sample sizes and the use of N in the computation of standard error, the significance levels of skewness are not as important as the actual size of the skewness value (more serious the further it is from zero) because the null hypothesis is more likely to be rejected with only minor deviations from normality (Tabachnik & Fidell, 1989). Here, the actual shapes of the distributions were inspected for departure from normality.
13. In order to consider the influence of age on project category, a nominal variable, the subjects were divided into two groups – those less than or equal to 22 years of age and those greater than 22 years of age. Twenty-two was used as a cut-off point, as this is the age that an average student attains an honours degree if continuing full-time. This cut off point has been used in previous research using PPA (e.g., Goodine, Little, Sourani & Melia-Gordon, 1993; Makinen, 1996).
14. Note that there was a violation of the homogeneity of variance assumption. As the analysis of variance test is relatively insensitive to this violation provided the samples are of equal size, the n in each of the groups was limited to approximately 100 in order to increase the robustness of the test (Pagano, 1981; Glass, Peckham & Sanders, 1972).

15. The original PPA methodology proposed a left laddering procedure whereby subjects were queried as to 'why' they were engaged in a particular project. It was anticipated that we would be able to arrive at a core value through this procedure. However, as Little (1989) has noted, some of our earlier research suggests that most projects are hierarchically organized in terms of a lattice, rather than a ladder fashion, i.e., each project appears to have multiple reasons as well as means to carry it out at the same level in the action hierarchy. Thus, our procedure here did not attempt to probe to a core value, rather to ascertain a first line of reflection as to why these subjects were committed to these projects. We anticipated that commitment would tap into higher level aspects of personality such as values, needs and roles (see Figure 1). (See Chambers & Hagen, 1998a for a consideration of core projects and values.)
16. We were able to determine the positive and negative valences of each of the projects by examining the feeling the subjects had associated with each of the projects. Where the valence was unclear (e.g., "challenging"), the valence was indicated as ambivalent.
17. It is important to note that projects which are seen as paved with obstacles do not necessarily engender a negative valence particularly if one perceives oneself as competent to pursue them.
18. All of the eigenvalues for these factors were greater than or equal to 1. An examination of the screeplot revealed that a straight line would pass through the first three eigenvalues. Both of these criteria are necessary conditions for the statistical determination of factors (Tabachnik & Fidell, 1989).
19. For the intraindividual level, each subject's scores on each dimension across 10 projects were converted to standard scores. Thus each subject has a mean of 0 and a standard deviation of 1 on each variable. This has the effect of partialing out individual differences and permitting us to examine processes within individuals rather than patterns between individuals.
20. For the stress factor, all variables -- challenge, difficulty, stress, time pressure, ambivalence -- loaded identically on both factor analyses. Cost also loaded on stress at the project level. The community factor had loadings from visibility, support and other's view of importance in both analyses. At the mean level, self-identity was included on the community factor. The constraint factor loaded obligation, guilt, investment for both levels; alternatives, importance and role also loaded on constraint at the project level; cost also loaded on constraint at the project mean level.

21. After using a Bonferroni's adjustment ($.05/33=.0015$), three of the correlations between personal project dimensions and the social desirability scale were significant. These were: enjoyment ($r=.27$, $p<.000$), fulfilment ($r=.26$, $p<.001$) and fun ($r=.24$, $p<.002$). Note that there was no correlation between commitment to the project or commitment to successful completion of the project and social desirability. In sum, social desirability was determined to have a minimal influence on the ratings of personal project dimensions.

CHAPTER 4

Empirical Explorations II: Extending the Model; Expanding the Sample

Extending the Model

The first phase of the second study is designed to further refine the commitment construct by examining its mediator role and by exploring two extremes of commitment. We again employ the undergraduate sample to focus on commitment in the domains of academics and interpersonal relationships by: a) assessing a role for commitment in mediating the relation between efficacy and SWB in the realm of academics and, b) determining a mediation role for commitment between meaning and emotional attunement in interpersonal projects. In the realm of academics, we consider extremes of commitment by: a) seeking to replicate the phenomenon of self-aggrandizement and, b) seeking to replicate patterns of work in an undergraduate sample and further, c) relating these work patterns to PPA commitment, PPA factors and NEO-PI-R domains.

Results

The results for Phase I are presented in four sections: commitment as a mediator between efficacy and SWB in the academic domain; commitment as a mediator between Personal Meaning and PPA affect in the interpersonal domain; and, patterns of commitment (self-aggrandizement and work profiles).

The Academic Domain: Commitment as a Mediator between Competence and Academic Satisfaction

Subjective well-being measures (SWB). Several measures of SWB were used for specific analyses in the following sections. Included were the Domain Specific Life Satisfaction measures of academic and health satisfaction (Lecci, 1990; Wilmut, 1993); the

CES-D measure of depressive affect (Radloff, 1977, 1991) and; the new measure of PPA Affect. Table 25 presents the results of the Pearson product moment correlations of the various measures of life satisfaction. Although only the academic satisfaction and the health satisfaction scales were used in the analyses, we present these five separate global assessment scales to provide a more comprehensive picture. Results reveal that, as noted in previous research in the Social Ecology Lab (e.g., Pychyl, 1995; Phillips, Little & Goodine, 1993, 1997), most of the global measures of domain satisfaction are highly correlated. Academic satisfaction has moderately high correlations with life satisfaction and health satisfaction and to a lesser extent, emotional satisfaction. Health satisfaction has moderately high correlations with life satisfaction, emotional satisfaction and academic satisfaction. Despite the high correlations, it was decided to use the individual satisfaction scale scores as they are domain specific and each captures unique variance with particular PPA dimensions.

Table 25.

Pearson Product Moment Correlations Between the Global Cognitive Satisfaction Measures of Subjective Well-Being¹

Variable ^a	LIFESAT	ACASAT	EMOTSAT	HEASAT	SOCSAT
LIFESAT	---	.39***	.67**	.39**	.58***
ACADSAT		---	.23**	.35***	.02
EMOTSAT			---	.33***	.49***
HEALTHSAT				---	.15*
SOCIALSAT					---

^an=175, LIFESAT=Global satisfaction with Life Scale, ACASAT=Academic satisfaction, EMOTSAT=Emotional satisfaction, HEASAT=Health Satisfaction, SOCSAT=Social Satisfaction

Mediation analysis. A path analytic mediation analysis was conducted in order to

unpack the relation between competency and commitment as they relate to SWB in the salient domain of academic life. The general analytical strategy can be seen in Figure 1, (Chapter 1) if we follow from Box 4 , Structure/Efficacy through to PPA Commitment, and further to academic satisfaction in Box 5. The goal of this analysis was to use a personal action construct to empirically examine Brickman and Karuza, Jr's model of commitment and control where both action cycles are in operation. Commitment is examined as a process by which individuals attach value to their action.

The competency dimension², the dimension with the highest loading on the Personal Meaning/Competency factor was selected for this analysis. The analysis is conducted at the project mean level since it is not possible to standardize the global outcome measure of academic satisfaction within subjects. No gender analyses were conducted in this analysis as the sem-partial correlation indicated competency to be a strong commonality (See p. 142, Table 20). Baron and Kenny (1986) suggest three requirements in order to satisfy a hypothesized mediational model. First, the predictor variable (competency) must directly affect the mediator (commitment) in order to establish the first link in the mediational chain. Second, there must be a direct relation between the predictor variable (competency) and the criterion measure (academic satisfaction) in order for mediation to be a relevant issue. Third, the mediator variable (commitment) must significantly affect the criterion measure with the predictor variable (competency) controlled and the direct relationship between the predictor (competency) and the criterion measure (academic satisfaction) should be diminished. Baron and Kenny (1986) recommend three regression equations to test for mediation in meeting the above requirements: the mediator

(commitment) is regressed on the predictor variable (competency); second, the criterion measure (academic satisfaction) is regressed on the predictor variable (competency) and third, the criterion measure (academic satisfaction) is regressed on both the predictor (competency) and the mediator (commitment) variables. The results provide support for the above mentioned criteria in the following way: the predictor variable, competency, directly affects the mediator variable, commitment, ($\beta=.44$, $p<.000$); the predictor variable, competency, directly affects the criterion measure, academic satisfaction ($\beta=.18$, $p<.05$). Finally, the mediator variable, commitment, significantly affects the criterion

measure, academic satisfaction, with the predictor variable, competency, controlled ($\beta=.17$, $p=.04$) and the direct relationship between the predictor, competency, and the criterion measure, academic satisfaction, is diminished. Indeed, the Beta coefficient was

reduced from .18 to .10, $p=.23$. Figure 5 summarizes the path-analytic findings.

In sum, inclusion of the mediator variable, commitment, in the equation results in a decrease of the Beta coefficient for the direct relation between competency and academic satisfaction. The direct relationship is no longer significant with the mediator variable in the equation. Thus, evidence is provided for the personal project dimension of commitment as a mediator of the direct relation between perceived personal project competency and academic satisfaction. Competency promotes academic satisfaction, in part, by engendering commitment to one's projects. Commitment as a mediator between competency in work projects and work satisfaction will be revisited in our organizational sample.

The Interpersonal Domain: Commitment as a Mediator between Personal Meaning/Hedonism and PPA Affect

The meaning/hedonism thread of commitment was accentuated in the interpersonal domain of personal projects (see Table 19). To examine the role between commitment and the appraisal-emotion sequence, we considered meaning as an antecedent to commitment and examined commitment as a mediator between meaning and the PPA measure of affect. Again, following from Figure 1 (Chapter 1), we are moving from Box 4 (Meaning to PPA Commitment) and further to Box 5 (PPA Affect). Specifically, we are interested in the role of commitment in guiding action through emotion.

As described in the Method Section, respondents were instructed to think about each project and to "see if there is a particular emotion you feel when you are engaged in it." Subjects were instructed to write down the actual emotion experienced, e.g., "happiness,

joy, cynicism, etc." and to give this emotion a rating on a scale from '0' to '10'. As we are interested in emotional attunement and not a negatively or positively valenced measure, we considered both positively and negatively valenced projects together. A random sample of projects 11 and 12, the emotion experienced and the rating given are illustrated in Table 26. Table 27 illustrates the relation between PPA affect, commitment and the PPA factor of Personal Meaning/ Hedonism. As Projects 11 and 12 were not used to determine the PPA factors at the project level, we do not have factor scores associated with them. Therefore, for this analysis, the PPA Personal Meaning/Hedonism factor was calculated based on the mean of the standardized dimensions which were found to load on this factor at the project level (passion, fulfilment, enjoyment, reward, fun, absorption, self-worth, self-identity, value congruency).

Table 26.

Examples of Projects 11 and 12 and the Associated Emotion and Rating

<u>Project</u>	<u>Emotion</u>	<u>Rating^a</u>
Tell Pierre how I am uncomfortable with his feelings	Anxiety	.5
Accept Donna's mood swings	Pride	-.7
Working on relationship with Dave	Affection	.8
Figure out Micheline	Frustration	1.6
Wondering if I could honestly be happy with her	Scared	.4
Accepting his friends	Bitterness	.8
Understanding Roxanne's point of view	Affection	.6
Deal with our problems	Anxiety	-.1
Spend less time with Collin	Bitterness	-.5

Note. ^a The individual ratings given are within-individual standardized scores.

To return to Baron and Kenny's (1986) requirements for a mediation model: the predictor variable (Personal Meaning/Hedonism) must directly affect the mediator (commitment) to establish the first link in the mediation chain; second, there must be a direct relation between the predictor variable (Personal Meaning/Hedonism) and the criterion measure (PPA affect) and finally, the mediator variable (commitment) must

significantly affect the criterion measure with the predictor variable (Personal Meaning/Hedonism) controlled and the direct relationship between the predictor (Personal Meaning/Hedonism) and the criterion measure (PPA Affect) should be diminished.

Table 27.

Pearson Product Moment Correlations of Personal Project Commitment and the Factor Scale Scores of Personal Meaning/Hedonism with Personal Project Affect^{a,1}

	<u>PPA Affect</u>
PPA Commitment	.43***
Personal Meaning/Hedonism Factor	.41***

Note. ^aThis analysis is done at the project level using standard scores.

The results provide support for these criteria in the following way: the predictor variable, Personal Meaning/Hedonism, directly affects the mediator variable, commitment ($\beta=.53$, $p<.001$) and the predictor variable, Personal Meaning/Hedonism directly affects the criterion measure, PPA Affect ($\beta=.41$, $p<.001$). Finally, the mediator variable, commitment, significantly affects the criterion measure, PPA Affect, with the predictor variable, Personal Meaning/Hedonism, controlled ($\beta=.30$, $p<.001$) and the direct relationship between the predictor, Personal Meaning/Hedonism, and the criterion measure, PPA Affect, is diminished. The Beta coefficient in the latter analysis was reduced from .41 to .25, $p<.01$). Figure 6 summarizes the path-analytic findings.

In sum, inclusion of the mediator variable, commitment, in the equation resulted in a decrease of the Beta coefficient for the direct relationship between Personal Meaning/Hedonism and Personal Project Affect. The direct relationship was, however, still significant with the mediator variable in the equation. Thus, evidence is provided for the personal project dimension of commitment as a mediator of the direct relation between personal meaning and PPA affect. In short, personal meaning accentuates PPA affect, in part, by engendering commitment to one's projects.

Gender analyses. We ran the mediation analysis within gender, i.e., considered commitment as a mediator between Personal Meaning/Hedonism and PPA Affect for female and male subjects separately. Zero order correlations between PPA affect and both

commitment and Personal Meaning/Hedonism indicate there is a stronger relation between these variables for female subjects. The correlation between PPA affect and commitment is .51 ($n=80$, $p < .001$) for females and .36 ($n=92$, $p < .001$) for males; the correlation between PPA affect and Personal Meaning/Hedonism is .46 ($n=81$, $p < .001$) for females and .36 ($n=92$, $p < .001$) for males. Using regression analyses, for females, the Beta coefficient was reduced from .46 to .26; for males, the Beta coefficient was reduced from .36 to .24.

In sum, the results provide support for commitment as a mediator between Personal Meaning/Hedonism and PPA Affect in both female and male subjects. For females, the relation between both Personal Meaning/Hedonism and commitment and PPA Affect is stronger than for males. However both analyses result in a decrease of the Beta coefficient for the direct relationship between Personal Meaning/Hedonism and Personal Project Affect, suggesting that commitment partially mediates this relation. The direct relationship between Personal Meaning/Hedonism and Personal Project Affect was still significant for both females and male subjects with the mediator variable in the equation.

Patterns of Commitment

Self-aggrandizement. To investigate self-aggrandizement, we used the subjects' self report of competency in their academic personal projects and the objective criterion of grade point average (GPA). Zero order correlations (between academic personal project competency and GPA scores) are not examined in this analysis since they may be problematic as a result of low variance in the high commitment group; rather, as per Wicklund and Gollwitzer (1982)³, we used discrepancy scores between reported

competency in academic personal projects and GPA.

Discrepancy scores were created (Table 28) after standardizing the personal project dimension of competency and GPA scores⁺ (GPA scores range from 0 - 12) in order to create commensurability. Three groups based on level of commitment were determined — a low group (z-score less than or equal to $-.71$), a medium group (z score between $-.2$ and $.27$) and a high group (z score greater than $.80$). These groups represent approximately the lowest 20%, the middle 20% and the highest 20% of the sample. Table 28 reports the discrepancy between personal project perceived competency in academic projects and the criterion score, GPA. At this point in their academic careers, the students with high levels of commitment to their personal projects have perceived competency scores that are greater than their GPA scores; students with low levels of commitment have perceived competency scores that are lower than their GPA scores and students

Table 28.

Discrepancy Between Personal Project Perceived Competency Ratings on Academic Projects and GPA¹

	<u>Commitment Group</u>
<u>Mean discrepancy⁺</u>	
Low commitment (n=30)	-.41
Moderate commitment (n=29)	-.22
High commitment (n=39)	.43 ^{*b}

Note. ^a The discrepancy score is the difference between the z-score of the recorded score on academic project competency and the z-score of GPA.

^b A oneway ANOVA resulted in an overall significant difference between the groups ($F(2,95)=3.42$, $p<.05$); however, Scheffé's multiple comparison test found no two groups to be significantly different at the .05 level².

with moderate levels of commitment have perceived competency scores that are most in

line with their GPA scores⁶.

What are the implications of these findings in terms of SWB? Although it is likely that the implications of these findings will be found at a later point in the academic careers of these individuals, we examined several of the SWB measures to determine any trends which can be intimated from our findings. The analysis concerns academic projects; thus, of the global cognitive satisfaction measures of SWB, only academic satisfaction, is considered. In addition, we consider the affective measure, CES-D (Radloff, 1977, 1991), in these analyses in order to probe for any affective consequences.

A one-way ANOVA reveals an overall mean difference in levels of academic satisfaction between these three commitment groups [$F(2,106)=3.88, p < .05$]. Scheffé's test indicates the difference to be between the high commitment group ($M=5.52, SD=2.53$) and the low commitment group ($M=3.94, SD=2.56$) ($F(2,106)=3.88, p < .05$). The mean of the moderate commitment group fell in between ($M=5.09, SD=2.27$) these two groups.

The measure of negative affect, the CES-D, suggests the moderate commitment group to fare the best. A oneway ANOVA conducted on the CES-D scores indicates a significant difference overall ($F(2,106)=3.26, p < .05$). Scheffé's test indicates the difference to be between the low commitment group ($M=21.22, SD=10.32$) and the moderate commitment group ($M=14.56, SD=10.80$). The high commitment group scores in between ($M=18.81, SD=10.98$) these two groups.

In sum, the results provide support for the notion of self-aggrandizement. Indeed, those with high levels of commitment, on average, have higher discrepancy scores

between self determined competency in their academic projects and actual grade point average than those with moderate and low levels of commitment. Although individuals in the high commitment group report the highest levels of academic satisfaction, it is the moderate commitment group who display the least negative affect.

Work patterns. Spence & Robbins (1992) used the Workaholism Battery to assess the construct of Workaholism. Following from their research, three self-report scales -- **Work Involvement, Driveness and Work Enjoyment** -- were used to identify patterns of academic work in this undergraduate sample. Of particular interest are two profiles of work: the **Workaholic** pattern (defined by high scores on Driveness and Work Involvement and low scores on Work Enjoyment) and the **Work Enthusiastic** pattern (defined by low scores on Driveness and high scores on Work Int and Work Enjoyment). Table 32 reports the means and standard deviations for the three scales for male and female subjects. No gender differences or birthplace differences⁵ were found on the mean levels of the scales as assessed by t-tests.

i. Social desirability. Several items such as "Wasting time is as bad as wasting money" and "When I have free time I like to relax and do nothing serious" seemed likely to be influenced by response style or social desirability properties. To examine these potential influences, we included the Crowne and Marlowe (1960) Scale of Social Desirability. Pearson product moment correlations between the Workaholism scales and the Social Desirability Scale resulted in a statistically significant correlation between Work Involvement and the Scale of Social Desirability ($r=.20$, $p<.01$, $n=165$). No statistically significant correlations were found between Work Driveness or Work Enjoyment and the

Scale of Social Desirability. Thus, the concern regarding social desirability was minimal for these analyses.

Cluster analysis. A cluster analysis procedure was carried out on the three scales of The Workaholism Battery to determine work patterns in this undergraduate sample. The average linkage between groups method for cluster analysis was used⁸. Scores on each of these core characteristics were standardized to minimize any differences in variance. An examination of a range of cluster solutions (2 to 12) reveals six clusters to be the most conceptually distinct and interpretable. This selection is guided by an inspection of the dendrogram⁹ and the agglomeration schedule¹⁰. In sum, a 6 cluster solution was adopted whereby it was possible to classify 90% of the males and 89% of the females or 90% of the total sample. The mean z-scores on the three scales for each of the profiles is shown in Table 29.

From Table 29, we see that the two a priori profiles, **Workaholics** (above the mean on Work Involvement and Drivenness, below the mean on Work Enjoyment) and **Work Enthusiasts** (above the mean on Work Involvement and Enjoyment and below the mean on Drivenness) emerged. A third cluster combines elements of both of these profiles (above average on all three scales) and as per Spence and Robbins (1992), we labelled these individuals **Enthusiastic Workaholics**.

Table 29.
Work Profile Means (in z scores)

<u>Profile</u>	<u>Scale</u>			<u>Percentage of Sample (n)</u>
	<u>Driveness</u>	<u>Work Involvement</u>	<u>Work Enjoyment</u>	
Unengaged Students	-1.50	-1.51	-.82	7 (13)
Enthusiastic Workaholics	.93	1.06	1.25	18 (31)
Relaxed Students	-.27	.05	.34	34 (59)
Disenchanted Students	.02	-.22	-.97	25 (44)
Workaholics	1.77	.90	-.83	3 (5)
Work Enthusiasts	-1.01	.98	1.28	3 (6)
Unclassified				10 (18)

A fourth cluster, again similar to one found in Spence and Robbins' research, we labelled **Unengaged Students** as members of this group are below average on all three of the core characteristics. Cluster 5 is labelled **Relaxed Students** as members of this group score slightly below the mean on Driveness, score at the mean on Work Involvement and score slightly above the mean on Work Enjoyment (Note that Spence and Robbins' Relaxed Workers were more extreme on all of these scales.) Finally, Cluster 6 we labelled **Disenchanted Students** as they score at the mean on Driveness but well below the mean on Work Enjoyment and slightly below the mean on Work Involvement. (Note that Spence and Robbins' Disenchanted workers scored above the mean on Driveness and

had more extreme scores on Work Involvement.)

i. Demographics. Chi-square analyses was conducted to determine differences among the profiles on the demographic characteristics of gender and birthplace⁷. No statistically significant differences were found among the profiles on gender [$\chi^2(5, N=158)=1.96, p=.85$] or birthplace [$\chi^2(5, N=154)=6.81, p=.23$]. There are some notable age differences among the work profiles [$\chi^2(3, N=147)=18.84, p<.001$]. All of the Unengaged Student group are in the younger group (less than or equal to 22 years of age). The younger age group has a greater proportion of Disenchanted Students (36% in the younger group compared to 20% in the older group). Finally, the Enthusiastic Workaholics group has a greater representation of older students compared to younger students (32% compared to 14%, respectively). Age was therefore used as a covariate in the following Discriminant Function Analysis.

Comparison of the profiles on personal project commitment, PPA factors and traits. A hierarchical discriminant function analysis was performed on two blocks of variables: the demographic variable age was entered first followed by academic project commitment, the personal project academic factors (Personal Meaning/Hedonism, Constraint, Stress, Competency and Community) and the NEO-PI-R trait measures (Neuroticism, Extroversion, Openness, Agreeableness and Conscientiousness). As the 'process' dimensions (automaticity, flexibility and stage) were not included in the PPA factors, they were also included in the second block of variables. Four groups were contrasted – the Unengaged Students, The Enthusiastic Workaholics, the Relaxed Students and the Disenchanted Students. Although the Workaholic Students and the

Work Enthusiastic students are a focus in this study, these groups were contrasted against the former ones in a descriptive fashion due to the small number of subjects in each group. There are five subjects in the Workaholic group and six subjects in the Work Enthusiastic group.

The total N for the Discriminant Function Analysis was 141¹¹. A minimum tolerance of .001 and F to enter of 3.84 (SPSSX default values) were used as the selection criteria. In this sample, 78% of the between-group variability is attributed to the first linear combination of variables. As shown in Table 30, one discriminant function was calculated [$\chi^2(45, N=141)=114.76, p<.001$]. This discriminant function separates the Unengaged Students from the Enthusiastic Workaholic Students as illustrated by the group centroids in Table 30. Structure coefficients indicate that the primary variables which distinguish between the groups are the Personal Project Factor of Personal Meaning/Hedonism, the NEO-PI-R trait measures of Conscientiousness and Openness to Experience and the demographic variable of age. A criterion of $\pm .3$ was used as a cut-off point for interpreting structure coefficients (Tabachnik & Fidell, 1983). This analysis suggests that Enthusiastic Workaholics tend to be older and to have academic projects which they rate higher in personal meaning and fun than subjects labelled as Unengaged Students. In addition, the Enthusiastic Workaholics score higher on the trait measures of Conscientiousness and Openness to Experience as compared to the Unengaged Students.

Table 30.

Hierarchical Discriminant Function Analysis of Four Work Pattern Groups^a

<u>Predictor Variables</u>	<u>Structure Coefficients</u>	<u>Standardized Coefficients</u>	<u>Univariate F(3,137)</u>
<u>Demographic</u>			
Age	.39	.60	6.30***
<u>PPA Variables</u>			
Factors			
Personal Meaning/			
Hedonism	.45	.45	8.58***
Competency	.27	.30	3.27*
Community	.13	.15	.75
Stress	-.06	.08	.59
Commitment	.21	-.22	2.31
Process Variables			
Stage	.25	.04	2.60*
Flexibility	.10	.21	1.80
Automaticity	-.02	.04	.96
<u>NEO-PI-R Variables</u>			
Neuroticism	-.18	-.04	4.84**
Extraversion	.23	.11	2.33
Openness	.40	.50	6.72***
Agreeableness	.25	.15	2.63*
Conscientiousness	.45	.43	9.58***
Canonical R	.69		
Eigenvalue	.90		
Significance Level	.000		

Discriminant Functions Evaluated at Group Centroids

<u>Group</u>	<u>Function 1</u>
Unengaged Students	-1.70
Enthusiastic Workaholics	1.51
Relaxed Students	.08
Disenchanted Students	-.68

Note. ^a The four work patterns were: Unengaged, Enthusiastic Workaholic, Relaxed and Disenchanted.

The group centroids of the subjects labelled as Relaxed Students and those labelled as Disenchanted Students can also be seen in Table 30. The Relaxed Students score between the Enthusiastic Workaholics and the Unengaged Students whereas the Disenchanted Students score closer to the Unengaged Students.

We note that personal project academic commitment has a structure coefficient which loads .21 on the discriminant function. Although it does not meet the $\pm .3$ cut-off criterion point, it is in the expected direction. An inspection of the mean levels of commitment in these four groups shows academic commitment to be the highest in the Enthusiastic Workaholic group ($M=8.42$, $SD=1.6$) and the lowest in the Unengaged Students group ($M=7.02$, $SD=1.62$).

The mean scores of the salient predictor variables (i.e., variables which have a structure coefficient of $\pm .3$) for each of the groups in the discriminant function analysis are reported in Table 31. The Enthusiastic Workaholics clearly stand out from the Unengaged Students in their mean scores on the Personal Meaning/ Hedonism Factor as well as their mean scores on Openness and Conscientiousness.

To contrast our two targeted groups, Workaholics and Work Enthusiasts, with the other groups, we examined their mean scores on these variables. It is evident that on the Personal Meaning/Hedonism factor, these two groups score at opposite ends of the spectrum. The Workaholic group's scores on this factor are more closely aligned with those of the Unengaged Student group whereas the higher scores of the Work Enthusiastic group are closest to those of the Enthusiastic Workaholic group. Where the Workaholics and the Work Enthusiasts are similar, is on the personal project factor of

Competency and personal project commitment. Indeed, both the Workaholic Group and the Work Enthusiastic group had the highest scores of all of the groups on the Competency factor and commitment to personal projects in the academic domain. On the trait measure scores, the Workaholic group scored the highest of all of the groups on Conscientiousness and close to the Enthusiatic Workaholic group on scores in the domain of Openness. The Work Enthusiastic Group did not show any unusual scores on the traits of Conscientiousness and Openness. In sum, when we assess the profile of the "driven" Workaholics, we see them to be high on the trait measure of Conscientiousness and academic personal project competency and commitment yet lacking in a sense of personal meaning and fun in their academic life. The more relaxed Work Enthusiasts, while similar to the Workaholics in terms of their academic personal project competency and

Table 31.

Mean Scores of Salient^a Predictor Variables for Work Profile Groups

<u>Profile</u>	<u>Conscientiousness</u>	<u>Meaning/ Hedonism</u>	<u>Openness</u>	<u>Age</u>	<u>Comp^b</u>	<u>comm^b</u>
Unengaged Students	88	-.40	106	20.4	-.11	7.0
Enthusiastic						
Workaholics	116	.51	129	26.3	.49	8.4
Relaxed Students	109	.07	118	23.7	.28	8.2
Disenchanted Students	104	-.21	112	22.0	.22	7.7
Workaholics	123	-.39	123	23.0	.57	9.1
Work Enthusiasts	113	.90	114	35.4	.65	8.9

Note. ^a 'Salient' refers to variables that had structure coefficients of $\pm .30$.

^b Comp=PPA Competency Factor; comm=PPA commitment dimension. Note that commitment and PPA competency are not considered 'salient' variables but were integral to this study.

commitment, are not as high on Conscientiousness but derive more personal meaning and

fun in the domain of academics.

Comparison of the work profiles on subjective well-being. Following Spence and Robbins' (1992) work as well as the broader literature on work and stress (e.g., Lowman, 1993; Jamal, 1990, Friedman and Rosenman, 1974), we examined the following measures as they relate to the Work profiles: the Global Satisfaction Scales of physical health and academic life, the personal project measure of academic stress¹², the CES-D (Radloff, 1977, 1991) and the criterion measure of Grade Point Average¹³.

A MANOVA which included four groups -- Unengaged Students, Enthusiastic Workaholics, Relaxed Students and Disenchanted Students -- reveals a significant overall difference among the groups on the criterion measures [$F(15,372)=2.70, p<.001$]. Univariate F-tests reveal these differences to be on academic satisfaction [$F(3,126)=8.16, p=.000$] and GPA [$F(3,126)=5.59, p<.001$]. An examination of the mean levels of these variables reveals the Enthusiastic Workaholic group to fare the best with high scores on both measures --a mean score of 6.4 ($SD=2.0$) on academic satisfaction and a mean score of 7.0 ($SD=2.2$) on GPA. In contrast, the Disenchanted group has the lowest scores on both of these measures, a mean score of 3.9 ($SD=2.4$) on academic satisfaction and a mean score on GPA of 5.4 ($SD=2.0$).

When we examined the scores of our targeted profiles, the Workaholic group and the Work Enthusiastic group, we see both groups to stand out from the others in terms of GPA scores, 8.3, $SD=.96$ and 9.0, $SD=.82$, respectively. Where these groups differ, however, is in their level of academic satisfaction. The Work Enthusiastic group again scores the highest of all of the groups on academic satisfaction ($M=7.8, SD=1.5$)

contrasting sharply with the score of the Workaholic group ($\underline{M}=5.0$, $\underline{SD}=3.8$) which was more in line with the score of the Unengaged student group ($\underline{M}=4.7$, $\underline{SD}=2.5$).

In sum, an examination of patterns of work in the domain of academics in this undergraduate sample using Spence and Robbins (1992) scale reveals several identifiable groups -- Unengaged Students, Enthusiastic Workaholics, Relaxed Students, Disenchanted Students, Workaholics and Work Enthusiasts. An analysis of demographic, NEO-PI-R and PPA measures results in evidence of differentiating features among the groups on all of these measures. In particular, the Enthusiastic Workaholic group, (identified by high scores on all three of the work measures) is differentiated from the Unengaged Students (low scores on all of the three work measures) on the demographic variable of age, the trait measures of Conscientiousness and Openness and on the PPA factor of Personal Meaning/Hedonism. Personal project commitment, although not a statistically salient variable, was higher in the Enthusiastic Workaholic group as compared to the Unengaged Student group. Finally, as our sample sizes of the Workaholic and Work Enthusiastic groups were limited, we contrasted these groups with the others in a descriptive fashion; both are highly committed, competent and Conscientiousness yet differ in a sense of personal meaning in their academic projects. In fact, the Workaholic group's scores on Personal Meaning/Hedonism are more closely aligned with those of the Unengaged student's group, the group which has the lowest scores of all of the groups on personal meaning and fun.

Our original hypothesis that "driven" individuals (Enthusiastic Workaholics and Workaholics) will be high in commitment but have less meaningful academic projects and

exhibit more academic stress is both partially substantiated and partially refuted. Both score high on commitment but Workaholics have low scores on personal meaning and fun whereas Enthusiastic Workaholics, also highly driven, have high scores on this factor. On the outcome measures, we see the Enthusiastic Workaholics to be highly satisfied with their academic life and to score high on GPA (compared to the Disenchanted Group). Our second targeted group, Work Enthusiasts, have scores on academic satisfaction and GPA in the same direction as the Enthusiastic Workaholics. The Workaholic group, however, although scoring in the same range as these groups on the GPA measure, has low scores on academic satisfaction, again a level more in line with that of the Unengaged Students. No differences were evident in terms of academic stress. The hypothesis that Conscientiousness will be higher in the 'driven' groups (Enthusiastic Workaholics and Workaholics) was substantiated in the analyses. Those who were driven, however, were not found to be lower in Agreeableness. Finally, the trait measure of Openness was hypothesized to be high in the groups which were high in Work Involvement. This indeed was the case for the two highly driven groups, Enthusiastic Workaholics and Workaholics, but not the case for the Work Enthusiasts.

The primary aim of this analysis was to assess patterns of commitment.

The above findings suggests patterns of commitment to be complex in that when we consider levels of commitment to academic personal projects alone among these various work profiles, we see the Workaholic group and the Work Enthusiastic followed by the Enthusiastic Workaholic group to have the highest levels. But, however driven, competent, Conscientious, Open and successful (by the objective standard of GPA) these

Workaholic individuals are, they appear to be lacking in a sense of personal meaning and academic satisfaction in their academic lives. The other two groups, the Work Enthusiasts and Enthusiastic Workaholics, both of whom also have high levels of commitment to their academic projects, report high levels of personal meaning and fun as well as a high degree of satisfaction in their academic projects. Both PPA and the NEO-PI-R were found to be useful in understanding the nature of these various Work profiles as determined by Spence and Robbins' Workaholic scales.

Expanding the Sample

The purpose of the second phase of Study 2 which uses a sample of male and female executives in the Canadian Public Service is to expand on our earlier findings by:

- a) exploring the nature of work and non-work projects to which these individuals commit,
- b) assessing gender differences in commitment to work and non-work projects, c) seeking to replicate the role of commitment as a mediator between perceived competency in work projects and work satisfaction, d) ascertaining individual job aspirations and personal values which contribute to work commitment and, e) determining the relative importance of commitment in relation to other contributors to work satisfaction,

Method

Sample

A sample of 112 managers (women, $n=56$; men, $n=56$) from two departments and one central agency in the Federal Public Service (National Capital Region) was selected from an ongoing study on management in the public and private sectors (Phillips, Little & Goodine, 1993, 1997, 1998). Selection of subjects was stratified according to level and

branch within each department in order to have all levels and a cross-section of management from each department represented. Approximately 20 men and 20 women from each of the departments participated in semi-structured interviews which lasted, on average, 1 1/2 to 2 hours.

There are some demographic differences between males and females (See Table 32¹⁴). The male managers are older than the female managers, a mean age of 49.3 ($SD=5.5$) years compared to 45.6 ($SD=5.5$) years for the female managers¹⁵. In addition, the male managers have been in their present positions longer than the female managers, 4.3 ($SD=3.6$) compared to 2.8 ($SD=2.8$) years for male and female managers,

Table 32.

Demographic Characteristics of Female and Male Managers^{a,1}

<u>Demographic Feature</u>	<u>Females^b (SD)</u>	<u>Males^c (SD)</u>
Age	45.6 (5.5)	49.3 (5.5)*
Years in Public Service	17.5 (7.3)	20.7(4.8)**
Years in position	2.8 (2.8)	4.3 (3.6)*
Number of hours worked per week at the office	46.1 (7.1)	46.5 (6.8)
Number of hours worked per week at home	5.4 (5.2)	6.0 (4.8)
Percent married	78.6	94.6*
Percent with children	64.3	89.3**
Percent with children living at home full-time	46.4	50.0
Percent with pre-school age children living at home full time	7.0	3.6
Of those who require childcare arrangements:		
percent with nannies	46.7	28.6

Note. ^a Adapted from Phillips, Little & Goodine, 1997

respectively. Finally, the family demographics are notably different for females in that only 78.6 percent ($n=44$) are married¹⁶ and 64.3 percent ($n=36$) have children while 94.6 percent ($n=53$) of the males are married and 89.3 percent ($n=50$) have children. Only a small percentage of either female or male managers have pre-school age children living at home, (7 percent of the females and 3.6 percent of the males).

Measures

Personal interviews of approximately 1 1/2 to 2 hours were used to collect these data. The assessment tools which are relevant to this study include: (More detail on each of the measures is provided immediately following this overview.)

- Demographic Information
- Measures of Well-being: Domain Specific Life Satisfaction scales (life, work, non-work, physical health and burnout (Lecci, 1990; Phillips, Little & Goodine, 1993, 1997));
- A modified PPA package consisting of some of the standard PPA dimensions and some new dimensions introduced for this study
- Job Needs and Aspirations Checklist (Phillips et al., 1993, 1997)
- Organizational Culture Checklist (Phillips et al., 1993, 1997)

Demographic information. This section of the questionnaire was designed to elicit basic demographic information such as age, gender, marital status, number and age of children, length of time in the public service and level in the management classification.

Measures of subjective well-being. The Domain Specific Life Satisfaction Scales include five separate items¹⁷ which determine satisfaction across a variety of domains (Lecci, 1990; Wilmut, 1993). A ten-point Likert-type scale which ranges from 0

(completely dissatisfied), through 5 (neutral) to 10 (completely satisfied) assesses global satisfaction with life as a whole, work life, non-work life, physical health and the extent to which the individual feels "burned out." Subjects were asked to respond to these items in the following fashion: "In general, how satisfied or dissatisfied are you with your **work life** as it is right now?" Two of the global measures of well-being (satisfaction with life as a whole and physical health) are standard ones used in the Social Ecology Laboratory. Three new global measures were used in this ongoing study -- overall satisfaction with work life, non-work life and the extent to which an individual is burned out (see Appendix L for the full package).

Personal Projects Analysis. Personal Projects Analysis (PPA), as discussed in Chapter 5, consists of several interrelated modules. A slight modification to the standard Project Elicitation List was used in this study (Appendix L). A modification to the PPA Matrix in this study was its division into space for five work projects and five non-work projects (Appendix L). The personal project dimensions included in this study which are not standard are: **commitment, competence, support, possible self, supportiveness of culture, hindrance of culture and job need fulfillment.**

Procedure

In order to obtain subjects from two different departments and one central agency¹⁸, the deputy minister in each department or agency was contacted by one of the Principal Investigators, the nature of the study was explained and a request was made for the support of the study. The study received enthusiastic support from the deputy ministers who provided lists of women and men in management and sent a memo of

support for their participation to accompany the letter of introduction which was sent to each potential candidate. Twenty women and twenty men from each department were selected, taking into consideration level and function across each of the two departments and the central agency. Individuals were contacted by a letter of introduction¹⁹ (Appendix M) and this was followed up by a telephone call to determine if the individual was willing to participate in the study. If participation was agreed upon, an arrangement was made to conduct an interview at the subject's place of work. Only two individuals declined to participate in the study for a response rate of 98 percent. The final number of subjects for this study was 112 (56 women and 56 men). Eight subjects were deleted from the analysis as they could not be interviewed in the same time frame as the others of the same gender. The interviews lasted approximately 1 1/2 to 2 hours and were all conducted by this investigator during the time frame of May to July 1991 for the women and April to July 1992 for the men²⁰. At the time of the interview, all subjects completed a consent form (Appendix M). Individuals were informed that the results of the study will be made available to the department and that they will have access to these results²¹.

Results

The results are presented in four main sections²². The first section describes the nature of the work and non-work projects to which this group of executives commit and assesses gender differences in this commitment. Within gender, we also assess commitment to work and non-work domains. In section two, we explore the PPA factors which contribute to commitment, again probing any gender differences within the most prominent factor as a basis for comparison with Study 1. Again, we explore within and

between gender differences in the work and non-work domains. The third section focusses on SWB in two different ways. First, we seek to replicate the role of commitment as a mediator between perceived competency in work projects and a specific measure of SWB, work satisfaction. Second, we examine motivational features of commitment by determining job aspirations and values that contribute to its enhancement. The fourth section focusses on the relative importance of commitment to work satisfaction when we consider a macro picture of the work domain: demographics, PPA work factors, job needs and aspirations and organizational culture.

The Personal Projects of Managers in the Public Service

Categorization of projects. In order to probe into the nature of the work and non-work projects of this sample of managers, projects were categorized based on two separate categorization schemes (one for work and one for non-work projects) both of which were developed in the Social Ecology Laboratory. The categorization format we used for the non-work projects is identical to the one used in the undergraduate sample reported in Chapter 3 (see Appendix A). The categorization format for the work projects was developed for use with samples from both the public and private sector (Phillips, Little & Goodine, 1993). Appendix M details the classification scheme for nine different project categories – **self-development** (taking courses, career planning, networking); **managing people** (motivating staff, team building); **administration** (writing evaluations, minutes of meetings, cleaning up the backlog); **dealing with superiors and colleagues** (liaising with colleagues in other departments, meeting and working with supervisors); **political and public sensitivity** (consultations with the public, dealing with the minister's

office); **financial management** (budget preparation, managing financial affairs); **policy/program development** (development of policies and programs, formal and informal policy review and design); **policy/program implementation** (implementing policies, dealing with clients and regions); and **strategic planning** (review of departmental priorities, planning for reorganization of government). This author and two independent judges categorized all of the projects; the concordance rate was 90% in the work projects and 98% in the non-work projects.

i. Work projects. Table 33 displays the frequencies and percentages of work projects across gender. When we examine the most predominant project types --self-development, managing people, administration, policy development and policy

Table 33.

Frequencies of Work Projects by Category and Gender

<u>Project Category</u>	<u>Females^a</u>	<u>Males^b</u>
	<u>Number of Projects (%)^c</u>	<u>Number of Projects (%)^c</u>
Self-development	40 (14.4)	33 (12.0)
Managing People	47 (16.9)	27 (9.8)
Administration	75 (27.0)	51 (18.5)
Dealing with Superiors	15 (5.4)	19 (6.9)
Political Sensitivity	6 (2.2)	9 (3.3)
Financial Management	4 (1.4)	9 (3.3)
Policy Development	50 (18.0)	80 (29.1)
Policy Implementation	26 (9.4)	34 (12.4)
Strategic Planning	15 (5.4)	12 (4.4)

Note. ^an=56; ^bn=56; ^c% of total projects within gender

implementation --gender differences are apparent [χ^2 (4, N=458)=17.57, $p<.01$]. As can

be seen here, Administrative and Policy Development projects have the highest frequencies and percentages. Administrative projects have percentages of 27.0% and 18.5% for women and men, respectively, whereas Policy Development projects have percentages of 18.0% and 29.1% for women and men, respectively. Also, at the project level, women subjects listed almost twice as many managing people projects as did their male counterparts.

However, when we analyzed project representation, i.e., the degree to which each project category is represented in each manager's project system²³, we see that the picture changes somewhat but not greatly. The policy implementation as well as the self-development projects are equally represented across gender (39% compared to 41%; and 41% compared to 41% for the policy implementation and self development projects for female and males subjects, respectively). In the policy development category, men appear to have a significantly greater number at the project level; however, there are no differences across gender when we consider project representation, 57% and 62.5% for females and males, respectively. Seventy-one percent of the women managers listed at least one administrative project whereas only 55% of men did so. Finally, at the project level, women listed twice as many managing people projects as men listed; at the project representation level, 55% of the women managers included at least one managing people project compared to 39% of men. Thus, we see a somewhat more even distribution of project categories when we examine project representation [$\chi^2(4, N=282)=2.14, p=.71$]. The only notable tendencies are a greater project representation for women in both managing people and administrative projects. A random sample of the different project

types is listed in Table 34.

Table 34.

Random Sample of Work Personal Projects by Category

Self-development

Get a regional job
 Language training
 Go to Queen's executive three week course
 Renewing morale and sense of purpose and mission
 Begin job search

Managing people

Making branch management a team
 Develop goals for immediate staff
 Ensure staff participation occurs -- more independence and autonomy
 Time to develop employees

Administration

Finalizing work plan
 Finish staffing projects underway
 Conceptual and physical organization of move to 9th floor
 Correspondence under control

Policy/program development

Formalize audit policy and procedures
 Legislative and regulatory changes
 Developing strong Canadian role in international 'x' regulation policy
 Build some mathematical models of the labour market

Policy implementation

Implementing the departmental operational planning process based on
 Negotiate contracts with two prime bidders
 Service to the public
 Ensure timely establishment of a given special operating agency

No interaction of gender and category in commitment²⁴ to work projects was apparent; no main effect for gender was evident in commitment to the work projects

($F(1,339)=.96, p=.33$) although there was a main effect for project category ($F(4,339)=5.2, p<.001$). A one-way ANOVA was conducted to determine which project category types were the highest in commitment. For this analysis, we chose the project categories which were highest in frequency, the self-development, managing people, administration, policy development and policy implementation projects. Results indicate a significant difference in commitment across the project categories [$F(4,340)=5.08, p<.001$]²⁵. Using an alpha level of .05, Scheffé's test indicates the differences to be between self-development projects ($M=7.5, SD=2.3$) and managing people ($M=8.5, SD=1.7$), project development ($M=8.6, SD=1.7$) and project implementation projects ($M=8.9, SD=1.5$)²⁵. Clearly, on average, the focus and commitment of these managers is on the issues related to their present jobs rather than on their own self-development.

ii. Non-work projects. Table 35 displays the frequencies and percentages of non-work projects across gender. As can be seen, the most frequently endorsed projects are leisure projects and interpersonal projects. Leisure projects have percentages of 39 and 37 for males and females, respectively, while interpersonal projects have percentages of 28 and 33 for males and females, respectively. Not surprisingly the occupational/academic projects are the least frequently endorsed as we probed for the work projects in the first half of the PPA matrix. No gender differences across project category frequency were noted [$\chi^2(5, N=547)=2.79, p=.73$].

When we again considered project representation, i.e., the extent to which the projects are represented in the subjects' project systems, we see that the leisure and interpersonal projects retain their prominence. Ninety-one percent of the men have at

least one leisure project while 86% of the women have at least one leisure project. In the interpersonal projects, 73% of the men and 82% of the women have at least one of these projects in their PPA matrix. Administrative projects were listed by 59% of the men and 52% of the women²⁷. Again no differences in project frequency were noted across gender when we considered project representation [$\chi^2(5, N=324, p=.91)$]. Table 36 lists a random sample of these different project types.

No interaction of gender and category in commitment to non-work projects was apparent; no main effect for gender was evident in commitment to the non-work projects although there was a main effect for project category [$F(3,244)=57.05, p<.001$]. A oneway ANOVA across the three most frequently noted project types, (interpersonal, leisure and administrative), and subsequent Scheffé's test indicates the differences to be Table 35.

Frequencies of Non-Work Projects by Category and Gender

<u>Project Category</u>	<u>Females^a</u>	<u>Males^b</u>
	<u>Number of Projects (%)^c</u>	<u>Number of Projects(%)^c</u>
Occupational/Academic	10 (3.6)	12 (4.5)
Health/Body	17 (6.1)	12 (4.5)
Interpersonal	88 (32.7)	75 (27.9)
Intrapersonal	18 (6.5)	15 (5.6)
Leisure	103 (37.1)	106 (39.4)
Administrative	42 (15.1)	49 (18.2)

Note. ^a $n=56$; ^b $n=56$; ^c% of total projects within gender

Table 36.

Random Sample of Non-Work Personal Projects by CategoryOccupational/Academic

Finish master's in philosophy

Ongoing study of physics: courses

Reading on the machinery of politics and government

Develop computer skills

Health/Body

Get in better shape

Recuperate/exercise knee

Avoir et suivre un plan de sante (Have and follow a plan of health)Interpersonal

Fully participate in Big Sister's marketing activities

Closer relationship with kids

Teach kids everything

Reestablishing relationships with my semi-estranged family

Central volunteer bureau activities

Intrapersonal

Work constantly at improving my confidence

Helping myself to better balance personal life/work

Mieux vivre (Live better)

Spend more time reading

Leisure

Make cottage renovation decision

Planning my next trip

Gardening

Improve my jazz guitar

Plan landscaping

Administrative

Sell my house

Financial situation

Finding a babysitter

between interpersonal projects and both leisure and administrative projects. Mean scores

are 8.74 (SD=1.30), 7.39 (SD=2.15) and 6.76 (SD=2.59) for the interpersonal, leisure and administrative projects, respectively²⁸.

Global domains of work and non-work projects. As the non-work and work projects of our sample were commensurable, we were able to assess commitment across and within gender. In the non-work projects, females scored significantly higher than males, with mean scores of 7.6 (SD=.84) and 7.2 (SD=.96), respectively [$t(109)=-2.31$, $p<.05$]. The same pattern held for the work projects; females scored 8.3 (SD=1.1) and males scored 7.7 (SD=.75) [$t(97)=-3.62$, $p<.001$].

We next examined commitment within each of these groups to determine if subjects, on average, have higher scores to their work or non-work projects. Using paired-t tests, we found that both men and women report higher commitment to their work projects than to their non-work projects ($[t(55)=4.28$, $p<.001$] for women and $[t(55)=4.03$, $p<.001$] for men)²⁹.

Thus far, more similarities than differences are apparent across the work and non-work projects of this executive group. The distribution of project types is similar across gender in the work projects of these individuals although a larger percentage of women than men report managing people projects. Similarly, the non-work project category frequencies of these individuals are similar across gender.

When we examine commitment within the work projects, we see that, on average, these executives are more committed to everyday work projects such as "time to develop employees;" "formalize audit policy and procedures;" and, "implementing the departmental operational planning process" as compared to self-development projects such as "language

training" and "get a regional job." Within the non-work projects, we see that interpersonal projects such as "closer relationship with kids" and "central volunteer bureau activities" have the highest ratings on commitment. When we examine the global level of project ratings, we see that females, on average, have higher scores than males on commitment to their non-work projects; this also holds for work projects. Within gender, both females and males report higher scores to their work projects than to their non-work projects. We next searched for common themes within the projects of this group of executives.

The Relation between Commitment and the PPA Factors

i. Commitment measure. As discussed, subjects in this study were asked "To what extent are you committed to the successful *completion* of this project?" In order to have commensurability with our measure of commitment from Study 1, we estimated commitment to the personal project, (i.e., "To what extent are you committed to this project?") from a different sample of managerial women and men by using regression analyses. The sample was taken from both public and private sectors where this dimension was included in the questionnaire²⁴.

As in the undergraduate sample, and as we have noted, a gender difference in the mean level of commitment was evident in the work and non-work projects of this sample. Gender was therefore used as a covariate in the following regression analyses.

ii. Work satisfaction measure. An examination of the demographic variables with work satisfaction revealed a significant correlation with level in the organization such that those who were at higher levels in the organization had greater work satisfaction

[$F(5,105)=3.19, p<.01$]. As such, we also used level in the organization as a covariate in the analyses related to work satisfaction.

Multiple regression analysis of commitment on PPA work factors. To examine the contribution which the PPA work factors make to the prediction of commitment, commitment was regressed on the PPA factors using a between-subjects design (Table 37). The PPA factors were determined from this sample plus an additional sample of public and private sector male and female subjects ($n=201$) in order to have an appropriate n to variable ratio (See Appendix O). Three factors were retained based on their eigenvalues and interpretability. The factors are: **Personal Meaning** (enjoyment, self-identity, satisfaction of job needs, self-worth, challenge, value congruency, initiation and possible selves (the degree to which the project contributes to becoming the possible self selected by the individual)); **Support** (cultural support, support of supervisors and co-workers, other's view of importance and cultural hindrance (negative loading) and; **Competency** (difficulty (negative loading), stress (negative loading), competency, outcome and control). No gender differences were apparent on the PPA factor scores [$F(3,108)=.78, p=.51$].

After accounting for gender which has an Adjusted R-square of .10, we see the PPA factors explain 37% of the variance in commitment to work projects (Table 37). Personal Meaning is the most prominent factor with a Beta weight of .43³⁰.

Table 37.

Hierarchical Multiple Regression Analysis of Commitment scores on the PPA Work Factor Scores¹

Dependent variable-Commitment to Project

Block 1 - Covariate -- gender

Multiple R	.33	$F(1,109)=13.07, p<.001$
R Square	.11	
Adjusted R Square	.10	

Block 2 - PPA Work Factors

Multiple R	.67	$F(4,106)=21.15, p<.001$
R Square	.44	
Adjusted R Square	.42	Adjusted R Square change .37***

Variables in the equation

<u>Covariates</u>	<u>Beta</u>	<u>T</u>
gender	.39***	5.35
Personal Meaning	.43***	5.80
Support	.18*	2.46
Competency	.26***	3.50

Meaning revisited. When we compare the academic projects of the undergraduate sample to the work projects of the executive sample, we see that there is an augmentation of the Meaning factor as it relates to work commitment in the latter group. To understand the underpinnings of this factor and to provide a comparison for Study 1, we examined the semi-partial correlations of enjoyment, self-identity, job need satisfaction, self-worth challenge, value congruency, initiation and possible self facilitation (Table 38).

Table 38.

Semi-Partial Correlations between the Dimensions comprising the PPA Factor of Personal Meaning and Commitment by Total Sample and Gender (Work Projects)¹

<u>Variable</u>	<u>All Subjects^a</u>	<u>Males^b</u>	<u>Females^c</u>
Enjoyment	.04	.01	.18
Self-identity	.06	.05	.10
Need satisfaction	.00	.08	.07
Self-worth	-.03	-.01	-.16
Challenge	.22**	.11	.28**
Value congruency	.24**	.20	.19
Initiation	.04	.06	.05
Possible selves	-.00	-.00	-.08

Note. ^an=112

When we examine the dimensions of the Meaning factor using semi-partial correlations (i.e., after removing the linear effects of the other independent variables), we see that value congruency and challenge are the most important contributors to commitment. The relation for value congruency holds across gender. For women, challenge is accentuated as a contributor to work commitment.

Balance in work and non-work meaning. As we had commensurable measurement in the work and non-work projects, we examined Meaning, the most salient PPA factor related to commitment, between these two domains. The Meaning factor was composed of the PPA dimensions of enjoyment, self-worth, challenge, self-identity, value congruency, possible selves and initiation (Appendix Q). Using paired-t tests, we found that men and women report equal amounts of Meaning in both their work and non-work projects.

Multiple regression analysis of commitment on PPA non-work factors. To

examine the contribution which the various PPA factors make to the prediction of non-work commitment, it was regressed on the PPA non-work factors. These factors were determined from this sample plus an additional sample of public and private sector male and female subjects (n=201) in order to have an appropriate n to variable ratio (see Appendix R). These factors were: **Meaning/Community** (support, possible selves, other's view of importance, enjoyment, self-worth, value congruency and challenge), **Structure** (initiation, control, self-identity) **Competency** (competency, outcome); and **Stress** (stress, difficulty and time pressure). After entering gender which accounted for Table 39.

Hierarchical Multiple Regression Analysis of Commitment scores on the PPA Non-Work Factor Scores¹

Dependent variable-Commitment to Project

Block 1 - Covariate -- gender

Multiple R	.27	$F(1,105)=8.22, p<.01$
R Square	.07	
Adjusted R Square	.06	

Block 2 - PPA Factors

Multiple R	.61	$F(4,106)=17.21, p<.001$
R Square	.38	
Adjusted R Square	.35	Adjusted R Square change .31***

Variables in the equation

<u>Covariates</u>	<u>Beta</u>	<u>T</u>
gender	.17*	2.08
Personal Meaning/Community	.40***	5.04
Structure	.19*	2.37
Competency	.29***	3.45
Stress	.01	.14

6% of the variance in commitment, the PPA factors contributed 31% to the variance in commitment. Meaning/Community was the strongest contributor to commitment with a Beta weight of .40 (see Table 39).

When we probe into the Meaning/Community factor and examine semi-partial correlations, we again see value congruency to be the strongest contributor to commitment. Again, this relation holds across gender (see Table 40).

Table 40.

Semi-Partial Correlations between the Dimensions comprising the PPA Factor of Meaning/Community and Commitment by Total Sample and Gender (Non-Work Projects)[†]

<u>Variable</u>	<u>Semi-Partial Correlation</u>	<u>Males^a</u>	<u>Females^b</u>
Support	.07	.04	.08
Other's view	-.08	.04	-.19
Self-worth	.08	-.09	.27
Possible selves	.15	.13	.13
Value congruency	.36	.28*	.36**
Enjoyment	.05	.14	-.04

Note. ^an=56

In sum, when we regressed commitment on the PPA work factors and the PPA non-work factors, we saw that Meaning (although composed of slightly different variables for each) was the primary contributor to the equation. When we examine the Meaning factor of the work and non-work projects, what emerges as a common theme of commitment across gender in this group of executives is engaging in projects which are "consistent with the values which guide your life."

Commitment and Work Satisfaction

Commitment as a mediator between perceived competence in work projects and work satisfaction. Having established a mediation role for commitment in our first sample of undergraduate students, we sought to replicate this in our mature sample of executives. Again we used Baron and Kenny's (1986) three requirements to satisfy a hypothesized mediational model. The first link in the model was established through the direct effect of the predictor variable (competency) ($\beta=.44$, $p<.001$) on the mediator (commitment). Second, for mediation relevancy, the direct relation between the predictor variable (competency) and the criterion measure (work satisfaction) was established ($\beta=.32$, $p<.001$). Finally, the mediator variable (commitment) significantly affected the

criterion measure with the predictor variable controlled ($\beta=.31$, $p<.01$) and the direct

relationship between the predictor (competency) and the criterion measure (work satisfaction) was diminished (β decreased from .32 to .19, $p < .05$). Figure 7 depicts this relation. Thus, we see that efficacy or competency is related to work satisfaction in this high functioning group of senior executives; however, it is at least in part through commitment that this relation unfolds.

Table 41.

Hierarchical Multiple Regression Analysis of Work Satisfaction on the PPA Work Factor Scores⁺

Dependent variable-Commitment to Project

Block 1 - Covariate -- gender, level

Multiple R	.24	$F(2,107)=3.17, p<.05$
R Square	.06	
Adjusted R Square	.04	Adjusted R Square change .06*

Block 2 - PPA Commitment

Multiple R	.45	$F(3,106)=8.97, p<.001$
R Square	.20	
Adjusted R Square	.18	Adjusted R Square change .15***

Block 3 - PPA Factors

Multiple R	.56	$F(6,103)=7.91, p<.001$
R Square	.32	
Adjusted R Square	.28	Adjusted R Square change .11***

Variables in the equation

	<u>Beta</u>	<u>T</u>	
gender	.02		.04
level	.16		1.90
commitment	.23		2.07*
Personal Meaning	.06		.62
Support	.29		3.40***
Competency	.19		2.11*

PPA work commitment, factors and work satisfaction. We next examined the relative importance of commitment in comparison to the other PPA Factors in predicting work satisfaction. In a hierarchical regression analysis, the covariates (gender, level) were forced into the equation followed by PPA work commitment. Subsequently, the PPA factors of Personal Meaning, Support and Competency were entered into the equation. Table 41 presents the results of this analysis.

After adjusting for the covariates, which explain 4% of the variance in work satisfaction, we see that PPA commitment alone adds another 15% of incremental variance to this prediction ($R\text{-square change} = .14, p < .001$). Finally, the PPA factors contribute an additional 11% of incremental variance to the prediction of work satisfaction ($R\text{-square change} = .11, p < .001$).

An examination of the Beta weights in the full equation indicates the Support factor (composed of organizational culture support, lack of organizational culture hindrance, support of supervisors and co-workers and other's view of importance) to have the highest Beta weight followed by PPA commitment and the Competency factor. In sum, 28% of the variance in work satisfaction is explained by our regression model. The importance of PPA commitment is evident in that it alone explains 15% of the variance in work satisfaction.

Job Needs and Aspirations of Managers in the Public Service

We next analyzed job values and aspirations in search of those which serve to enhance commitment and ultimately work satisfaction in this group of senior managers. Table 42 displays the most and least important job needs and aspirations which were

endorsed by individuals in this sample. For both men and women, the same aspects of a

Table 42.

Most and Least Important Job Needs^a

<u>Job Need</u> <u>Difference</u>	<u>Mean</u>		<u>Mean</u>			
	<u>Ideal Job</u>		<u>Actual Job</u>		<u>(Ideal-Actual)</u>	
	Women	Men	Women	Men	Women	Men
<u>High Scores (Range 0-10)</u>						
Feeling a sense of achievement	9.5	9.2	7.7	7.7	1.8	1.6
Having a sense of personal integrity	9.3	9.0	8.3	8.1	1.0	.9
Making use of abilities	9.2	8.7	7.6	7.8	1.6	.9
Being involved in decisions	9.1	8.9	7.5	7.8	1.6	1.1
Doing interesting things	9.1	8.8	8.2	8.1	.9	.7
Having a sense of purpose	9.0	8.7	7.9	7.6	1.1	1.1
Feeling a sense of self-worth	8.9	9.0	7.8	7.7	1.1	1.3
Being able to exercise leadership	8.5	8.4	7.8	7.8	.7	.6
Doing things that benefit society	8.5	8.3	7.4	7.1	1.1	1.2
Having an opportunity to be innovative and creative	8.4	8.4	7.2	7.7	1.2	.7
Having policies administered fairly	8.4	7.8	6.8	6.3	1.6	1.5
Having recognition for one's work	8.4	8.0	6.9	6.5	1.5	1.5
<u>Low Scores (Range 0 -10)</u>						
Having a superior who ensures career development	6.8	5.9	5.8	4.9	1.0	1.0
Having job security	6.6	6.5	7.4	6.9	-.8	-.4
Having power	6.5	6.6	6.2	6.0	.3	.6
Being busy all the time	6.4	6.7	8.5	8.5	-2.1	-1.8
Having pleasant work conditions	6.4	6.1	7.1	6.8	-.7	-.7
Being in a competitive game	3.5	4.5	6.0	6.1	-2.5	-1.6
Promoting social status	3.4	4.4	4.8	4.8	-1.4	-.4
Having a structured work environment	3.0	3.5	4.4	5.0	-1.4	-1.5

Note. ^aAdapted from Phillips, Little & Goodine, 1997

job are important. Feeling a sense of achievement and having a sense of personal integrity

are the most important for both sexes. Further, making use of their abilities, being involved in decision making, having interesting and challenging work, a sense of purpose and self-worth are also critical job needs for these executives.

When we examine the ratings of these job needs in their current jobs using MANOVA, our findings reveal that there are no differences across gender [$F(12,98)=1.31, p=.22$]. Further, we examined the degree to which these needs are actually being met in the Public Service careers of these individuals by calculating absolute discrepancy scores between ideal job rating and actual job rating of the individual needs and values. Gender differences were apparent in the absolute discrepancy scores of the most important job needs and values identified by these subjects [$F(33,73)=4.46, p<.001$]. For women, there was a greater discrepancy in what they aspire to in an ideal job and what they experience in their current job for the following job needs: using their abilities, having a supervisor who ensures their career development, doing interesting and challenging work, having support and encouragement from supervisors, being in a competitive game and being around powerful people.

It is also noteworthy, however, that the most important job needs which have the highest discrepancy ratings for both men and women are: feeling a sense of achievement, having organizational policies administered fairly and having recognition for one's work.

The relation of commitment to job needs and aspirations. Next, we investigated which of the important job needs and aspirations identified by this group of senior executives are related to work commitment. Pearson product moment correlations determined that the current degree of commitment in the executives' work projects is

related to: a sense of purpose and meaning ($r=.26, p<.01$), a sense of achievement/accomplishment ($r=.20, p<.05$) and, a sense of personal integrity, i.e., knowledge that what you are doing is ethically responsible ($r=.19, p<.05$)³¹.

Note that having a sense of achievement/accomplishment and having a sense of personal integrity are the two most important job needs identified by this group of managers.

The Relative Importance of Commitment to Work Satisfaction

To take a more macro perspective on the relative importance of commitment in predicting work satisfaction, we considered a more complete model of work satisfaction (Table 43). The demographic variables of gender, level in the organization and marital status were entered into the equation; these accounted for 5% of the variance in work satisfaction. We next entered PPA commitment into the equation and determined an incremental variance of 13%. The PPA factors of Meaning, Support and Competency contributed an incremental variance of 11%.

The job needs factors of Challenge/Purpose and Recognition/Support contributed an additional 15% to the variance in work satisfaction. Finally, the Organizational Culture factors³² of Just/Caring, Structure, Overload, Challenge and Effective (Appendix T) did not contribute additional variance to the prediction of work satisfaction. In sum, the entire model explained 44% of the variance in work satisfaction. Of particular interest to this thesis is that PPA commitment alone contributed 13% to the variance in commitment.

Table 43.

Hierarchical Multiple Regression Analysis of Work satisfaction on the Demographics, Commitment, PPA Work Factors, Job Aspiration Factors and Organizational Culture Factors[†]

Dependent variable-Commitment to Project

Block 1 - Covariate – gender, level, marital status

Multiple R .28 $F(3,102)=2.97, p<.05$

R Square .08

Adjusted R Square .05

Block 2 - PPA Commitment

Multiple R .46 $F(4,101)=6.87, p<.001$

R Square .21

Adjusted R Square .18 Adjusted R Square change .13***

Block 3 - PPA Factors - Meaning, Support, Competency

Multiple R .57 $F(7,98)=6.77, p<.01$

R Square .33

Adjusted R Square .28 Adjusted R Square change .11**

Block 4 - Job Needs Factors

Multiple R .69 $F(9,96)=9.72, p<.001$

R Square .48

Adjusted R Square .43 Adjusted R Square change .15***

Block 5 - Organizational Culture Factors

Multiple R .72 $F(14,91)=6.90, p=.22$

R Square .51

Adjusted R Square .44 Adjusted R Square change .04

Variables in the equation

<u>Variable</u>	<u>Beta</u>	<u>T</u>
gender	.00	.01
level	-.01	-.14
marital status	-.04	-.45
commitment	.15	1.41
PPA Meaning	.02	.28
PPA Support	.04	.47
PPA Competency	.17	2.03*
Need for Challenge/ Purpose	.38	4.04***
Need for Recognition/ Support	.15	1.58
OC Just/Caring	.18	1.92
OC Structure	-.16	-2.04*
OC Overload	.00	.01
OC Challenge	.09	1.11
OC Effective	-.01	-.10

Endnotes

1. Significance levels are indicated by the following symbols for all tables: * $p < .05$; ** $p < .01$; *** $p < .001$.
2. Competency was the highest loading on the Personality Meaning/Competency factor when we assessed it using three decimal places.
3. Wicklund and Gollwitzer (1982) used discrepancy scores between self assessment of physical fitness and an objective criterion of physical fitness.
4. We used self reported GPA score in these analyses as earlier researcher reports it to be highly correlated with actual GPA score (e.g., Little, 1988).
5. However, as the trend of self-aggrandizement was apparent, we examined the possible implications of this phenomenon in terms of subjective well-being.
6. We examined actual GPA scores and competency scores within each group in order to ensure that this 'on average' discrepancy was actually occurring 'in general' (Thorngate, 1986). In the high commitment group, 77% of the individuals had competency scores greater than GPA scores; 64% had a greater than 1 differential between their competency score and their GPA score. In the middle group where we expected individuals to be more accurate in their assessment of their competency, 48% fell within a range of ± 1 discrepancy score. Finally, the low commitment group where we expected an underestimate of their competency levels or more 'sloppy' responding, we found 23% of the respondents had discrepancy scores greater than 1 in the negative direction, i.e., GPA scores were higher than their competency scores. Thus, the 'in general' case appears to be accurate for the high commitment group, to some extent for the middle commitment group but not for the low commitment group.
7. For the birthplace analysis, subjects were divided into Canadian-born (112 subjects) and non-Canadian born groups (60 subjects).
8. Norusis (1994) suggests this method to be preferable to either single or complete linkage methods for cluster analysis as it uses information regarding all of the pairs of distances rather than just the nearest or the furthest.
9. The six-cluster solution appears before the distances at which clusters are combined becomes too great (Norusis, 1994).
10. A guideline for terminating agglomeration is when the increase between two adjacent steps becomes large (Norusis, 1994).

11. Six individuals who had been identified in the four clusters had no academic projects and so were eliminated from the analysis. No univariate or multivariate outliers were identified for the independent variables. An evaluation of assumptions of normality indicated no violation with respect to this assumption. Although Box's M test was statistically significant ($p < .001$), an examination of the variance and co-variance matrices for each group did not reveal there to be larger variances and covariances within the smaller sample. Therefore the alpha level was considered to be conservative (Tabachnik & Fidell, 1989). As Group 1, the Unengaged Students, had only 12 subjects in it, there were too few cases for a non-singular covariance matrix. Therefore, the non-singular groups were tested against their own pooled within-groups covariance matrix.
12. It was decided to isolate the personal project dimension of academic stress to ascertain any group differences on this measure. Although the dimension of stress is included as part of the PPA factor of stress, we were interested in this specific dimension alone.
13. Although GPA is not considered a component of SWB, it gave us an objective measure of how the various work profile groups were faring academically.
14. This sample has been described in Phillips, Little and Goodine (1993, 1997). However, the focus of this study was on examining commitment in a more in- depth fashion than has previously been described.
15. This finding is not surprising in view of the relatively recent effort to seriously promote women managers.
16. Note that the question regarding marriage was phrased so as to include common-law relationships.
17. See Burish (1984a, 1984b) for a discussion on the utility and validity of using a direct one item measure.
18. Several factors guided the strategic choice of the number of subjects, their level and location within departments for the first data collection (May to July 1991). These included: a desire for richness of data, a focus on the management category only, concentration on women only, an inclusion of three departments/agencies in order to relate the impact of organizational culture on the experiences of women and an avoidance of departments that have a reputation for being male dominated (Phillips, Little & Goodine, 1993). As funding became available for a second study (April to July 1992) we were able to consider gender differences in these samples.

19. A consent form was included with the introductory letter (Appendix L).
20. The sequential nature of funding resulted in the men being interviewed one year later than the women.
21. Both the first study, "Just managing and women managers: From personal projects to public service," and the second study on gender differences, "Organizational Climate and Personal Projects: Gender Differences in the Public Service (Ottawa: CCMD, 1997) are available through the Canadian Centre for Management Development.
22. Throughout the analyses all variables were assessed for outliers (univariate and multivariate), normality and homogeneity of variance. Identification of univariate outliers was obtained by using a standard score of ± 3.00 for each variable (See Chapter 3, Endnote #11). Multivariate outliers were determined using Mahalanobis' distance. Normality was assessed by examination of stem and leaf plots, normal probability and detrended probability plots, Lilliefors statistic, and kurtosis and skewness scores (See Chapter 3, Endnote #12). Any changes to data were noted in Appendices; any caveats were noted in endnotes. Note that an alpha level of .05 was used for all statistical tests. Finally, we used examples of personal projects to illustrate the data throughout; all names of individuals have been changed to ensure confidentiality.
23. The requirement for project representation, was the inclusion of at least 1 project from the specified category.
24. In this study, commitment to successful project *completion* was used as a measure of commitment. To create commensurability with Study 1, we estimated commitment to the personal project using the Beta weights from another public and private sector sample. We first noted that there was no significant difference in the mean level of commitment to project completion between these groups [$t(105)=-1.93, p<.06$] for the women's managerial group and ($t(93) = 1.83, p<.07$) for the men's group. Work projects and non-work projects were estimated separately. For women, we used a sample of 51 managers and we used the following formula for the work projects: $Y^1 = 2.36 + .673(x)$; and the following formula for the non-work projects: $Y^1 = 2.78 + .60(x)$. For men, we used a sample of 36 managers and the formula, $Y^1 = 2.49 + .626(x)$ for the work projects and $Y^1 = 2.13 + .67(x)$ for the non-work projects.
25. Note that there was a violation of the homogeneity of variance assumption. As the analysis of variance test is relatively insensitive to this violation provided the samples are of equal size, the n in each of the groups was limited to approximately 70 in order to increase the robustness of the test (Pagano, 1981; Glass, Peckham & Sanders, 1972).
26. Administrative projects have a mean score of 8.2 ($SD=2.1$).

27. In the less frequently endorsed non-work project categories, we see that 17.8% of the men and 16% of the women have one occupational/academic project; 20% of the men and 27% of the women have at least one health/body project and 25% of the men and 30% of the women have at least one intrapersonal project.
28. The mean scores for the occupational, health/body and intrapersonal projects were: 7.58 (SD=1.92), 7.50 (SD=2.32) and 7.42 (SD=2.42), respectively.
29. In Little, Phillips and Goodine (1998) we reported that women have equal commitment to both work and non-work projects. In that report, we assessed committed to the successful *completion* of the project.
30. Indeed, a stepwise regression analysis indicates that Meaning alone accounts for 22% of the variance in commitment (Appendix P).
31. A factor analysis conducted on the larger sample (Appendix R) reflects these findings. Two identified factors, **challenge and purpose** (interesting and challenging work, purpose and meaning, a sense of achievement, opportunity to use abilities, involvement in decision making, exercise leadership, a sense of self-worth, new and varied experiences, working as a team, being busy and, being innovative and creative) and **recognition/support** (supervisor who ensures career development, opportunity for advancement, recognition and support and encouragement from supervisors) correlated .27 ($p<.01$) and .21 ($p<.05$), respectively. These factors were identified for the model of work satisfaction.

CHAPTER 5

Summary and Integration: Towards a Comprehensive, Motivational, Gendered Model of Personal Project Commitment

What does it mean when we say we are committed to something? We analyzed our original question by first, asking undergraduate students and Canadian Public Service executives, "What are you up to?" and second, inquiring, "How committed are you to it?" Our analysis was guided by Kiesler's historical framework on commitment and our own multidimensional conceptualization of commitment, the latter of which draws broadly from several different theoretical perspectives. Kiesler's pioneering work on commitment identified several key elements. Publicness, importance, irrevocability and the degree of volition of the act are clearly evident in the PPA factors of Community, Meaning, Constraint and Competency. Further, Kiesler (1971) was well aware of the importance of context to the understanding of individual behaviour, in particular as it relates to commitment. Thus, the personal project is employed in these studies as "a naturally occurring segment of behavior, part of the ordinary stream" as opposed to behavioral tesserae or "artificial pieces or bits of behaviors... which cut off or isolate a segment of behavior from its place in a naturally occurring stream" (Barker, 1963, cited in Kiesler, 1971, p. 44). As such, a personal project high in: importance, such as Wolverine's "Improve conversation with Dana;" initiation, such as Wave Rider's "Make it through exams;" obligation, such as Woody's "Refinish basement bathroom;" self-identity, such as "Develop and maintain an intimate relationship;" or organizational support, such as #110's "New vision of social policy," serves to provide complexity but richness and validity to the

analysis of commitment in everyday lives.

In order to explore these results in relation to the hypotheses which guided this research, a number of topics will be broken out to capture both the breadth and motivational strength of commitment. As in the previous text, aspects of methodology will be touched on throughout the discussion. A fundamental theme of this thesis, that commitment and the self are inextricably linked will be evident across the discussion. Gender issues come into play with respect to self and commitment; however, results suggest that maturity may also be a factor in this relation. As Kierkegaard's quote in Chapter 2 indicates, it is commitment that defines who we are and what we care about. In a focussed awareness of the figure (or data), one must keep a diffuse awareness to the ground (self and commitment).

First, the stage for the discussion will be set by a brief examination of our findings as they relate to a comprehensive, motivational model of commitment. The centrality of commitment in individuals' lives and its motivational strength to reflect other levels of personality will be considered. The next section will expand on this model with a discussion of the gendered nature of commitment. Our third topic of discussion, relevant to the previous section, depicts the experiential nature of commitment as an evaluative, reflective process integral to the crystallization of commitment to a self definition. The moral philosophical literature (e.g., Taylor, 1989, Greene, 1990) also provides some theoretical convergence with the experiential nature of commitment.

To what individuals commit is the fourth topic for discussion. The focus here is on the twin themes of Achievement and Intimacy. The social ecology of both of our samples

favours the saliency of achievement projects; however, there is theoretical and empirical evidence to suggest that these themes are fundamental ones across the life span.

The control and commitment cycles of action are examined in a fifth topic, that of patterns of commitment. The phenomenon of self-aggrandizement evident in personal projects of an academic nature will be examined in relation to the extant literature on positive illusions (Taylor & Brown, 1988; Taylor & Gollwitzer, 1995; Murray, Holmes & Griffin, 1995, 1996). The implications of this phenomenon will be addressed in terms of these data, current research as well as some recent research in the Social Ecology Laboratory. Finally, "...in order to recognize elements that are common to all instances in more gentle and blurred form," (Brickman, 1987, p. 5) an extreme case of this action cycle will be considered. This dissertation will conclude with a discussion of limitations to these studies and suggestions for future research.

A Comprehensive, Motivational Model of Commitment

Commitment has been depicted as a broad, multidimensional, motivational, gendered construct, having close ties to meaning and identity (Burke & Reitzes, 1991) and impacting on several life domains (Wicklund & Gollwitzer, 1982). What evidence do we have to date for this statement? At the outset, drawing on both theory and empirical research, we suggested that the personal project is well situated in the framework of personality to capture both abstract levels of personality as well as more concrete behaviour. Second, through a comparison of the various PAC units, we established the personal project as not necessarily more 'middle' than the other PAC units but as accessible, in the 'here and now' and able to capture a full range of human vagaries to

which individuals commit. In this study, commitment as a central construct in the lives of individuals was examined by its horizontal impact, i.e., its ability to capture the factors which underlie the covariation between the project dimensions. Second, evidence for the motivational strength of commitment was examined by assessing its vertical impact, i.e., its ability to tap into different levels of personality.

The first analysis, using principal axis factoring in the undergraduate sample, established five factors to underlie the covariation between the personal project dimensions. Overall, the multiple regressions at both the mean project level and the project level indicate four of the five personal project factors, Personal Meaning/Competency, Constraint (composed of the new dimensions of investment, obligation, guilt and cost), Community and Hedonism (composed of the dimensions of enjoyment, fun, fulfilment, passion, reward and self-worth) to be relevant to the prediction of commitment; they account for 48% of the variance in this construct. As anticipated, Meaning is fundamental to this prediction; the Personal Meaning/Competency factor alone accounts for 23% of the variance in commitment. However, the two new factors of Constraint and Hedonism account for 14% and 4% of the variance in commitment, respectively. Thus, we have evidence for our horizontal requirement that commitment capture the majority of the PPA factors in order to be considered as a central feature of life pursuits. Indeed, whether or not we are committed is a function of these different threads of commitment. That these threads are likely to co-occur (Brickman, 1987) is evident at the project level where we see commitment is most often associated with two factors. For example, the personal project "Be a better son to my parents" is associated

with both the Constraint factor and the Personal Meaning factor.

The breadth of commitment is also evident in both the work and non-work projects of our executive sample. All of the factors underlying the work projects—Meaning, Competency and Support—contribute to the prediction of work commitment; two of three factors in the non-work projects (Competency, Meaning/Community) contribute to commitment. We see an augmentation in the emphasis on Meaning in the Public service sample where it plays a key role in both work and non-work projects. Meaning alone explains 22% of the variance in work projects whereas Competency, still an important contributor, is muted in its explanation of 8% (incremental variance) of the variance in work commitment.

The aspect of volition has been discussed by several authors as a fundamental one to the nature of commitment¹; it is depicted in the historical work on commitment (Kiesler, 1971), and both the meaning (Brickman, Janoff-Bulman & Rabinowitz, 1987) and organizational literature (Bobocel & Meyer, 1994). Although we have labelled one of the PPA Factors in the undergraduate sample as Competency (along with Personal Meaning), it clearly contains elements of volition, particularly in the dimension of initiation ("How much you feel responsible for having initiated each project?"). The relation of volition to meaning is also seen in the organizational sample, where initiation loads on the Meaning factor along with several of the self dimensions: self-worth, self-identity and possible selves. Finally, we note that the PPA dimension of initiation is ranked high in both the undergraduate and executive sample; for the undergraduates it has the highest mean and for the executive sample, it has the fifth highest mean of all of the PPA

dimensions, depicting the self-determined aspect of personal projects in these groups.

Several new 'process related' dimensions contribute to evidence for the dynamic, motivational nature of commitment. According to Brickman and Karuza, Jr's (1987) model of the development of commitment, the 'energizing' component of commitment may involve different features, depending on the stage of the behaviour – initiation, sustained activity, or completion (Brickman and Karuza, Jr (1987). When we examined project 'stage' we found that it does contribute to predicting commitment over and above the model; as stage unfolds, PPA commitment increases. Brickman and Karuza, Jr (1987) have further described various stages of project development, Stage I exploratory or precommitment, Stage II testing, Stage III passionate, Stage IV quiet and Stage V integral. In the last stage, Stage V, these authors describe the habitual fashion in which one may carry out commitments, as from a "well-known script." Several authors have referred to this as an "automatic" aspect of commitment (Brickman, 1987; Bielby, 1992). The PPA dimension of automaticity ("To what extent do you proceed in an automatic fashion in this project?") also contributed to the prediction of commitment, again reflecting its dynamic nature. A third process variable, flexibility ("To what extent are you flexible in your approach to this project?"), with a basis in the same model of commitment was hypothesized to explain commitment, particularly in its more advanced stage of development. The Stage V integral phase of commitment is described as complex and flexible where one is able to bring commitment in and out of focus. However, our findings indicate that flexibility contributes in a negative direction to PPA commitment; the higher the commitment, the less flexibility in one's projects. Flexibility is a complex notion that

deserves further attention, in particular as it relates to organizational commitment. The final section in this discussion (Suggestions for future research) will expand on this area.

Both research and theory have established that it is valuable to include more than one level of analysis in personality to know and understand individual behaviour (e.g., Little et al., 1992a; Costa & McCrae, 1992; Thorne, 1989; McAdams, 1995). Of interest to our vertical requirement for commitment's motivational strength is evidence that four out of the five NEO-PI-R domains, O², C³, A⁴ and E⁵, contribute to the prediction of commitment⁶. Dubé and Kairouz' (1994) General Disposition to Commitment Scale, composed of Attraction, Perseverance and Assimilation has its basis in the trait-like nature of commitment. However, it did not contribute incremental variance to the prediction of commitment after we considered the unique incremental variance contribution (13% Adjusted R-square) of the NEO-PI-R.

Further evidence for the optimal situation of the personal project within the personality framework as well as the motivational nature of commitment comes from the examination of the "why's" of commitment. Ninety-nine percent of the subjects responded to the question, "Why are you committed to these (2 selected) projects?" suggesting readily accessible motives for carrying out the projects to which they had committed. As anticipated, the majority of the reasons for committing to projects are related to roles, very often job-related roles in the future. Thus, committing to the "program in school" connects to the higher order identity or role of "becoming a working person" and to the trait level of Conscientiousness. The complex nature of the 'why' procedure is evident in the multiple reasons often given for one project. Our procedure did not intend to tap into

a core value⁷ but rather to obtain a first line of reflection on why people commit to projects and to ascertain connections with other aspects of personality such as values and needs. Further evidence for the motivational strength of personal project commitment is seen in its relation to the values and job aspirations of our Public Service executive sample. In particular, work commitment is related to the degree of integrity, the sense of meaning and purpose and the feeling of achievement and accomplishment that these executives have in their work projects.

A final piece of evidence for the strong, motivational nature of commitment was found in the assessment of individuals' thought frequencies. This was primarily of interest in relation to Klinger and his colleagues' extensive research on the relevance of current concerns to attention and recall and in focussing thoughts (Klinger, 1978; Klinger, Barta, Mahoney et al., 1976; Klinger, Barta & Maxeiner, 1980). With respect to thought frequency, we assumed that when queried about their personal projects, individuals will more readily have highly committed projects in mind. Indeed, almost one-half (48.7%) of the highly committed projects were indicated in the first three positions of the personal project matrix. When we examined the valences of these highly committed projects, we did not find a difference across the highly committed ones as compared to the personal projects across the entire matrix. This finding does not necessarily contradict Klinger et al.'s (1980) evidence that individuals think more about goals which are paved with obstacles as indeed they may feel competent to surmount them⁸ and thus may not label them as 'negative' projects. In sum, individuals do indeed have highly committed projects in mind, projects which are not necessarily of a negative nature, when queried about their

personal projects thus providing further support for the motivational nature of commitment.

So far, we have established that commitment is a broad, multidimensional, motivational construct and this is evidenced in its relation to four of the five PPA factors, factors which have been formulated from the structure of people's experience of their everyday lives. Further, evidence for the motivational strength of personal project commitment emerges from its relation to four of the five NEO-PI-R domains, its prevalence in individuals' thoughts and the ease with which the 'why's' of commitment come to mind. PPA work commitment is related to several critical job needs and aspirations in our executive sample. The close ties between meaning and identity and commitment (Burke & Reitzes, 1991) are seen through the predominance of the PPA Meaning factor, in predicting commitment in both samples as well as the identity-related reasons given for a first line reflection of 'why' individuals are committed to particular personal projects in the undergraduate sample. Our measure of emotional attunement provides further evidence for the relation between meaning and commitment in the section on the experiential nature of commitment. What evidence do we have for the gendered aspect of personal project commitment?

A Gendered, Comprehensive and Motivational Model of Commitment

Gender and commitment in relation to the PPA Factors of meaning and constraint.

We have noted that both Meaning and Constraint are important contributors to personal project commitment. Our analysis of gender differences within these PPA factors in the undergraduate sample reveals both commonalities and differences. Personal projects

which are high in importance, which individuals feel competent about doing and which they have invested in contribute to the degree of commitment for both males and females. For females, our evidence suggests that having a sense of self implicated in the personal projects which they are passionate about and which are linked to several life roles further enhances their degree of commitment. For males, absorption in personal projects about which they have little ambivalence is strongly associated with commitment.

Our findings concur with the literature on gender and self. As discussed, the primary focus in the vast literature on gender and self has been on the significance of relationships in women's lives (e.g., Chodorow, 1978; Bateson, 1990) albeit this has been argued from different theoretical perspectives. Our findings relate to each of these lines of reasoning. Support is demonstrated for the developmental thesis which argues that females are socialized towards connection and interrelatedness while males are socialized towards differentiation and separateness. Indeed, females have a strong sense of self and a strong connection to life roles implicated in the personal projects to which they commit. For males, we see a more individuated, autonomous association with personal project commitment; they are absorbed in and not ambivalent about the personal projects to which they commit.

Power issues form the backbone of the second perspective on differences in sense of self. If males are perceived as the 'dominants' in society, then females must accommodate to their lower status by becoming 'attuned' to the whims of the former in order to achieve their goals (e.g., Miller, 1986). Marshall's (1993) work has illustrated this phenomenon in her model of stages of awareness or adaptation of women managers.

Women are clearly considered minority newcomers to organizations and as a result they become highly attuned in order to adapt to their environment. We have suggested this acculturation process to stand behind our earlier findings on women manager's greater attunement to their organizational culture and on the culture's greater influence on their work satisfaction as compared to males (Phillips, Little & Goodine, 1997). Thus, we suggest a self-other interdependence facilitates this adaptive mechanism for women managers. In our undergraduate sample, although younger and from a different cohort, we likely see the origin of attunement in the relation of personal project commitment to self-identity and life roles.

Finally, the third theoretical perspective is related to gender differences in morality. A feminine attachment and caring perspective stresses a consideration of others and personal responsibility in moral judgments whereas a masculine orientation, based on separation and individuation emphasizes rights, fairness and justice related to the abstract "other" in moral considerations (e.g., Gilligan, 1982; Belenky, Clinchy, Goldberger & Tarule, 1986). Belenky et al.'s (1986) discourse centres on the importance of the interdependent self in relation to women's development and "women's way of knowing." Our analysis provides a conative perspective on the interdependent self, i.e., we see its saliency in women's commitment to their everyday projects and pursuits.

Relevant to this discussion are several studies in the adolescent literature related to perceptions of understanding of the nature of life domains (see Bowes & Goodnow, 1996 for a review). Our findings note that females have a greater association between life roles and personal project commitment than males. Bowes and Goodnow (1996) in their

review of the literature on changing perceptions of work in childhood and adolescence, point out that several studies indicate that adolescent girls emerge as more vigilant to the interconnections between work commitments in the paid workforce and in the household. As discussed, much of the literature on gender and self suggests that the stage for this vigilance may be set early in life.

The most salient point to be drawn from all of these perspectives is that females have a stronger relational self than males and this is evidenced in a stronger interconnectedness to the context in which they live and work. In contrast, males have a more individuated sense of self which is less sensitive to context and interpersonal relationships. Our evidence suggests this difference plays itself out in committing to life pursuits and goals. It is significant to note that the process of selfing (McAdams, 1996) and committing take place in a postmodern context where there is strong pressure to adopt a Western sense of self characterized by individualism and autonomy (Markus & Oyserman, 1989). Thus, we would expect more similarity than differences in gender and commitment. Although it appears that there are commonalities of consequence in terms of personal project commitment and gender -- having a sense of competency and investment in carrying out personal projects that one sees as important -- these data support subtle but potentially important differences in the ways in which young males and females commit.

When we examine our executive sample, this picture somewhat blurs. No matter how we parse these data, when we examine commitment in the work and non-work lives of these individuals, what emerges as a commonality is a strong sense of value congruency

i.e., commitment is strongly related to the extent to which they are engaged in projects consistent with the values which guide their lives. An important caveat in this finding is that this is a somewhat biased sample; these individuals have chosen to give "service to the public" rather than embarking on careers in the private sector. It may be that these individuals are simply more altruistic than their counterparts in the private sector. Or, perhaps they have adapted to a 'press' to behave and think in ways that are esteemed by senior members of the public service; these individuals have been in the public service, on average, for 18 and 20 years, for women and men, respectively.

However, having noted this fundamental communality, we also have noted some gender differences in commitment. Job needs and aspirations are related to commitment for both men and women. The same aspects of a job are noted to be important across gender and when we examine the ratings of these job needs in their current jobs, there are no gender differences. However, there is evidence to suggest several deficiencies in the commitment related aspirations of these women managers and their current experience, in particular fundamental job needs such as using their abilities and having interesting and challenging work. In the longer term, these discrepancies may impact on both work commitment and work satisfaction and ultimately tenure in the public service.

Our earlier finding that women are more "sensitive" to the organizational culture in which they work is another notable gender difference (Phillips, Little & Goodine, 1997). More specifically, for women there was more than a threefold linkage between assessments of personal projects and indices of organizational culture than there was for men. Indeed, commitment is a dimension which is relevant to the relation between

organizational culture and personal projects for the women but not the men (Phillips, Little & Goodine, 1997). This finding combined with our evidence towards gender differences in commitment in our younger sample suggests that while the nature of commitment in the lives of the male and female mature, executive groups is similar i.e., highly related to value congruency, the process of attaining commitment may differ for males and females. For the females, commitment may be the result of emotionally attuning oneself to the context in which one lives and works whereas for the males, commitment may be achieved primarily by maintaining a course through self-discipline and dutifulness.

The public service is a traditional organization which has been pressured to change, to become more flexible, more entrepreneurial and less bureaucratic (Osborne & Gaebler, 1992). Weick and Berlinger (1989) compare the nature of traditional and what they call "self-designing organizations" and its relevance to commitment. Traditional organizations were designed to deal with "benevolent, slow changing environments with standard operating procedures, skill specialization, and hierarchies" (Weick & Berlinger, 1989, p. 314), whereas self-designing organizations "face rapidly changing environments with improvisations, generalists, and networks" (p. 314). Commitment to change is fundamental to a self-designing organization; they are continually "focussing commitment." The concern is that commitment may serve to impede change if it is focussed on the current structure, tasks and products rather than to the process of self-design. To return to the issue of the somewhat oxymoronic notion of 'flexible' commitment, we noted earlier that flexibility was inversely related to personal project

commitment. Perhaps the assessment of the more complex notion of contextual attunement may better serve to understand commitment and its relation to the changing nature of organizations. Indeed, attunement is seen to *facilitate* flexibility or responding to changing demands in an environment (Cantor & Harlow, 1994). Marshall (1989) discusses women's more communal as opposed to agential stance to the environment. She argues that this more contextually motivated orientation, this "open contact and appreciation of the environment...results in action that is in tune with the surrounding context but is not conceptually premeditated" (p. 283). As commitment is fundamental to work satisfaction and tenure, it will be of interest to determine how males and females fare in the current process of downsizing and restructuring. We are in the process of re-interviewing a sample of these women and men (both those who have stayed and those who have left the public service) to examine their experience.

In sum, commitment has been depicted as a broad, multidimensional, motivational, gendered construct, having close ties to meaning and identity. Our findings suggest that maturity may play a role in degendering commitment over time; however, the process of committing may be gender specific. After examining commitment's experiential nature which also has relevance for gender, we will examine the life domains which are most relevant to commitment to complete our analysis of the opening statement.

The Experiential Nature of Commitment

Our first piece of evidence for the experiential aspect of commitment comes from the relation of personal project commitment to the NEO-PI-R domain of Openness (O). The domain of O is the highest correlate with commitment; its facets of feelings and

aesthetics have the strongest association with commitment. Further support is found for an emotional component of commitment when we examine Extraversion, a domain which has a modest correlation with commitment; the positive emotions facet of Extraversion has the highest correlation with PPA commitment. Globally, E has been found to relate to life satisfaction and happiness (e.g., Costa & McCrae, 1980; Watson & Clark, 1992) and it is the facet of positive emotions which is the most salient facet with respect to SWB.

Thus, our results suggest that O which "involves a disposition to explore deeply and feel sharply a diversity of life experiences -- irrespective of their valence" (Little et al., 1992, p. 508) is strongly related to the process of committing. It is the feelings and aesthetic responses that are most important in this relation rather than the capacity "to actively seek out such experiences" (p. 508). The latter, although an important component of O is less prominent in the relation to personal project commitment as evidenced in the non-significant correlation with the O facet of actions and low correlation with the E facet of activity. What is important in terms of personal project commitment from the E domain is the facet of positive emotions.

When we consider gender in the relation between PPA commitment and the domain of O, we find that there is a stronger relation for females than males. Indeed, for males, the only facet which is correlated with PPA commitment is feelings. The reverse findings are evident for the other strong link between PPA commitment and the NEO-PI-R domain, Conscientiousness (C), a trait which operates in an instrumental fashion. Male undergraduate subjects have significant correlations with personal project commitment and achievement striving, self-discipline, dutifulness and competence. For females, it is only

the facet of competence that is significantly associated with personal project commitment. Thus, it is apparent that C offers an alternative route to commitment to personal projects in men's lives.

Our second piece of evidence for the experiential nature of commitment stems from a new measure of emotional attunement, the PPA Affect Scale. As discussed, several lines of research led us in this direction (Omodei & Wearing, 1990; Lydon & Zanna, 1990; Klinger, 1987; Cantor & Harlow, 1994; Emmons, 1991; Lazarus, 1991). Our analysis examined the process by which commitment operates in the specific realm of interpersonal relationships. We considered meaning as an antecedent to commitment and examined the latter's role as a mediator between meaning and the PPA measure of emotional arousal. This measure provides a more proximal measure of affect in contrast to the global measures which are most often used in research of this nature (e.g., Diener's negative and positive affect scales). Thus a project such as "Accepting her friends" which generates the emotion of "bitterness" and has an ipsitive standardized rating of .8 brings us closer to the social ecology of "Mack" and permits an assessment of processes *within* individuals rather than patterns *between* individuals. In considering the solicited interpersonal projects 11 and 12, those which were rated high on commitment and have a strong thread of Personal Meaning/Hedonism, we see a strong relation between PPA Affect and both PPA commitment and the Personal Meaning/Hedonism Factor. A mediation analysis indicates support for commitment as a mediator variable between Personal Meaning/Hedonism and Personal Project Affect. Thus intimate personal projects accentuate emotional arousal, in part, by engendering commitment. When we consider

gender in the same mediation analysis, we see that the relations between these variables is stronger for females; nevertheless, there is a moderately strong relation between these variables for males.

Thus far, we have three pieces of evidence that PPA commitment is strongly related to emotion: the relation of PPA commitment to the trait measure of Openness, in particular the facets of feelings, aesthetics and positive emotions, the relation of PPA commitment to the positive emotions facet of E, and the relation of PPA commitment to a new proximal measure of emotional arousal, the PPA Affect Scale. More specifically, with respect to the latter, we see the interstitial nature of commitment through its mediation role between Meaning and emotional arousal. The relation between PPA commitment and Openness is stronger for females, however, at the facet level of Openness we still see a relation between feelings and PPA commitment for males. Similarly, there is a stronger relation for females compared to males between PPA commitment and PPA Affect but the relation is moderately strong for males.

A fourth line of evidence related to the experiential or "inner sensing" nature of commitment stems from Wicklund & Gollwitzer's (1982) work on symbolic self-completion. They suggest that we become committed to goals because of their relation to the self-definition. In this study, subjects are asked to self-reflect on how committed to and how competent they are in their academic projects. The evidence suggests that those who are highly committed to their academic projects indeed shift their responses in favour of "being a competent student," i.e., on average, they rate themselves as more competent than the objective criterion (GPA) as compared to those with moderate or low

commitment who are more accurate or "all over the place," respectively. Wicklund and Gollwitzer's (1982) work suggests that it is the experience of incompleteness activated by *self-evaluation* resulting from an interruption toward a self-defining goal which brings self-symbolizing into play. Self aggrandizement will be discussed further in Section 4. The main point here is that the process of committing involves a self-reflective deliberative process whereby an individual emotionally fathoms commitment to a project. We see a parallel of 'knowing how one feels about something' or experientially fathoming the depths of commitment, in Taylor's (1989) work on strong evaluation. Taylor, writing in the moral philosophical literature, echoes Kierkegaard's words when he says that identity is formulated by knowing what is important to us, what we care about the most. Similarly, McAdams, Diamond, & de St. Aubin & Mansfield (1997), using a narrative approach to understand "stories of commitment," note that highly generative adults' stories are "guided by a clear and compelling personal ideology that remains stable over time," (p. 1). In our public service sample, we see that work commitment is related to "having a sense of personal integrity; knowing that what you are doing is ethically responsible."

The process of attaining personhood, of linking together meaning and identity, according to Taylor, entails critical self-reflection, ethical assessment and articulation. Flanagan (1990) has cogently argued that Taylor's position is an intellectualist one in that it calls for articulation to bring forth strong evaluation⁹. Rather, Flanagan makes a link between strong evaluation or "expansive self-understanding" and a broader link to communitarianism. He argues that many of those interested in the nurturing of community have stressed "the good of unreflective lives rooted in habitual responses that are learned

and sustained within good communities" (p. 57). This notion is consistent with Bielby's (1992) discussion of a noncognitive response to the committing process. Again, this action may occur in milieus with widely shared norms such as those found in traditional societies. This may well be in such communities. However, given the postmodern context in which Westerners live where the framework for living is somewhat transitory, one may do well to cultivate critical self-reflection as a preparedness for unknown future ethical situations (Flanagan, 1990). In short, 'knowing strongly what we care about' may provide a framework for our projects and if based on sound ethical standards extend to benefit others. Our analysis of personal project commitment suggests a thread to be that of Community (other's view of importance, support, visibility); this is evident in both of our samples. In the public service sample, we see the blending of Meaning and Community in the non-work projects of these individuals. Thus, commitment provides a framework for self and a potential framework for beneficence as our activities and pursuits unfold in everyday life.

In sum, several lines of evidence point to the experiential nature of commitment. The linkages with O appear to be gendered; however, the relation between PPA commitment and a new measure of emotional attunement are less so. Emotionally fathoming our commitment to personal projects through a self-reflective process is seen in our data and in the moral philosophical literature where strong evaluation evidences the value in knowing how we feel about something.

Twin Themes: Achievement and Intimacy

When we simply asked our undergraduate sample of students "what they're up to,"

we found the highest frequency of projects to be in the academic domain followed closely by the leisure and interpersonal domains. When we more closely examined the individual project matrices, we found that 96% of the subjects have at least one academic project while 80% have at least one interpersonal project; 81% have at least one leisure project. This pattern of project frequency is reflective of previous undergraduate samples in the Social Ecology Lab and certainly the prevalence of academic projects is not surprising given the nature of this setting. The saliency of these projects is further reflected in their ratings on commitment; both academic projects and solicited interpersonal projects¹⁰ were found to have the highest ratings on commitment. Similarly, when we examined the work and non-work projects of our executive sample, these same project types, work and interpersonal, have the highest ratings on commitment. Indeed, our analysis of meaning themes at a more proximal level of analysis suggest these traditional sources of commitment are still primary ones. These domains have been well demarcated by others: Freud wrote that the ability to love and to work are hallmark features of maturity; Erikson's emphasis on work and love is seen in his life stage of *generativity*, "the requirement of sustained, productive work and caring." (DiCaprio, 1974, p. 75).

The nature of the PPA methodology is very much a "bottom-up" approach rather than a "top down" one such as that evident in many of the narrative approaches that are increasingly used in both personality research and psychotherapy. Several authors have pointed out that individuals do seem to be aware of their extended plans of action; however, it is not certain as to whether they are aware of their more abstract values and needs (Murray, 1938; Pervin, 1983). Similarly, whether individuals, when pressed, are

able to provide a coherent identity story in terms of book title, chapters (both past and future) and dominant themes (e.g., McAdams, Diamond, & de St. Aubin & Mansfield, 1997) is likely variable. Nevertheless, what is of interest to note is the common themes which are apparent across methodologies whether we are probing lives using PAC units or using a narrative approach (McAdams, 1995, Singer, 1995). Traits, of course, are not contextualized and only allow us to know whether an individual is behaving in an achievement-oriented or fantasy-based fashion; the context of that orientation is unknown to us. Singer (1995) in his analyses of narratives of self-defining memories has commented on these recurring themes of achievement and intimacy. In his words,

I have been overwhelmed by the narrative similarities they bring to the important events of their lives. Their emphasis on the twin themes of achievement and relationship says as much about the design of our culture as it does about their individuality (p. 452).

Again we see culture arising to impact upon the self and our Western way of being and doing.

Specific domain focus revealed the sensitivity of commitment to context. In the interpersonal domain, as discussed in the previous section, commitment was found to act as a mediator between Meaning and affect in the undergraduate sample. In the academic domain, a process analysis conducted on the relation between competency and academic satisfaction again in the undergraduate sample, also revealed a role for commitment as a mediator¹¹. Competency promotes academic satisfaction, in part, by engendering commitment to one's projects.

In the more mature group of senior managers, the relation between competency in

their work projects and work satisfaction is a stronger one than for the undergraduate sample¹². Thus, although we see inklings for the process role of commitment as a mediator in the undergraduate sample, it is more clearly delineated in a mature, albeit well-performing, mastery-oriented sample of senior managers. Clearly, competency contributes to their work satisfaction but being efficacious is likely not enough; work must also be meaningful.

Earlier work in the Social Ecology Lab (Little, Goodine, Sourani & Melia-Gordon, 1992a) with an undergraduate sample provides support for the fluidity of self-identity and commitment at the early adult stage of life. In this earlier study, we linked together personal projects with possible selves by asking the respondents "To what extent does this project facilitate becoming your future ideal possible self?" We found that commitment relates positively to the projects which facilitate becoming the future ideal self for the younger group only. Also, projects which contribute to future selves are relevant to well-being for only the younger group. In contrast, the self variable of importance in the older group was self-identity; the extent to which this group engaged in personal projects high in self-identity contributed to their SWB. Similarly, commitment in our undergraduate sample is likely much less crystallized than it is in the senior executive group where Erikson's issues of productivity and generativity are more in focus. Young adults' self identity is fluid at this phase of their lives; they are "constantly trying on different identities" as they engage in their life pursuits and move towards knowing who and what is important to them.

Patterns of Commitment: Commitment and Control Cycles

The results of our analyses suggest the Meaning and Competency PPA factors to be primary ones in the prediction of commitment. Indeed, Personal Meaning, whether combined with Competency (mean level analysis) or Hedonism (project level analysis) accounts for 23% and 21% (Adjusted R-Squares) of the variance in personal project commitment, respectively. Competency which forms a single factor at the project level contributes 8% (incremental variance) to the prediction of PPA commitment. These broad findings from our framework of commitment provide support for the primary features of Brickman and Karuza, Jr.'s (1987) control and commitment cycles of action. Their framework, depicted in Figure 3, suggests action to have two possible consequences: attaining a sense of control which results in reinforcement and sustainment of action or attaining a sense of meaning and value which generates commitment and, in turn, results in further action. Ideal action is evident when "individuals feel both committed to and effective in their actions." (p. 110).

In line with Brickman's (1987) suggestion of understanding the extremes in order to discern the 'middle ground' more clearly, we operationalized the extreme of the meaning cycle with the phenomenon of self aggrandizement in academic projects and the extreme of the control cycle with the work profile of Workaholism. A primary difference in the classification procedure of these two extremes is that self-aggrandizement was determined using personal projects whereas the work profiles were ascertained using a Workaholism scale (Spence and Robbins, 1992). The step from the existing literature on self-aggrandizement which uses self-report scales to the use of a PAC level unit of analysis

where individuals self-report on idiosyncratically phrased academic personal projects was a reasonably straightforward one. However, the complex notion of a control cycle of action or "an unbridled will to power" (Brickman & Karuza, Jr., 1987, p. 131) was deemed, at this early stage of research using PPA, to be best operationalized by the use of an externally validated scale. This was anticipated to provide construct validity as well as to inform us as to the nature of both of these extremes. Indeed, one analysis considers the overlap of self-aggrandizement and the various work profiles. As a further analysis links the work profiles with the low, medium and high commitment groups, we begin this section with a brief overview of Spence and Robbins' (1992) work profiles.

i. Work profiles. Spence and Robbins' (1992) patterns of work were replicated in our undergraduate sample using cluster analysis: Enthusiastic Workaholics, Relaxed Students, Disenchanted Students, Unengaged Students, Workaholics and Work Enthusiasts. These data provide a picture of the Enthusiastic Workaholic group (as compared to the Unengaged student group) as a group which engages in meaningful academic projects to which they are committed. Further, this group is high on the trait measures of O and C.

Our target profiles, Workaholics and Work Enthusiasts, did not have sufficient n to include in the Discriminant Function Analysis. Although both of these groups are identical in terms of their self reported scores on personal project Competency and commitment, the more relaxed Work Enthusiasts were not as high on Conscientiousness as the Workaholics. Further, on the Personal Meaning/Hedonism factor, the Workaholics are much more like the Unengaged Student group whereas the higher scores of the Work

Enthusiastic group are more like those of the Enthusiastic Workaholic group. When we examine the SWB criterion measures, we see that the Work Enthusiastic group scores the highest of all of the groups on academic satisfaction whereas the Workaholic group has academic scores more in line with those of the Unengaged students. Spence and Robbins' (1992) research reports their Workaholic group to be higher on measures of perfectionism, nondelegation of responsibility, job stress and a health complaint measure. No differential findings related to physical health or personal project academic stress were evident in our groups. In sum, the most striking difference in these analyses is that the Workaholic group lack in a sense of personal meaning and fun as well as academic satisfaction as compared to the Work Enthusiastic group.

Self-aggrandizement. Self aggrandizement has its roots in Wicklund and Gollwitzer's (1982) symbolic self-completion theory. In brief, their theory which is substantiated by empirical research, reports a qualitatively different shift at higher levels of commitment. It is as if the individual wants to be that self without taking the necessary steps, i.e., obtaining the competency, to get there. Our results offer convergent evidence for Wicklund and Gollwitzer's pattern of findings as well as the unique contribution of the discernment of self-aggrandizement with the use of a PAC level unit of analysis. In self-reporting their levels of competency, we found that the high commitment group was the least accurate, the moderate commitment group was the most accurate and the low commitment group underestimated their competency. Thus, an apparent shift towards "being a competent student" took place at the high level of commitment. The strong self-aggrandizing tendency appears to work in the service of commitment to the self-definition.

The literature on positive illusions (Taylor & Brown, 1988, 1994) is relevant to consider with respect to self-aggrandizement. Unrealistic positive self-perceptions are indeed part of the triad of positive illusions. In essence, Taylor and Brown's research on positive illusions suggests that mental health is depicted by "unrealistically positive self-perceptions, an illusion of personal control and unrealistic optimism about the future." (Taylor & Gollwitzer, 1995, p. 213). Thus, both self-aggrandizing and positive illusions are phenomena which suggest the individual is viewing the world through 'rose-coloured glasses'. However, Taylor and Brown (1988) report that this perception appears to positively contribute to mental health in terms of its ability to enhance self-worth, care of others, creative work and stress management. Similarly, Murray, Holmes & Griffin (1996) report on the benefits of positive illusions in interpersonal relationships: relationships in which individuals idealized one another were more likely to persist, had increased satisfaction and exhibited decreases in conflicts and doubts over a one year period. In sum, there is evidence to suggest that positive illusions form the basis for a degree of mental health and positive interpersonal relationships.

Several authors have been wary of Taylor and Brown's (1988) rather "provocative thesis" (Taylor & Brown, 1994, p. 22) that positive illusions work in the service of mental health (cf. Colvin & Block, 1994; Block & Colvin, 1994). Colvin and Block (1994), in particular, have reviewed the empirical evidence for such a claim and cogently argued that "it remains unproven that positive illusions foster mental health." (p.3). What evidence do we have towards the implications of self-aggrandizement in this undergraduate sample?

Self-aggrandizement, SWB and work profiles. Although it seems likely that the phenomenon of self aggrandizement may play itself out in the future academic lives of these individuals when, for example, "becoming an M.D." or "obtaining my B.A. in psychology" may not come to fruition, we endeavoured to determine any current intimations. First, we examined the different commitment groups in terms of SWB. Our findings indicate that although the high commitment group scores the highest on academic satisfaction, it is the moderate commitment group, i.e., those who are most accurate in their assessment of their competency in academic projects, who fare the best in terms of the CES-D, a measure of depressive symptomatology. No findings related to physical health or personal project academic stress were evident among the groups.

To further probe the nature of self-aggrandizement and its resultant implications, we examined the work profiles of the low, medium and high commitment groups. As one would anticipate, the majority of the subjects in the low commitment group (61.5%, $n=16$) fell into either the Unengaged group (19.2%, $n=5$) or the Disenchanted group (42.3%, $n=11$). In the moderate commitment group, most group members were classified in the Relaxed group (50.0%, $n=13$) or the Enthusiastic Workaholic group (30.8%, $n=8$) for a total of 80.8%. Finally, in the high commitment group, the group which was found to exhibit the phenomenon of self-aggrandizement, a large percentage fell into the Relaxed profile (42.1%, $n=16$); however, a relatively large percentage (31.6%, $n=12$) fell into the Disenchanted group. As discussed, the DFA analysis indicates the Disenchanted group to score closest to the Unengaged student group. Like their counterparts, the Disenchanted group score almost one standard score below the mean on academic/work enjoyment and

has low scores on the PPA personal Meaning and fun factor in their academic projects. In addition, scores on Conscientiousness and Openness to Experience are lower in this group.

When we examine the two groups of self-aggrandizers, those who are members of the Relaxed work profile group and those who are members of the Disenchanted work profile group, we see that, on average, there is a greater than two-fold difference between the competency scores minus the GPA scores in these two groups¹³. The Disenchanted group's scores were more than two times as discrepant as the scores of those in the Relaxed group. Baumeister (1989) has argued towards an "optimal margin of illusion;" he suggests that healthy psychological functioning is associated with a slightly distorted perception of self and world.

By seeing things as only slightly better than they really are, the individual may enjoy the affective benefit of illusions while avoiding the pragmatic behavioral risks of acting with false assumptions.

We suggest that our self-aggrandizing Relaxed group have a more 'optimal margin of illusion' than the self-aggrandizing Disenchanted group although replication of this finding is necessary.

Keeping in mind, the potentially beneficial 'optimal margin of illusion,' we further speculate that self-aggrandizing or positive illusions may be best viewed under the rubric of strategies, strategies that come into play in personally salient situations. For example, Taylor et al. (1992) have noted that men who tested seropositive for human immunodeficiency virus (HIV) were significantly more optimistic about not acquiring AIDS than men who knew they were seronegative for HIV. The benefits of this positive

illusion were evident in several health behaviours and coping strategies for this group of seropositive men. Similarly, this self-aggrandizing strategy, if grounded in reality, may be useful in the domain of academics.

Although the smaller groups of Workaholics and Work Enthusiasts are of interest, and may be even more so in an older, working sample such as that in Spence and Robbins' (1992) research, what is noteworthy and of concern in this sample is the large percentage of undergraduate students who are classified as Unengaged or Disenchanted, 36% of the sample. A large percentage of these students are in the younger age group. Their lack of personal meaning and fun or autonomy in their academic projects suggests that the attainment of their goals may not be successful. Indeed, Sheldon & Elliot (1998) have reported that students who lacked autonomy in their personal projects have less likelihood of attaining them. Lack of commitment has also been related to student attrition (Foote, 1989)¹⁴. Further, although the lower scores of these students on O may not be problematic, their low scores on C do not bode well for them as low C is associated with lack of success in the academic and occupational domains (Costa & McCrae, 1992).

In sum, patterns of commitment are complex. Commitment in individual work/academic lives may best be examined in combination with other measures such as PPA Factors, NEO-PI-R trait measures, Work profiles and criterion measures such as academic satisfaction. Our results indicate that all may not be well in the group of self-aggrandizers, a group that scores at the high extreme of commitment to their academic projects and has highly discrepant competency scores. Although a substantial portion of this group falls into the Relaxed work profile, illustrative of the balance in the Meaning

and Control action cycle, there is an additional group which is classified as Disenchanted, a group whose academic careers may be limited, who may truly become "disenchanted" in life. The large percentage of students in the Unengaged or Disenchanted groups may be of concern for academic success. Appendix T records a case study that illustrates the applicability of our framework to the study of individual lives.

Limitations, Implications and Suggestions for Future Research

One of the major limitations of this study is that we did not examine how commitment unfolds over time. It is likely one of the most intriguing, yet perhaps complex, aspects of commitment. As Brickman, Dunkel-Schetter & Abbey (1987) point out,

...the development of a commitment follows a characteristic pattern in which an early, unreflective positive motivation is challenged and eventually replaced by a different form of motivation that integrates the negative elements of the challenge (p.175).

In the Social Ecology Lab, we are in the process of reanalyzing these data to examine the development of commitment (Brickman et al., 1987) in relation to Little's (1983) model of four general stages through which projects are likely to progress. In particular, we are interested in two of the substages (project awareness and **identification**; and project **pre-evaluation**) and one of the stages, **action**, as they relate to Taylor and Gollwitzer's (1995) recent work on the effects of mindset on positive illusions. Taylor and Gollwitzer (1995) have queried the global efficacy of the 'rose-coloured glasses' strategy and suggested alternatively that individuals may engage in a process to provide "windows of realism" (Taylor & Brown, 1994, p. 26). They

hypothesized that a deliberative-implemental mindset distinction may demonstrate the process by which individuals are able to consider pertinent information and make appropriate, realistic decisions. In brief, their results indicate that individuals do, in fact, use relatively realistic information when determining goals (deliberative mind set) and more positive or illusory thinking (implemental mind set) when putting them into action. It will be of interest to determine if self-aggrandizement may be partially explained by examining the stage of project development. Our present lab study is a quasi-longitudinal one, i.e., we are considering different projects at the various stages; ideally, the development of commitment and its related dimensions will be analyzed in a longitudinal study.

A second limitation to this study is that it did not fully analyze the discrete emotions which were generated in the "feelings" column. Although our purpose was to 'unpack' the relation of personal project commitment to meaning and emotional attunement, a further analysis of these data will be useful to examine the impact of the specific emotion on the fate of the project (i.e., cessation, continuation, etc.). Chambers (Chambers, Goodine & Little, 1999) is currently in the process of reanalyzing these data and examining new data to understand discrete emotions and their relation to dimensions of cognitive appraisal, goal pursuit and SWB.

A limitation of these studies and an important avenue to pursue for future research is the incorporation of a criterion measure of meaning (McGregor & Little, 1998). Not surprisingly, the multifaceted nature of commitment is not negatively or positively valenced and this is evidenced in its relation to the more neutrally valenced PPA

dimensions such as meaning, self-identity and value congruency. Further evidence for the importance of a meaning measure is seen in the relation of work commitment to several meaning-related career aspirations in our executive sample such as a sense of integrity and a sense of meaning and purpose. Academic satisfaction and work satisfaction, measures which are less "happiness" constructs (McGregor and Little, 1998), however, were found to be related to PPA meaning. Clearly, commitment is related to PPA Meaning as it is the primary factor implicated in its prediction. However, the use of an external measure which incorporates purpose in life, growth and generativity measures will be useful to establish convergent validity for this construct.

Although in this research, we have followed the Kellian credulous approach in asking individuals to give accounts of their own behaviour, future research may want to incorporate observer based ratings of commitment thereby permitting a comparison of the 'inner' and 'outer' faces of commitment.

The analysis of Spence and Robbins' (1992) work profiles reports a large percentage of students who were classified as Unengaged or Disenchanted. To more fully understand issues of concern in these student groups (for both students and researchers) it may be useful to adapt the methodology, as was done with our ongoing study on management, to include at least five academic projects. Unpacking a project such as Wolverine's "study for my exams" (See Appendix T) into more specific ones such as "finish my Chemistry assignment" or "try to figure out the Psych Lit computer data base to research my paper on adolescence" may be instructive in understanding an individual academic social ecology. Further research directed towards assessment of context will aid

in understanding the nature of students at risk. For example, the climate of the university or department will serve to macrocontextualize these projects and ongoing pursuits.

Finally, we have noted that PPA commitment is sensitive to both gender and culture, but only elaborated on the former. Both of these contextual features are critical to personality psychology (Winter & Stewart, 1995). An analysis of commitment across culture may more fully address the dilemma of the modern self, standing "alone and more focussed on ourselves than we have ever been." (p. Lewis, 1992, p. 217). For Lewis (1992), the way out of this existential bind is commitment, not simply commitment to work and love which may be "illusory and impermanent" (p. 219) but commitment to community. In his words,

The way out is commitment. We can never be sure that any commitment is correct, but that lack of security does not matter. Commitment, by its nature, frees us from ourselves and, while it stands us in opposition to some, it joins us with others similarly committed. Commitment moves us from the mirror trap of the self absorbed with the self to the freedom of a community of shared values (p. 221).

Endnotes

1. Iyengar and Lepper (1999) note that research relating choice to increased levels of intrinsic motivation (e.g., Deci & Ryan, 1985) is more relevant for American independent selves than for Asian interdependent selves. Indeed, the group of Asian children, in contrast to the American group of children showed higher degrees of intrinsic motivation when choices were made for them by trusted authority figures. These findings likely have implications for commitment across different cultural groups.
2. We hypothesized positive correlations between PPA commitment and the values, ideas and feelings facets, all of which proved to be the case. In addition the aesthetics and fantasy facets were positively correlated with PPA commitment.
3. We hypothesized a positive correlation for PPA commitment with C through the facets of dutifulness, self-discipline and deliberation. The former two were indeed positively correlated with PPA commitment but the latter, deliberation, was not. In addition the competence, achievement striving and order facets were correlated with PPA commitment.
4. PPA commitment was anticipated to positively correlate with the A facets of altruism, tender-mindedness and trust. Although it was correlated with the former two facets, it was not correlated with the trust facet. In addition, PPA commitment was correlated with the straightforwardness and modesty facets.
5. Extraversion was not anticipated to correlate with PPA commitment; in fact it does have a modest correlation (.16, $p < .05$), primarily as a result of its positive association with the positive emotions, warmth and activity facets.
6. Neuroticism was not found to be negatively correlated with PPA commitment, contrary to our prediction.
7. See Chambers & Hagan (1998a) for a more detailed analysis of the complexity of the 'whys' of personal projects.
8. As per Endnote 14, Chapter 4, projects which are seen as paved with obstacles do not necessarily engender a negative valence particularly if one perceives oneself as competent to pursue them (Chambers, personal communication, October, 1998).

9. Flanagan suggests that indeed "articulateness can be the able servant of self-deception and manipulative and mendacious self-presentation, as well as of accurate self-interpretation and honest and sincere self-presentation. One can have strong-evaluative identity in Taylor's sense and have everything wrong. " (p. 50).
10. Although spontaneously generated interpersonal projects had high scores on commitment ($M=7.46$, $SD=1.98$), it was the solicited interpersonal projects which had the higher scores on commitment ($M=8.09$, $SD=1.78$). The latter group mean was found to be significantly different from the means of the other project categories.
11. The Beta coefficient for the direct relationship between competency and academic satisfaction was reduced from .18 ($p<.05$) to .10 (non-significant) when commitment was introduced into the equation; commitment still affected the criterion measure ($Beta=.17$, $p<.05$).
12. ($Beta=.32$, $p<.001$ compared to $Beta=.18$, $p<.05$ for the senior managers and the undergraduates, respectively). When we regressed work satisfaction on competency and introduced commitment into the equation, the Beta coefficient was reduced from .32 to .19 ($p<.05$). Commitment still affected the criterion measure of work satisfaction ($Beta=.31$, $p<.01$).
13. Using raw scores, the Relaxed students had an average discrepancy score of 1.5; the Disenchanted students had an average discrepancy score of 3.3. The equivalent z-score differences were .15 and .81, respectively.
14. Foote's sample was one of graduate students. However, undergraduate students who conceivably have less investment of time and resources in their academics may well follow suit.

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Appendix A.

CATEGORIES OF PERSONAL PROJECTS

(Revised January, 1990)

Personal projects can be sorted into content categories by considering the general types of activities involved in the elicited projects. A categorization scheme facilitates the examination of common themes across individuals. For example, are projects dealing with academic pursuits more stressful than occupational tasks, or do leisure activities ameliorate the potentially negative effects of stressful projects?

Although categorization is an attempt to partition activities into specialized domains or core elements, some overlap of categories may exist with certain projects. When categorizing projects, coders should be aware that many activities are multifaceted, e.g., Sally's involvement in intramural basketball may be mainly for fun (LEISURE) but she knows that it will also help her lose five pounds (HEALTH/BODY). Classification should be based on the primary focus of the activity, e.g., Sally's basketball should be categorized as a LEISURE activity.

1. OCCUPATIONAL/ACADEMIC

This category includes job-related courses (e.g., learn to type; learn French), or tasks on the job (e.g., finish report) and school-related projects (e.g., assignments, essays, exams, readings). The subcategories are:

- 1.1 Academic projects
- 1.2 Job-related projects

2. HEALTH/BODY

This category includes activities relating to appearance, health, fitness (e.g., lose weight; stop smoking; workout; sleep; play a sport with a fitness goal clearly stated, and not for recreational reasons).

NOTE: This category would not include recreational sporting activities (LEISURE).

3. INTERPERSONAL

This category includes projects dealing with others on a personal level. The subcategories are:

- 3.1 Family (projects involving a parent, spouse, grandparents, etc., as a focus either individually or in a group, e.g., taking my mum to do her grocery shopping; projects involving family plans, e.g., have children)
- 3.2 Interpersonal intimate (projects involving intimate others such as spouse, boyfriend, girlfriend, or close friends (e.g., getting over Mary)).

3.3 Interpersonal secondary (assume interpersonal projects are secondary unless family members or intimate friends are specified; projects dealing with acquaintances such as classmates, teachers, co-workers, e.g., getting along better with my boss; entertaining acquaintances).

3.4 Community/Supportive projects (projects involving activities related to groups of people other than family or friends, e.g., coaching soccer; volunteer work; scouts/girl guides).

3.5 Interpersonal meta-projects (e.g., getting my social life together).

4. INTRAPERSONAL/VALUE CONCERNS

This category includes projects dealing with outlook and attitudes relating to the self. The subcategories are:

4.1 Spiritual or philosophical projects (relating to the clarification or expression of religious beliefs, philosophical questioning).

4.2 Self-improvement projects (psychological as opposed to physical changes).

4.3 Intrapersonal meta-projects (e.g., maintain some sense of order in my life; increase the scope of my knowledge, ideas and expressions).

4.4 Coping/adjustment projects (e.g., adjust to my new living situation).

4.5 Leisure withdrawal projects (e.g., watch less t.v.; go out less; shop less).

Note: A project such as "Drink less" would be HEALTH/BODY.

4.6 Transition projects

5. LEISURE

This category includes recreational activities that are done alone or with others. The subcategories are:

5.1 Entertainment (e.g., television, movies, museums, theatre, concerts).

5.2 Parties/dances

5.3 Hobbies (e.g., often creative or building projects)

5.4 Consumerism (e.g., pleasure shopping)

5.5 Drinking/drug use (e.g., "getting high"). Note: A project such as 'Stop taking drugs' would be HEALTH/BODY.

5.6 Pleasure reading/writing

5.7 Vacation projects (e.g., planning, packing or organizing vacation)

5.8 Sports (played for recreational purposes and not specifically identified for health or fitness)

5.9 Enjoying one's pet (e.g., play with my cat/dog)

6. ADMINISTRATIVE/MAINTENANCE

This category includes projects relating to organization and administration. The subcategories include:

6.1 Activities related to, a) finding a place to live, selling or subletting a place to live; b) obtaining employment (e.g., registering at the employment centre; filling out job applications). Note: A project such as 'Taking a French course to improve employability' would be OCCUPATIONAL/ACADEMIC.

6.2 Household/general maintenance projects (e.g., repairs; house-cleaning; shopping for necessities such as groceries).

6.3 Car maintenance (e.g., taking the car in for lube and oil-change). Note: a project such as 'Buying a new car would be LEISURE (pleasure shopping).

6.4 Paying bills, arranging finances, loans.

6.5 Activities related to getting registered for a course or program (e.g., registering for school; arranging a car pool; obtaining course schedules)

6.6 Tasks involving pets (e.g., taking my dog to the vet for distemper shots, not, having fun with Spot--LEISURE)

6.7 Administrative/maintenance metaprojects (e.g., managing properties; designing home)

7. OTHER

This category includes projects that cannot be classified because of inadequate information. Before using this category an attempt should be made to gain more information in order to correctly classify the project. The project statement on the original

elicitation list and the dimension rating scores for that project may be helpful sources. For example, if a project is listed only as 'Mary', reference to the original elicitation list may show that the project was phrased as 'Breaking up with Mary', in which case the project would be correctly classified as INTERPERSONAL intimate. With a project listed as 'Christmas shopping', an ambiguity for classification might arise between LEISURE pleasure shopping and ADMINISTRATIVE/MAINTENANCE. However, if the score on the 'Enjoyment' dimension was high, the project may be classified as LEISURE; conversely, if that score was low, the project may be classified as ADMINISTRATIVE/MAINTENANCE.

Notes:

- 1) Revisions were made because some projects were difficult to code with previous subcategories yet appeared in sufficient number to warrant a new subcategory. Two new subcategories were formed under INTRAPERSONAL/VALUE CONCERNS: Coping/adjustment projects (4.4) and leisure withdrawal projects (4.5). Both of these project types had previously been subsumed under Self-improvement projects (4.2).
- 2) Other revisions involved providing more examples for subcategories in order to increase coding accuracy.

Appendix B.

Brief Overview of Commitment Models

Rusbult's Model: Rusbult's (1983) investment model is based on an extension of interdependence theory (e.g., Kelley & Thibault, 1978). The meaning features are satisfaction and positive affect associated with a relationship. The model predicts that greater satisfaction with or involvement in a relationship will increase commitment to maintain that relationship (Rusbult, 1983). The only caveats in this prediction are two structural variables, alternative quality and investment size. Individuals become more committed when they perceive that they have poor alternatives to their current associations; investments increase commitment as they "lock in" the individual to the relationship. Thus, overall the model asserts that commitment to the relationship should be great to the degree that satisfaction is high, alternatives are poor and investment size is great.

Johnson's Commitment Framework: Johnson's (1991) work is based in Heider's naive psychology of everyday life. He has developed a commitment framework which shares some similar features to those in Rusbult's model. His model has a personal meaning component ("the feeling that one wants to continue the relationship", p. 119) composed of attitude toward the relationship, attitude toward the partner (both similar to Rusbult's satisfaction with the relationship component) and relational identity. The latter involves the incorporation of one's involvement in a relationship (e.g., wife, daughter, etc.) into one's self concept. In addition, a structural component ("the feeling that one has to continue it" (p. 119) composed of social reaction, difficulty of termination procedures, irretrievable investments and availability of acceptable alternatives is included in the model. The latter two variables, investment and alternatives, are also included in Rusbult's investment model. Finally, a component of moral commitment ("the feeling that one ought to continue it" (p. 119) composed of belief in the value of consistency, values regarding the stability of particular types of relationships and an obligation to a specific person is present in the model. Johnson (1991) also includes two dimensions which distinguish between the three types of commitment -- internal-external and choice-constraint. Both personal and moral commitment are considered to have an internal focus whereas constraint commitment is primarily external. Personal commitment involves choice whereas moral and structural commitment involve constraint. The underlying premise of the commitment framework is that the decision to continue a relationship is a function of these three different aspects of commitment -- personal, moral and structural (Johnson, 1991). What is interesting about Johnson's model from a conative psychology's perspective is his inclusion of plans of action in his model. Here, the individual's experiences of the three different forms of commitment affect his or her motivation to continue the relationship. This in turn affects the development of plans of action regarding the future of the relationship, for example, the personal project of "spend more time with Sean", ... and ultimately action to maintain/dissolve the relationship. Attached is a schema of his model.

Meyer and Allen's model of organizational commitment: Similarly, both meaning and structural determinants of commitment are evidenced in the specific domain of work. Meyer and Allen's (1991) depiction of commitment involves affective, continuance and normative commitment and,

as such, parallels Johnson's model. They have formed three component scales based on factor analytic studies (Allen & Meyer, 1990; Hackett, Bycio & Hausdorf, 1992). What is common to these themes is:

...commitment is a psychological state that (a) characterizes the employee's relationship with the organization and (b) has implications for the decision to continue or discontinue membership in the organization (p. 539).

Meyer and Allen (1991) have argued that the nature of the psychological state varies for each type of commitment. Employees with a strong affective commitment want to stay in the organization, those with a strong continuance commitment need to stay in the organization and those with a strong normative commitment feel that they ought to stay in the organization (Meyer, Allen & Smith, 1993). The three components have been found to correlate differently with variables suggested to be antecedents of commitment ((Allen & Meyer, 1990; Meyer & Allen, 1984; Meyer, Bobocel & Allen, 1991). Affective commitment, relevant to this discussion, has been found to be associated with personal characteristics, structural characteristics, job-related characteristics as well as work experiences (Mowday, Porter & Steers, 1982). The latter, work experiences, appear to have the strongest and most consistent relationship with affective commitment. Clearly, the elements of personal meaning and structural determinants or 'adversity' are evident in the models proposed by Rusbult (1983), Johnson (1991) and Meyer and Allen (1991).

Appendix C.

NEO-PI-R Five-Factor Facets and Descriptors

<u>Five-factor facets</u>	<u>Descriptors</u>
Neuroticism	
Anxiety	Apprehension; fear; nervousness
Angry Hostility	Anger; frustration; bitterness
Depression	Guilt; sadness; hopelessness; loneliness
Self-consciousness	Shame; embarrassment; fear of ridicule
Impulsiveness	Inability to control cravings and urges
Vulnerability	Inability to cope with stress; dependent
Extraversion	
Warmth	Affection; friendliness
Gregariousness	Preference for others' company
Assertiveness	Dominant; forceful; socially ascendent
Activity	Need to keep busy; prefers rapid tempo
Excitement-seeking	Craves excitement and stimulation
Positive Emotions	Joy; happiness; love; excitement
Openness	
Fantasy	Vivid imagination; creates inner world
Aesthetics	Appreciation for art and beauty
Feelings	Receptivity to own feelings
Actions	Willingness to try new activities
Ideas	Intellectual curiosity; open-mindedness
Values	Readiness to re-examine all values
Agreeableness	
Trust	Disposition to believe others are honest
Straightforwardness	Frankness; sincerity
Altruism	Active concern for others' welfare
Compliance	Defers to others; inhibits aggression
Modesty	Humble; self-effacing
Tender-mindedness	Sympathy and concern for others
Conscientiousness	
Competence	Capable; sensible; prudent; effective
Order	Neat; tidy; well-organized
Dutifulness	Adheres strictly to ethical principles
Achievement-striving	High aspiration levels; goal-oriented
Self-discipline	Carries tasks through to completion
Deliberation	Thinks carefully before acting

Adapted from Costa and McCrae, 1992.

Appendix D. Personal Projects Analysis Elicitation Technique

PERSONAL PROJECTS ANALYSIS

We are interested in studying the kinds of activities and concerns that people have at different stages of their life. We call these personal projects. All of us have a number of personal projects at any given time that we think about, plan for, carry out, and sometimes (though not always) complete. In this sense, projects may be ongoing tasks as well as finite ones; they may be things we choose to do or things we have to do. Please think of projects in this broad way.

Here are some examples of projects:

- Work things out with Anna.
- Study for my Psychology exam.
- Quit smoking
- Try to help Doug meet new friends.
- Overcome my fear of meeting new people.
- Getting in shape.
- Find out about financial assistance for school.
- Spend some time with my grandparents.
- Adjust to my new living conditions.
- Play basketball at least twice a week.
- Read more novels.
- Decide what to do with the rest of my life.

We are also very interested in finding out how people feel about these personal projects, how enjoyable they are, and so on. We would appreciate it if you could begin by just writing down in the next few minutes as many personal projects as you can that you are engaged in or thinking about at the present time—remember these are not necessarily formal projects, or important ones—we would prefer you to give us more of the everyday kinds of activity or concerns that characterize your life at present.

Brian R. Little, Ph.D., 1983

LIST OF PROJECTS

Please go ahead and write down as many projects as you can in the next few minutes. Include some detail so we know what you are up to in each project.

This image shows a single sheet of white paper with horizontal ruling lines. The lines are evenly spaced and run across the width of the page. There are no margins, text, or other markings on the paper.

Now copy the projects in as much detail as possible on the PERSONAL PROJECTS MATRIX. Just make your description long enough to keep each project clearly in mind. As you can see, there is space for 12 projects but initially we are going to deal with 10 so don't worry about the 11th and 12th project. If your initial list contains more than 10, select the 10 that you think would be of interest to explore in more detail in order to better understand your life. If you wrote down fewer than 10, see if you can think of several more, or break down some of those you listed into several projects. It is important for everyone to try to fill in 10 projects.

Now, to deal with the 11th and 12th projects. If you are currently involved in a close relationship, for example, you have a girlfriend, boyfriend, spouse, common-law relationship, please include a project which captures the essence of the relationship. It may be something like:

Working on my relationship with Dave

Spending time with Stephanie

Being supportive of Dan

Accepting Sharon's faults

Deciding if I want to spend the rest of my life with Xavier

Try to have these projects zero in on the relationship itself, rather than something you are doing or might be going to do with the person, for example, 'planning to play tennis'.

Appendix E. Announcement for Study

PSYCHOLOGY 49-100

EXPERIMENT FOR PARTICIPATION

Experimenter's Name: Laura A. Goodine, Judy Makinen

Advisor/Faculty Member: Dr. Brian R. Little

Office: A505 Loeb Phone: 788-2685

Experiment Title: PERSONAL PROJECTS, COMMITMENT & WELL-BEING

Location: C560 Loeb

Experiment Number: 94-089

Number of Subjects Required: groups of 8-10

Brief Description:

We are interested in studying the kinds of activities and concerns that people have at different stages of their life. Individual difference measures of personality will also be incorporated. These assessment devices will be used to examine their impact on human well-being, health and adaptation. You will be assessed in groups of between eight and ten via a package of questionnaires containing the above mentioned assessment devices. Our research involves no procedures which are threatening or coercive, involves no deception of any kind, and is based on an explicit philosophy that involvement in the research should actually entail benefits for the participants (Little, 1989). Participation in this research will earn you 3 experimental credits. Coffee and refreshments will be provided.

Appendix F. Complete Questionnaire Package

PERSONAL PROJECTS, COMMITMENT AND WELL-BEING

Dear Participant:

We welcome your participation in this project conducted by the Social Ecology Lab which is under the supervision of Dr. Brian R. Little. This particular study focusses on your everyday projects, concerns, and tasks and how they may be related to well-being, health and adaptation. No deception is involved, nor does it involve anything likely to be threatening or embarrassing to you. For participation in this study of approximately two hours, you will receive two experimental credits. These are the instructions:

1. Please complete the Informed consent Form. This must be handed in with the package.
2. Please answer questions in the order given rather than skipping ahead.
3. Please feel free to ask any questions of the monitor who is available throughout the study.
4. Choose a pseudonym or nick name which you think is particularly descriptive of yourself (e.g. 'Rose Garden') and write it in the corner of the next page where indicated. don't worry about the subject ID# as this is for our information only.
5. We would like you to take a break after completing the first part. Please help yourself to available coffee and refreshments.
6. If you have any further questions regarding the study, feel free to contact us at 788-2600, ext. 2697. The Chairman of the Psychology Department, Dr. W. Jones (ext. 2648) and Chairman of the Ethics Committee, Dr. L. Paquet (ext. 2692) may be reached at the indicated extension numbers if you have any concerns regarding the study.
7. Thank you again for your participation.

Sincerely,

Laura A. Goodine
Judy Makinen

Pseudonym _____
 Subject ID# _____

CARLETON UNIVERSITY
 DEPARTMENT OF PSYCHOLOGY
 SOCIAL ECOLOGY LABORATORY

Informed Consent Form

Title of experiment: Personal Projects, Commitment and Well-Being

Investigators: Laura Goodine, Judy Makinen & Alicia McLeish
 Academic Advisor: Dr. Brian R. Little

Purpose: The general purpose of the study is to examine the everyday activities and pursuits of individuals and to determine how this relates to well-being.

Duration: The expected duration of this study is 1 1/2 to 2 hours.

Name of Participant: _____
 (Please print)

I understand that this study in which I have agreed to participate will involve filling out questionnaires. Although the instructions vary for each questionnaire, all are straight forward. There are no correct or incorrect answers to the questions. The one requirement is that they be completed as accurately as possible.

I understand that there are no potential physical or psychological risks in this experiment.

I understand that my participation in this study is voluntary and that I may withdraw from the study at any time and for any reason.

I understand that there is no obligation to answer any question that I consider invasive.

I understand that all personal data will be kept strictly confidential.

I understand that in return for my participation I will receive two experimental credits.

 (please sign)
 Date: _____

PERSONAL PROJECTS ANALYSIS

We are interested in studying the kinds of activities and concerns that people have at different stages of their life. We call these personal projects. All of us have a number of personal projects at any given time that we think about, plan for, carry out, and sometimes (though not always) complete. In this sense, projects may be ongoing tasks as well as finite ones; they may be things we choose to do or things we have to do. Please think of projects in this broad way.

Here are some examples of projects:

- Work things out with Anna.
- Study for my Psychology exam.
- Quit smoking
- Try to help Doug meet new friends.
- Overcome my fear of meeting new people.
- Getting in shape.
- Find out about financial assistance for school.
- Spend some time with my grandparents.
- Make a career decision.
- Draw up a budget for school.
- Become more organized.
- Spend more time with my spouse/partner.
- Adjust to my new living conditions.
- Play basketball at least twice a week.
- Read more novels.
- Decide what to do with the rest of my life.

We are also very interested in finding out how people feel about these personal projects, how enjoyable they are, and so on. We would appreciate it if you could begin by just writing down in the next few minutes as many personal projects as you can that you are engaged in or thinking about at the present time--remember these are not necessarily formal projects, or important ones--we would prefer you to give us more of the everyday kinds of activity or concerns that characterize your life at present.

Brian R. Little, Ph.D., 1983

LIST OF PROJECTS

Please go ahead and write down as many projects as you can in the next few minutes. Include some detail so we know what you are up to in each project.

This image shows a single sheet of white paper with horizontal ruling lines. The lines are evenly spaced and run across the width of the page. There are no margins, text, or other markings on the paper.

Now copy the projects in as much detail as possible on the PERSONAL PROJECTS MATRIX. Just make your description long enough to keep each project clearly in mind. As you can see, there is space for 12 projects but initially we are going to deal with 10 so don't worry about the 11th and 12th project. If your initial list contains more than 10, select the 10 that you think would be of interest to explore in more detail in order to better understand your life. If you wrote down fewer than 10, see if you can think of several more, or break down some of those you listed into several projects. It is important for everyone to try to fill in 10 projects.

Personal Projects Matrix

[illegible]

Close Relationship Projects

[illegible]

Personal Projects Matrix

[illegible]

Close Relationship Projects

[illegible]

Now, to deal with the 11th and 12th projects. If you are currently involved in a close relationship, for example, you have a girlfriend, boyfriend, spouse, common-law relationship, please include a project which captures the essence of the relationship. It may be something like:

Working on my relationship with Dave
 Spending time with Stephanie
 Being supportive of Dan
 Accepting Sharon's faults
 Deciding if I want to spend the rest of my life with Xavier

Try to have these projects zero in on the relationship itself, rather than something you are doing or might be going to do with the person, for example, 'planning to play tennis'.

In columns 1 to 34 please rate each one of your projects using any number from 0 to 10 on the following dimensions. Remember that numbers between 0 and 10 can also be used.

1. IMPORTANCE: How important each project is to you at the present time (use 10 if the project is very important to you and 0 if it is not at all important to you.)
2. ENJOYMENT: How much you enjoy working on each project (use 10 if you enjoy it a great deal and 0 if you do not enjoy it at all).
3. DIFFICULTY: How difficult you find it to carry out each project (use 10 for a project that you find very difficult to carry out and 0 for one that you do not find difficult at all).
4. VISIBILITY: How visible each project is to the relevant people who are close to you, that is, how aware are that you are engaged in this project (use 10 for a project which is very visible to those around you and 0 for a project which is not at all visible to those around you).
5. CONTROL: How much you feel you are in control of each project (use 10 for a project over which you feel in complete control and 0 for a project over which you feel you have no control at all).
6. INITIATION: How much you feel responsible for having initiated each project (use 10 if you feel fully responsible for having

initiated a project and 0 if you feel you have taken no part whatsoever in initiating a project).

7. STRESS: How stressful it is for you to carry out each project (use 10 if a project is very stressful to carry out and 0 if a project is not at all stressful to carry out).
8. TIME PRESSURE: To what extent do you feel time pressure in working on each project. (use 10 if you feel highly time pressured and 0 if you feel no time pressure at all in doing the project).
9. OUTCOME: What you anticipate the outcome of each project to be (use 10 if you think that a project will be extremely successful and 0 if you think that a project will turn out to be not at all successful).
10. SELF-IDENTITY: All of us have things we do that are typical or truly expressive of us. These things can be thought of as our "trade marks" or our personal "style". For example, some people engage in sports every chance they get, others prefer to read, others prefer to socialize. Think of what your own personal "trade marks" are, and then rate each project on the extent to which it is typical of you (use 10 if a project is very typical of you and 0 if it is not typical of you at all).
11. OTHER'S VIEW: How important each project is seen to be by relevant people who matter to you (use 10 if a project is totally consistent with your values and 0 if it is seen as not important at all).
12. VALUE CONGRUENCY: To what extent is each project consistent with the values which guide your life (use 10 if a project is totally consistent with your values and 0 if a project is totally at odds with them).
13. CHALLENGE: To what extent each project is demanding and challenging to you (use 10 if a project is most challenging and 0 if it is not challenging at all).
14. COMMITMENT: To what extent are you committed to this project (use 10 if you are totally committed, use 0 if you are not at all committed).

15. **COMMITMENT 2:** To what extent are you committed to the **successful completion** of this project (use 10 if you are totally committed, use 0 if you are not at all committed).
16. **COMPETENCE:** To what extent do you feel competent to carry out this project? (use 10 if you feel completely competent to carry out this project and 0 if you do not feel competent at all to carry it out).
17. **SUPPORT:** To what extent do you feel each project is supported by other people. Support may come in different forms -- e.g., emotional, financial or practical. (use 10 if you feel other people support this project a lot and 0 if there is not support at all).
18. **SELF-WORTH:** To what extent do you feel that being engaged in each project gives you a sense of self-worth (use 10 if you feel it gives you a high degree of self-worth and 0 if it does not provide you with a sense of self-worth at all).
19. **ABSORPTION:** To what extent do you become engrossed or deeply involved in a project (use 10 if you get extremely absorbed in an activity and 0 if you tend not to be involved when doing it).
20. **FUN:** Some projects are intrinsically fun, whimsical or delightful. To what extent do you feel that being engaged in this project is fun? (use 10 if a project is a lot of fun and 0 if it is not fun at all).
21. **ECONOMIC CLIMATE:** To what extent do you feel that the state of the economy* hinders or negatively affects each project (use 10 if you feel the economy greatly hinders it and 0 if it does not hinder it at all). Please use N/A if you feel that this dimension does not apply to this project.

*Specifically we are referring to such economic concerns such as the deficit and/or the impact of the recessions, which has had a ripple affect on social programs, increasing tuition costs, finding employment, etc. For example, a project like "finishing my B.A." may be hindered greatly if funds are not available to pay tuition fees, or "planning a

mid-winter vacation" may have to be postponed because of the decreasing value of the Canadian dollar.

22. 'HOW' COLUMN:

Please indicate how the present economic climate impacts upon this project. For example, a project like "studying for my exams" may be hindered because of my part-time job. If you feel that the economy does not hinder this project then leave the corresponding space blank.

23. STAGE:

Projects often go through several stages, which can be visualized along a time-line such as,
0.....1.....2.....3.....4.....5.....6.....7.....8.....9.....10

Think of each project as moving through stages on such a time-line. Using the scale on this page and the next, rate each project's stage.

0 to 1: Awareness: The idea for the project has just come to you.

2: Transition: You have the idea for the project and some thoughts on how to approach it. You are

deciding whether the project can actually be carried out.

3 to 4: Planning: You have decided to do the project. You are planning it and obtaining whatever personal and material support it may need.

5: Transition: You have the project planned out, and you are beginning to (or trying to) actively start the project.

6 to 7: Action: You are actively working on the project and trying to balance it with your other projects, resources and time commitments.

8: Transition: You are evaluating the project and your motivation to continue with it, or bring it to completion.

9 to 10: Completion: The project is coming to a close, or has actually been completed or terminated.

24. **FLEXIBILITY:** To what extent are you 'flexible' in your approach to this project? (use 10 if you are extremely flexible and 0 if you are not flexible at all).
25. **COSTS:** To what extent are there costs associated with this project? Costs can come in many forms—time, money, energy, displacement of other projects (use 10 if there are a great deal of costs and 0 if there are no costs at all).
26. **REWARDS:** To what extent is this project rewarding? (use 10 if you find it is extremely rewarding and 0 if it is not rewarding at all).
27. **ROLES:** All of us have a variety of roles that we play in our daily lives (e.g., wife, father, daughter, boyfriend, student, employee). Any of your projects could be linked to one or several of your roles. Thinking of your own roles, how strongly is each project linked or associated with the roles in your life (use 10 if a project is very strongly linked to the roles in your life, use 0 if there is no association between the project and the roles in your life).
28. **PASSION:** To what extent are you passionate about this project? (use 10 if you are extremely passionate about engaging in this project and 0 if you are not at all passionate about this project).
29. **AUTOMATICITY:** To what extent do you proceed in an 'automatic' fashion in this project, i.e., you don't give much thought to this project, you just 'do it'? (use 10 if you proceed in an extremely automatic fashion and 0 if you don't proceed in an automatic fashion at all).
30. **POLITICAL CLIMATE:** To what extent do you feel that the possibility of Quebec separation hinders (negatively affects) or will hinder each project (use 10 if you feel the possibility of Quebec separation greatly hinders or will hinder it and 0 if it does not hinder it at all). Please use N/A if you feel that this dimension does not apply to this project.
31. **OBLIGATION:** To what extent do you feel obligated to be engaged in this project? (use 10 if you feel extremely obligated and 0 if you

do not feel obligated at all).

32. **INVESTMENT:** How invested are you in this project? (use 10 if you are extremely invested and 0 if you are not invested at all).
33. **ALTERNATIVES:** To what extent you have alternatives to the present project? (use 10 if you have a great deal of alternatives and 0 if you have no alternatives at all).
34. **FULFILMENT:** To what extent being engaged in this project gives you a sense of fulfilment? (use 10 if the project gives you a great deal of fulfilment and 0 if the project provides no fulfilment at all.)
35. **GUILT:** To what extent would not being able to continue/complete this project make you feel guilty? (use 10 if not being able to continue the project would make you feel extremely guilty and 0 if you would not feel guilty at all).
36. **AMBIVALENCE:** To what extent do you feel ambivalent (undecided, conflicted, wavering) about a project? (use 10 if you feel extremely ambivalent about the project and 0 if you do not feel any ambivalence at all).
37. **FEELINGS:** When we are engaged in our personal projects, there is often a particular feeling or emotion that we experience. For example, doing well on an academic project may give one a sense of pride. Other emotions we may feel when engaged in our projects are excitement, anxiety, affection, cynicism, joy, boredom, hope, anger, absorption, suffocation, confidence, regret, bitterness, and cheerfulness. Please think of each project and see if there is a particular emotion you feel when you are engaged in it. Please write it in the space provided. Also, please give this emotion a rating on a scale of 0 to 10, i.e., if it is anger you feel, 0 would provide a baseline of no anger and 10 would be extreme anger. A score of 5 would indicate moderate anger.

'PLEASE STOP HERE FOR A COFFEE BREAK!'

Now, go back to the PROJECT MATRIX and choose two projects from your list that you rated highest in the commitment column of the matrix. Don't worry if you have ties, just choose two projects that are high in commitment. Please write them again in the spaces provided.

Finally, we are interested in finding out some of the reasons you have for being so highly committed to these projects. For example, the project "finish my B.A.degree" may have many different reasons for being committed to it, such as: "To find a job"; "To impress John"; "To please my mom". Please tell us briefly what your reasons are for being so highly committed to these projects. We realize these reasons are likely to be complex, and possibly very private, so brief notes are fine.

Project 1

Reasons I am committed to this project:

Project 2

Reasons I am committed to this project:

Scale 1(Personal Project System Rating Scale)

Consider the different pursuits, activities, commitments, and projects in which you are currently involved. We call this your "personal project system". **On the whole**, how would you evaluate your current project systems on the following dimensions? Please circle the appropriate number.

meaningless (e.g. worthless, unenjoyable)	1	2	3	4	5	6	7	8	9	10	meaningful (e.g. enjoyable, valuable)
chaotic (e.g. out of control; not enough time)	1	2	3	4	5	6	7	8	9	10	well-organized (e.g. everything under control)
totally lacking social support (e.g. others don't care)	1	2	3	4	5	6	7	8	9	10	full of social support (e.g. lots of help and affection from others)
unstressful (e.g. no hassle)	1	2	3	4	5	6	7	8	9	10	very stressful (e.g. lots of hassle and conflict)
progressing poorly (e.g. very likely to fail)	1	2	3	4	5	6	7	8	9	10	progressing (well (e.g. likely to be very successful)

Scale 2 (General Disposition to Commitment Scale)

Please answer each item on the scale immediately beneath it.

1. I am an enthusiastic person.

0 1 2 3 4 5 6 7 8
disagree agree
completely completely

2. I am not a persevering person.

0 1 2 3 4 5 6 7 8
disagree agree
completely completely

3. I am someone who can accept positive and negative aspects of things.

0	1	2	3	4	5	6	7	8
disagree				agree				
completely				completely				

4. I do not find my life exciting.

0 1 2 3 4 5 6 7 8
disagree agree
completely completely

5. When I do not enjoy what I am doing, I often give up before things are completed.

0 1 2 3 4 5 6 7 8
disagree agree
completely completely

6. I do not like to take responsibility for the negative consequences of my choices.

0 1 2 3 4 5 6 7 8
disagree agree
completely completely

7. I often find pleasure in the daily things in life.

0	1	2	3	4	5	6	7	8	
	disagree						agree		
	completely						completely		

8. Even if an activity requires a lot of effort, I do not give up before having reached the target objective.

0	1	2	3	4	5	6	7	8	
	disagree						agree		
	completely						completely		

9. I am able to see the positive aspects of things which seem very negative at first.

0	1	2	3	4	5	6	7	8	
	disagree						agree		
	completely						completely		

10. It is not easy for me to find new things that interest me.

0	1	2	3	4	5	6	7	8	
	disagree						agree		
	completely						completely		

11. I make sacrifices for things I believe in.

0	1	2	3	4	5	6	7	8	
	disagree						agree		
	completely						completely		

12. I usually manage to find meaning even for activities that seem insignificant.

0	1	2	3	4	5	6	7	8	
	disagree						agree		
	completely						completely		

Scale 3 (Social Desirability Scale)

Listed below are a number of statements concerning personal attitudes and traits. Read each item and decide whether the statement is **true** or **false** as it pertains to you personally. Please indicate **true** or **false** at the beginning of each statement.

- _____ 1. Before voting I thoroughly investigate the qualifications of all the candidates.
- _____ 2. I never hesitate to go out of my way to help someone in trouble.
- _____ 3. It is sometimes hard for me to go on with my work if I am not encouraged.
- _____ 4. I have never intensely disliked anyone.
- _____ 5. On occasion I have had doubts about my ability to succeed in life.
- _____ 6. I sometimes feel resentful when I don't get my way.
- _____ 7. I am always careful about my manner of dress.
- _____ 8. My table manners at home are as good as when I eat out in a restaurant.
- _____ 9. If I could get into a movie without paying and be sure I was not seen I would probably do it.
- _____ 10. On a few occasions, I have given up doing something because I thought too little of my ability.
- _____ 11. I like to gossip at times.
- _____ 12. There have been times when I felt like rebelling against people in authority even though I knew they were right.
- _____ 13. No matter who I'm talking to, I'm always a good listener.
- _____ 14. I can remember "playing sick" to get out of something.
- _____ 15. There have been occasions when I took advantage of someone.
- _____ 16. I'm always willing to admit it when I make a mistake.
- _____ 17. I always try to practice what I preach.

- _____ 18. I don't find it particularly difficult to get along with loud mouthed, obnoxious people.
- _____ 19. I sometimes try to get even rather than forgive and forget.
- _____ 20. When I don't know something I don't at all mind admitting it.
- _____ 21. I am always courteous, even to people who are disagreeable.
- _____ 22. At times I have really insisted on having things my own way.
- _____ 23. There have been occasions when I felt like smashing things.
- _____ 24. I would never think of letting someone else be punished for my wrong-doings.
- _____ 25. I never resent being asked to return a favour.
- _____ 26. I have never been irked when people expressed ideas very different from my own.
- _____ 27. I never make a long trip without checking the safety of my car.
- _____ 28. There have been times when I was quite jealous of the good fortune of others.
- _____ 29. I have almost never felt the urge to tell someone off.
- _____ 30. I am sometimes irritated by people who ask favours of me.
- _____ 31. I have never felt that I was punished without cause.
- _____ 32. I sometimes think when people have a misfortune they only got what they deserved.
- _____ 33. I have never deliberately said something that hurt someone's feelings.

Scale 4 (Domain Specific Life Satisfaction Scales)

1) In general, how satisfied or dissatisfied are you with you life as a whole as it is right now? Circle the number on the scale below that comes closest to how you feel.

0	1	2	3	4	5	6	7	8	9	10
Completely			Neutral				Completely			
Dissatisfied							Satisfied			

2) In general, how satisfied or dissatisfied are you with your physical health as it is right now? Circle the number on the scale below that comes closest to how you feel.

	0	1	2	3	4	5	6	7	8	9	10	
Completely Dissatisfied						Neutral					Completely Satisfied	

3) In general, how satisfied or dissatisfied are you with your social life as it is right now/
Circle the number on the scale below that comes closest to how you feel.

[illegible]

4) In general, how satisfied or dissatisfied are you with your emotional state as it is right now? Circle the number on the scale below that comes closest to how you feel.

0	1	2	3	4	5	6	7	8	9	10
Completely Dissatisfied					Neutral					Completely Satisfied

5) In general, how satisfied or dissatisfied are you with your academic life as it is right now? Circle the number on the scale below that comes closest to how you feel.

0	1	2	3	4	5	6	7	8	9	10
Completely Dissatisfied					Neutral					Completely Satisfied

Scale 5(CES-D)

Below is a list of the ways you might have felt or behaved. Please indicate how often you have felt this way **during the past week** by rating each item on the following scale.

Rarely or None of the Time (Less than 1 Day)	=0
Some of a Little of the Time (1-2 days)	=1
Occasionally or Moderate Amount of Time (3-4 Days)	=2
Most or All of the Time (5-7 Days)	=3

- _____ 1. I was bothered by things that usually don't bother me.
- _____ 2. I did not feel like eating; my appetite was poor.
- _____ 3. I felt that I could not shake off the blues even with help from my family or friends.
- _____ 4. I felt that I was just as good as other people.
- _____ 5. I had trouble keeping my mind on what I was doing.
- _____ 6. I felt depressed.
- _____ 7. I felt that everything I did was an effort.
- _____ 8. I felt hopeful about the future.
- _____ 9. I thought my life had been a failure.
- _____ 10. I felt fearful.
- _____ 11. My sleep was restless.
- _____ 12. I was happy.
- _____ 13. I talked less than usual.
- _____ 14. I felt lonely.
- _____ 15. people were unfriendly.

_____ 16. I enjoyed life.

_____ 17. I had crying spells.

_____ 18. I felt sad.

_____ 19. I felt that people dislike me.

_____ 20. I could not get "going".

Scale 6(Affect Scales)

This questionnaire consists of nine adjectives which may describe the way you have felt during the past few weeks. Using the scale below each item, please indicate how much each adjective describes how you have felt lately. Indicate your choice by making a mark in the appropriate box.

During the passt few weeks did you ever feel...

Happy

0	1	2	3	4	5	6	7
Not at all							Extremely

Frustrated

0	1	2	3	4	5	6	7
Not at all							Extremely

Worried or anxious

0	1	2	3	4	5	6	7
Not at all							Extremely

Joyful

0	1	2	3	4	5	6	7
Not at all							Extremely

Pleased

0	1	2	3	4	5	6	7
Not at all							Extremely

Angry or hostile

0	1	2	3	4	5	6	7
Not at all							Extremely

.../cont'd

Unhappy

0	1	2	3	4	5	6	7
Not at all							Extremely

Depressed

0	1	2	3	4	5	6	7
Not at all							Extremely

Enjoyment/Fun

0	1	2	3	4	5	6	7
Not at all							Extremely

Scale 7(Workaholism Scale)

To complete this questionnaire, please use the following scale for each item. Indicate your answer on the line before each statement.

Please note: If you are **working full-time** and it makes more sense to you to respond to the items with respect to your work, please do so. Otherwise, respond to the items as they relate to your academic work. However, please be consistent, i.e., if you decide to respond to the questions with reference to your job, respond to all of the items with reference to your job.

1. I strongly agree
2. I agree most of the time
3. Indifferent
4. I disagree most of the time
5. I strongly disagree

- _____ 1. When I have free time I like to relax and do nothing serious.
- _____ 2. Wasting time is as bad as wasting money.
- _____ 3. When I get involved in an interesting project, it's hard to describe how exhilarated I feel.
- _____ 4. I get bored and restless on vacations when I haven't anything productive to do.
- _____ 5. I seem to have an inner compulsion to work hard, a feeling that it's something I have to do whether I want to or not.
- _____ 6. I lose track of time when I'm engaged in a project.
- _____ 7. I spend my free time on projects and other activities.
- _____ 8. I often feel that there's something inside me that drives me to work hard.
- _____ 9. I do more school work/work than is expected of me strictly for the fun of it.
- _____ 10. Between my school work/work and other activities I'm involved in, I don't have much free time.
- _____ 11. I often find myself thinking about school work even when I want to get away from it for a while.

- _____ 12. Most of the time my school work/work is very pleasurable.
- _____ 13. I like to use my time constructively both at school and out of school/on and off the job.
- _____ 14. I feel guilty when I take time off from my school work/work.
- _____ 15. Sometimes I enjoy my school work/work so much that I have a hard time stopping.
- _____ 16. I like to relax and enjoy myself as often as possible.
- _____ 17. I feel obligated to work hard even when it's not enjoyable.
- _____ 18. I like my school work/work more than most people do.
- _____ 19. It's important to me to work hard even when I don't enjoy what I'm doing.
- _____ 20. I rarely find anything to enjoy about my school work/work.
- _____ 21. I often wish I weren't so committed to my school work/work.
- _____ 22. I really look forward to the weekend--all fun, no work.
- _____ 23. Sometimes when I get up in the morning I can hardly wait to get to school/work.
- _____ 24. My school work/job is so interesting that it often doesn't seem like work.
- _____ 25. My school work/job is more like fun than work.

DEMOGRAPHIC INFORMATION

Please answer the following questions:

- 1) GENDER M____ F____
- 2) AGE_____
- 3) MARITAL STATUS: SINGLE_____
- MARRIED/Common-LAW_____
- OTHER_____
- 4) DO YOU HAVE CHILDREN? YES_____ NO_____
- 5) DO YOU LIVE ALONE OR WITH OTHERS?
- _____ALONE
- _____WITH OTHERS
- 6) WHERE WERE YOU BORN?_____
- 7) WHAT WERE/ARE YOUR PARENTS OCCUPATIONS?
- MOTHER_____
- FATHER_____
- 8) ARE YOU CURRENTLY EMPLOYED? YES_____ NO_____
- IF YES: PART-TIME_____
- FULL-TIME_____

PLEASE GIVE AN ESTIMATE OF THE NUMBER OF HOURS PER WEEK
THAT YOU WORK AT YOUR JOB. _____HOURS/WEEK

IS YOUR ATTENDANCE AT UNIVERSITY CONTINGENT UPON WORKING?

YES_____ NO_____

- 9) ACADEMIC STATUS: FULL TIME_____ PART-TIME_____ SPECIAL
(CIRCLE ONE)_____

THE TERM "SPECIAL" STUDENT MEANS THAT YOU ARE NOT ENROLLED

IN A DEGREE PROGRAM. IF YOU ARE A SPECIAL STUDENT, YOU WILL NOT BE ABLE TO PROVIDE INFORMATION REGARDING FACULTY, YEAR OF STUDY OR CURRENT ACADEMIC MAJOR. DEPENDING ON THE NUMBER OF COURSES YOU HAVE TAKEN AT CARLETON, YOU MAY BE ABLE TO INDICATE A GRADE POINT AVERAGE.

10) IN WHICH FACULTY ARE YOU REGISTERED?

ARTS _____

SCIENCE _____

SOCIAL SCIENCES _____

ENGINEERING _____

OTHER _____

11) ARE YOU CURRENTLY ENROLLED IN THE ACADEMIC PROGRAM OF YOUR CHOICE?

YES _____ NO _____

IF NO, FOR WHAT REASON? FINANCIAL _____

PARENTAL INFLUENCE _____

ACADEMIC REQUIREMENTS _____

OTHER (please specify) _____

12) DO YOU EXPECT TO COMPLETE YOUR DEGREE PROGRAM SUCCESSFULLY?

YES _____ NO _____

IF NO, FOR WHAT REASON? _____

13) TO WHAT EXTENT DO YOU FEEL APPREHENSIVE ABOUT THE STATE OF THE ECONOMY?

0 1 2 3 4 5 6 7 8 9 10

14) WHAT IS YOUR ACADEMIC
MAJOR? _____

DECLARED _____

UNDECLARED _____

15) PLEASE INDICATE YOUR APPROXIMATE GRADE POINT AVERAGE SO
FAR AT CARLETON (CIRCLE ONE):

12 A+ 90-100%

11 A 85-89%

10 A- 80-84%

9 B+ 77-79%

8 B 73-76%

7 B- 70-72%

6 C+ 67-69%

5 C 63-66%

4 C- 60-62%

3 D+ 57-59%

2 D 53-56%

1 D- 50-52%

0 F <50%

Thank you for your participation in this study on personal projects, commitment and well-being. We appreciate your efforts! For those of you who would like feedback on the major findings of the study, please leave your name and address in the space provided below:

Name: _____

Address: _____

Please note that although this form contains your name, it does not include the number on your completed response package. Therefore your responses will remain completely anonymous and confidential.

Finally, if working through the questionnaire package has brought up personal issues, or upset you in any way, please do not hesitate to call:

Carleton University Counselling and Student Life Services 788-2600, Ext. 6674.

If you wish for any further information on Personal Projects Analysis, or about this research project, you may call us at the number given below. A reference which may be useful for you is:

Little, B.R. (1983). Personal projects analysis: A rationale and method for investigation. Environment and Behaviour, 15, 273-309.

For further information regarding this project, contact:

Laura A. Goodine or Judy Makinen
Social Ecology Laboratory
788-2600, Ext. 2697
Carleton University
Department of Psychology

For those of you interested in participating in any follow-up to this research, please leave us your name, address and phone number in the space provided below:

Name _____

Address: _____

Phone number: _____

NEO PI-R™

Revised NEO Personality Inventory (NEO PI-R)

Item Booklet—Form S

Paul T. Costa, Jr., Ph.D. and Robert R. McCrae, Ph.D.

Instructions for use with the Hand-Scoring Answer Sheet

For use with the Machine-Scoring Answer Sheet, turn to page 2.

Please read all these instructions carefully before beginning. Mark all your answers on the answer sheet and write only where indicated. **DO NOT** write in this test booklet.

On the accompanying answer sheet, please write your name in the space provided. Indicate your sex by placing a check in the appropriate box under "Sex." Enter the date and your identification number, if you have been given one, in the spaces provided. Check "Yourself" in the space labeled "Person being rated" since you are describing yourself. Write in your age and check the box next to "S" in the space labeled "NEO Form."

This questionnaire contains 240 statements. Please read each item carefully and circle the one answer that best corresponds to your agreement or disagreement.

Circle "SD" if the statement is definitely false or if you strongly disagree.

☒ SD D N A SA

Circle "D" if the statement is mostly false or if you disagree.

SD ☒ D N A SA

Circle "N" if the statement is about equally true or false, if you cannot decide, or if you are neutral on the statement.

SD D ☒ N A SA

Circle "A" if the statement is mostly true or if you agree.

SD D N ☒ A SA

Circle "SA" if the statement is definitely true or if you strongly agree.

SD D N A ☒ SA

There are no right or wrong answers, and you need not be an "expert" to complete this questionnaire. Describe yourself honestly and state your opinions as accurately as possible.

Answer every item. Note that the answers are numbered down the columns on the answer sheet. Please make sure that your answer is marked in the correctly numbered space. If you make a mistake or change your mind, **DO NOT ERASE!** Make an "X" through the incorrect response and then draw a circle around the correct response. After you have answered the 240 items, answer the three questions labeled A, B, and C on the answer sheet. Turn to page 3 in this booklet and begin with item 1.

Additional copies available from:

PAR Psychological Assessment Resources, Inc.
P.O. Box 998/Odessa, Florida 33556/Toll-Free 1-800-331-TEST

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Instructions for use with the Machine-Scoring Answer Sheet

Please read all these instructions carefully before beginning. Use a No. 2 pencil to complete your responses on the accompanying answer sheet. Please mark all your answers on the answer sheet. **DO NOT** write in this test booklet.

On the answer sheet, fill in the circle next to "Self" in the box labeled "Person Rated" since you are describing yourself. Enter your name and/or identification number, if you have been given one, in the spaces provided and then fill in the corresponding circles below each box. In the box labeled "Test Form" fill in the circle next to the letter "S." In the spaces provided, fill in your sex, age, and today's date. Turn the answer sheet over.

This questionnaire contains 240 statements. Please read each item carefully and fill in the one answer that best corresponds to your agreement or disagreement.

Fill in "SD" if the statement is definitely false or if you strongly disagree.

☒ SD ☐ D ☐ N ☐ A ☐ SA

Fill in "D" if the statement is mostly false or if you disagree.

☐ SD ☒ D ☐ N ☐ A ☐ SA

Fill in "N" if the statement is about equally true or false, if you cannot decide, or if you are neutral on the statement.

☐ SD ☐ D ☒ N ☐ A ☐ SA

Fill in "A" if the statement is mostly true or if you agree.

☐ SD ☐ D ☐ N ☒ A ☐ SA

Fill in "SA" if the statement is definitely true or if you strongly agree.

☐ SD ☐ D ☐ N ☐ A ☒ SA

There are no right or wrong answers, and you need not be an "expert" to complete this questionnaire. Describe yourself honestly and state your opinions as accurately as possible.

Answer every item and be sure to fill in the circles completely. Note that the answers are numbered down the columns on the answer sheet. Please make sure that your answer is marked in the correctly numbered space. If you make a mistake or change your mind, erase your first answer completely. Then fill in the circle that corresponds to your correct answer. After you have answered the 240 items, please answer the three questions labeled A, B, and C on the answer sheet. Turn to page 3 in this booklet and begin with item 1.

1. I am not a worrier.
2. I really like most people I meet.
3. I have a very active imagination.
4. I tend to be cynical and skeptical of others' intentions.
5. I'm known for my prudence and common sense.
6. I often get angry at the way people treat me.
7. I shy away from crowds of people.
8. Aesthetic and artistic concerns aren't very important to me.
9. I'm not crafty or sly.
10. I would rather keep my options open than plan everything in advance.
11. I rarely feel lonely or blue.
12. I am dominant, forceful, and assertive.
13. Without strong emotions, life would be uninteresting to me.
14. Some people think I'm selfish and egotistical.
15. I try to perform all the tasks assigned to me conscientiously.
16. In dealing with other people, I always dread making a social blunder.
17. I have a leisurely style in work and play.
18. I'm pretty set in my ways.
19. I would rather cooperate with others than compete with them.
20. I am easy-going and lackadaisical.
21. I rarely overindulge in anything.
22. I often crave excitement.
23. I often enjoy playing with theories or abstract ideas.
24. I don't mind bragging about my talents and accomplishments.
25. I'm pretty good about pacing myself so as to get things done on time.
26. I often feel helpless and want someone else to solve my problems.
27. I have never literally jumped for joy.
28. I believe letting students hear controversial speakers can only confuse and mislead them.
29. Political leaders need to be more aware of the human side of their policies.
30. Over the years I've done some pretty stupid things.
31. I am easily frightened.
32. I don't get much pleasure from chatting with people.
33. I try to keep all my thoughts directed along realistic lines and avoid flights of fancy.
34. I believe that most people are basically well-intentioned.
35. I don't take civic duties like voting very seriously.
36. I'm an even-tempered person.
37. I like to have a lot of people around me.
38. I am sometimes completely absorbed in music I am listening to.
39. If necessary, I am willing to manipulate people to get what I want.
40. I keep my belongings neat and clean.
41. Sometimes I feel completely worthless.
42. I sometimes fail to assert myself as much as I should.
43. I rarely experience strong emotions.
44. I try to be courteous to everyone I meet.
45. Sometimes I'm not as dependable or reliable as I should be.

46. I seldom feel self-conscious when I'm around people.
47. When I do things, I do them vigorously.
48. I think it's interesting to learn and develop new hobbies.
49. I can be sarcastic and cutting when I need to be.
50. I have a clear set of goals and work toward them in an orderly fashion.
51. I have trouble resisting my cravings.
52. I wouldn't enjoy vacationing in Las Vegas.
53. I find philosophical arguments boring.
54. I'd rather not talk about myself and my achievements.
55. I waste a lot of time before settling down to work.
56. I feel I am capable of coping with most of my problems.
57. I have sometimes experienced intense joy or ecstasy.
58. I believe that laws and social policies should change to reflect the needs of a changing world.
59. I'm hard-headed and tough-minded in my attitudes.
60. I think things through before coming to a decision.
61. I rarely feel fearful or anxious.
62. I'm known as a warm and friendly person.
63. I have an active fantasy life.
64. I believe that most people will take advantage of you if you let them.
65. I keep myself informed and usually make intelligent decisions.
66. I am known as hot-blooded and quick-tempered.
67. I usually prefer to do things alone.
68. Watching ballet or modern dance bores me.
69. I couldn't deceive anyone even if I wanted to.
70. I am not a very methodical person.
71. I am seldom sad or depressed.
72. I have often been a leader of groups I have belonged to.
73. How I feel about things is important to me.
74. Some people think of me as cold and calculating.
75. I pay my debts promptly and in full.
76. At times I have been so ashamed I just wanted to hide.
77. My work is likely to be slow but steady.
78. Once I find the right way to do something, I stick to it.
79. I hesitate to express my anger even when it's justified.
80. When I start a self-improvement program, I usually let it slide after a few days.
81. I have little difficulty resisting temptation.
82. I have sometimes done things just for "kicks" or "thrills."
83. I enjoy solving problems or puzzles.
84. I'm better than most people, and I know it.
85. I am a productive person who always gets the job done.
86. When I'm under a great deal of stress, sometimes I feel like I'm going to pieces.
87. I am not a cheerful optimist.
88. I believe we should look to our religious authorities for decisions on moral issues.
89. We can never do too much for the poor and elderly.
90. Occasionally I act first and think later.

91. I often feel tense and jittery.
92. Many people think of me as somewhat cold and distant.
93. I don't like to waste my time daydreaming.
94. I think most of the people I deal with are honest and trustworthy.
95. I often come into situations without being fully prepared.
96. I am not considered a touchy or temperamental person.
97. I really feel the need for other people if I am by myself for long.
98. I am intrigued by the patterns I find in art and nature.
99. Being perfectly honest is a bad way to do business.
100. I like to keep everything in its place so I know just where it is.
101. I have sometimes experienced a deep sense of guilt or sinfulness.
102. In meetings, I usually let others do the talking.
103. I seldom pay much attention to my feelings of the moment.
104. I generally try to be thoughtful and considerate.
105. Sometimes I cheat when I play solitaire.
106. It doesn't embarrass me too much if people ridicule and tease me.
107. I often feel as if I'm bursting with energy.
108. I often try new and foreign foods.
109. If I don't like people, I let them know it.
110. I work hard to accomplish my goals.
111. When I am having my favorite foods, I tend to eat too much.
112. I tend to avoid movies that are shocking or scary.
113. I sometimes lose interest when people talk about very abstract, theoretical matters.
114. I try to be humble.
115. I have trouble making myself do what I should.
116. I keep a cool head in emergencies.
117. Sometimes I bubble with happiness.
118. I believe that the different ideas of right and wrong that people in other societies have may be valid for them.
119. I have no sympathy for panhandlers.
120. I always consider the consequences before I take action.
121. I'm seldom apprehensive about the future.
122. I really enjoy talking to people.
123. I enjoy concentrating on a fantasy or daydream and exploring all its possibilities, letting it grow and develop.
124. I'm suspicious when someone does something nice for me.
125. I pride myself on my sound judgment.
126. I often get disgusted with people I have to deal with.
127. I prefer jobs that let me work alone without being bothered by other people.
128. Poetry has little or no effect on me.
129. I would hate to be thought of as a hypocrite.
130. I never seem to be able to get organized.
131. I tend to blame myself when anything goes wrong.
132. Other people often look to me to make decisions.
133. I experience a wide range of emotions or feelings.
134. I'm not known for my generosity.
135. When I make a commitment, I can always be counted on to follow through.

136. I often feel inferior to others.
137. I'm not as quick and lively as other people.
138. I prefer to spend my time in familiar surroundings.
139. When I've been insulted, I just try to forgive and forget.
140. I don't feel like I'm driven to get ahead.
141. I seldom give in to my impulses.
142. I like to be where the action is.
143. I enjoy working on "mind-twister"-type puzzles.
144. I have a very high opinion of myself.
145. Once I start a project, I almost always finish it.
146. It's often hard for me to make up my mind.
147. I don't consider myself especially "light-hearted."
148. I believe that loyalty to one's ideals and principles is more important than "open-mindedness."
149. Human need should always take priority over economic considerations.
150. I often do things on the spur of the moment.
151. I often worry about things that might go wrong.
152. I find it easy to smile and be outgoing with strangers.
153. If I feel my mind starting to drift off into daydreams, I usually get busy and start concentrating on some work or activity instead.
154. My first reaction is to trust people.
155. I don't seem to be completely successful at anything.
156. It takes a lot to get me mad.
157. I'd rather vacation at a popular beach than an isolated cabin in the woods.
158. Certain kinds of music have an endless fascination for me.
159. Sometimes I trick people into doing what I want.
160. I tend to be somewhat fastidious or exacting.
161. I have a low opinion of myself.
162. I would rather go my own way than be a leader of others.
163. I seldom notice the moods or feelings that different environments produce.
164. Most people I know like me.
165. I adhere strictly to my ethical principles.
166. I feel comfortable in the presence of my bosses or other authorities.
167. I usually seem to be in a hurry.
168. Sometimes I make changes around the house just to try something different.
169. If someone starts a fight, I'm ready to fight back.
170. I strive to achieve all I can.
171. I sometimes eat myself sick.
172. I love the excitement of roller coasters.
173. I have little interest in speculating on the nature of the universe or the human condition.
174. I feel that I am no better than others, no matter what their condition.
175. When a project gets too difficult, I'm inclined to start a new one.
176. I can handle myself pretty well in a crisis.
177. I am a cheerful, high-spirited person.
178. I consider myself broad-minded and tolerant of other people's lifestyles.
179. I believe all human beings are worthy of respect.
180. I rarely make hasty decisions.

181. I have fewer fears than most people.
182. I have strong emotional attachments to my friends.
183. As a child I rarely enjoyed games of make believe.
184. I tend to assume the best about people.
185. I'm a very competent person.
186. At times I have felt bitter and resentful.
187. Social gatherings are usually boring to me.
188. Sometimes when I am reading poetry or looking at a work of art, I feel a chill or wave of excitement.
189. At times I bully or flatter people into doing what I want them to.
190. I'm not compulsive about cleaning.
191. Sometimes things look pretty bleak and hopeless to me.
192. In conversations, I tend to do most of the talking.
193. I find it easy to empathize—to feel myself what others are feeling.
194. I think of myself as a charitable person.
195. I try to do jobs carefully, so they won't have to be done again.
196. If I have said or done the wrong thing to someone, I can hardly bear to face them again.
197. My life is fast-paced.
198. On a vacation, I prefer going back to a tried and true spot.
199. I'm hard-headed and stubborn.
200. I strive for excellence in everything I do.
201. Sometimes I do things on impulse that I later regret.
202. I'm attracted to bright colors and flashy styles.
203. I have a lot of intellectual curiosity.
204. I would rather praise others than be praised myself.
205. There are so many little jobs that need to be done that I sometimes just ignore them all.
206. When everything seems to be going wrong, I can still make good decisions.
207. I rarely use words like "fantastic!" or "sensational!" to describe my experiences.
208. I think that if people don't know what they believe in by the time they're 25, there's something wrong with them.
209. I have sympathy for others less fortunate than me.
210. I plan ahead carefully when I go on a trip.
211. Frightening thoughts sometimes come into my head.
212. I take a personal interest in the people I work with.
213. I would have difficulty just letting my mind wander without control or guidance.
214. I have a good deal of faith in human nature.
215. I am efficient and effective at my work.
216. Even minor annoyances can be frustrating to me.
217. I enjoy parties with lots of people.
218. I enjoy reading poetry that emphasizes feelings and images more than story lines.
219. I pride myself on my shrewdness in handling people.
220. I spend a lot of time looking for things I've misplaced.
221. Too often, when things go wrong, I get discouraged and feel like giving up.
222. I don't find it easy to take charge of a situation.
223. Odd things—like certain scents or the names of distant places—can evoke strong moods in me.
224. I go out of my way to help others if I can.
225. I'd really have to be sick before I'd miss a day of work.

- 226. When people I know do foolish things, I get embarrassed for them.
- 227. I am a very active person.
- 228. I follow the same route when I go someplace.
- 229. I often get into arguments with my family and co-workers.
- 230. I'm something of a "workaholic."
- 231. I am always able to keep my feelings under control.
- 232. I like being part of the crowd at sporting events.
- 233. I have a wide range of intellectual interests.
- 234. I'm a superior person.
- 235. I have a lot of self-discipline.
- 236. I'm pretty stable emotionally.
- 237. I laugh easily.
- 238. I believe that the "new morality" of permissiveness is no morality at all.
- 239. I would rather be known as "merciful" than as "just."
- 240. I think twice before I answer a question.

Appendix G. Consent Form for those completing the Questionnaire in Non-group Situation

PERSONAL PROJECTS, COMMITMENT AND WELL-BEING

PLEASE COMPLETE THE ENCLOSED QUESTIONNAIRE. YOU WILL RECEIVE 3 CREDITS FOR PARTICIPATION IN THIS EXPERIMENT.

IF YOU HAVE ANY QUESTIONS CONCERNING ANY OF THE INFORMATION IN THE QUESTIONNAIRE, PLEASE CONTACT LAURA GOODINE OR JUDY MAKINEN (788-2600, EXT. 2697). WE CAN NORMALLY BE REACHED TUESDAY THROUGH THURSDAY (12:30-3:30) OR LEAVE A MESSAGE ON THE VOICE MAIL.

WHEN YOU HAVE COMPLETED THE QUESTIONNAIRE, PLEASE DROP IT OFF ON WEDNESDAY, JUNE 21ST IN THE LOEB BUILDING, ROOM A405 BEFORE CLASS (5:00-6:00). THEN YOU WILL RECEIVE YOUR PARTICIPATION RECORD (PROOF THAT YOU HAVE COMPLETED THE EXPERIMENT).

IF YOU ARE UNABLE TO DROP IT OFF DURING THIS TIME PERIOD, PLEASE CALL US AT THE ABOVE NUMBER AND WE WILL ARRANGE ANOTHER DROP OFF TIME. THANK YOU!

FINALLY, WE PREFER YOU NOT TO CONSULT WITH ANYONE WHILE DOING THE QUESTIONNAIRE (AFTERWARDS OF COURSE IS FINE!) TO ENSURE THE CONDITIONS ARE THE SAME FOR YOU AS FOR THOSE WHO CAME INTO THE LAB TO COMPLETE THE QUESTIONNAIRE. SO PLEASE SIGN THE FOLLOWING:

I AGREE TO COMPLETE THIS PACKAGE WITHOUT CONSULTING ANYONE.

NAME _____

SIGNATURE _____

DATE _____

Appendix H.

Debriefing Letter

Dear _____,

In the Spring/Summer of 1995 you participated in a study entitled "Personal Projects, Commitment and Well-Being" which was carried out in our Social Ecology Laboratory. We wish to thank you for participating in this study and invite you to contact us if you still have questions you wish to raise about the study in general or your participation in it.

Both of the following studies used the everyday activities and concerns of the subjects (personal projects) as the basis of their analyses. One study, which used these data, investigated the relation between perceived economic climate and well-being. Results reveal that perceived economic impact varies as a function of project category and age. For mature students, perceptions of economic climate impacted on vocational projects (e.g., "improving my computer skills"); for the younger group, perception of economic climate impacted on administrative projects (e.g., "finding a place to live"). Based on this study, alternate directions of research are proposed for this important topic.

The second study developed a model of commitment from the perspective of contemporary personality psychology i.e., we considered both traits (e.g., extraversion, neuroticism, openness to experience) and personal projects in the playing out of commitment to goal pursuits. Results indicate that commitment is a multifaceted, central motivating force in our lives. As in past generations, individuals continue to commit to both work and relationships. Further, males and females appear to have differences in the way they commit to their projects (as evidenced by several trait measures and personal project dimensions) which is not surprising given that commitment is closely related to our sense of self. However, an analysis of an executive sample suggests that these

differences may be less apparent over time particularly if we are engaged in projects that are meaningful. Finally, we examined two patterns of commitment, one where we see that overcommitment may result in an interference in accuracy between perception of competency and actual ability and another where we probed the “Workaholic” profile. Indeed, the latter lack a sense of personal meaning and fun in their academic lives and have lower levels of subjective well-being.

If you have comments, concerns or simply wish to discuss this study. please call us at (613) 520-2697 and leave us a message. Thanks again for your participation.

Yours sincerely,

Laura A. Goodine, MA

Judy Makinen, BA

Appendix I

Intercorrelations, PPA Dimensions

<u>Variable</u>	1	2	3	4	5	6	7	8	9	10
1. Commitment	--									
2. Enjoyment	.27	--								
3. Fun	.18	.78	--							
4. Fulfilment	.39	.49	.49	--						
5. Passion	.52	.53	.49	.60	--					
6. Reward	.45	.35	.30	.61	.52	--				
7. Self Worth	.44	.31	.31	.60	.45	.58	--			
8. Challenge	.22	.03	-.09	.25	.28	.33	.34	--		
9. Difficulty	.02	-.03	-.10	.08	.10	.21	.20	.65	--	
10. Stress	.18	-.05	-.12	.06	.21	.06	.17	.55	.46	--
11. Time Pressure	.27	.04	.07	.17	.20	.17	.20	.44	.38	.63
12. Ambivalence	-.15	.03	.08	-.04	-.01	-.09	-.06	.25	.31	.30
13. Competence	.57	.20	.20	.30	.32	.37	.37	.00	-.17	-.01
14. Control	.28	.13	.17	.24	.11	.20	.22	-.16	-.35	-.24
15. Initiation	.38	.14	.13	.25	.20	.40	.42	.17	.03	.13
16. Outcome	.52	.28	.28	.41	.30	.43	.34	.04	-.16	-.09
17. Absorption	.50	.34	.35	.48	.49	.41	.54	.22	.03	.16
18. Importance	.52	.31	.14	.43	.43	.49	.38	.39	.22	.28
19. Investment	.54	.14	.16	.38	.38	.42	.41	.20	.04	.22
20. Obligation		.34	.04	.06	.29	.30	.25	.32	.20	.04
18										
21. Guilt	.33	.07	.10	.35	.30	.37	.33	.22	.13	.14
22. Cost	.36	.13	.13	.20	.31	.25	.21	.33	.22	.32
23. Other's View	.27	.26	.25	.31	.36	.32	.30	.23	.11	.18
24. Visibility	.10	.27	.24	.17	.26	.16	.20	.15	.10	.23
25. Support	.30	.30	.30	.34	.28	.35	.39	.11	.07	.13
26. Self Identity	.45	.36	.32	.29	.34	.35	.28	.09	-.03	.04
27. Value Congr	.53	.27	.26	.47	.36	.40	.54	.19	.01	.06
28. Role	.47	.20	.19	.37	.38	.37	.38	.15	.19	.15
29. Alternatives	-.01	.06	.21	.09	.13	.02	-.09	-.06	-.12	-.05

Appendix I

Intercorrelations, PPA Dimensions

<u>Variable</u>	11	12	13	14	15	16	17	18	19	20
11. Time Pressure	--									
12. Ambivalence	.22	--								
13. Competence	.15	-.24	--							
14. Control	-.13	-.29	.45	--						
15. Initiation	.14	-.22	.46	.36	--					
16. Outcome	.10	-.17	.52	.47	.33	--				
17. Absorption	.24	-.03	.44	.30	.43	.40	--			
18. Importance	.30	.02	.29	.17	.30	.45	.42	--		
19. Investment	.30	-.01	.34	.23	.27	.43	.51	.44	--	
20. Obligation		.20	.04	.23	.18	.18	.30	.34	.34	.42
--										
21. Guilt	.32	.08	.28	.07	.16	.20	.29	.24	.40	.37
22. Cost	.37	.19	.23	.06	.16	.15	.35	.39	.40	.27
23. Other's View	.27	-.04	.26	.15	.19	.34	.29	.32	.30	.22
24. Visibility	.18	.01	.14	.03	.13	.20	.21	.30	.18	.17
25. Support	.21	-.08	.38	.31	.25	.31	.29	.35	.30	.21
26. Self Identity	.18	.04	.36	.17	.26	.46	.39	.38	.31	.08
27. Value Congr	.27	-.19	.44	.21	.38	.44	.45	.32	.30	.14
28. Role	.27	-.03	.29	.05	.26	.33	.42	.34	.38	.27
29. Alternatives	-.07	.13	.08	.13	.03	-.00	.03	-.12	-.04	-.08

Appendix I

Intercorrelations, PPA Dimensions

<u>Variable</u>	21	22	23	24	25	26	27	28	29
21. Guilt	--								
22. Cost	.31	--							
23. Other's View	.20	.04	--						
24. Visibility	.08	.16	.36	--					
25. Support	.19	.20	.43	.37	--				
26. Self Identity	.10	.17	.24	.27	.26	--			
27. Value Congr	.27	.16	.36	.23	.41	.51	--		
28. Role	.32	.24	.39	.20	.38	.36	.47	--	
29. Alternatives	.02	.14	-.01	.04	.06	.10	.05	-.04	--

NOTE TO USERS

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Appendix K. Analyses on General Disposition to Commitment, NEO-PI-R and PPA Commitment

We examined Pearson product moment correlations between the General Disposition to Commitment Scale (GDC, Dube, 1994) and personal project commitment. Table 1 illustrates these findings. We anticipated the items on the GDC to tap into the trait-like aspects of commitment; thus, the GDC was correlated with the NEO-PI-R. Table 2 illustrates these findings.

Table 1.

Correlations between the General Disposition to Commitment Scale (GDC) and PPA Commitment^a

<u>GDC Scale</u>	<u>Commitment to Project^a</u>
Total Commitment	.34***
Attraction and Attachment	.24***
Perseverance	.34***
Acceptation and Assimilation	.18*

Note. ^a $n=174$

Table 2.

Correlations between the GDC and the NEO-PI-R^a

<u>NEO Scale</u>	<u>Total Commitment</u>	<u>Attraction and Attachment</u>	<u>Perseverance</u>	<u>Acceptation and Assimilation</u>
Neuroticism	-.34***	-.31***	-.15*	-.31***
Extraversion	.38***	.57***	.12	.10
Openness	.31***	.26***	.23**	.20**
Agreeableness	.26***	.11	.17*	.34***
Conscientiousness	.44***	.15*	.51***	.37***

Note. ^a $n=174$.

The results indicate that all of the NEO-PI domains are significantly correlated with the total score of the GDC scale (Total Commitment column); these range from a correlation of .26 ($p<.001$) with A to a correlation of .44 ($p<.001$) with C. The **Attraction and Attachment** subscale has its highest correlation with E ($r=.57$, $p<.001$); the **Perseverance** subscale is most strongly correlated with C ($r=.51$, $p<.001$); and the **Acceptation and Assimilation** subscale has its strongest correlations with both C ($r=.37$, $p<.001$) and A ($r=.34$, $p<.001$).

As the NEO-PI-R and the GDC were so highly correlated, two analyses were

conducted in order to determine any unique contribution that the GDC makes to the prediction of personal project commitment. Semi-partial correlations between PPA commitment scores and the GDC (i.e., correlations after removing the variance of the NEO-PI-R from the GDC) are illustrated in Table 3 (as compared to Table 1). As can be seen, the correlations between PPA commitment and the GDC are substantially reduced. Further, a hierarchical regression analysis in which the covariates (birthplace, gender and social desirability) were entered first, followed by the NEO-PI-R and subsequently the GDC was conducted. The results indicate that the NEO-PI-R block accounts for 13% (adjusted R^2) of the variance in PPA commitment [$F(8,152)=3.99$, $p<.001$]. The addition of the GDC did not add incremental variance to the prediction of PPA commitment (R^2 change=.02; $p=.23$). It is evident that a substantial portion of the relation between the GDC scale and personal project commitment is due to trait aspects of personality as assessed by the NEO-PI-R. The addition of the GDC to our prediction of personal project commitment was redundant.

Table 3.

Semi-partial correlations^a between the General Disposition to Commitment Scale (GDC) and PPA Commitment^b

<u>GDC Scale</u>	<u>Commitment to Project^a</u>
Total Commitment	.14
Attraction and Attachment	.12
Perseverance	.11
Acceptation and Assimilation	.08

Note. ^a Note that these semi-partial correlations had the variance of the NEO-PI removed from the GDC.

^b $n=174$.

Appendix L. PPA Questionnaire, Job Needs Checklist and Organizational Culture Checklist

JOB NEEDS AND DESIRES

Here are some needs/aspects that some people may think are important in a job. In the first column, please indicate from 0 (low) to 10 (high) to what extent these items are important to you in your **ideal job**. Initially, please think about how much you desire to find each aspect in your work/career in general—not how much your present position satisfies these goals. We'll deal with that after. A score of 0 would indicate that the need is not all important to you and 10 would indicate that it is extremely important that you find this aspect/need in work.

Then, please think about your **present job/work** and indicate in column 2 to what extent you feel you have this need/aspect in your present position. A score of 0 would indicate that you do not have this need/aspect at all in your present job and a score of 10 would indicate that you have a great deal of this need/aspect in your present job/work.

Ideal job: How important is this aspect to you?

0	1	2	3	4	5	6	7	8	9	10
not at all				somewhat				extremely		
important				important				important		

Present job: To what extent do you have this aspect?

0	1	2	3	4	5	6	7	8	9	10
not at all					somewhat					a great deal

	Ideal job	Present job
a feeling of achievement/accomplishment?	_____	_____
making use of your abilities?	_____	_____
being very busy all the time?	_____	_____
working independently?	_____	_____
having new and varied experiences?	_____	_____
being involved in decision making?	_____	_____
being compensated well financially?	_____	_____
having job security?	_____	_____
having pleasant physical working conditions?	_____	_____
having an opportunity for advancement?	_____	_____
having recognition for the work you do?	_____	_____
having power?	_____	_____
having a job that promotes your social status in the community?	_____	_____
being around interesting people?	_____	_____
having co-workers/colleagues who are friendly?	_____	_____

	Ideal job	Present job
doing things that "make a difference" for the benefit of society	_____	_____
having a sense of personal integrity; knowing that what you are doing is ethically responsible?	_____	_____
support and encouragement from your supervisors?	_____	_____
having a supervisor who ensures your career development?	_____	_____
having an opportunity to be innovative and creative?	_____	_____
making decisions on your own?	_____	_____
being in control of how things are done?	_____	_____
having organization policies administered fairly?	_____	_____
being nurturant/caring toward employees or co-workers?	_____	_____
feeling a sense of self-worth?	_____	_____
doing things that are interesting and challenging?	_____	_____
being able to exercise leadership?	_____	_____
being around powerful people?	_____	_____
having a sense of purpose and meaning?	_____	_____
being able to work as part of a team?	_____	_____
being in a competitive "game"?	_____	_____
being flexible and accommodating to home responsibilities?	_____	_____
having a highly structured work environment	_____	_____

PERSONAL PROJECTS ANALYSIS

We are interested in studying the kinds of activities and concerns that people have at different stages of their life. We call these personal projects. All of us have a number of personal projects at any given time that we think about, plan for, carry out, and sometimes (though not always) complete. In this sense, projects may be ongoing tasks as well as finite ones; they may be things we choose to do or things we have to do. Please think of projects in this broad way. We are particularly interested in the projects that you are involved in at work, at home, in leisure and in the community.

Here are some examples of projects:

- Finishing my MBA.
- Spending more time with my kids.
- Organizing the bazaar for Big Sisters.
- Cleaning the garage.
- Finishing the report to the minister.
- Getting along better with my colleagues.
- Trying to motivate my employees.
- Applying for the job competition.

We are also very interested in finding out how people feel about these personal projects, how enjoyable they are, and so on. We would appreciate it if you could begin by just writing down in the next few minutes as many personal projects as you can that you are engaged in at the present time--remember these are not necessarily formal projects, or important ones--we would prefer you to give us more of the everyday kinds of activity or concerns that characterize your life at present.

Brian R. Little, Ph.D., 1983

LIST OF PROJECTS

Please go ahead and write down as many projects as you can in the next few minutes. Include some detail so we know what you are up to in each project.

[illegible]

Now that you've written out your projects, we'd like you to think about them in terms of two categories—**work projects** and **non-work projects**.

First, please select the five work-related projects which you think would be of interest to explore in more detail in order to better understand your work life. These may not necessarily be the most important or demanding projects, but rather ones which are representative of your work life at the present time. Recopy these projects in as brief as form as possible on this page. Just make your description long enough to keep each project clearly in mind. If you have more than 5, select the five which you feel would best describe your relationship to your work. If you have listed less than 5, please think of a couple more work-related projects to increase it to 5.

Now, please select five **non-work projects** that would be of interest to explore in more detail in order to better understand that part of your life and copy them underneath the work projects. Again, if you have more than five, please select the five that would best describe to us your non-work life. If you have less than 5, please think of a couple more non-work projects to increase it to 5.

Also, please select the four most important needs which you identified earlier and write them in the blank columns (#19 to #22) at the end of the matrix. If you have more than four which you have identified, please select the ones which you feel are most essential for you in any job.

In columns 1 to 22 please rate each one of your projects using any number from 0 to 10 on the following dimensions. Remember that numbers between 0 and 10 can also be used.

Personal Projects Matrix

Work Projects			
1		Enjoyment	1
2		Difficulty	2
3		Control	3
4		Initiation	4
5		Stress	5
		Time pressure	6
		Outcome	7
		Self-Identity	8
		Others' view	9
		Value congruency	10
		Challenge	11
		Commitment	12
		Competence	13
		Support	14
		Self Worth	15
		Possible self	16
		Supportiveness of culture	17
		Hindrance of culture	18
			19
			20
			21
			22
Non-Work Projects			
6			
7			
8			
9			
10			

1. **Enjoyment:** how much you enjoy working on each project (use 10 if you enjoy it a great deal and 0 if you do not enjoy it at all).
2. **Difficulty:** how difficult you find it to carry out each project (use 10 for a project that you find very difficult to carry out and 0 for one that you do not find difficult at all).
3. **Control:** how much you feel you are in control of each project (use 10 for a project over which you feel in complete control and 0 for a project over which you feel you have no control at all).
4. **Initiation:** how much you feel responsible for having initiated each project (use 10 if you feel fully responsible for having initiated a project and 0 if you feel you have taken no part whatsoever in initiating a project).
5. **Stress:** how stressful it is for you to carry out each project (use 10 if a project is very stressful to carry out and 0 if a project is not at all stressful to carry out).
6. **Time pressure:** to what extent do you feel time pressure in working on each project.(use 10 if you feel highly time pressured and 0 if you feel no time pressure at all in doing the project).
7. **Outcome:** what you anticipate the outcome of each project to be (use 10 if you think that a project will be extremely successful and 0 if you think that a project will turn out to be not at all successful).
8. **Self-identity:** All of us have things we do that are typical of us. These things can be thought of as our "trade marks" or our personal "style." For example, some people engage in sports every chance they get, others prefer to read, others prefer to socialize. Think of what your own personal "trade marks" are, and then rate each project on the extent to which it is typical of you (use 10 if a project is very typical of you and 0 if it is not typical of you at all).
9. **Others' view:** how important each project is seen to be by relevant people who are close or significant to you either at work or home (use 10 if a project is seen by others as very important and 0 if it is seen as not important at all).

10. Value congruency: to what extent is each project consistent with the values which guide your life (use 10 if a project is totally consistent with your values and 0 if a project is totally at odds with them).
11. Challenge: to what extent each project is demanding and challenging to you (use 10 if a project is most challenging and 0 if it is not challenging at all).
12. Commitment: to what extent are you committed to the successful completion of this project (use 10 if you are totally committed, use 0 if you are not at all committed).
13. Competence: to what extent do you feel competent to carry out this project? (use 10 if you feel completely competent to carry out this project and 0 if you do not feel competent at all to carry it out).
14. Support: to what extent you feel each project is supported by other people. For work projects this would include supervisors and co-workers and for non-work projects this may be family or friends (use 10 if you feel other people support this project a lot and 0 if there is no support at all).
15. Self-worth: to what extent you feel that being engaged in each project gives you a sense of self-worth (use 10 if you feel it gives you a high degree of self-worth and 0 if it does not provide you with a sense of self-worth at all).
16. Possible self: to what extent each project facilitates becoming the possible self that you described earlier? (use 10 if you feel the project greatly helps becoming that possible self and use 0 if it does not help at all). You may want to use NA (not applicable) if a project is totally unrelated to that possible self.

Work projects only

17. Supportiveness of culture to what extent you feel that the culture (or we might say culture atmosphere or climate) of your organization supports this project (use 10 if you feel it supports this project a great deal and 0 if it does not support it at all).
18. Hindrance of culture to what extent you feel that the culture (or we might say atmosphere or climate) of your organization impedes or

frustrates this project (use 10 if you feel it impedes or frustrates this project a great deal and 0 if it does not frustrate it at all).

19-22. Need
Fulfilment

In columns 19-22, please rate the extent to which each project helps to satisfy the need you identified (use 10 if the project helps to satisfy the need a great deal and 0 if it does not help to satisfy the need at all).

ORGANIZATIONAL CULTURE CHECKLIST

On this sheet is a list of words which describe the perceived atmosphere or the climate or culture of an organization. By climate or culture we mean how you personally experience and perceive your organization and the way you feel that the organization treats you as an individual. Please think of your department, rather than the public service as a whole.

Please place a Yes (Y) beside any of the following words or phrases which you feel accurately describes your organization at the present time; put a double Y (YY) beside any words that are highly descriptive of your organization.

Please place an N (no) beside any descriptors that you feel are not characteristic of what your organization is like; put a double No (NN) beside any of the words that are highly uncharacteristic or the opposite of your organization at the present time. Feel free to add and rate your own descriptors in the spaces at the end.

ORGANIZATIONAL CULTURE CHECKLIST

Rating:

Y characteristic of my organization
YY highly characteristic

N not characteristic
NN highly uncharacteristic

☐ supportive co-workers	☐ hassled
☐ clear objectives development	☐ promotes personal
☐ conflictual	☐ sexist
☐ tense	☐ tolerant of different ways of doing things
☐ rigid	☐ bureaucratic
☐ people are hostile to new ideas	☐ stimulating
☐ overloaded	☐ stressful
☐ cooperative	☐ constraining
☐ confusing	☐ challenging
☐ supportive top management	☐ nurturing
☐ flexible	☐ allows me to take responsibility
☐ holds people accountable for their work	☐ fun
☐ high morale	☐ effective
☐ permits independence	☐ "one of a kind"
☐ responsive to employees	☐ inadequate financial resources
☐ just	☐ highly structured

___ creative	___ people listen to ideas
___ promotes consensus	___ hectic
___ competitive	___ rewards good performance
___ boring	___ much personal bickering
___ seriously promotes equality	___ tolerant of personal differences (e.g. language/culture)
___ controlling	___ fair
___ opportunity for advancement	___ efficient
___ accommodating to family responsibilities	___ caring
___ elitist	___ tiring
___ innovative	___ _____
___ quiet	___ _____
___ promotes education/training	___ _____

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Appendix M.

16 April 1992

Dear Mr.

We are contacting you to request your participation in a study on management in the Public Service that is being conducted by Carleton University. It is funded by a research grant from the Canadian Centre for Management Development (CCMD). This study and your individual participation in it is approved and supported by your Deputy Minister.

In the next few days, our research assistant, Laura Goodine, will be contacting you to request a time that is convenient for you to do an interview. We request your participation because we believe that in these times of tremendous organizational change, anything that we, as researchers and you, as public servants can do to help improve the public service for its employees and clients is a worthwhile endeavour. Our study is one small step in that direction.

The interview will take about ninety minutes. All information that you give us will be kept **STRICTLY CONFIDENTIAL AND ANONYMOUS**. You, your position or your department will not be identified in any way in the analysis. During the interview, you may refuse to answer any question or may withdraw from the interview completely at any time. Upon completion of the analysis, a report will be made to CCMD and a copy forwarded to your department for your review.

.../2

We would like to tell you what we think are the benefits and risks of your participation in this study. The primary benefit of the study is that our research may contribute to developing adaptive management strategies in the rapidly changing and increasingly challenging environment in the 90's. We believe that the risks of your participation in the study are minimal because there is no hidden agenda in the research and confidentiality and anonymity will be assured.

Attached is a copy of the consent form which you will be asked to sign before an interview begins. Please think of the consent form as a kind of contract that binds the researchers to treat your participation in the study in an ethical manner.

We hope that you can find the time to assist us in this research. If you have any questions or wish more information about the study, please give us a call at (613) 788-2600, extension 2697 or extension 2633 and we will be happy to discuss the study with you. Please feel free to ask any questions of Laura Goodine when she calls you about the study. Thank you for your time.

Yours sincerely,

Susan D. Phillips, Ph.D.
Assistant Professor
School of Public Administration

Brian R. Little, Ph.D.
Associate Professor
Department of Psychology

CONSENT FORM

Before beginning the interview, we ask you to sign this consent form as required by the Ethics Committee of Carleton University. Please think of this as a contract which binds us, the researchers, to ensure that the information you give us will be treated ethically as outlined in our letter. This consent means that all information will be treated in a confidential manner and that there is no use of the data other than for scholarly research. You may withdraw from all or any part of the interview at any time.

This form does not constitute a waiver of your rights, but merely documents that you were informed about what the research would entail, are aware of its risks and benefits and, on those terms, you agreed to participate in it.

I have read the researcher's letter that explains the purpose and use of results of this study. I expect that all information I decide to give will be kept strictly confidential by the researcher.

signed _____

date _____

witness _____

May we contact you again for the possibility of participating in a follow-up study?
If you agree to be contacted, you can still decline to participate at that time.

Yes _____

No _____

NOTE TO USERS

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UMI

3. ADMINISTRATION

This category includes matters related to staffing competitions and assessment (written evaluations), writing up minutes of meetings, operational and routine reports, preparing annual reports; physical reorganization of the office; cleaning up the backlog; preparing for meetings and presentations, and managing the technology of administration. Some typical administrative projects are: "reducing my correspondence backlog," "write the job descriptions."

3.1 Staffing, assessment

3.2 Cleaning up backlog

3.3 Writing minutes, operational reports, routine reports, annual reports

3.4 Physically moving/reorganization of office

3.5 Preparing presentations/preparing meetings

3.6 Technical management

3.7 Administrative committees

4. DEALING WITH SUPERIORS, COLLEAGUES, OTHER DEPARTMENTS (INTERNAL)

5.1 POLITICAL SENSITIVITY

5.2 PUBLIC CONSULTATIONS, INTEREST GROUPS

6. FINANCIAL MANAGEMENT--BUDGETING

7. POLICY/PROGRAM DEVELOPMENT

8. POLICY/PROGRAM IMPLEMENTATION

9. STRATEGIC PLANNING -- RE 'MACHINERY' OF GOVERNMENT

Appendix O.

Rotated Factor Solution for the PPA Dimensions of the Work Projects in a Sample of Managers

<u>PPA Dimension</u>	<u>F1^a</u>	<u>F2</u>	<u>F3</u>
Enjoyment	.79	.07	.23
Self-identity	.68	.07	.26
Need satisfaction	.64	.21	-.07
Self-worth	.62	.35	-.10
Challenge	.58	.13	-.24
Value Congruency	.55	.22	.18
Initiation	.36	.01	.23
Possible selves	.32	-.03	-.06
Support of culture	.13	.82	.14
Support of supervisors, co-workers	.31	.72	.17
Other's view of importance	.18	.54	.22
Hindrance of culture	.03	-.47	-.09
Difficulty	.11	.00	-.66
Stress	.01	-.06	-.63
Competence	.18	.27	.59
Outcome	.23	.39	.51
Control	.06	.37	.47
EIGENVALUES	4.5	2.15	1.16
PERCENTAGE OF VARIANCE	25.2	11.90	6.4

Note. ^aF1 through F3=Factor 1 through Factor 3

Appendix P

Stepwise Multiple Regression Analysis of PPA Commitment on the PPA Work Factors of Meaning, Support and Competency**Dependent variable-Commitment to Project****Block 1 - Covariate – gender**

Multiple R	.33	$F(1,109)=13.07, p<.001$
R Square	.11	
Adjusted R Square	.10	

Variable entered on Step 1 - Meaning

Multiple R	.58	$F(2,108)=26.77, p<.001$
R Square	.33	
Adjusted R Square	.32	Adjusted R Square Change .22***

Variable entered on Step 2 - Competency

Multiple R	.64	$F(3,107)=25.00, p<.001$
R Square	.41	
Adjusted R Square	.40	Adjusted R Square Change .08***

Variable entered on Step 3 - Support

Multiple R	.67	$F(4,106)=21.15, p<.001$
R Square	.44	
Adjusted R Square	.42	Adjusted R Square Change .03*

Variables in the equation

<u>Variable</u>	<u>Beta</u>	<u>T</u>
Gender	.39***	5.35
Meaning	.42***	5.80
Support	.18*	2.46
Competency	.26***	3.50

Appendix Q.

Rotated Factor Solution for the PPA Dimensions of the Work and Non-work Projects in a Sample of Managers

<u>PPA Dimension</u>	<u>F1^a</u>	<u>F2</u>	<u>F3</u>
Enjoyment	.79	.07	.23
Self-identity	.68	.07	.26
Need satisfaction	.64	.21	-.07
Self-worth	.62	.35	-.10
Challenge	.58	.13	-.24
Value Congruency	.55	.22	.18
Initiation	.36	.01	.23
Possible selves	.32	-.03	-.06
Support of culture	.13	.82	.14
Support of supervisors, co-workers	.31	.72	.17
Other's view of importance	.18	.54	.22
Hindrance of culture	.03	-.47	-.09
Difficulty	.11	.00	-.66
Stress	.01	-.06	-.63
Competence	.18	.27	.59
Outcome	.23	.39	.51
Control	.06	.37	.47
EIGENVALUES	4.5	2.15	1.16
PERCENTAGE OF VARIANCE	25.2	11.90	6.4

Note. ^aF1 through F3=Factor 1 through Factor 3

Appendix R.

Rotated Factor Solution for the PPA Dimensions of the Non-Work Projects in a Sample of Managers

<u>PPA Dimension</u>	<u>F1^a</u>	<u>F2</u>	<u>F3</u>	<u>F4</u>
Support	.71	-.13	.21	-.13
Possible Selves	.64	.07	-.06	.12
Other's view of importance	.57	-.25	.24	.18
Enjoyment	.57	.42	.14	-.17
Self-worth	.57	.35	.05	-.03
Value Congruency	.47	.26	.40	.05
Challenge	.43	.15	-.22	.40
Initiation	.06	.72	.17	-.01
Control	-.02	.57	.29	-.13
Self-identity	.46	.48	.37	-.13
Competence	.11	.32	.67	-.03
Outcome	.18	.26	.42	-.13
Stress	-.02	-.13	-.30	.78
Difficulty	.02	-.12	-.44	.47
Time Pressure	.01	-.04	.11	.44
EIGENVALUES	3.8	1.9	.94	.53
PERCENTAGE OF VARIANCE	25.1	12.9	6.3	3.5

Note. ^aF1 through F4=Factor 1 through Factor 4

Appendix S.

Rotated Factor Solution for the Job Needs and Aspirations of a Sample of Managers

<u>Job Need</u>	<u>F1^a</u>	<u>F2</u>
interesting and challenging work	.83	.15
a sense of purpose and meaning	.78	.16
a feeling of achievement/accomplishment	.78	.17
using abilities	.76	.21
involved in decision making	.73	.08
exercise leadership	.72	.10
sense of self-worth	.70	.36
new and varied experiences	.67	.02
working as part of a team	.52	.25
busy all the time	.50	-.16
oportunity to be innovative and creative	.47	.20
supervisor who ensures career development	.15	.79
opportunity for advancement	.04	.73
recognition	.41	.70
support/encouragement from supervisors	.35	.67
EIGENVALUES	10.83	2.2
PERCENTAGE OF VARIANCE	32.8	6.7

Note. ^aF1 and F2=Factor 1 and Factor 2

Appendix T.

Rotated Factor Solution for the Organizational Culture Descriptors of a Sample of Managers

<u>Descriptors of Climate</u>	<u>F1^a</u>	<u>F2</u>	<u>F3</u>
Fair	.77	-.12	-.02
Just	.76	-.11	-.07
Caring	.68	-.08	-.15
Responsive to employees	.57	-.17	-.18
Accommodating to family responsibilities	.45	.05	-.12
Nurturing	.44	.00	-.26
Supportive top management	.43	.07	-.14
Elitist	-.40	.07	-.15
High morale	.40	-.35	-.17
Tense	-.38	.17	.28
Highly structured	-.05	.79	-.05
Controlling	-.15	.68	.13
Rigid	-.37	.59	-.11
Constraining	-.01	.56	.19
Permits independence	.14	-.51	.07
Bureaucratic	.03	.51	.14
Flexible	.32	-.47	-.08
Overloaded	-.04	.05	.77
Hectic	-.15	.01	.76
Stressful	-.16	.06	.66
Tiring	-.20	-.04	.52
Quiet	.20	.05	-.47
Inadequate financial resources	.04	.21	.38
EIGENVALUES	12.1	3.9	2.7
PERCENTAGE OF VARIANCE	22.8	7.3	5.0

Note. ^aF1 through F3=Factor 1 through Factor 3

Appendix T (cont'd)

Rotated Factor Solution for Organizational Culture Descriptors of a Sample of Managers

<u>Descriptors of Climate</u>	<u>F4^a</u>	<u>F5</u>
Boring	-.77	-.15
Challenging	.76	.10
Stimulating	.65	.27
Fun	.46	.02
Efficient	.15	.68
Clear objectives	.11	.63
Effective	.29	.51
Confusing	-.05	-.48
Innovative	.31	.41
Consensual	.08	.39
EIGENVALUES	2.7	2.1
PERCENTAGE OF VARIANCE	4.0	3.7

Note. ^aF3 and F4=Factor 3 and Factor 4

Appendix U.

Case Study. To provide a 'window' into the life of one of our subjects, we selected one extreme and examined his 'havings' and 'doings'. He was a subject who fell into the Workaholic category as determined by Spence and Robbins' (1992) scale. Wolverine (pseudonym) is a 19 year old, full time, first year student enrolled in the faculty of Science, the faculty of his choice. Already we see the 'makings' of our subject in his self-chosen pseudonym, Wolverine ("a stocky, ferocious, flesh-eating mammal" (Webster, 1982))¹. The work-related drive of Wolverine is evident in his scores on the Workaholism battery; he has a standard score of 1.8 on the Driveness scale, .8 on the Involvement scale and -.1 on the work Enjoyment scale. First, we examined his 'havings' in relation to our undergraduate sample as well as the college norms for the NEO-PI-R.

What is striking about Wolverine's NEO-PI-R scores is his very low score on Agreeableness; he scores at the 8th percentile (P) using college norms and is more than 1 standard deviation below the mean of our sample. In contrast, Wolverine scores high on Extraversion (83rd P), Conscientiousness (81st P) (again, both are beyond 1 standard deviation of our sample) and Openness (75th P). His scores are average on Neuroticism (32nd percentile). As will be seen, Wolverine has a very high commitment score across his personal projects and this we have found to be related in particular to both O and C.

A is a dimension related to interpersonal tendencies; low scores on A indicate lack of altruism and sympathy towards others. Disagreeable persons are characterized to be "egocentric, sceptical of others' intentions and competitive rather than cooperative" (p. 15). At the facet level of A, we see that Compliance (a facet which is concerned with

reactions to interpersonal conflict) and Modesty are his lowest scores (14th and 17th Ps, respectively). Low scorers on Compliance tend to be aggressive, competitive and do not hesitate to express anger. In accordance with the latter, we see that Wolverine's N facet, Angry Hostility, is relatively high (67th) compared to the rest of his N scores with the exception of another N facet score, Impulsivity (85th P). On the Extraversion scales, we see Wolverine to be high on Assertiveness (95th P), Activity (95th P) and Positive emotions (91st P). On the C facet scales, Wolverine is high in Competence (93rd), Achievement Striving (93rd) and Self-Discipline (98th). In contrast he has a low score on the Deliberation facet (24th) of C which parallels his high score on the N facet scale of Impulsivity (85th). Finally, we see that Wolverine has high scores on the Fantasy facet (91st P) and Ideas facet (89th) of O. What emerges from this picture of Wolverine's 'havings' is a very active, assertive and outgoing individual who is self-disciplined, competitive, competent, achievement striving and not afraid to express anger. Despite his self-discipline, however, one has the picture of an individual who is impulsive and does not take the time to think things through. Finally, Wolverine's high scores on O suggest a degree of sensitivity to art, beauty and feelings. In particular, his scores on Fantasy suggest a rich inner world; his high score on Ideas suggest an intellectual curiosity and an open-mindedness about new and unusual ideas.

A first glance at Wolverine's PPA matrix is quite revealing. We see that a lot of his energy is focussed on sports: "play 'x' 6 times/week;" "improve strength;" "improve stamina" are three of his projects to which he is highly committed (scores of 10, 10 and 9, respectively, which he also rates high in importance (scores of 9, 9 and 8, respectively).

On further examination, we see that "play 'x' 6 times/week" is not a leisure activity for Wolverine. When we examine his 'whys' for engaging in this sport, it is apparent that he is highly committed to this project because he would like to play professionally. At present, he is on the university team. High A has been depicted as not advantageous "on the battlefield or in the courtroom" (p. 15), nor is it likely of much benefit (except towards your teammates) in the competitive sports arena. It is clear that Wolverine's low scores on A may be quite useful in the world of sports; how low A plays itself out in his interpersonal life is not clear. Recall that Wolverine is high on both E and O suggesting a gregarious guy with positive emotions and a sensitivity to other's feelings. We see that Wolverine has two interpersonal projects, "spend time with grandparents, " and "spend time with parents." Although these projects are high in commitment (both have scores of 8), they are not rated high on importance (3 and 6, respectively). Wolverine indicates that he is engaged in an intimate personal relationship; on these two projects "spend quiet time with Donna" and "improve conversation with Donna" he has ratings of 9 and 8, respectively in terms of commitment; further he rates both projects as high in importance, both have scores of 9.

Wolverine scores on SWB again put him in the extreme range. All of his global domain specific scores are greater than 1 standard deviation from the mean of the sample. On a scale of '0' to '10' , Wolverine's scores are: Life satisfaction, 9; Emotional satisfaction, 9; Health satisfaction, 8; Social satisfaction, 9 and Academic satisfaction, 9. On the affective measures, Wolverine scored at the mean on the CES-D and again 1 standard deviation greater than the mean on the Positive Affect minus Negative affect

scales (Diener and Emmons, 1985) scales. His GPA score is 9, again, greater than 1 standard deviation above the mean of the sample. Wolverine's scores also indicate that the relation between his self-rated competency on academic personal projects and his GPA objective score is accurate (standardized competency rating minus standardized GPA $1.05 - 1.11 = .84$).

When we examine the relation between the factor scores and commitment at the project level (across 10 projects) we see Personal Meaning/Hedonism and Competency (at the normative level) to be the most prominent factors in Wolverine's project system (Pearson product moment correlations of .65 and .69, respectively). Wolverine's projects of "Play 'x' sport 6 times per week" and "Improve strength" have the highest scores on Personal Meaning/Hedonism whereas his academic projects have the highest scores on the Competency factor. It was noted that Workaholics have Personal Meaning/Hedonism scores on their academic projects which are close to those of the Unengaged students. When we examine Wolverine's two academic projects "Study for exams" and "Try to choose a major" we see that the former has a factor score of .63 on Personal Meaning/Hedonism whereas the latter scores -2.4 on Personal Meaning/Hedonism. Clearly, his project of "try to choose a major" is low on the hedonistic aspects of fun (score of 1), passion (score of 0), fulfilment (score of 3) and enjoyment (score of 2). It does, however, appear to be meaningful as shown by Wolverine's scores on value congruency (10) and self-identity (9). All of Wolverine's academic subjects have been lumped into the project "study for exams," a project that we see has elements of both hedonism (passion score of 10; fulfilment score of 10, enjoyment score of 6 and fun score

of 6) and meaning (value congruency score of 10 and self-identity score of 10).

Finally, Wolverine selected the projects of "play 'x'" and "improve strength" (combined as one project) and "study for final exams" when asked to choose the ones that he is most committed to. Both projects feed into his future selves in the roles of professional athlete and graduate student/worker. The former project is also one of self-enhancement as "it also helps me look better and feel good." As in the normative sample, we see commitment to personal projects is linked to self and future identities for Wolverine.

In sum, we see both trait level and PAC level of analyses to be of use in understanding the psychology of Wolverine. The traits of Wolverine give us some idea of his potential for commitment; through his personal projects we see it playing out through several facets of his life. Compared to the rest of the sample, Wolverine is considered a Workaholic due to his high work scores on Driveness and Involvement and comparatively lower score on Enjoyment. He has a high degree of commitment, Conscientiousness and competency and this is evident both at school and in the sports arena. He is engaged in an intimate interpersonal relationship with Donna and intimates that he wants to spend more time with both extended and nuclear family thereby suggesting a degree of social support in his life. There is no reason to believe that he is "living an "illusion" as he is reasonably accurate in his ratings of competency in academic projects (although limited by the small number of academic projects) and the objective criterion of GPA, perhaps what Baumeister (1988) refers to as "the optimal margin of illusion" (p. 176). One may argue that Wolverine's "bubble may burst" if he does not

achieve his goal of becoming a professional athlete. However, we see that he has a backup project or perhaps one that he will carry out in concert with the former.

Wolverine scores high on the SWB measures and this is in line with his high scores on E, a domain highly related to SWB. In short, Wolverine appears ready to both experience and attack the world.

Endnotes

1. At Carleton University, the single most frequently worn sports sweater is that of the Michigan Wolverines, the name of the University of Michigan's basketball and football teams. Thus, Wolverine has likely selected this name because he is a 'jock' and because of the name's association with these teams.