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**THE MEASUREMENT AND MEANING OF
PERSONAL PROJECTS CREATIVITY**

Michelle L. Melia-Gordon

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

**Department of Psychology
Carleton University
Ottawa, Ontario
August, 1994**

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**THE MEASUREMENT AND MEANING OF
PERSONAL PROJECTS CREATIVITY**

submitted by Michelle L. Melia-Gordon, B.A.
in partial fulfilment of the requirements for
the degree of Master of Arts

Thesis Supervisor
Chair, Department of Psychology

Carleton University
August, 1994

ABSTRACT

Creativity constitutes a process of responding innovatively to situations; as such, it is a multifaceted construct which is only partially examined via standardized tests and current research methodologies. The present study examines creativity in the context of everyday living, taking social-environmental factors into account. This Personal Projects Analysis (PPA; Little, 1983) explores interrelationships between personality, personal projects and creativity. Personal projects are extended sets of personally relevant action (Little, 1987c), and are the units of analysis for this study of creative action in context. The goal is the measurement and meaning of personal project creativity. Construct validity is sought for the new PPA creativity dimension by examining its covariation with the Adjective Check List-Creativity Scale (ACL-Creativity), and the more general trait of Openness to Experience measured by the Revised NEO Personality Inventory (NEO PI-R). Therefore, this study focuses on how individuals implement creativity processes within their daily lives, whether engaging in day-to-day projects or creative projects; it does so by examining interrelationships between two conceptual units in personality research: traits represented by the five-factor model (e.g., Costa & McCrae, 1992; Digman, 1990), and personal action construct (PAC) units, as measured by personal projects and Personal Projects Analysis (Little, 1983). PAC units provide alternatives to trait analysis by assessing intentional action in context (Little, 1987c). The content, appraisal and dynamics of personal projects served as a framework for the study of

creativity as it occurs in daily life.

One hundred and twenty adult participants completed Personal Projects Analysis, the ACL-Creativity Scale, and the NEO PI-R. Results of bivariate correlations, adjusted for number of tests performed (Bonferroni adjusted alpha, .05/# tests), indicate that ACL-Creativity and NEO PI-R Openness to Experience both correlate strongly with the new PPA creativity dimension. In turn, this creativity dimension has strong positive linkages with PPA meaning dimensions, as well as dimensions of positive affect. A principal components analysis of all PPA variables produced four theoretically coherent, varimax-rotated principal components: Personal Meaning, Positive Affect, Creative Community, and Stress. The new creativity dimension loaded most highly on the PPA community factor. Furthermore, NEO Openness and Extraversion had strong positive linkages with the Creative Community PPA factor, as did ACL-Creativity. These findings are reported in light of possible interactional and communal aspects of creativity unaccessed by standardized creativity tests. Finally, this study is discussed with a view to future research into personal projects, creativity, affect and transitions.

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In looking for answers to daily dilemmas of any size, can we make quick, fluid decisions, risk changing an approach to accomplish an end, make up a new pattern to satisfy an old need? In short, can we live creatively?

The answer to this question is obviously yes. But how is it that we go about living creatively? If we look at creativity as a process of sensing difficulties and responding innovatively, rather than simply adapting to new situations¹ (Csikszentmihalyi & Getzels, 1970, 1971; Getzels, 1975; Getzels & Smilansky, 1983; Okuda, Runco & Berger, 1991), and if we look at what sort of person engages in this process successfully, what sort of environments facilitate it, and what products result, we may examine creativity within both the realms of everyday living and rarely achieved heights (Richards, 1990; Torrance, 1988). Whether we look at day-to-day manifestations of creativity (Okuda et al., 1991; Richards, 1990), or creativity within individuals' highest achievements, we cannot do so without taking social-environmental factors into account. Such factors influence both task motivation and creativity (Amabile, 1983; Amabile, Hennessey & Grossman, 1986; Hennessey & Amabile, 1988). However, much research on creativity--whether in terms of person, process, or product--primarily assesses individual differences using standardized creativity tests, or narrowly defined experimental tasks (Amabile et al., 1986; Garbarino, 1975; Greene & Lepper, 1974; Lepper & Greene, 1975; Pittman, Emery & Boggiano, 1982; Sternberg, 1986).

The goal in the following study is to provide a fresh perspective within the increasingly active, but far from comprehensive, literature on creativity. More

specifically, the purpose is to investigate correlates of creativity with a more social ecological focus than has been previously employed.

The Social Ecology of Creativity

A social ecological focus entails a study of creative action in context.

Following an action theory approach to personality, solely cognitive, behavioural or affective units are displaced by units emphasizing intentional action (Little, 1987c).

Both the intentional context and ecological (e.g., situational) context of action can be explored. The intentional context of action is the subjectively construed purpose for taking action. Intentionality is defined as the extent to which the question 'Why?' can be answered regarding a particular action (Little, 1987c). The ecological context of an action involves the "nature of the situation or historical context within which an action is embedded" (Little, 1987c; pp. 231). A third contextual influence can be added to the intentional and ecological contexts of action. This influence is the systemic context in which relations among actions are examined. In short, a social ecological investigation of creativity will explore a composite of the intentional, ecological, and systemic influences on personality and personal action.

Personal projects, or, "extended sets of personally relevant action that...range from highly circumscribed behaviours...to extensive enterprises" (Little, 1987c; pp. 230), will be the unit of analysis for the study of creative action in context. This study will utilize a Personal Projects Analysis (PPA) where interrelationships between personality, personal projects and creativity will be explored and construct validation

sought for the new PPA measure of creativity.

This study builds upon current research which increasingly addresses the multiple influences on creativity. For example, both gender (Piirto, 1991) and developmental stage (Smith & Carlsson, 1990) influence environmental facilitation or frustration of creative behaviour. Further, individual differences in personality, creative ability, or personal goals impact on creative behaviours (Giovacchini, 1991; Larson, 1989; Shalley, 1991), as do familial attitudes (Borduin & Mann, 1987; Gedo, 1990; Raw & Marjoribanks, 1991) and extrinsic constraints in the social environment (Amabile, 1982; Amabile & Gitomer, 1984; Amabile, 1987; Garbarino, 1975; Hennessey & Amabile, 1988; Kernoodle-Loveland & Olley, 1979). While social-environmental influences can impede creativity even in creative individuals (Piirto, 1991; Smith & Carlsson, 1990), a variety of activities can improve/encourage creativity (Gurman, 1989; Torrance, 1988). At the very least, individuals can learn to immunize themselves against the creativity-impeding influences of external reward, surveillance, deadlines, and expected evaluation (Hennessey & Amabile, 1988). In short, the literature reveals creativity as a multifaceted and multiply impacted-upon construct, one which has been only partially examined via current experimental methodologies.

Creativity may be better understood via research outside a standardized assessment framework where persons are tested on narrowly defined experimental tasks. For example, creativity can be effectively examined with an open-ended interview methodology, such as that employed by Amabile (1988) when investigating

the creative process as it occurs within large organizations. Creativity can also be effectively examined with Hennessey and Amabile's (1988) Consensual Assessment Technique. Within this methodology, guidelines for studying creative products include a general set of limits places on a target activity; a wide variety of responses are then possible on an open-ended task.

The move away from standardized assessments of creativity is further encouraged by the work of Csikszentmihalyi (1988) and Woodman and Schoenfeldt (1990). These authors claim we cannot study creativity and its individual and social-environmental factors in isolation from an individual's broader social and historical context. We must include the "shaping forces" (Csikszentmihalyi, 1988; pp. 325) of creativity; that is, broad social institutions and stable cultural domains, as well as the individual. Similarly, Magyari-Beck (1990) refined Rhodes' (1961) Person, Product, Process and Press model of creativity with a creatology matrix in which person, group, organization and culture are all shown as influencing creativity. Harrington (1990) presents an even broader claim: A psychology of creativity should look not only at the person, process and products of creativity, but at acts (intended or unintended) of collaborative creativity. In speaking of the small moments of creative thought occurring globally--for example, in a variety of empirical research teams in a variety of countries--and leading to eventual creative accomplishments in a wide range of fields, Harrington (1990) asks us to

realize how much we need a psychology of creativity that can effectively encompass the development of the personal computer, contemporary AIDS research...a theory powerful enough to generate psychologically illuminating accounts of the human skills, personalities,

activities, and arrangements that underlie the humanly created world [we] inhabit and the world-in-the-making that [we] read about in [our] morning newspapers (pp. 144).

Regardless of how global or specific our focus, what we have in creativity is a construct highly sensitive to both endogenous, person-variables, and social-environmental factors. Indeed, one of the most salient features of current creativity measures is their diversity. Their many facets reflect not only the multiple settings within which creativity can be assessed (Bachelor, 1989), but the complexity of the creativity construct itself. But perhaps the construct 'creativity' requires a more creative research agenda than has previously been followed. How may we more creatively and comprehensively study such a construct?

The current study will focus on how individuals implement creative processes *within their daily lives*, whether these persons are engaging in creative projects or creatively juggling a variety of projects. This study will therefore be based on the Personal Projects Analysis assumption (e.g., Little, 1983) that we can simultaneously explore both the person and the process of constructs such as creativity, taking into account the interplay between persons and social-environmental factors. With this social ecological approach, it may be possible to locate not only a creative person and a creative process, but also a creative product, directly within the unit of analysis itself.

If the current study is to look effectively at processes of living creatively and producing creative products, it requires a methodology that captures both the flow of an individual's daily life as well as any creative products produced. Personal Projects

Analysis (PPA) affords a view of the ecological embeddedness of creative processes, perhaps even within activities that do not fit stereotypical views of what constitutes creativity. An overview of the general methodology will set the stage for a specific focus on creativity.

Personal Projects Analysis Methodology

Personal projects are defined as personally relevant, extended sets of action ranging from mundane daily activities, to driving life-long commitments, and often taking the form of a more middle level muddling through (Little, 1983; 1989; Little, Lecci & Watkinson, 1992). The social ecological perspective giving rise to personal projects as units of analysis considers social, cultural and environmental factors along with the individual personal intent which drives project systems (Little, 1983; Little et al., 1992). It thereby meets Harrington's (1990) call for a broader study of complex processes such as creativity. Personal projects as units of personality reveal an individual's navigations of social, cultural and environmental domains, and thereby analyze personality in context (Little et al., 1992).

An individual's self-generated projects perform a function similar to that of standardized personality inventories, insofar as projects provide a unit of analysis; however, projects also provide personally salient and contextualized information about an individual's cognitive and affective functioning. Whereas traditional approaches use different units to investigate these domains, PPA allows for an immediate investigation of their interdependence. The content, appraisal and dynamics of

personal projects serve as a constructive framework for personality research (Little, 1987a, 1987b, 1987c, 1988, 1989; Little et al., 1992).

PPA is utilized as follows. The concept of the personal project is defined for respondents as activities and concerns that people think about, plan for, carry out, and sometimes complete. Projects are therefore defined as both ongoing tasks as well as finite ones. A set of examples indicates the range of activities which may be construed as personal projects:

Completing my class assignments.
 Helping Mike get along better with others.
 Overcoming shyness.
 Getting some exercise.

Personal projects are not necessarily formalized nor structured, but constitute the kinds of activities and pursuits that characterize respondents' lives at present. (See Appendix B for the Personal Projects Analysis elicitation technique.)

Following definition of the personal project, the first task in PPA is the elicitation of an individual's own current personal projects. The Kellian roots of PPA (e.g., Kelly, 1955; Little, 1972, 1976) are evident in the approach taken to project elicitation: The approach is essentially a credulous one, where individuals are directly asked to write down their current personal projects. Individuals are invited to explain what they are up to by listing the projects they are currently engaged in. This initial list of projects constitutes the first PPA module, the Project Elicitation List (see Appendix B) and invariably elicits a spectrum of projects in a wide variety of categories. Projects as varied as, "Pay the rent", and "Try to overcome feelings of being small and worthless in a place that is large and unfamiliar" (data taken from

Little, Goodine, Melia-Gordon & Sourani, 1992), can often be found within the same individual's Project Elicitation List, and may relate in an idiosyncratically systemic manner. As a very simplified example, accomplishing the first project, above, may engender a sense of efficacy which may help with the second project. Conversely, inability to accomplish the logistics of daily life may impact negatively on the larger intrapersonal projects.

Such systemic linkages between an individual's personal projects are assessed by having respondents place ten of their projects in the second PPA module, the Project Dimension Rating Matrix (PDRM). (See Appendix C for the PDRM format utilized in this study.) Within the matrix, respondents rate ten of their projects on a series of dimensions pre-selected by the investigator for their theoretical and applied importance (Little, 1983, 1987a, 1989; Palys & Little, 1983). Both theory and factor analysis support the subsuming of each dimension under one of five major life-domains: Project meaning, structure, community, efficacy and stress are the domains evaluated with component dimensions such as enjoyment, control, support, competence and challenge respectively² (Little, 1987a, 1989). (See Appendix D for a listing of the standard rating dimensions used in PPA). Respondents are asked to evaluate their projects on dimensions such as importance (e.g., how important does a respondent think each self-generated personal project is for her). This evaluation is done via an 11-point Likert-type scale with ratings of zero and ten providing the anchor points. A respondent may rate a project as high on some dimensions, yet low on others. For example, a project rated as high on the dimensions of importance and

stress, may receive low ratings on dimensions of support and meaning.

Respondents' dimension ratings may then be scored ipsatively by correlating ratings across the ten projects within each individual's project system. For example, the relationship between a respondent's rating of importance and enjoyment across her project system can be expressed as a correlation, and dependent variables of interest can then be regressed on this importance-enjoyment index (e.g., Wilmut, 1992). Such ipsative scores can then be used in much the same way normative scores are used in nomothetic analysis.

In the nomothetic analysis utilized in this study, respondents' dimension ratings are scored normatively by calculating the average rating across the ten projects for each dimension, and then comparing these mean scores with those of other respondents. Mean dimension scores can then be correlated with other individual difference variables such as demographic or personality variables (e.g., Little, 1989; Omodei & Wearing, 1990; Ruelman & Wolchik, 1988). This strategy is used in the present study where mean dimension ratings are correlated with trait dimensions assessed by the Revised NEO Personality Inventory (NEO PI-R; Costa & McCrae, 1992), and with standardized creativity scores on the Adjective Check List-Creativity Scale (Smith & Schaefer, 1969).

At this stage it is often informative to categorize projects (see Appendix E for PPA categorization technique), and to compute mean dimension ratings within project categories. Categorization of all projects self-generated by respondents allows us to identify the distinctive characteristics of different project types, such as academic

projects, interpersonal projects, health projects and intrapersonal projects (e.g., Little et al., 1992; Melia-Gordon, 1992; Wilmut, 1992).

As well as computing ipsative or normative mean dimension ratings, relationships among project dimension ratings at both the project system and project category levels can be investigated. Multiple patterns of intercorrelations exist. Projects rated as highly meaningful may also be rated as stressful, and particularly so for the category of intrapersonal projects; similarly, projects rated as highly structured may often be rated as efficaciously carried out, particularly in the realm of health pursuits (e.g., Melia-Gordon, 1992). Such patterns of intercorrelations link up with particular patterns of trait-profiles, and expand upon information available from standardized personality inventories. For example, an individual scoring high on the trait of Conscientiousness who likely to have a project system including structured, efficacious health projects. Pearson Product Moment Correlations between the dimensions in the matrix are often followed by multiple regressions of dependent variables on each of the PPA variables. Factor analysis of the project variables is often performed subsequent to frequency and category analysis.

In sum, multiple forms of analysis may be performed on PPA data; integrative and systemic data-collection across studies, and over time, is facilitated by this methodology. The interrelated assessment modules of PPA constitute a flexible assessment methodology rather than a fixed test, and as such can be tailored to investigate specific research interests. Whereas a standardized personality questionnaire may inform us, for example, that an individual exhibits the trait of

introversion, PPA provides a picture of an individual's personalized grappling with such a trait. The standardized test may tell us an individual is shy, whereas PPA may reveal an individual actively generating a project such as, "Try to be more active in dealing with my shyness by asking friends to encourage me in social situations." Such a methodology--one that allows us to investigate both the idiosyncratic and socially embedded aspects of a variety of constructs--may open a new window onto processes of creativity, a construct highly sensitive to both person-variables and environmental influences.

Linking Personal Project Variables and Personality Trait Correlates of Creativity

This study examines interrelationships between two conceptual units in personality research: Traits, represented by the five-factor model (e.g., Costa & McCrae, 1992) and personal action construct (PAC) units, represented by personal project and Personal Projects Analysis (Little, 1983). Traits and PAC units represent different levels of analysis, both of which are necessary for a comprehensive study of human personality (Little, 1972, 1987b; Little et al., 1992). The current study follows the assumption that there is "an important, perhaps unique, role to be played by PAC methods in expanding and clarifying the validation program of the five-factor model of traits" (Little et al., 1992; pp. 505).

Traits are "pervasive consistencies in thoughts, feelings and behaviors" (Costa & McCrae, 1992; pp. 39). Research into trait measures reveals five core factors underlying personality (Costa & McCrae, 1988a; Digman, 1990; Digman & Inouye,

1986; Goldberg, 1990; John, Goldberg & Angleitner, 1984). These five factors are recoverable from self-report data, peer ratings and adjective check lists in a variety of languages (Costa & McCrae, 1992; Digman, 1990). This study will follow Costa & McCrae's labels (1992) for "Big Five" dimensions: Neuroticism; Extraversion; Openness; Agreeableness; and Conscientiousness. Each is a dimension of normal personality, although high scorers on Neuroticism may be at risk for clinical problems (Costa & McCrae, 1992).

The five personality domains can be defined as follows: Neuroticism contrasts emotional stability and emotional distress, with high scorers experiencing primarily negative affect (e.g., fear, anger, sadness, embarrassment). Low scorers tend to be "calm, even-tempered, and relaxed, and they are able to face stressful situations without becoming upset or rattled" (Costa & McCrae, 1992; pp. 15).

Extraversion is a major domain of personality involving sociability versus reservedness. The extraverted individual is often sociable, assertive, active and talkative. In contrast, the introverted person tends to be reserved, independent, and may prefer to be alone; however, the introverted individual does not necessarily suffer from social anxiety (Costa & McCrae, 1992).

Openness to Experience is a third major domain involving imagination, preference for variety, intellectual curiosity, independence of judgement, and attentiveness to inner feelings at its open pole, and a narrower scope and intensity of interests at its closed pole (Costa & McCrae, 1992). Openness relates to aspects of intelligence, such as divergent thinking, which relate in turn to creativity (McCrae,

1987). It is therefore a trait of particular interest in this study.

Agreeableness, like Extraversion, is primarily a dimension of interpersonal tendencies with the agreeable person being fundamentally altruistic, sympathetic, and eager to help others. In contrast, the disagreeable person tends to be egocentric and competitive rather than cooperative. As with other trait domains, neither pole is necessarily better in terms of the individual's well-being; either pole may be adaptive.

Finally, Conscientiousness refers to an active process of "planning, organizing, and carrying out tasks" (Costa & McCrae, 1992; pp. 16). It is associated with academic and occupational achievement on the positive side, and compulsive fastidiousness, neatness, or workaholic behaviour on the negative side. Table 1 presents a complete list of these five major domains of personality and their subdomains, or facets, as indexed in this study with the Revised NEO Personality Inventory.

PAC units provide alternatives to trait analysis; they assess intentional action in context, and range in scope from current concerns (Klinger, 1987, 1989), life tasks (Cantor, 1990), personal strivings (Emmons, 1986, 1989), to personal projects (Little, 1983, 1989). Whereas trait measures predict distal outcome criteria such as marital instability, criminal records and promotion in career settings (e.g., Caspi, 1987; Costa & McCrae, 1989), PAC units allow for a fine-grained analysis of the routes through which distal outcomes are negotiated. Examining the links between the five factor trait model of personality and the content and appraisal of everyday personal projects allows an exploration of what Cantor (1990) calls the "havings and doings"

(pp. 735) of personality. How do the traits that we have influence the projects that we do? More specifically, how do trait profiles interrelate with individuals' appraisals of their creative projects?

Table 1

Domains and Facets Measured by the NEO PI-R

Domains	Openness Facets
N: Neuroticism	O1: Fantasy
E: Extraversion	O2: Aesthetics
O: Openness	O3: Feelings
A: Agreeableness	O4: Actions
C: Conscientiousness	O5: Ideas
	O6: Values
Neuroticism Facets	Agreeableness Facets
N1: Anxiety	A1: Trust
N2: Angry Hostility	A2: Straightforwardness
N3: Depression	A3: Altruism
N4: Self-Consciousness	A4: Compliance
N5: Impulsiveness	A5: Modesty
N6: Vulnerability	A6: Tender-Mindedness
Extraversion Facets	Conscientiousness Facets
E1: Warmth	C1: Competence
E2: Gregariousness	C2: Order
E3: Assertiveness	C3: Dutifulness
E4: Activity	C4: Achievement-Striving
E5: Excitement-Seeking	C5: Self-Discipline
E6: Positive Emotions	C6: Deliberation

(Costa & McCrae, 1992).

Effects of Traits on PAC Units

Traits may influence an individual's sense of well-being while engaging in projects through; that is, temperamental, instrumental and experiential links (McCrae & Costa, 1989). A temperamental effect occurs when stable, physiologically-based affective dispositions influence a person's sense of well-being. For example, the trait of Neuroticism appears to be rooted in a generalized negative affectivity (Watson & Clark, 1984). Neuroticism is inversely associated with positive project dimensions underlying the project domains of meaning, structure, community and efficacy, and directly associated with project stress (e.g., Little et al., 1992; Melia-Gordon, 1992). Similar linkages between the trait of Neuroticism and project dimension rating were expected in the current study. Since temperamental effects generalize across different project domains (Little et al., 1992; Melia-Gordon, 1992), the effects of Neuroticism were expected to impact on both everyday projects and creative projects. Following from the temperamental effects and generalized affectivity findings (Costa & McCrae, 1980; Little et al., 1992; Melia-Gordon, 1992; Watson & Clark, 1984), it was expected that within each project domain Neuroticism would correlate most highly, with affectively charged dimensions such as enjoyment (e.g., in a negative direction).

Traits also exert an instrumental influence on well-being and personal project systems. For example, the trait of Extraversion influences an individual to seek social contexts and projects likely to sustain the trait (Buss, 1987; Caspi, 1987). Personal projects afford a translation of dispositional needs or orientations into action (Cantor & Zirkel, 1990; Little, 1989; Omodei & Wearing, 1990). Whereas

temperamental influences of traits such as Neuroticism generalize across project categories, instrumental links between traits and projects show domain specificity. For example, Conscientiousness relates to the positive project dimensions for the categories of work-related projects (Little et al., 1992) and health projects (Melia-Gordon, 1992), while Agreeableness has similar links with interpersonal projects (Little et al., 1992). Similar instrumental linkages were expected in the current study. For example, high scores on the creativity-related trait of Openness were expected to co-occur with effective soliciting of project support and involvement from significant others, and thereby reflect the interpersonal aims of creativity (e.g., Goldberg, 1986). Such support and involvement were operationalized by the PPA community dimensions of support, visibility (whether a project is visible to others), and others' view (whether a project is seen by others as important).

Aside from temperamental and instrumental effects, traits also influence personal projects with an experiential effect. For example, Conscientiousness is strongly linked to feelings of efficacy regarding one's projects (Little, 1989; Little et al., 1992; Melia-Gordon, 1992), and replication of this finding was expected for the current study. Similarly, the trait of Openness to Experience exerts an experiential effect on project systems. Unlike Neuroticism, Openness does not embody a particular affective orientation but "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). Openness associates with project meaning dimensions, and particularly with those reflecting an exploratory approach to

daily living, such as project initiation (Little et al., 1992; Melia-Gordon, 1992).

While Openness does not show domain specificity for the categories of work-related projects and interpersonal projects (Little et al., 1992), it does have particularly strong associations with the category of intrapersonal projects (Melia-Gordon, 1992) which involve one's own thoughts, goals and feelings. As creativity is influenced by feelings (e.g., Isen, Daubman & Nowicki, 1987; Oatley, 1992), and provides a route for self-expression, the trait of Openness (e.g., which involves an attentiveness to inner feelings) was expected to have strong associations with PPA creativity.

Openness and Creativity

Openness to Experience is the trait of particular interest in this study.

Openness involves a receptivity to fantasy, aesthetics, feelings, actions and ideas.

Many of these variables relate in turn to creativity (Costa & McCrae, 1992; McCrae, 1987). Indeed, adjective check list correlates of Openness facets include creativity descriptors such as imaginative, artistic, original, inventive, spontaneous, insightful and versatile (Costa & McCrae, 1992). Findings that creativity scales correlate with NEO PI-R scores on Openness to Experience (Costa & McCrae, 1992; McCrae, 1987) support the hypothesis that creativity and Openness are uniquely related and provide construct validity for NEO PI-R Openness scales (Costa & McCrae, 1992). Similar construct validity was sought in this study for the experimental PPA creativity dimension by examining this dimension in conjunction with Openness profiles.

Therefore, the NEO PI-R was expected to provide an excellent overall trait profile for

each respondent as well as a detailed profile of each person's Openness to Experience for construct validation of the new PPA creativity measure.

"Big Five" traits as measured by the NEO PI-R account for significant variance and offer theoretically coherent links with measures of personal project systems (e.g., Little et al., 1992). The present study expands upon recent research by examining the specific linkages between personal project variables and personality correlates of creativity. Relationships between normative creativity ratings (collected via the Adjective Check List-Creativity Scale; Smith & Schaefer, 1969), PPA creativity ratings, overall project system ratings, and trait profiles were systematically examined. Scores on the standardized creativity measure (ACL-Creativity) were expected to correlate positively with the trait of Openness to Experience--the trait defined by facets such as openness to fantasy, aesthetics, feelings, ideas and actions, all of which are referred to but not systematically studied as a trait cluster in the creativity literature (e.g., Arieti, 1976; Gruber, Terrell & Wertheimer, 1967; Sternberg, 1988; Taylor & Getzels, 1975). Given that past PPA research reveals that open individuals engage in positively rated intrapersonal projects (Melia-Gordon, 1992)(e.g., projects dealing directly with thoughts and feelings), positive linkages between Openness and creativity were expected.

Therefore, based on past findings (e.g., Little et al., 1992; Melia-Gordon, 1992), the following trait and project dimension linkages were expected in this study. Neuroticism's generalized negativity, or temperamental effect, was expected to correlate with problematic project systems--that is, project systems self-appraised by a

respondent as high in stress, low in meaning, or both. Instrumental links were expected for Extraversion in positive correlations with PPA community dimensions. Possible instrumental links were also expected between Openness and solicitation of project support. Further, experiential effects of traits were expected. Extraversion was expected to have positive linkages with positive project systems--those that are primarily assessed as happy and meaningful overall. Conscientiousness was expected to have positive linkages to feelings of efficacy and meaning. Openness was expected to have positive associations with project meaning (e.g., Melia-Gordon, 1992). Finally, Openness was expected to have positive links to project creativity.

PPA Creativity and Positive Affect Dimensions

Beneath the social behaviour that supports creativity, components of affect also play a role in creative pursuits (e.g., Bruch, 1988; Lowen, 1970). Experimentally induced positive affect in adults leads to dramatic increases in creative problem solving skills (Isen et al., 1987), and in creative word associations (Isen, Johnson, Mertz & Robinson, 1985). However, adults with induced negative affect do not differ in creative performance from controls (Holden, 1987). Happiness facilitates creativity; unhappiness has no such facilitatory effect. Similarly, higher levels of creativity are found in adults with positive mental health (Cropley, 1990), or in adults with only mild bipolar mood swings in comparison to individuals suffering severe bipolar mood swings (e.g., Holden, 1987; Martindale, 1989).

Further, there can be an interplay between positive affect, negative affect and

creativity. Creative individuals select and solve challenging problems (Amabile, 1983; Eisenman, 1990; MacKinnon, 1962, 1965). This action can elicit a negative affective state because individuals must struggle to bring about a sense of closure regarding a challenging problem. Progress in terms of solving the problem leads to positive affect as closure is approached; closure constitutes a strong positive affective reward for sustained engagement in the problem-solving process (Amabile, 1983).

That affect and creativity are linked in particular ways is elucidated more generally by Gruber's evolving systems approach (1984, 1988; Lubart & Sternberg, 1988; Simonton, 1989). Affect, as one of the three primary systems of an individual's construct organization (e.g., knowledge, affect and purpose), plays a role in the longterm organization of creative projects (Gruber, 1984). Further, Oatley's Cognitive Theory of Emotions postulates that affect may influence creative activity in transitions (Oatley, 1992; Oatley & Jenkins, 1992; Oatley & Johnson-Laird, 1987).

Given the recent research findings and ongoing theorizing regarding linkages between creativity and affect, one goal in this study was to explore whether coherent patterns of association existed between affect and the new PPA creativity dimension. As an exploratory investigation into PPA creativity and affect, new affect dimensions (e.g., pleasure, happiness, fun and unhappiness) were added to the PPA matrix to ascertain their patterns of association with PPA creativity. These new dimensions augmented the standard PPA positive affect dimension of enjoyment. A new stage dimension was also included to explore possible relationships between appraisals of project stage (e.g., in transition or in action) and project creativity.

Expected Linkages Between Project Variables and Creativity

Just as PPA creativity was expected to relate in coherent ways to trait measures of Openness in general, and creativity in particular, it was also expected to have particular relationships with other PPA variables. Creativity was expected to relate to at least two of the five PPA theoretical factors as follows: First, the projects which people appraise as creative were also expected to be meaningful. The enjoyment dimension (e.g., a project dimension which typically loads on the PPA meaning factor) was expected to correlate positively with creative pursuits.

Second, because the research literature supports the linking of creativity with positive affect (e.g., Isen et al., 1987), it was important to expand upon the positive affect assessed via the enjoyment dimension. Several new positive affect dimensions were added to the projects matrix; as with enjoyment, these dimensions of pleasure, fun and happiness were expected to correlate positively with creativity ratings. Further, the new negative affect dimension of unhappiness was expected to correlate negatively with appraisals of creativity. It was also expected that these new affect dimensions may constitute a new PPA factor.

Finally, because creativity is a complex process affected by multiple influences, (e.g., both person-variables and environmental factors), and as this study assessed creativity in the multifaceted contexts of individuals' everyday personal project systems, it was expected that creativity measured in context may have multifactorial loadings.

METHOD

Subjects

One hundred and twenty participants completed Personal Projects Analysis (Appendix F), the Revised NEO Personality Inventory (Appendix G) and the Adjective Check List-Creativity Scale (Appendix H) assessment packages in the spring and summer sessions at Carleton University. (Appendix A shows the complete assessment package.) This group of 68 women and 52 men was drawn primarily, but not exclusively, from introductory psychology courses. Respondents not enrolled in courses with research-participation credit were canvassed for voluntary participation with an information sheet similar to the sign-up sheet for introductory psychology students. Participants ranged in age from 16.5 years to 61 years ($M=28.15$, $SD=12.25$), with 30% of the sample over age 28 years ($M=43.86$, $SD=10.83$), and the remaining 70% younger than 28 years ($M=21.31$, $SD=3.38$). Most participants were first- or second-year full-time university students. Others were attending university as part-time students, special students, or graduate students. Of the students who provided information on their faculty of study, 39 were Arts students (32.5% of the sample); 36 were Social Sciences students (30% of the sample); 31 were Special students (25.8% of the sample); six were Sciences students (5% of the sample); and five were Engineering/Industrial Design students (4.2% of the sample). Their cultural background was largely North American with most of the sample

(78.33%) Canadian by birth.³

Materials

Data for this study were based on a single administration of the questionnaire package. A brief description of the PPA, NEO PI-R, ACL-Creativity Scale and demographic information follows, along with the procedure for use of these measures and rationale for their inclusion in the study. (Brief measures of life satisfaction, affect, and emotional well-being were also collected for use in contemporaneous research on creativity, affect and well-being⁴; see Appendix A for copy of complete questionnaire).

Personal Projects Analysis (PPA). The personal project (Little, 1983) was the unit of analysis for assessing the activities and concerns of this sample. (See Appendix F for the PPA package.) PPA format for elicitation of overall projects was standard: Participants wrote as many personal projects as they could on the Project Elicitation List. Participants were prompted to spend at least several minutes on this task and to indicate the kinds of activities and concerns that characterize their lives at present. This elicitation was followed by a second elicitation of creative projects only. A brief definition of creative projects was provided in order to impose a degree of homogeneity in construal across respondents and to minimize individual differences in domain-relevant skills because such differences lead to high variability in baseline measures of creativity. The creative project was defined generally as the innovative assembling, making, figuring out, engaging in, some object/activity. Subjects were

told that although everyday projects may be done creatively, some examples of specifically creative projects may be:

Creating an interesting living space in my apartment.
 Writing song-lyrics as gifts for my friends.
 Helping Deb see an old problem in a humorous new light.
 Developing an unusual perspective in my psychology paper.
 Figuring out an innovative time-sharing schedule for the t.v.
 and phone with my housemates.
 Dressing to express myself.
 (Data taken from five sample pilot packages.)

This particular research design was thereby predicated on Hennessey and Amabile's (1988) guidelines for the study of creative products: A set of general limits was maintained on the target activity, while allowing it to remain an open-ended task with a wide variety of possible responses. This study therefore builds upon Hennessey and Amabile's (1988) Consensual Assessment Technique by asking for a creative product- in this case, a self-reflexive and social ecological creative project rather than a researcher-assigned target task.

Participants were prompted to spend several minutes listing any projects which they considered to be creative for them, if indeed they did engage in such projects. This specific project category was generated in a second elicitation list to avoid priming subjects solely for creative activities in the first list (thereby eliminating projects in other categories), but to ensure elicitation of creative projects for later content analysis. The double elicitation frequently required subjects to re-write creative projects which they had spontaneously generated in the first elicitation; however, the second elicitation allowed them to expand upon the descriptions of their

creative projects, and to list any related creative activities.

Participants were then asked to select from their initial project list a maximum of seven projects which they felt would be interesting to explore in more detail. They were also asked to select a maximum of three creative projects, and to transcribe the total ten projects into the Personal Projects Dimension Rating Matrix. The study therefore employed a recent split-matrix format similar to the projects matrix currently in use for work/non-work projects (Phillips & Little, 1993). Respondents were asked to sort their projects into everyday and creative projects directly in the matrix such that the first seven were everyday projects from the first elicitation list, and the final three were creative projects from the second elicitation list.

These projects were then rated on 24 dimensions on a scale of zero to ten. The dimensions included standard PPA dimensions such as competence, enjoyment and control, as well as new experimental dimensions such as creativity, happiness and pleasure. All experimental dimensions were selected for their possible theoretical relevance to creativity.

The Creativity Dimension. For the new creativity dimension, subjects were asked to rate the extent to which they engaged creatively in each of their projects irrespective of project category. Hence, individuals were asked to rate not just how creative their creative projects were, but how creatively they engaged in day-to-day projects. The creativity dimension was presented concisely, as follows:

Rate the extent to which you feel you engage creatively in each project. Note the project itself could be mundane. (Use 10 if you engage very creatively in a project and 0 if you do not engage creatively in a project.) (See Appendix F.)

Creativity was therefore presented in a broad sense, as a construct that can describe an approach to day-to-day pursuits, and which can be engaged in by individuals who are not professional artists, musicians nor writers. This procedure was used to avoid presenting creativity in a stereotypical manner--that is, as a construct which applies only to highly circumscribed or elite artistic endeavors. The goal was to introduce creativity into the PPA package in as non-alienating a manner as possible, as a construct that can apply to the innovative, original, inventive and spontaneous insights or decisions that can arise in the context of everyday life.⁵

Open Column. Following the creativity dimension, the matrix was augmented with three open columns. Standard PPA format has utilized a "Why?" column and a "With Whom?" column (e.g., why do you engage in this project, and with whom do you engage in this project?). This study utilized a "Why?" column to obtain a narrative account of the reasons individuals engaged in their projects and to assess whether creative projects were engaged in for noticeably different reasons than other projects (e.g., more self-focussed reasons). (See Appendix F.) A "With Whom?" column was used to assess whether projects appraised as creatively engaged in (e.g., which could be either creative or day-to-day projects) were more likely to involve time spent alone or with others. The open column was included to add further information to the support and community dimensions (e.g., project visibility and others' view of the project). Significant others may be supportive of a project as indexed in the project support dimension, but not be directly involved in the activity itself. An emotionally, or perhaps monetarily supported creative project may be

engaged in alone. This situation was assessed by the open column in conjunction with the community dimensions.

The "Why?" and "With Whom?" open columns provided information on the relative self-focus and other-involvement in projects appraised as creative. A third open column indexed the feelings most associated with each project. This "Feelings" column was included such that narrative information could augment or validate the new positive affect dimensions. The new dimensions of fun, pleasure, happiness, and conversely unhappiness, were selected from the literature for their likely theoretical importance in assessing creativity (e.g., Lowen, 1970; Oatley, 1992). Creativity has not been empirically tested in the context of everyday life with any regularity in the literature; therefore, the narrative "Feelings" open column was included to assess the relative appropriateness of the researcher-selected positive affect dimensions.

Finally, scores on each of the 24 dimensions were summed to create a mean score for each person on each dimension. Internal consistency was assessed by calculating Cronbach's alpha coefficients for each of the 24 project dimensions. While the dynamic content of project systems is not necessarily expected to have high levels of internal consistency, the replicable patterns of association between individual difference measures and PAC measures in past research suggest that at least moderate levels of internal consistency can be expected for PPA variables (e.g., Little et al., 1992). Consistent with an assumption of at least moderate levels of internal consistency, Cronbach's alphas ranged from .65 on the experimental dimension of fun, to .86 on the standard dimension of support. The median alpha coefficient for

the total set of dimensions was .77.

Revised NEO Personality Inventory (NEO PI-R). Major themes that recur in personality descriptors in natural language and in scientific theory are the dimensions of the five-factor trait model of personality (Digman, 1990; Digman & Takemoto-Chock, 1981; John, 1990). The Revised NEO Personality Inventory is a measure of these five major domains of personality: Neuroticism; Extraversion; Openness; Agreeableness; and Conscientiousness. Form S for self-report, utilized in this study, consists of 240 items rated on a five-point scale (Appendix G). These items comprise five empirically derived domain scales and their 30 component facet scales (six facet scales per each of the five domain scales). Together, the NEO PI-R scales provide a comprehensive trait assessment of adult personality.

Research over the last 14 years on large longitudinal samples (e.g., Shock et al., 1984; Costa & McCrae, 1988b) shows internal consistencies for the individual facet scales typically range from .56 to .81, values acceptable for scales with only eight items (Costa & McCrae, 1992). The 48-item domain scales have correspondingly larger coefficient alphas ranging from .86 to .95 (Costa & McCrae, 1992). Longterm test-retest reliability coefficients typically range from .63 to .81 for the five domain scales (Costa & McCrae, 1992). The NEO PI-R was selected for use in this study because of its internal consistency, reliability and validity as a measure of stable personality traits.

Participants completed the 240 NEO PI-R items following completion of their Personal Projects Dimension Rating Matrix. For each item, subjects were required to

indicate from "Strongly Agree" to "Strongly Disagree", along a five-point scale.

Scores on the NEO PI-R were calculated by scoring and summing each item to form a single composite score for each facet and domain. Subsequent Z-scores showed all data to be within norms as published in the NEO PI-R manual (Costa & McCrae, 1992).

Adjective Check List-Creativity Scale (ACL-Creativity). The general creativity-related trait of Openness was assessed via the NEO PI-R. A finer-grained trait measure of creativity was also obtained via the Adjective Check List-Creativity Scale. Of the many tools available for assessing creativity, few meet recommended criteria of reliability, validity, cross-validation, availability of normative data, or other psychometric information (Amelang, Herboth & Oefner, 1991; Cooper, 1991; Davis, 1989; Domino, in press; Michael & Bachelor, 1990; Piedmont, McCrae & Costa, 1991). One major exception is the creativity scale of the Adjective Check List (ACL) (Domino, in press).

The ACL (Gough & Heilbrun, 1965) is a simple self-descriptive assessment measure for which several creativity scales have been developed (e.g., Domino, 1970; Gough, 1979; Smith & Schaefer, 1969). The Smith and Schaefer (1969) ACL-Creativity Scale was selected for use in this study because it is concise, easy to administer and score, and is independent of gender and field of creativity/study (Smith & Schaefer, 1969; Domino, in press). This creativity scale is composed of eight items; these discriminatory adjectives significantly differentiate creative individuals from others (Smith & Schaefer, 1969; Domino, in press). This eight-item scale is the

short version of the longer 27-item scale, composed of 26 items keyed positively and one item keyed negatively. As the eight-item subscale has a slightly more restrictive criterion of significance (discrimination: f creative versus non-creative individuals across all four of the initial sample comparison groups) (Smith & Schaefer, 1969), it was chosen as the trait measure of creativity to be entered into subsequent analyses in this study (Appendix H). While it does not provide a comprehensive trait profile for each person as does the NEO PI-R, the ACL-Creativity Scale provides a specific index of creativity above the more general trait of Openness to Experience. Therefore the ACL-Creativity Scale was included as a standardized measure of the target variable of creativity, to be linked with the overall trait profiles obtained via the NEO PI-R, and to provide a stable trait-based measure for construct validity of the more dynamic experimental PPA measure of creativity.

The target ACL subscale of interest--the Creativity Scale--was administered within the entire ACL protocol⁶. That is, subjects read through 340 adjectives and checked off those they felt were self-descriptors. Subjects completed the entire ACL following their PPA matrix ratings, and prior to the NEO PI-R. The ACL is quickly completed, and therefore it provided a brief bridge between the longer PPA and NEO PI-R protocols, each of which requires approximately 45 minutes to complete.

Demographic Data. Participants were asked to provide information regarding their age, gender, faculty of study and cultural heritage (Appendix J). Although such demographic data were not of primary interest in this study, data was collected to examine possible effects of these variables on both personality measures and project

measures, particularly given recent reports that some patterns of relationships vary as a function of age and gender of sample (e.g., Phillips & Little, 1993; Sourani, 1992).

Participation procedure

Subjects were contacted and booked for test sessions at Carleton University. Times were set up at the individual participant's convenience and generally resulted in subjects arriving individually to complete the two-hour to 2.5-hour questionnaire in a quiet office space adjoining the researcher's lab. For these subjects, the researcher was available across the two-hour span to answer any technical questions about the assessment package. With commencement of the summer session, students' full-time work- and evening class-schedules precluded the option of completing the questionnaire on campus for many students. For these individuals, the option was given to pick up the questionnaire prior to their evening class one night, complete it in a two-hour time block at home, and return it prior to their next evening lecture. Return rates on these questionnaires was close to 90%. The spring and summer data were separated to test for differences due to home versus school as participation-site.⁷

Following completion of the package, subjects requiring course credit were assigned this credit, and all subjects were given a brief statement reiterating the broad areas of interest covered in the study (e.g., personality and personal projects). This written statement included telephone numbers of university health and counselling services in the event the self-reflective process of completing a personality assessment package raised any psychological issues for participants. Before leaving, subjects

were simply asked how they found the questionnaire. The researcher made a brief series of narrative notes on these comments.

RESULTS

Descriptive Statistics

Descriptive statistics were calculated for all variables after an exploration for/correction of possible skewness, non-normal kurtosis, heterogenous variance, and both univariate and multivariate outliers, and after checking for gender and age effects.⁸ The means and standard deviations of the PPA dimensions are found in Table 2. The means and standard deviations of the NEO domain and facet scores, and ACL-Creativity Scale scores are found in Tables 3 and 4 respectively.

This sample's scores on the trait measures of NEO PI-R and ACL-Creativity fell within normative bounds, as listed in the NEO and ACL manuals. The average PPA dimension ratings indicate that overall this sample had its highest scores on project initiation, competence and importance. These participants also rated their projects as value congruent, committed to, with high expectations for positive outcome. Conversely, project ratings were lower on average for project unhappiness, stress and time pressure.

Moderate ratings were obtained for the positive affect dimensions and the creativity dimension. On average, this sample found their projects to be absorbing, happy pursuits which were both enjoyable and challenging. Further, these participants indicated they engaged relatively creatively in their projects. Finally, overall ratings for other peoples' views of and support of projects fell just beneath the ratings on how creatively each project was done.

Table 2
Means and Standard Deviations of PPA Variables

Dimension	Mean	Standard Deviation
Initiation	7.83	1.52
Competence	7.76	1.41
Importance	7.62	1.26
Value Congruency	7.48	1.57
Commitment	7.46	1.49
Outcome	7.44	1.32
Self-Worth	7.36	1.47
Control	7.34	1.52
Self-Identity	6.96	1.62
Absorption	6.90	1.52
Happiness	6.72	1.73
Enjoyment	6.53	1.67
Pleasure	6.46	1.59
Challenge	6.33	1.67
Creativity	6.27	1.81
Support	6.22	2.11
Others' View	6.16	1.59
Visibility	5.82	1.69
Fun	5.75	1.63
Difficulty	5.05	1.62
Time Pressure	4.76	1.95
Stress	4.46	1.95
Unhappiness	2.73	1.86

Note: Means listed in descending order. Range = 0 to 10. N = 120.

Table 3

Means and Standard Deviations of NEO PI-R Variables

Domain	Mean	SD
Neuroticism	92.18	26.28
Extraversion	112.98	21.50
Openness	121.10	21.21
Agreeableness	115.25	19.59
Conscientiousness	109.53	25.29
N Facets: Anxiety	16.37	5.56
Angry Hostility	14.84	5.12
Depression	15.68	6.43
Self-Consciousness	16.03	5.09
Impulsiveness	18.77	5.05
Vulnerability	11.94	5.10
E Facets: Warmth	22.43	4.90
Gregariousness	17.70	5.73
Assertiveness	16.23	5.08
Activity	17.87	4.63
Excitement-Seeking	18.06	5.18
Positive Emotions	21.08	5.38
O Facets: Fantasy	20.04	5.63
Aesthetics	20.43	6.20
Feelings	22.33	5.38
Actions	17.01	3.62
Ideas	19.17	6.02
Values	22.19	4.00
A Facets: Trust	17.10	5.34
Straightforwardness	18.53	4.95
Altruism	22.81	4.87
Compliance	16.35	5.32
Modesty	17.90	4.93
Tender-Mindedness	20.23	3.94
C Facets: Competence	20.52	2.27
Order	17.33	5.31
Dutifulness	20.80	4.81
Achievement Striving	17.75	5.86
Self-Discipline	17.75	5.97
Deliberation	16.02	5.37

N = 120. Domain Range = 0-192. Facet Range = 0-32.

Table 4
Means and Standard Deviations of ACL-Creativity Variable

Variable	Mean	Standard Deviation
ACL, # Checked Overall	108.39	46.80
Creativity Scale	3.35	2.27

N=120. Range ACL Overall = 0-340. Range Creativity Scale = 0-8.

ACL-Creativity: Relationships with NEO Scales

Table 5 displays the correlations between the NEO and the ACL, and confirms the expectation of a positive relationship between Openness to Experience and creativity. Reported correlations are those that are significant at the Bonferroni adjusted alpha (.05/# of tests).⁹ Creativity is most highly correlated with the overall Openness domain score. Within this, its highest correlates are the facets of openness to aesthetics and ideas. These findings support the profile of the open person as being imaginative, unconventional and curious--attributes also associated with creativity (Costa & McCrae, 1992; McCrae, 1987). These converging measures--a broad trait-based openness, and a more specific trait of creativity--could now be tested for their associations with the new PPA creativity dimension.

It should be noted that ACL-Creativity not only correlated positively with Openness, it correlated negatively with Neuroticism. This finding adds to the literature stating Neuroticism and/or psychopathology do not necessarily add to creative endeavor (Holden, 1987; Isen et al., 1987; Isen et al., 1985; Martindale, 1989) despite cultural stereotypes linking creativity with mental illness. This negative relationship between creativity and Neuroticism will be re-examined when these trait-based relationships are intercorrelated with the social ecological measures of PPA.

Finally, as with measures in past findings (e.g., MacKinnon, 1962), ACL-Creativity does not correlate significantly with the overall domain score of Conscientiousness, but it has a strong association with the Conscientiousness facet of competence. Creativity correlates positively with this Conscientiousness facet;

Table 5
Correlations Between NEO PI-R and ACL-Creativity

NEO Scale	ACL-Creativity
Domains: Neuroticism	-.30**
Extraversion	.16
Openness	.37**
Agreeableness	.05
Conscientiousness	.17
N Facets: Anxiety	-.23*
Angry Hostility	-.17
Depression	-.22*
Self-Consciousness	-.25**
Impulsiveness	-.10
Vulnerability	-.22**
E Facets: Warmth	.15
Gregariousness	.02
Assertiveness	.17
Activity	.14
Excitement-Seeking	.00
Positive Emotions	.15
O Facets: Fantasy	.17
Aesthetics	.34**
Feelings	.22*
Actions	.25**
Ideas	.32**
Values	.21**
A Facets: Trust	.08
Straightforwardness	.05
Altruism	.15
Compliance	-.07
Modesty	-.17
Tender-Mindedness	.11
C Facets: Competence	.29**
Order	.02
Dutifulness	-.01
Achievement-Striving	.21*
Self-Discipline	.22*
Deliberation	.09

Note: Tests of significance are two-tailed. * $p < .05$ ** $p < .01$
Boldface: Significant at Bonferroni corrected alpha, .05/35 tests = .0014

engaging in creative endeavors correlates with a level of competence to do so.

Once again, this trait-based relationship between ACL creativity and Conscientiousness will be re-examined in the context of PPA measures of creativity and Conscientiousness.

These initial linkages between NEO PI-R scales and the ACL-Creativity Scale reconfirmed the relationship between Openness and creativity for this sample, and thereby provided both a broad trait-correlate of creativity (NEO Openness), and a specific measure of creativity (ACL-Creativity), for construct validation of the PPA measure of creativity.

PPA Creativity: Steps Towards Construct Validation

The focus of this study was the measurement and meaning of personal project creativity. It was important to test its construct validity by examining the covariation of the creativity dimension with ACL-Creativity, NEO PI-R Openness, and other project dimensions. In order to examine total intercorrelations across all PPA dimensions, the five NEO domain scores and the ACL-Creativity variable, PPA variables were first reduced to a manageable subset of theoretically coherent principal components. Then, several relationships were later examined at the PPA dimension level.

Principal Components Analysis of PPA Variables. PPA dimensions were reduced to a manageable number of principal components. This principal components analysis of PPA variables provided a better N to variable ratio for subsequent tests.

First, a principal components analysis was run on PPA data without the experimental creativity dimension or the new positive affect dimensions. This procedure was carried out to test for replication of the three-factor structure of previous PPA findings where the PPA dimensions differed from the present study primarily on the new positive affect and creativity dimensions. As expected, the factor analysis yielded three varimax-rotated principal components, and thereby replicated recent PPA studies (e.g., Wilmut, 1993). Table 6 shows the rotated factor matrix.¹⁰

The dimensions of importance, value congruency, enjoyment, absorption, self-worth and self-identity load on the first factor along with dimensions of initiation, commitment, competence, outcome and control. This first factor replicates the "Personal Meaning" factor of other PPA studies (e.g., Wilmut, 1993). It constitutes a value-congruent and controlled meaning relating to personal efficacy. Second, the dimensions of challenge, difficulty, time pressure and stress load together to constitute a stress factor. Third, the dimensions of visibility, support, and others' view load together to make up a support/community factor. Hence the standard PPA variables included in this study reduce to three factors structure which can be named Personal Meaning, Stress, and Community, as expected from previous PPA findings.

Having successfully replicated a standard pattern of PPA factors¹¹, a second principal components analysis was then calculated for the total number of PPA variables, including the new experimental creativity dimension and the positive affect dimensions. When PPA was augmented by a creativity dimension and associated positive affect dimensions, the factor analysis yielded four varimax-rotated principal

Table 6
Principal Components Analysis of Standard PPA Variables

PPA Variables	Factor 1 Personal Meaning	Factor 2 Stress	Factor 3 Community
Enjoyment	.73	-.02	.01
Absorption	.72	-.04	.37
Commitment	.72	-.09	.28
Competence	.71	-.24	.21
Initiation	.69	-.25	-.13
Self-Worth	.68	.16	.30
Control	.67	-.34	.18
Value Congruency	.63	-.03	.35
Self-Identity	.61	-.22	.36
Importance	.61	.27	.40
Outcome	.53	-.39	.32
Stress	-.26	.79	.13
Challenge	.31	.77	-.08
Difficulty	-.14	.75	-.22
Time Pressure	-.22	.61	.22
Support	.24	-.27	.71
Others' View	.16	.29	.70
Visibility	.41	-.02	.55
Eigenvalue	6.66	2.68	1.15
Percent of variance	37.0	14.9	6.4

Note: These are varimax-rotated principal components.

components: A Personal Meaning factor, a Stress factor and a Community factor, as in the first principal components analysis; the new fourth factor was made up of the positive affect dimensions. Table 7 displays the principal components obtained in this second factor analysis.

Creativity loads moderately on the Personal Meaning factor and the Positive Affect factor, but has its highest loading on the Community factor; these multifactorial loadings suggest creativity is a complex attribute. Creativity's moderate loadings with the Personal Meaning factor and the Positive Affect factor are findings predicted by the research literature (e.g., Isen et al., 1987; Isen et al., 1985). That the creativity dimension loaded most highly on the Community factor along with dimensions of support, visibility, importance and others' view, suggests an interactional and interpersonal aspect to creativity not yet indexed in tests of creativity.

Creative Community PPA Factor: Correlations with ACL-Creativity and NEO Domains. How does the new creativity-augmented PPA factor structure relate to the ACL standard creativity measure? And how does the creativity-augmented PPA factor structure relate to standard trait measures, particularly those known to be important in creativity?

First, when ACL-Creativity is correlated with the four PPA principal components (e.g., including the creativity dimension and the positive affect dimensions), ACL-Creativity correlates with the PPA creativity-loaded Community factor ($r = .26^{**}$; $p < .01$). ACL-Creativity does not correlate significantly with any

Table 7
Principal Components Analysis of PPA Variables, Including
Positive Affect and Creativity Dimensions

Dimensions	Factor 1 Personal Meaning	Factor 2 Positive Affect	Factor 3 Creative Community	Factor 4 Stress
Commitment	.73	.10	.37	.02
Competence	.73	.15	.29	-.13
Initiation	.68	.25	-.02	-.16
Control	.64	.29	.22	-.26
Val. Cong.	.56	.20	.42	.04
Self-Identity	.52	.20	.42	.04
Outcome	.50	.18	.37	-.34
Absorption	.49	.42	.48	-.02
Fun	.02	.82	.21	-.11
Pleasure	.20	.77	.32	-.08
Happiness	.26	.76	.30	-.03
Enjoyment	.36	.75	.08	-.04
Self-Worth	.37	.55	.39	.16
Unhapp.	-.47	-.48	.10	.34
Support	.25	.00	.68	-.26
Visibility	.17	.29	.64	-.05
Others' View	.05	.21	.59	.26
Creativity	.23	.33	.53	.07
Importance	.40	.36	.46	.30
Challenge	.20	.21	-.08	.80
Difficulty	-.14	-.14	-.18	.77
Stress	-.33	-.11	.14	.75
Time Pres.	-.32	-.10	.24	.57
Eigenvalue	8.55	2.88	1.47	1.16
% of Var.	37.2	12.5	6.4	5.0

Note: These are varimax-rotated principal components.

Val. Cong. = Value Congruency.

Unhapp. = Unhappiness.

Time Pres. = Time Pressure.

of the remaining PPA factors of Personal Meaning, Positive Affect, nor Stress. That its one significant correlate should be the PPA factor which includes PPA creativity provides construct validity for the PPA creativity measure. The PPA creativity dimension correlates not only with the Community factor ($r = .53^{**}$; $p < .01$), but also with the Positive Affect factor ($r = .33^{**}$; $p < .01$). (PPA creativity correlates with the Personal Meaning factor, but at a lower level of significance, $r = .23^{*}$; $p < .05$). Its correlations with PPA factors are included in Table 8 for comparison with the ACL-Creativity correlations with PPA factors.

Second, when the four PPA factors are correlated with the NEO PI-R domain scores, a clear pattern of associations results. As shown in Table 9, the Personal Meaning factor correlates negatively with Neuroticism, whereas both the Personal Meaning and the Positive Affect factor correlate positively with Conscientiousness. The Positive Affect factor also correlates positively with Extraversion. More importantly, the Creative Community factor correlates positively with the domain of Openness. This factor also has linkages with Extraversion. In keeping with the construct of a sociable, creative community, Extraversion--the trait directly indexing sociability--also correlates positively with the Creative Community factor. Therefore, when all variables are reduced to a manageable number of principal components such that relationships are examined between four PPA factors, five NEO domain scores, and the one ACL-Creativity variable, a clear pattern of associations is found. These results, derived from bivariate correlations between PPA factor scores and other study variables, while more fully satisfying N to variable requirements,

Table 8

Correlations Between PPA Factors, ACL-Creativity and PPA Creativity

PPA Factors	ACL-Creativity	PPA Creativity
Personal Meaning:	.12	.23*
Commitment		
Competence		
Initiation		
Control		
Value Congruency		
Self-Identity		
Outcome		
Absorption		
Positive Affect:	-.02	.33**
Fun		
Pleasure		
Happiness		
Enjoyment		
Self-Worth		
Unhappiness		
Community:	.26**	.53**
Support		
Visibility		
Others' View		
Creativity		
Importance		
Stress:	.09	.07
Challenge		
Difficulty		
Stress		
Time Pressure		

Note: All tests of significance are two-tailed. * $p < .05$ ** $p < .01$

Boldface: Significant at Bonferroni corrected alpha, .05/8 tests = .0063

Table 9
Correlations Between PPA Factors and NEO Domains

PPA Factor	NEO Domain Score				
	N	E	O	A	C
Personal Meaning	-.37**	.11	.14	.17	.39**
Positive Affect	-.15	.23*	.15	.21*	.31**
Creative Comm- unity	-.15	.32**	.32**	.03	.13
Stress	.18	.11	.12	-.06	-.07

Note: All tests of significance are two-tailed. * $p < .05$ ** $p < .01$
Boldface: Significant at Bonferroni corrected alpha, .05/20 tests = .0025

can be also re-examined at the project dimension level.

PPA Creativity Dimension: Correlations with ACL-Creativity, NEO Openness and Other PPA Dimensions

First, the PPA creativity dimension correlates positively with the ACL-Creativity scale (see Table 10). This correlation with the PPA creativity dimension is the ACL-Creativity variable's largest correlation with any PPA dimension. Its only other significant correlation ($p < .01$) is with project importance. (Note that ACL-Creativity correlations with project creativity and project importance are not significant at the Bonferroni corrected alpha, $p < .002$; however, they are significant at $p < .004$ and $p < .006$ respectively, and therefore are reported here.) This initial positive correlation between the PPA creativity dimension and ACL-Creativity suggests the more dynamic PPA variable may be measuring the same or similar construct as is the more static, trait-based ACL variable.

Second, when the PPA creativity dimension is correlated with the NEO PI-R scales, the pattern of results is remarkably similar to that for correlations between ACL-Creativity and the NEO. Table 11 displays the correlations between PPA creativity and NEO PI-R scales. PPA creativity is most highly correlated with the overall Openness domain score and its facets of openness to feelings and ideas. Like the ACL creativity measure, PPA creativity also correlates negatively with Neuroticism (however, $p < .01$ only) and positively with Conscientiousness, but with a larger manifold of correlations across the Conscientiousness facets. That is, PPA

Table 10
Correlations Between ACL-Creativity and PPA Dimensions

PPA Dimensions	ACL-Creativity
Absorption	.18*
Challenge	.04
Commitment	.12
Competence	.13
Creativity	.26**
Control	-.01
Difficulty	.03
Enjoyment	.04
Fun	.03
Happiness	.05
Importance	.25**
Initiation	.11
Outcome	.17
Others' View	.16
Pleasure	.11
Self-Identity	.23*
Stress	.00
Support	.08
Self-Worth	.14
Time Pressure	.12
Unhappiness	.12
Value Congruency	.19*
Visibility	.17

Note: All tests of significance are two-tailed. * $p < .05$ ** $p < .01$
Boldface: Significant at Bonferroni corrected alpha, $.05/23$ tests = .0022. Actual significance PPA creativity = .004. Actual significance PPA importance = .006.

Table 11
Correlations Between NEO PI-R and PPA Creativity Dimension

NEO Scales	PPA Creativity
Domains:	
Neuroticism	-.26**
Extraversion	.25**
Openness	.35**
Agreeableness	.16
Conscientiousness	.34**
N Facets: Anxiety	-.14
Angry Hostility	-.17
Depression	-.17
Self-Consciousness	-.15
Impulsiveness	-.15
Vulnerability	-.21*
E Facets: Warmth	.26**
Gregariousness	.01
Assertiveness	.14
Activity	.26**
Excitement-Seeking	.00
Positive Emotions	.26**
O Facets: Fantasy	.11
Aesthetics	.27**
Feelings	.36**
Actions	.20*
Ideas	.31**
Values	.13
A Facets: Trust	.16
Straightforwardness	.05
Altruism	.16
Compliance	.05
Modesty	-.04
Tender-Mindedness	.18*
C Facets: Competence	.30**
Order	.11
Dutifulness	.22*
Achievement Striving	.35**
Self-Discipline	.34**
Deliberation	.19*

Note: All tests of significance are two-tailed. * $p < .05$ ** $p < .01$
Boldface: Significant at Bonferroni corrected alpha, $.05/35$ tests = .0014

creativity relates not only to high Openness and low Neuroticism, but to a variety of Conscientiousness facets such as achievement striving, self-discipline and competence. These findings provide construct validity for the PPA creativity measure; this measure correlates positively with both the ACL creativity measure and the NEO Openness facets (and with a pattern strikingly similar to ACL-Creativity).

PPA creativity, unlike ACL creativity, correlated positively with Extraversion, particularly its facets of activity, positive emotions and warmth. (It should be noted, however, that although these correlations were significant at $p < .005$, $p < .004$, and $p < .004$, respectively, the Bonferroni corrected alpha was more stringent, $p < .0014$). This finding indicates that PPA creativity is indexing the interactional, interpersonal components of creativity, something missed by standardized tests such as the ACL.

Finally, a perusal of correlations between PPA creativity and other PPA dimensions also orients us to the interpersonal component of creativity. Table 12 shows creativity to be associated with projects that are absorbing, that contribute to self-worth and self-identity, and which are experienced with positive emotions of pleasure and happiness. Such findings are as the creativity literature predicts. Of interest is that projects which are engaged in creatively are not only correlated in the expected manner with absorption, self-identity and positive emotions, but also with the more serious dimensions of importance, commitment and value congruency. Furthermore, projects that are engaged in creatively are not only seen as important and committed to, they are highly visible, supported, and seen as important by others.

Table 12

Correlations Between PPA Creativity and Other PPA Dimensions

PPA Dimensions	PPA Creativity
Absorption	.50**
Self-Worth	.47**
Self-Identity	.47**
Pleasure	.46**
Happiness	.45**
Importance	.43**
Visibility	.40**
Commitment	.37**
Value Congruency	.34**
Others' View	.34**
Support	.32**
Outcome	.32**
Control	.31**
Fun	.31**
Initiation	.30**
Enjoyment	.28**
Competence	.27**
Unhappiness	-.20*
Challenge	.16
Stress	-.02
Time Pressure	-.02
Difficulty	-.09

Note: All tests of significance are two-tailed. * $p < .05$ ** $p < .01$

Boldface: Significant at Bonferroni corrected alpha, $.05/22$ tests = .0023

Open Column Content of Everyday Projects and Creative Projects: Interactional Aspects of Creativity

The PPA Creative Community factor has strong positive patterns of association with both ACL-Creativity and NEO Openness. But the PPA factor also has strong linkages to Extraversion, a trait indexing sociability and preference for interaction versus being alone. Further, the PPA factor with which PPA creativity has its highest loading is made up of community dimensions such as visibility and support. It appears the PPA measure of creativity is accessing a sociable, interactional aspect of creativity not typically accessed in standardized tests.

The intent in eliciting the specific creative project category--beyond having subjects rate all projects on the creativity dimension--was to obtain a group of projects for which, by definition, the creativity ratings would be high, and where creativity processes could be reasonably expected to operate most strongly. Participants themselves had categorized their projects into everyday projects and creative projects in the split matrix format. The content of the creative project category was examined to further evaluate the apparent interactional aspect of creativity, thus far indicated by the creativity dimension's loading on the Community factor. Would it be more likely to occur in the context of everyday projects done creatively, or would it occur within the relatively "more creative" creative projects?

With regards to the "With Whom?" open column which followed the series of dimensions in the Personal Projects Rating Matrix, both creative and everyday projects were engaged in with other people with approximately the same frequencies. Creative projects were done with other people 30.6% of the time, whereas everyday

projects were done with other people 37.0% of the time.

In terms of the the "Why?" open column, both creative projects and everyday projects were done primarily for self-related reasons (71.4% and 66.8% respectively). Other-related reasons or both self- and other-related reasons amounted to approximately 20% for both project categories (17.8% for creative projects; 18.3% for everyday projects).

Therefore neither creative projects nor everyday projects were done primarily interactionally--that is, either with someone else, or for reasons having directly to do with someone else's projects. However, while creative projects were not, in general, done explicitly with other people, they were supported by other people. Beyond project ratings on the dimension of support, a broader view of the systemic context of creative projects can be obtained at the content category level.

First, 409 projects of the 1200 generated in this study (e.g., 34% of total projects) occurred at transition stages (indexed via the PPA stage dimension). Transition stages are primarily post-planning/pre-action, or post-action/pre-completion project phases. Of interest is that 301 of these transition projects were also creative projects. That is, 73.6% of transition stage projects were also creative projects. Projects at transitions stages generally require the individual to "solicit...whatever personal and material support it may require" (Little, 1983; pp. 280). Positive social feedback, some index of the acceptability of the project, and recruitment of support in terms of funding, supplies, space or emotional support, are generally sought at transition stages. Such recruitment and scheduling of projects in transition involves

primarily social aspects of organization (Little, 1983), even if the action phases of the project are likely to be carried out alone. Note the above process works in a similar manner if the transition is from an action phase to a completion phase. In this case, feedback is sought regarding "postevaluation" (pp. 285) of a project in which it is decided whether a project should now be terminated.

Therefore, the fact that the majority of creative projects tended to be transitional, and the fact that project transition stages encompass and require a social aspect of organization, may shed some light on the interactional aspect of creativity. That creativity loads highly on the PPA community factor seems to reflect not so much the fact that creative projects are done with others, but that support from others is elicited. The action phase of creative projects may be solitary, but the support-seeking may be relatively social. The positive correlations between the PPA creativity-loaded Community factor and the NEO trait of Extraversion--a direct measure of sociability--may offer further support here.

Second, when examining the subcategories of creative projects (see Appendix E for a listing of the subcategories of creative projects generated by this sample, and examples of each), a number of these projects are engaged in explicitly as interactional creativity. Many of the creative projects which involved constructing, painting, writing or photographing some object, were listed as individually engaged-in creative projects in the present, but as gifts intended for other people in the future-tense. The solitary pursuit had a social intent or outcome.

Further, there appeared another creative project type which is explicitly

interactional in nature. Creative projects of this type involved working on creating a surprise for someone else, such as "Find clever and creative places to put up Freaky Baby photo to surprise M." The associated intentional context of this particular creative project was simply to hear the other person's surprised laughter. "Making people laugh" was in itself a frequently mentioned creative pursuit. Other creative projects of the explicitly interactional type included socializing: "Creative socializing; drawing people to me." (Projects drawn directly from participants' project elicitation lists.) A full 20% of creative projects were interactionally creative, making this sort of creative project the second largest subcategory, second only after building and/or constructing sorts of creative projects.

Creativity does not always occur alone, and creative projects are not always done alone, although the bulk of the time they are. When done with others, these creative projects appear to index the interactional, creative community aspect of creative pursuits. And when done alone, creative projects are, at the very least, rated as highly visible to others, and supported by others.

DISCUSSION

Creativity was assessed in the realm of everyday living, taking social environmental factors into account. Whereas the creativity literature tends to look at individual differences on standardized tests, the approach herein was a social ecological one where the intentional, ecological and systemic contexts of creativity were assessed. This analysis utilized the PPA methodology to capture the flow of individuals' lives, and creativity processes occurring therein.

This was the first study of creativity utilizing the PPA methodology; therefore, the primary goal of the study was the measurement and meaning of the new PPA measure of creativity, and the test of its construct validity by examining its covariation with a standardized test of creativity (ACL-Creativity), NEO trait-profiles, and other project dimensions. The results support the construct validity of the new PPA creativity dimension, as the PPA measure correlates positively with both ACL-creativity and NEO Openness. Further, PPA creativity maintains this relationship with Openness and ACL-Creativity following reduction of the overall PPA variables to four principal components.

A second major goal was the study of creativity in context, linking stable trait units of personality with the more dynamic personal project and its associated dimension ratings. The known temperamental, instrumental and experiential influences of traits on personal projects were investigated in the context of creative behaviour. PPA creativity had coherent patterns of association with overall trait

profiles: The PPA creativity dimension correlated positively with traits of Extraversion and Conscientiousness, as well as with Openness, and correlated negatively with the trait of Neuroticism--the trait involving a generalized negative affectivity.

The overall findings support both the expectation of construct validity for the PPA creativity dimension, and the expectation of meaningful relationships between trait-based measures of Openness, creativity and appraisals of personal projects. Findings also support the hypothesis that creativity processes can be examined in the context of individuals' real-world, everyday lives with a richness not found in laboratory studies. Furthermore, findings indicate there is an interactional or community/support aspect to creativity which is not accessed via standardized tests.

Areas of Future Research

Creativity is a multifactorial construct, and one which is only beginning to be studied in the context of daily lives; there are many avenues which future research may take. The findings in this study guide three major suggestions for such research. First, now that there is initial data regarding creativity as measured by PPA, across all project categories and across all persons irrespective of relative creativity levels, it may be instructive to re-examine these exploratory findings for persons of different creativity levels. This work was initiated in the current study, although the small N of extremely high scorers precluded an immediate, in-depth focus on this question. While we did not necessarily expect nor want high scorers (e.g., on standardized

creativity tests) for the purposes of the present study, we did obtain an N of 24 high creative scorers, and were able to take a brief look at how we might examine differences in groups for future research. High creative individuals in this study (N=24; high creativity as indexed by the ACL-Creativity Scale) do not appear to differ from the average and low scorers (N=96) in PPA ratings nor in overall NEO domain scores, beyond a 20 point increase in Openness domain scores (150.80 versus 118.31). In terms of rating one's own ability to engage creatively in projects, creativity does not seem to be the sole province of the highly creative individual. Even average ACL-Creativity scorers reported they engaged relatively creatively in everyday projects.

But there was a difference in Openness scores between the high creative scorers and the rest of the sample; Openness has an experiential effect across life domains, and as it entails a propensity to feel deeply a variety of emotions, it may be that the more highly creative group will differ on measures of well-being, with relative levels of Openness and creativity linking to either more or less a sense of overall emotional well-being. While the N in this study was too small to make exhaustive investigations, a brief exploration was made and the following predictions made for future research: It may be the case that high Openness and high creativity provide a path towards well-being, in a parallel sense to the way in which PPA efficacy measures (e.g., dimensions of competence, initiation) have been routes to well-being. Indeed, a series of exploratory multiple regressions show a composite criterion variable of ACL-Creativity and PPA creativity predict happiness.

Furthermore, initial results from data collected contemporaneously to the data utilized in this study indicates that the group of high creative scorers are as less anxious, depressed, agitated, and angry than other persons, and as more hopeful about the future (e.g., as assessed by the SPA-3; see Footnote 3). Although these findings are exploratory, they indicate that higher creativity levels may relate positively to positive outlook as measured on the SPA-3, and well-being in general.

While division of persons into groups according to relative level of creativity was not a primary research focus in this study, it may prove a fruitful avenue for future research. The prediction is that creative individuals may have similar project systems to other individuals insofar as they find their projects equally stressful (e.g., as measured on the PPSRS), but their creativity may allow for innovative maneuvering of immediate stressors towards increased measures of distal positive outcome/well-being.

Second, the transitional nature of creative projects should be more closely investigated since the great majority of transitional projects in this sample were also creative projects. This particular research question is being examined in contemporaneous research utilizing the PPA stage dimension.

Third, the positive links between creativity and positive affect will provide a fruitful area for future research. The positive affect PPA dimensions and the narrative open column, "Feelings", included in the present study's PPA matrix continue to be analyzed and provide initial feedback to guide future research. For example, it is of interest that while only 13.7% of projects overall are experienced

with purely positive emotions (the bulk--55.4%--of our with mixed negative and positive emotions, e.g., anxiety as well as excitement), the majority of creative projects (74.8%) are experienced with purely positive emotions (e.g., enjoyment, pleasure and happiness). This finding should be looked at in conjunction with overall well-being measures. Early indications are that engaging in self-reflexive and meaningful creative projects, which by their nature appear to be primarily happy, may be one component of or route towards overall well-being. The promotion of mental health by fostering creativity in day-to-day life constitutes a current area of research interest (e.g., Cropley, 1990; Davis, 1989).

Finally, the above two suggestions should be linked to explore the interrelation between creativity, affect, and transitions. Oatley's (1992) prediction that transitional stages can be happy events if engaged in creatively seems to be quite plausible given that creative projects, while primarily occurring at transition stages for this sample, were also primarily positive, happy pursuits. It remains to be seen if the creative project is by definition transitional and happy, happy irrespective of transitional status, or happy in spite of transitional status. Given the early indications of positively related well-being measures and creativity, we cannot rule out the possibility that the particular form of well-being and happiness associated with creativity may well occur because of, rather than in spite of, transitions. The very nature of transition which may be upsetting for some persons may actually function in tandem with creativity to positively influence well-being in others.

Furthermore, it will be interesting to discover if transition stage and creativity

are linked in such a way that increased well-being occurs only for that transitional time-frame rather than having longer-lasting effects. The question remains, is the well-being we predict as associated with creativity a punctate, temporally truncated experience, connected solely to the transitional creative project, or does it temporally extend over action and completion stages also? Ongoing analyses of the creative personal project, creativity ratings, stage and positive affect dimensions aims to at least partially answer this question.

Obviously there are a multitude of avenues that future research can explore, given it has thus far been concerned with narrowly defined target creative tasks rather than a naturally occurring process in individuals' everyday lives. The above suggestions for research are those that follow most easily from the current construct validation study of the new PPA creativity measure.

Conclusion

Construct validity was obtained for a new PPA measure of creativity; hence, PPA was useful in elucidating correlates and processes of creativity in the context of individuals' everyday lives. This study demonstrates that creativity is a construct people resonate to, both in terms of rating how creatively they engage in their day-to-day projects, and in terms of providing information about their actual creative projects. Unlike studies involving elite groups of creative persons, this study located the creative process in the context of everyday lives. Furthermore, it located a supported, interactional component of creativity, impossible to index in de-

contextualized lab studies. Most generally, it can be concluded that there is utility to examining complex processes such as creativity in the social ecological contexts within which they are embedded. The rich window in on these processes, and the ways in which they are interconnected with individuals' daily lives, adds immeasurably to data collected in laboratory settings.

Essentially, PPA methodologies can be utilized to explore not only the conditions of creativity as they relate to a product (e.g., a creative project), but also the product as it relates to the person, and perhaps more importantly, we can investigate the conditions of creativity and of living creatively within a systemic process, one which includes influences as varied as personality, support of significant others and other social-environmental factors. In exploring the concept of living creatively we may uncover part of the broad picture in creativity research called for by Harrington (1990): An account of the human skills, personalities, activities, and arrangements that underlie the "humanly created world [we] inhabit and the world-in-the-making that [we] read about in [our] morning newspapers" (pp. 144).

FOOTNOTES

1. Classic definitions of creativity (e.g., MacKinnon, 1962, 1965) often present creativity as a process that "must be adaptive to, or of, reality" (MacKinnon, 1962; pp. 485), and which serves to "solve a problem, fit a situation, or accomplish some recognizable goal" (MacKinnon, 1962; pp. 485). It involves either responses or ideas which are novel, or, statistically infrequent, as well a sustaining of, and elaboration of the original idea. Creativity is therefore seen as a "process extended in time and characterized by originality, adaptiveness, and realization" (MacKinnon, 1962; pp. 485). However, following Baron (1965), Hennessey and Amabile (1988) discuss creativity as "something that people can recognize and often agree on, even when they are given neither a guiding definition nor a list of specific features to be considered" (pp. 14).
2. The standard 17 project dimensions generally constitute five core domains (e.g., project meaning, structure, community/support, efficacy and stress). In the current study, some standard variables were eliminated and several new dimensions added. The structure of the five theoretical factors reflected these changes. For example, the meaning and efficacy factors combined to form a single factor, whereas the stress factor remained intact. The affect dimensions formed a positive affect dimension, and the creativity dimension loaded on the intact community factor.
3. Of the remaining 21.67% of the sample, participants were born in a wide variety of countries. Foreign-born participants were from countries as wide-ranging as Ethiopia, Somalia, China, Russia, Italy, England, former Yugoslavia, Denmark and

Germany, just to name a few.

4. Measures included in the package for use in contemporaneous research were the Personal Project System Rating Scales (PPSRS), the Global and Domain Specific Life Satisfaction Scales (LifeSat), the Short Personality Assessment-3 (SPA-3), and the Centre for Epidemiological Studies Scales-Depression (CES-D). These measures constituted a total of 50 short items rated on a scale of zero to ten (PPSRS, LifeSat and SPA-3), or zero to three (CES-D).
5. As it was not known whether participants would resonate to the concept of appraising both creative and day-to-day projects on the construct of creativity, a pilot sample of ten individuals was given the creativity-augmented PPA questionnaire prior to the commencement of the larger study. The N of ten was made up of graduate students, upper year undergraduates, first year students, and three Ontario High School students who would be attending Carleton University in the fall. The primary researcher and a fellow lab member canvassed these individuals by asking if they would fill out some sample pilot questionnaires for personality research. These individuals provided clear and coherent responses to the package, including the new experimental creativity dimension.
6. To obtain the creativity scores on the ACL-Creativity Scale, the total number of adjectives checked must first be controlled for. The total number checked can constitute a response artifact in the scoring of the ACL scales; therefore, it must be controlled for by first categorizing each respondent into one of four categories. These categories place persons into the following groups: Those with very few adjectives

checked overall; those with few adjectives checked overall; those with moderate numbers checked overall; and those with a high number checked overall. The creativity scores are obtained by counting the number of words in the indicative (e.g., creative) cluster, and subtracting any words from contraindicative clusters. The resulting raw score is converted to a standard score according to gender and total number checked.

7. The spring and summer data were separated to test for differences due to home versus school as participation site. Campus-participation and home-participation were dummy coded as follows: Campus-participation = 1.0; home-participation = 0. The dummy coded assessment location was entered as a "Site" variable into a correlation matrix with the PPA factor scores and NEO domain scores. Spring versus summer session as time of participation was similarly treated as a dummy variable. Neither home nor campus assessment, nor spring versus summer assessment correlated significantly with other study variables.

8. PPA mean-level dimension scores, ACL-Creativity and NEO PI-R scores met assumptions of normality, etc., for use in further analysis. Age and gender were both dummy coded (younger group = 1.0; older group = 0; female = 1.0; male = 0), and entered into a correlation matrix with other study variables. No significant correlations were found for PPA variables nor the ACL-Creativity variable. On the NEO variables, the older group had slightly higher Conscientiousness scores in comparison to the younger group; the younger group had slightly higher Extraversion scores, as expected from age group norms published by Costa and McCrae (1992).

One-way MANOVAs on age group and PPA variables, and gender and PPA variables were performed as a check on the dummy coding results. In both cases, the multivariate F was not significant (Pillai's = .22, $F < 1$; Pillai's = .21, $F < 1$).

9. For each series of correlations performed in this study, the probability of Type I error was controlled by Bonferroni corrections. The adjusted alpha was calculated as: .05/# of tests. Tests significant at $p < .05$ only were not reported in this study.

Further, all but two correlations in this study were significant at the adjusted alpha level. This pair was significant at $p < .004$ and $p < .006$, respectively, and so each was reported at $\alpha < .01$.

10. While Little (1988) has elaborated a theoretical five factor model, empirical research often yields the three factor solution (Little, 1989). When new dimensions are added and some standard dimensions deleted, the composition of the five theoretical factors will change accordingly.

11. It is important to note that replication of past factor structures is not a main aim in this study. Indeed, a methodological strength of PPA is its modularity, or adaptiveness; new dimensions may be added to the matrix to investigate specific research questions. Such additions will affect the factor structure to some degree.

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APPENDIX A

Complete Questionnaire Package

PERSONALITY AND PERSONAL PROJECTS

Dear Participant:

We welcome your participation in this project conducted by the Social Ecology Laboratory, under the supervision of Dr. Brian R. Little. This particular study focuses on the varieties of projects that people engage in during their day-to-day lives, whether these projects are mundane, creative, or otherwise. This study will also focus on how personal projects relate to emotions. No deception is involved in this study, nor does it involve anything likely to be threatening or embarrassing to you. For participation in this study of approximately 2 1/4 hours, you will receive three experimental credits. These are the instructions:

1. Please complete the Informed Consent Form. This must be handed in with the questionnaire 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. If you have any further questions regarding the study, feel free to contact us at 788-2600, ext. 2697. If you have any concerns regarding the study, please contact Dr. Lise Paquet (Chair, Department of Psychology Ethics Committee; 788-2600, ext. 2692) or Dr. Bill Jones (Chair, Department of Psychology, 788-2600, ext. 2648).

Thank you again for your participation!

Michelle L. Melia-Gordon

CARLETON UNIVERSITY
DEPARTMENT OF PSYCHOLOGY
SOCIAL ECOLOGY LABORATORY

Informed Consent Form

Title of Study: Personality and Personal Projects

Investigator(s): Michelle L. Melia-Gordon

Academic Advisor: Dr. Brian R. Little

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 straightforward. 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 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 as soon as course credit is given, all information will be coded such that my name is not associated with my answers. Further, the coded data is made available only to the researcher associated with this project.

I understand that in return for my participation I will receive three 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 lives. 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:

- Completing my class assignments.
- Helping Mike get along better with others.
- Overcoming shyness and fear of public speaking.
- Getting more outdoor exercise.
- Finding another part-time job.
- Further clarifying my worldview.
- Planning a surprise party for my sister.

We are also interested in finding out how people feel about their personal projects. We would appreciate it if you could begin by writing down (on the next page) 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 the kinds of activities and pursuits that characterize your life at present.

Projects in General:_____

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.

We are also interested in the projects which you consider to be creative. Although many sorts of projects may be done creatively, some examples of creative projects are:

Creating an interesting living space in my apartment.
Writing song-lyrics as gifts for my friends.
Helping Deb see an old problem in a humorous new light.
Developing an unusual perspective in my psychology paper.
Figuring out an innovative time-sharing schedule for
the t.v. and phone with my housemates.
Dressing to express myself.

Please note: If you are not currently engaged in any projects which you consider to be creative, please tell us about creative projects you have thought about or imagined, or creative projects you have completed in the recent past.

Please go ahead and write down as many projects as you can in the next few minutes.

Creative Projects: _____

[illegible]

2 of/de 2

PM-1 3½"x4" PHOTOGRAPHIC MICROCOPY TARGET
NBS 1010a ANSI/ISO #2 EQUIVALENT

PRECISIONSM RESOLUTION TARGETS

Copy 10 projects into the **PERSONAL PROJECTS MATRIX** (next page). Make your description long enough to keep each project clearly in mind. There is space for 10 projects: 7 'everyday' projects and 3 'creative' projects. If your initial list contains more than 10, select 10 that you think would be interesting to explore in more detail. If you wrote down fewer than 10, see if you can think of several more, or break down some into several projects. It is important to attempt to fill in 10 projects.

In columns 1a to 23, please rate each of your projects using any number from 0 to 10 on the dimensions described below. Remember that numbers between 0 and 10 can also be used.

- 1a. **UNHAPPINESS:** To what extent each project contributes to a sense of unhappiness for you. (Use 10 if a project contributes a lot to a sense of unhappiness and 0 if it does not contribute to at all to a sense of unhappiness.)
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.) Try to think of the complexity of the project rather than time pressure or stress involved. We consider those aspects later.
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 stressfull to carry out.)

6. **TIME PRESSURE:** To what extent 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 or truly expressive of us. These things can be thought of as trademarks or personal style. For example, some people engage in sports every chance they get; others prefer to read; others prefer to socialize. Think of your own personal trademarks, 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 a project is not at all typical of you.)

9. **OTHER'S VIEW:** How important each project is seen to be by relevant people who matter to you. (Use 10 if a project is seen by others as very important and 0 if a project is seen as not at all important.)

10. **VALUE CONGRUENCY:** To what extent each project is consistent with the values that 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:** How demanding and challenging each project is for you. (Use 10 if a project is most challenging and 0 if it is not challenging at all.)

12. **COMMITMENT:** How committed you are to the successful completion of each project. (Use 10 if you are totally committed and 0 if you are not committed at all.)

13. **COMPETENCE:** To what extent you feel competent to carry out each project. (Use 10 if you feel completely competent and 0 if you do not feel competent at all.)

14. **SUPPORT:** To what extent you feel each project is supported by other people. Support may come in different forms: Emotional, financial or practical. (Use 10 if you feel other people support a 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 a project gives you a high degree of self-worth and 0 if it does not provide you with a sense of self-worth.)

16. **ABSORPTION:** To what extent 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 a project.)

17. **FUN:** To what extent each project allows you to 'play' and to have fun. (Use 10 if a project is really fun for you and 0 if it is not at all fun.)

18. **VISIBILITY:** How visible each project is to other people around you; how aware others are of each project. (Use 10 if a project is highly visible and 0 if it is not at all visible.)

19. **PLEASURE:** To what extent you feel pleasure while engaging in each project. (Use 10 if you feel a great deal of pleasure when engaging in a project and 0 if you feel no pleasure at all.)

20. **IMPORTANCE:** How important each project is for you. (Use 10 if a project is extremely important and 0 if a project is not at all important.)

21. **HAPPINESS:** To what extent each project contributes to a feeling of happiness for you. (Use 10 if a project contributes a lot to your happiness and 0 if the project does not contribute at all.)

22. **CREATIVITY:** To what extent you feel you engage creatively in each project. Note the project itself could be mundane. (Use 10 if you engage very creatively in a project and 0 if you do not engage creatively in a project.)

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 the next page, 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. **FEELINGS:** We are interested in the variety of emotions people experience with their personal projects (e.g., excitement, anxiety, affection, cynicism, joy, boredom, hope, anger, absorption, suffocation, confidence, regret, bitterness, cheerfulness). Please think about each of your projects and write down the feeling(s) you most associate with each project. If you wish to further explain how the feelings you list in Column 24 relate to each project, continue on the reverse side of your Personal Projects Matrix.

25. **WITH WHOM?:** We are interested in how you carry out your assorted projects, and whether you engage in some projects with a variety of people and engage in other projects exclusively by yourself. Please list beside each project the person(s) engaged in the project with you (e.g., friend, girlfriend/boyfriend/partner, relative, self).

26. **WHY?:** Lastly, we hope to learn some of the reasons people have for engaging in their projects. For example, the project 'Finish my B.A. degree' may have many different reasons attached, such as: 'To expand my career options'; 'To impress my family'; 'To please myself'. Please tell us briefly what you feel your own reasons are for engaging in each project. We realize these reasons are likely to be complex, and possibly very private, so brief notes in Column 26 are fine. If necessary, feel free to write further notes on the reverse side of your Personal Projects Matrix.

✓

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PAGINATION ERROR.

TEXT COMPLETE.

ERREUR DE PAGINATION.

LE TEXTE EST COMPLET.

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SPA 3

A) TYPICAL PRESENT:

Please rate yourself on the following by circling the number on each scale which comes closest to representing the way you typically think, feel or act.

1) Serene	0	1	2	3	4	5	6	7	8	9	10	Anxious
2) Buoyant	0	1	2	3	4	5	6	7	8	9	10	Depressed
3) Calm	0	1	2	3	4	5	6	7	8	9	10	Agitated
4) Peaceful	0	1	2	3	4	5	6	7	8	9	10	Angry
5) Placid	0	1	2	3	4	5	6	7	8	9	10	Jittery
6) Good-natured	0	1	2	3	4	5	6	7	8	9	10	Hostile
7) Not worried	0	1	2	3	4	5	6	7	8	9	10	Worried
8) 'Long fuse'	0	1	2	3	4	5	6	7	8	9	10	'Short fuse'
9) 'Sense of hopefulness'	0	1	2	3	4	5	6	7	8	9	10	'Sense of futility'
10) Generally positive about life	0	1	2	3	4	5	6	7	8	9	10	Generally negative about life

SPA 3

B) TYPICAL PAST:

Please rate yourself on the following by circling the number on each scale which comes closest to representing the way you have most typically thought, felt or acted in the past.

1) Serene	0	1	2	3	4	5	6	7	8	9	10	Anxious
2) Buoyant	0	1	2	3	4	5	6	7	8	9	10	Depressed
3) Calm	0	1	2	3	4	5	6	7	8	9	10	Agitated
4) Peaceful	0	1	2	3	4	5	6	7	8	9	10	Angry
5) Placid	0	1	2	3	4	5	6	7	8	9	10	Jittery
6) Good-natured	0	1	2	3	4	5	6	7	8	9	10	Hostile
7) Not worried	0	1	2	3	4	5	6	7	8	9	10	Worried
8) 'Long fuse'	0	1	2	3	4	5	6	7	8	9	10	'Short fuse'
9) 'Sense of hopefulness'	0	1	2	3	4	5	6	7	8	9	10	'Sense of futility'
10) Generally positive about life	0	1	2	3	4	5	6	7	8	9	10	Generally negative about life

CENTRE FOR EPIDEMIOLOGICAL STUDIES SCALES

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 or a Little of the Time (1-2 Days)	=1
Occasionally or a Moderate Amount of Time (3-4 Days)	=2
Most or All of the Time (5-7 Days)	=3

DURING THE PAST WEEK:

-
- _____ 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'.

ADJECTIVE CHECK LIST

Part 1: Please put a check mark beside all of the adjectives that you think apply to yourself.

☐ absent-minded	☐ easy going	☐ mannerly	☐ shallow
☐ active	☐ effeminate	☐ masculine	☐ sharpwitted
☐ adaptable	☐ efficient	☐ mature	☐ shiftless
☐ adventurous	☐ egotistical	☐ meek	☐ show-off
☐ affected	☐ emotional	☐ methodical	☐ shrewd
☐ affectionate	☐ energetic	☐ mild	☐ shy
☐ agreeable	☐ enterprising	☐ mischievous	☐ sickly
☐ aggressive	☐ enthusiastic	☐ moderate	☐ silent
☐ alert	☐ evasive	☐ modest	☐ simple
☐ aloof	☐ excitable	☐ moody	☐ sincere
☐ ambitious	☐ exhausted	☐ nagging	☐ slipshod
☐ angry	☐ extraverted	☐ natural	☐ slow
☐ anxious	☐ fairminded	☐ nervous	☐ sly
☐ apathetic	☐ fault-finding	☐ noisy	☐ smug
☐ appreciative	☐ fearful	☐ obliging	☐ snobbish
☐ argumentative	☐ feminine	☐ obnoxious	☐ sociable
☐ arrogant	☐ fickle	☐ opinionated	☐ softhearted
☐ artistic	☐ fit	☐ opportunistic	☐ sophisticated
☐ assertive	☐ flirtatious	☐ optimistic	☐ spendthrift
☐ attractive	☐ foolish	☐ organized	☐ spineless
☐ autocratic	☐ forceful	☐ original	☐ spontaneous
☐ awkward	☐ farsighted	☐ outgoing	☐ spunky
☐ bitter	☐ forgetful	☐ outspoken	☐ stable
☐ blunt	☐ forgiving	☐ painstaking	☐ steady
☐ blustery	☐ formal	☐ patient	☐ stern
☐ boastful	☐ frank	☐ peaceable	☐ stingy
☐ bossy	☐ friendly	☐ peculiar	☐ stolid
☐ calm	☐ frivolous	☐ persevering	☐ straight-forward
☐ calculating	☐ fussy	☐ persistent	☐ strong
☐ capable	☐ generous	☐ pessimistic	☐ stressed
☐ careless	☐ gentle	☐ planful	☐ stubborn
☐ casual	☐ gloomy	☐ pleasant	☐ submissive
☐ cautious	☐ good-looking	☐ pleasure-seeking	☐ suggestible
☐ challenged	☐ good-natured	☐ poised	☐ sulky
☐ changeable	☐ greedy	☐ polished	☐ superstitious
☐ charming	☐ gregarious	☐ practical	☐ suspicious
☐ cheerful	☐ handsome	☐ praising	☐ sympathetic
☐ civilized	☐ hard-headed	☐ precise	☐ tactful
☐ clear-thinking	☐ hard-hearted	☐ prejudiced	☐ tactless
☐ clever	☐ hasty	☐ preoccupied	☐ talkative

___coarse	___headstrong	___progressive	___tempera- mental
___cold	___healthy	___prudish	___tense
___commonplace	___helpful	___quarrelsome	___thankless
___complaining	___high-strung	___queer	___thorough
___complicated	___honest	___quick	___thoughtful
___conceited	___hostile	___quiet	___thrifty
___confident	___humorous	___quitting	___timid
___confused	___hurried	___rational	___tired
___conscientious	___idealistic	___rattle- brained	___tolerant
___conservative	___imaginative	___realistic	___touchy
___considerate	___immature	___reasonable	___tough
___contented	___impatient	___rebellious	___trusting
___conventional	___impulsive	___reckless	___unaffected
___cool	___independent	___reflective	___unambitious
___cooperative	___indifferent	___relaxed	___unassuming
___courageous	___individual- istic	___reliable	___unconvent- ional
___cowardly	___industrious	___resentful	___undependable
___cruel	___infantile	___reserved	___under- standing
___curious	___informal	___resourceful	___unemotional
___cynical	___ingenious	___responsible	___unexcitable
___daring	___inhibited	___restless	___unfriendly
___deceitful	___initiative	___retiring	___uninhibited
___defensive	___insightful	___rigid	___unintell- igent
___deliberate	___intelligent	___robust	___unkind
___demanding	___interests narrow	___rude	___unrealistic
___dependable	___interests wide	___sad	___unscrupulous
___dependent	___intolerant	___sarcastic	___unselfish
___depressed	___introverted	___self- centred	___unstable
___despondent	___inventive	___self- confident	___unwell
___determined	___irresponsible	___self- controlled	___uptight
___dignified	___irritable	___self- denying	___vindictive
___discreet	___jittery	___self- pitying	___versatile
___disorderly	___jolly	___self- punishing	___warm
___dissatisfied	___kind	___self- seeking	___wary
___distractable	___lazy	___selfish	___weak
___distrustful	___leisurely	___sensitive	___whiny

☐ dominant	☐ listless	☐ sentimental	☐ wholesome
☐ dreamy	☐ logical	☐ serious	☐ wise
☐ driving	☐ loud	☐ severe	☐ withdrawn
☐ dull	☐ loyal	☐ sexy	☐ witty
☐ happy	☐ joyful	☐ pleased	☐ experiences
			☐ enjoyment
☐ unhappy	☐ depressed	☐ frustrated	☐ angry/hostile
☐ worrying	☐ zany		

Part 2: For the adjectives which you checked, place a second check mark beside those which apply to you a great deal (e.g., more than the others).

Part 3: Out of the double-checked adjectives, select the three which most apply to you. Place a third check mark beside these adjectives.

DEMOGRAPHIC INFORMATION

Please complete the following:

1. GENDER_____

2. AGE_____

3. MARITAL STATUS: SINGLE.....
MARRIED/Common-LAW...
OTHER.....

4. DO YOU HAVE CHILDREN? YES____
NO____

IF YES, HOW MANY?____

WHAT ARE THEIR AGES?_____

DO THEY LIVE WITH YOU? YES____ NO____

IF YES, WHAT SORT OF CHILDCARE ARRANGEMENTS DO YOU
HAVE?

5. DO YOU LIVE ALONE OR WITH OTHERS? ALONE____
WITH OTHERS____

IF YOU LIVE WITH OTHERS, PLEASE SPECIFY HOW MANY:_____

6. WHERE WERE YOU BORN?_____

7. WHAT ARE/WERE YOUR PARENTS' OCCUPATIONS?

MOTHER_____

FATHER_____

8. ARE YOU CURRENTLY EMPLOYED? YES____ NO____

IF YES: PART-TIME____

FULL-TIME____

WHAT SORT OF JOB DO YOU HOLD?_____

9. ACADEMIC STATUS (CIRCLE ONE): FULL-TIME PART-TIME
SPECIAL

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. WHAT IS YOUR CURRENT YEAR OF STUDY AT CARLETON?_____

(E.G., QUALIFYING YEAR, FIRST YEAR, SECOND YEAR, ETC.)

12. WHAT IS YOUR ACADEMIC MAJOR?_____

DECLARED____ UNDECLARED____

13. 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%

NEO PI-R

Instructions for Hand-Scoring Answer Sheet:

Please complete your responses on the accompanying answer sheet, not the 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 identification number in the space provided. You do not need to add your name to your answer sheet, but please fill in your gender, age, and today's date.

The NEO 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**.

Fill in 'D' if the statement is mostly false or if you **disagree**.

Fill in 'N' if the statement is about equally true or false, if you cannot decide, or if you are **neutral** on the statement.

Fill in 'A' if the statement is mostly true or if you **agree**.

Fill in 'SA' if the statement is definitely true or if you **strongly agree**.

There are no right or wrong answers, and you need not be an 'expert' to complete this questionnaire. Describe yourself as honestly and state your opinions as accurately as possible.

Answer every item and be sure to circle your answer clearly. 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 circle the answer that best 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 now to NEO PI-R Form S, and begin with item 1.

NEO PI-R™

Hand-Scoring Answer Sheet

Name	Sex	Date	Reviser
	Male ☐ Female ☐		

Person being rated: ☐ Yourself ☒ Male ☐ Female ☐ Other initials: _____ Age: _____ NEO Form: _____

SD = Strongly Disagree D = Disagree N = Neutral A = Agree SA = Strongly Agree

1 SD D N A SA	31 SD D N A SA	61 SD D N A SA	91 SD D N A SA	121 SD D N A SA	151 SD D N A SA	181 SD D N A SA	211 SD D N A SA
2 SD D N A SA	32 SD D N A SA	62 SD D N A SA	92 SD D N A SA	122 SD D N A SA	152 SD D N A SA	182 SD D N A SA	212 SD D N A SA
3 SD D N A SA	33 SD D N A SA	63 SD D N A SA	93 SD D N A SA	123 SD D N A SA	153 SD D N A SA	183 SD D N A SA	213 SD D N A SA
4 SD D N A SA	34 SD D N A SA	64 SD D N A SA	94 SD D N A SA	124 SD D N A SA	154 SD D N A SA	184 SD D N A SA	214 SD D N A SA
5 SD D N A SA	35 SD D N A SA	65 SD D N A SA	95 SD D N A SA	125 SD D N A SA	155 SD D N A SA	185 SD D N A SA	215 SD D N A SA
6 SD D N A SA	36 SD D N A SA	66 SD D N A SA	96 SD D N A SA	126 SD D N A SA	156 SD D N A SA	186 SD D N A SA	216 SD D N A SA
7 SD D N A SA	37 SD D N A SA	67 SD D N A SA	97 SD D N A SA	127 SD D N A SA	157 SD D N A SA	187 SD D N A SA	217 SD D N A SA
8 SD D N A SA	38 SD D N A SA	68 SD D N A SA	98 SD D N A SA	128 SD D N A SA	158 SD D N A SA	188 SD D N A SA	218 SD D N A SA
9 SD D N A SA	39 SD D N A SA	69 SD D N A SA	99 SD D N A SA	129 SD D N A SA	159 SD D N A SA	189 SD D N A SA	219 SD D N A SA
10 SD D N A SA	40 SD D N A SA	70 SD D N A SA	100 SD D N A SA	130 SD D N A SA	160 SD D N A SA	190 SD D N A SA	220 SD D N A SA
11 SD D N A SA	41 SD D N A SA	71 SD D N A SA	101 SD D N A SA	131 SD D N A SA	161 SD D N A SA	191 SD D N A SA	221 SD D N A SA
12 SD D N A SA	42 SD D N A SA	72 SD D N A SA	102 SD D N A SA	132 SD D N A SA	162 SD D N A SA	192 SD D N A SA	222 SD D N A SA
13 SD D N A SA	43 SD D N A SA	73 SD D N A SA	103 SD D N A SA	133 SD D N A SA	163 SD D N A SA	193 SD D N A SA	223 SD D N A SA
14 SD D N A SA	44 SD D N A SA	74 SD D N A SA	104 SD D N A SA	134 SD D N A SA	164 SD D N A SA	194 SD D N A SA	224 SD D N A SA
15 SD D N A SA	45 SD D N A SA	75 SD D N A SA	105 SD D N A SA	135 SD D N A SA	165 SD D N A SA	195 SD D N A SA	225 SD D N A SA
16 SD D N A SA	46 SD D N A SA	76 SD D N A SA	106 SD D N A SA	136 SD D N A SA	166 SD D N A SA	196 SD D N A SA	226 SD D N A SA
17 SD D N A SA	47 SD D N A SA	77 SD D N A SA	107 SD D N A SA	137 SD D N A SA	167 SD D N A SA	197 SD D N A SA	227 SD D N A SA
18 SD D N A SA	48 SD D N A SA	78 SD D N A SA	108 SD D N A SA	138 SD D N A SA	168 SD D N A SA	198 SD D N A SA	228 SD D N A SA
19 SD D N A SA	49 SD D N A SA	79 SD D N A SA	109 SD D N A SA	139 SD D N A SA	169 SD D N A SA	199 SD D N A SA	229 SD D N A SA
20 SD D N A SA	50 SD D N A SA	80 SD D N A SA	110 SD D N A SA	140 SD D N A SA	170 SD D N A SA	200 SD D N A SA	230 SD D N A SA
21 SD D N A SA	51 SD D N A SA	81 SD D N A SA	111 SD D N A SA	141 SD D N A SA	171 SD D N A SA	201 SD D N A SA	231 SD D N A SA
22 SD D N A SA	52 SD D N A SA	82 SD D N A SA	112 SD D N A SA	142 SD D N A SA	172 SD D N A SA	202 SD D N A SA	232 SD D N A SA
23 SD D N A SA	53 SD D N A SA	83 SD D N A SA	113 SD D N A SA	143 SD D N A SA	173 SD D N A SA	203 SD D N A SA	233 SD D N A SA
24 SD D N A SA	54 SD D N A SA	84 SD D N A SA	114 SD D N A SA	144 SD D N A SA	174 SD D N A SA	204 SD D N A SA	234 SD D N A SA
25 SD D N A SA	55 SD D N A SA	85 SD D N A SA	115 SD D N A SA	145 SD D N A SA	175 SD D N A SA	205 SD D N A SA	235 SD D N A SA
26 SD D N A SA	56 SD D N A SA	86 SD D N A SA	116 SD D N A SA	146 SD D N A SA	176 SD D N A SA	206 SD D N A SA	236 SD D N A SA
27 SD D N A SA	57 SD D N A SA	87 SD D N A SA	117 SD D N A SA	147 SD D N A SA	177 SD D N A SA	207 SD D N A SA	237 SD D N A SA
28 SD D N A SA	58 SD D N A SA	88 SD D N A SA	118 SD D N A SA	148 SD D N A SA	178 SD D N A SA	208 SD D N A SA	238 SD D N A SA
29 SD D N A SA	59 SD D N A SA	89 SD D N A SA	119 SD D N A SA	149 SD D N A SA	179 SD D N A SA	209 SD D N A SA	239 SD D N A SA
30 SD D N A SA	60 SD D N A SA	90 SD D N A SA	120 SD D N A SA	150 SD D N A SA	180 SD D N A SA	210 SD D N A SA	240 SD D N A SA

A. I have tried to answer all of these questions honestly and accurately (circle one): SD D N A SA

B. Have you responded to all of the statements? (circle one) Yes No

C. Have you entered your responses in the correct areas? (circle one) Yes No

✓

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 n 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 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 colours 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, they're'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" or 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 B

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 lives. 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:

- Completing my class assignments.
- Helping Mike get along better with others.
- Overcoming shyness and fear of public speaking.
- Getting more outdoor exercise.
- Finding another part-time job.
- Further clarifying my worldview.
- Planning a surprise party for my sister.

We are also interested in finding out how people feel about their personal projects. We would appreciate it if you could begin by writing down (on the next page) 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 the kinds of activities and pursuits that characterize your life at present.

Projects in General:_____

[illegible]

APPENDIX C

Project Dimension Rating Matrix

Personal Projects Matrix

RANK OF PROJECTS		
	Unhappiness	1a
1	Enjoyment	1
2	Difficulty	2
3	Control	3
4	Initiation	4
5	Stress	5
6	Time Pressure	6
7	Outcome	7
8	Self Identity	8
9	Other's View	9
10	Value congruency	10
	Challenge	11
	Commitment	12
	Competence	13
	Support	14
	Self worth	15
	Absorption	16
	Fun	17
	Viability	18
	Pleasure	19
	Importance	20
	Happiness	21
	Creativity	22
	Stage	23
	Feelings	24
	With whom?	25
	Why?	26
CREATIVE PROJECTS		
8		
9		
10		

APPENDIX D

Standard PPA Rating Dimensions

Standard Rating Dimensions Used in PPA
and Five Theoretical Factors

Theoretical Factors	Rating Dimensions In PPA
MEANING	Enjoyment Value Congruency Self-Prototypicality Absorption Importance
STRUCTURE	Initiation Control Time Adequacy Positive Impact Negative Impact
COMMUNITY	Visibility Others' View
STRESS	Stress Challenge Difficulty
EFFICACY	Progress Outcome

APPENDIX E

PPA Categorization Technique

CATEGORIES OF PERSONAL PROJECTS

(Revised January, 1990; April, 1994)

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

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; get married).

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.

8. CREATIVE PROJECTS: This category and set of subcategories was added in February, 1994, to categorize over 350 explicitly prompted creative projects. Although creative projects varied widely in their content and area of expression, the following categories capture the patterns of activities listed as 'creative'.

8.1 Redesigning, redecorating, reformatting, reworking, remodelling some item. Projects in this category involve re-doing something to an already existing product, e.g., 'Redecorating my room.'

8.2 Planning, building, constructing, carving, decorating, sewing some objects. Projects in this category involve creating from scratch some object, e.g., 'Sewing a new, self-expressive wardrobe.'

8.3 Drawing, painting, calligraphy, photography/video. Projects in this category involve creating visual images in a variety of mediums; these projects involve creating flat

images rather than constructing 3D-objects, although they may be applied to 3D-objects, e.g., 'Paint Mexican pattern around edges of terra cotta planters.'

8.4 Writing. Projects in this category involve the writing of poetry, prose, song-lyrics, etc., e.g., 'Write entertaining e-mail for my friends', or 'Develop an interesting written signature.'

8.5 Aspects of the self. Occasionally persons list projects where their own bodies, personalities, or personal development provide the site for creative experimentation or change. These changes may be internal or external. Care should be taken to carefully differentiate these projects from INTRAPERSONAL projects, which often involve a desire for personal change. Creative projects involving aspects of the self can be looked at as 'creative self-change' projects, phrased in playful rather than ruminative terms, e.g., 'Funkify my wardrobe and play with my own sense of personal style.' The open 'Why?' column is helpful in categorizing creative self-change projects: These self-changes are engaged in with a sense of experimentation, of 'trying on different selves for size', rather than with any sense of, 'I should change this aspect of myself.'

8.6 Creative body-movement, usually dance or moves in sports, e.g., 'Creating eyecatching gymnastics moves to impress the judges and show the audience something new and interesting.'

8.8 Interactional creativity. This subcategory of

creative project involves creating a surprise for someone, 'Finding new and unusual places to put up 'Freaky Baby Photo' to surprise M. and hear her laugh'; creatively interacting with others, e.g. 'Develop a new, fun, and engaging teaching approach when I teach my classes'; or actively engaging in and testing out new environmental affordances, e.g., 'See the world!'. Note that while the above category of creative project (8.7) is often intrapersonally focussed, interactionally creative project are often interpersonally focussed. These projects usually involve a creative process rather than a concrete product.

8.9 Acting/Drama. These projects involve both self-expression and interaction with others. The creative product is the play or performance that the group is creating together.

APPENDIX F

PPA Package

Personal Projects Matrix

EMERGENCY PROJECTS	1	Unhappiness	1a
		Enjoyment	1
		Difficulty	2
		Control	3
		Initiation	4
		Stress	5
		Time Pressure	6
		Outcome	7
		Self Identity	8
		Other's View	9
		Value congruency	10
		Challenge	11
		Commitment	12
		Competence	13
		Support	14
		Self worth	15
		Abstraction	16
		Fun	17
		Viability	18
		Pleasure	19
		Importance	20
		Happiness	21
		Creativity	22
		Stage	23
		Feelings	24
		With Whom?	25
		Why?	26
CREATIVE PROJECTS			
8			
9			
10			

PERSONAL PROJECTS ANALYSIS

We are interested in studying the kinds of activities and concerns that people have at different stages of their lives. 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:

- Completing my class assignments.
- Helping Mike get along better with others.
- Overcoming shyness and fear of public speaking.
- Getting more outdoor exercise.
- Finding another part-time job.
- Further clarifying my worldview.
- Planning a surprise party for my sister.

We are also interested in finding out how people feel about their personal projects. We would appreciate it if you could begin by writing down (on the next page) 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 the kinds of activities and pursuits that characterize your life at present.

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

Projects in General:_____

[illegible]

We are also interested in the projects which you consider to be creative. Although many sorts of projects may be done creatively, some examples of creative projects are:

Creating an interesting living space in my apartment.
Writing song-lyrics as gifts for my friends.
Helping Deb see an old problem in a humorous new light.
Developing an unusual perspective in my psychology paper.
Figuring out an innovative time-sharing schedule for
the t.v. and phone with my housemates.
Dressing to express myself.

Please note: If you are not currently engaged in any projects which you consider to be creative, please tell us about creative projects you have thought about or imagined, or creative projects you have completed in the recent past.

Please go ahead and write down as many projects as you can in the next few minutes.

Creative Projects:_____

[illegible]

Copy 10 projects into the **PERSONAL PROJECTS MATRIX** (next page). Make your description long enough to keep each project clearly in mind. There is space for 10 projects: 7 'everyday' projects and 3 'creative' projects. If your initial list contains more than 10, select 10 that you think would be interesting to explore in more detail. If you wrote down fewer than 10, see if you can think of several more, or break down some into several projects. It is important to attempt to fill in 10 projects.

In columns 1a to 23, please rate each of your projects using any number from 0 to 10 on the dimensions described below. Remember that numbers between 0 and 10 can also be used.

- 1a. **UNHAPPINESS:** To what extent each project contributes to a sense of unhappiness for you. (Use 10 if a project contributes a lot to a sense of unhappiness and 0 if it does not contribute to at all to a sense of unhappiness.)
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.) Try to think of the complexity of the project rather than time pressure or stress involved. We consider those aspects later.
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 stressfull to carry out.)

6. **TIME PRESSURE:** To what extent 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 or truly expressive of us. These things can be thought of as trademarks or personal style. For example, some people engage in sports every chance they get; others prefer to read; others prefer to socialize. Think of your own personal trademarks, 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 a project is not at all typical of you.)

9. **OTHER'S VIEW:** How important each project is seen to be by relevant people who matter to you. (Use 10 if a project is seen by others as very important and 0 if a project is seen as not at all important.)

10. **VALUE CONGRUENCY:** To what extent each project is consistent with the values that 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:** How demanding and challenging each project is for you. (Use 10 if a project is most challenging and 0 if it is not challenging at all.)

12. **COMMITMENT:** How committed you are to the successful completion of each project. (Use 10 if you are totally committed and 0 if you are not committed at all.)

13. **COMPETENCE:** To what extent you feel competent to carry out each project. (Use 10 if you feel completely competent and 0 if you do not feel competent at all.)

14. **SUPPORT:** To what extent you feel each project is supported by other people. Support may come in different forms: Emotional, financial or practical. (Use 10 if you feel other people support a 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 a project gives you a high degree of self-worth and 0 if it does not provide you with a sense of self-worth.)

16. **ABSORPTION:** To what extent 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 a project.)

17. **FUN:** To what extent each project allows you to 'play' and to have fun. (Use 10 if a project is really fun for you and 0 if it is not at all fun.)

18. **VISIBILITY:** How visible each project is to other people around you; how aware others are of each project. (Use 10 if a project is highly visible and 0 if it is not at all visible.)

19. **PLEASURE:** To what extent you feel pleasure while engaging in each project. (Use 10 if you feel a great deal of pleasure when engaging in a project and 0 if you feel no pleasure at all.)

20. **IMPORTANCE:** How important each project is for you. (Use 10 if a project is extremely important and 0 if a project is not at all important.)

21. **HAPPINESS:** To what extent each project contributes to a feeling of happiness for you. (Use 10 if a project contributes a lot to your happiness and 0 if the project does not contribute at all.)

22. **CREATIVITY:** To what extent you feel you engage creatively in each project. Note the project itself could be mundane. (Use 10 if you engage very creatively in a project and 0 if you do not engage creatively in a project.)

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 the next page, 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. FEELINGS: We are interested in the variety of emotions people experience with their personal projects (e.g., excitement, anxiety, affection, cynicism, joy, boredom, hope, anger, absorption, suffocation, confidence, regret, bitterness, cheerfulness). Please think about each of your projects and write down the feeling(s) you most associate with each project. If you wish to further explain how the feelings you list in Column 24 relate to each project, continue on the reverse side of your Personal Projects Matrix.

25. WITH WHOM?: We are interested in how you carry out your assorted projects, and whether you engage in some projects with a variety of people and engage in other projects exclusively by yourself. Please list beside each project the person(s) engaged in the project with you (e.g., friend, girlfriend/boyfriend/partner, relative, self).

26. **WHY?:** Lastly, we hope to learn some of the reasons people have for engaging in their projects. For example, the project 'Finish my B.A. degree' may have many different reasons attached, such as: 'To expand my career options'; 'To impress my family'; 'To please myself'. Please tell us briefly what you feel your own reasons are for engaging in each project. We realize these reasons are likely to be complex, and possibly very private, so brief notes in Column 26 are fine. If necessary, feel free to write further notes on the reverse side of your Personal Projects Matrix.

APPENDIX G

Revised NEO Personality Inventory

NEO PI-R

Hand-Scoring Answer Sheet

Name	Sex	Date	Item number
	Male ☐ Female ☐		

Person being rated: ☐ Yourself ☒ Male ☐ Female His/Her initials _____ Age _____ NEO Form: ☐ S ☐ R

SD = Strongly Disagree D = Disagree N = Neutral A = Agree SA = Strongly Agree

1 SD D N A SA	11 SD D N A SA	61 SD D N A SA	71 SD D N A SA	121 SD D N A SA	131 SD D N A SA	181 SD D N A SA	211 SD D N A SA
2 SD D N A SA	12 SD D N A SA	62 SD D N A SA	72 SD D N A SA	122 SD D N A SA	132 SD D N A SA	182 SD D N A SA	212 SD D N A SA
3 SD D N A SA	13 SD D N A SA	63 SD D N A SA	73 SD D N A SA	123 SD D N A SA	133 SD D N A SA	183 SD D N A SA	213 SD D N A SA
4 SD D N A SA	14 SD D N A SA	64 SD D N A SA	74 SD D N A SA	124 SD D N A SA	134 SD D N A SA	184 SD D N A SA	214 SD D N A SA
5 SD D N A SA	15 SD D N A SA	65 SD D N A SA	75 SD D N A SA	125 SD D N A SA	135 SD D N A SA	185 SD D N A SA	215 SD D N A SA
6 SD D N A SA	16 SD D N A SA	66 SD D N A SA	76 SD D N A SA	126 SD D N A SA	136 SD D N A SA	186 SD D N A SA	216 SD D N A SA
7 SD D N A SA	17 SD D N A SA	67 SD D N A SA	77 SD D N A SA	127 SD D N A SA	137 SD D N A SA	187 SD D N A SA	217 SD D N A SA
8 SD D N A SA	18 SD D N A SA	68 SD D N A SA	78 SD D N A SA	128 SD D N A SA	138 SD D N A SA	188 SD D N A SA	218 SD D N A SA
9 SD D N A SA	19 SD D N A SA	69 SD D N A SA	79 SD D N A SA	129 SD D N A SA	139 SD D N A SA	189 SD D N A SA	219 SD D N A SA
10 SD D N A SA	20 SD D N A SA	70 SD D N A SA	80 SD D N A SA	130 SD D N A SA	140 SD D N A SA	190 SD D N A SA	220 SD D N A SA
11 SD D N A SA	21 SD D N A SA	71 SD D N A SA	81 SD D N A SA	131 SD D N A SA	141 SD D N A SA	191 SD D N A SA	221 SD D N A SA
12 SD D N A SA	22 SD D N A SA	72 SD D N A SA	82 SD D N A SA	132 SD D N A SA	142 SD D N A SA	192 SD D N A SA	222 SD D N A SA
13 SD D N A SA	23 SD D N A SA	73 SD D N A SA	83 SD D N A SA	133 SD D N A SA	143 SD D N A SA	193 SD D N A SA	223 SD D N A SA
14 SD D N A SA	24 SD D N A SA	74 SD D N A SA	84 SD D N A SA	134 SD D N A SA	144 SD D N A SA	194 SD D N A SA	224 SD D N A SA
15 SD D N A SA	25 SD D N A SA	75 SD D N A SA	85 SD D N A SA	135 SD D N A SA	145 SD D N A SA	195 SD D N A SA	225 SD D N A SA
16 SD D N A SA	26 SD D N A SA	76 SD D N A SA	86 SD D N A SA	136 SD D N A SA	146 SD D N A SA	196 SD D N A SA	226 SD D N A SA
17 SD D N A SA	27 SD D N A SA	77 SD D N A SA	87 SD D N A SA	137 SD D N A SA	147 SD D N A SA	197 SD D N A SA	227 SD D N A SA
18 SD D N A SA	28 SD D N A SA	78 SD D N A SA	88 SD D N A SA	138 SD D N A SA	148 SD D N A SA	198 SD D N A SA	228 SD D N A SA
19 SD D N A SA	29 SD D N A SA	79 SD D N A SA	89 SD D N A SA	139 SD D N A SA	149 SD D N A SA	199 SD D N A SA	229 SD D N A SA
20 SD D N A SA	30 SD D N A SA	80 SD D N A SA	90 SD D N A SA	140 SD D N A SA	150 SD D N A SA	200 SD D N A SA	230 SD D N A SA
21 SD D N A SA	31 SD D N A SA	81 SD D N A SA	91 SD D N A SA	141 SD D N A SA	151 SD D N A SA	201 SD D N A SA	231 SD D N A SA
22 SD D N A SA	32 SD D N A SA	82 SD D N A SA	92 SD D N A SA	142 SD D N A SA	152 SD D N A SA	202 SD D N A SA	232 SD D N A SA
23 SD D N A SA	33 SD D N A SA	83 SD D N A SA	93 SD D N A SA	143 SD D N A SA	153 SD D N A SA	203 SD D N A SA	233 SD D N A SA
24 SD D N A SA	34 SD D N A SA	84 SD D N A SA	94 SD D N A SA	144 SD D N A SA	154 SD D N A SA	204 SD D N A SA	234 SD D N A SA
25 SD D N A SA	35 SD D N A SA	85 SD D N A SA	95 SD D N A SA	145 SD D N A SA	155 SD D N A SA	205 SD D N A SA	235 SD D N A SA
26 SD D N A SA	36 SD D N A SA	86 SD D N A SA	96 SD D N A SA	146 SD D N A SA	156 SD D N A SA	206 SD D N A SA	236 SD D N A SA
27 SD D N A SA	37 SD D N A SA	87 SD D N A SA	97 SD D N A SA	147 SD D N A SA	157 SD D N A SA	207 SD D N A SA	237 SD D N A SA
28 SD D N A SA	38 SD D N A SA	88 SD D N A SA	98 SD D N A SA	148 SD D N A SA	158 SD D N A SA	208 SD D N A SA	238 SD D N A SA
29 SD D N A SA	39 SD D N A SA	89 SD D N A SA	99 SD D N A SA	149 SD D N A SA	159 SD D N A SA	209 SD D N A SA	239 SD D N A SA
30 SD D N A SA	40 SD D N A SA	90 SD D N A SA	100 SD D N A SA	150 SD D N A SA	160 SD D N A SA	210 SD D N A SA	240 SD D N A SA

A. I have tried to answer all of these questions honestly and accurately (circle one): SD D N A SA

B. Have you responded to all of the statements? (circle one) Yes No

C. Have you entered your responses in the correct areas? (circle one) Yes No

NEO PI-R

Instructions for Hand-Scoring Answer Sheet:

Please complete your responses on the accompanying answer sheet, not the 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 identification number in the space provided. You do not need to add your name to your answer sheet, but please fill in your gender, age, and today's date.

The NEO 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**.

Fill in 'D' if the statement is mostly false or if you **disagree**.

Fill in 'N' if the statement is about equally true or false, if you cannot decide, or if you are **neutral** on the statement.

Fill in 'A' if the statement is mostly true or if you **agree**.

Fill in 'SA' if the statement is definitely true or if you **strongly agree**.

There are no right or wrong answers, and you need not be an 'expert' to complete this questionnaire. Describe yourself as honestly and state your opinions as accurately as possible.

Answer every item and be sure to circle your answer clearly. 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 circle the answer that best 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 now to NEO PI-R Form S, and begin with item 1.

AGAIN, MANY THANKS FOR ALL YOUR TIME AND EFFORT! YOUR PARTICIPATION IN THIS STUDY ON PERSONALITY AND PERSONAL PROJECTS IS MUCH APPRECIATED. 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. 6600

or

Carleton University Health Services 788-2600 Ext. 6674

IF YOU WISH FOR ANY FURTHER INFORMATION ON PERSONAL PROJECTS ANALYSIS, OR ABOUT THIS RESEARCH PROJECT, PLEASE TEAR OFF THIS PAGE FOR REFERENCES.

Little, B.R. (1983). Personal projects analysis: A rationale and method for investigation. Environment and Behavior, 15, 273- 309.

For further information regarding this project:

Michelle Melia-Gordon
Social Ecology Laboratory
788-2600 Ext. 2697
Carleton University

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 n 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 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 colours 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, they're'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" or 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 H

Adjective Check List-Creativity Scale

Contains Eight-Item Short Creativity Scale:

Artistic; Imaginative; Original; Progressive;
Quick; Resourceful; Sharpwitted; Spontaneous.

ADJECTIVE CHECK LIST

Part 1: Please put a check mark beside all of the adjectives that you think apply to yourself.

☐ absent-minded	☐ easy going	☐ mannerly	☐ shallow
☐ active	☐ effeminate	☐ masculine	☐ sharpwitted
☐ adaptable	☐ efficient	☐ mature	☐ shiftless
☐ adventurous	☐ egotistical	☐ meek	☐ show-off
☐ affected	☐ emotional	☐ methodical	☐ shrewd
☐ affectionate	☐ energetic	☐ mild	☐ shy
☐ agreeable	☐ enterprising	☐ mischievous	☐ sickly
☐ aggressive	☐ enthusiastic	☐ moderate	☐ silent
☐ alert	☐ evasive	☐ modest	☐ simple
☐ aloof	☐ excitable	☐ moody	☐ sincere
☐ ambitious	☐ exhausted	☐ nagging	☐ slipshod
☐ angry	☐ extraverted	☐ natural	☐ slow
☐ anxious	☐ fairminded	☐ nervous	☐ sly
☐ apathetic	☐ fault-finding	☐ noisy	☐ smug
☐ appreciative	☐ fearful	☐ obliging	☐ snobbish
☐ argumentative	☐ feminine	☐ obnoxious	☐ sociable
☐ arrogant	☐ fickle	☐ opinionated	☐ softhearted
☐ artistic	☐ fit	☐ opportunistic	☐ sophistical
☐ assertive	☐ flirtatious	☐ optimistic	☐ spendthrift
☐ attractive	☐ foolish	☐ organized	☐ spineless
☐ autocratic	☐ forceful	☐ original	☐ spontaneous
☐ awkward	☐ farsighted	☐ outgoing	☐ spunky
☐ bitter	☐ forgetful	☐ outspoken	☐ stable
☐ blunt	☐ forgiving	☐ painstaking	☐ steady
☐ blustery	☐ formal	☐ patient	☐ stern
☐ boastful	☐ frank	☐ peaceable	☐ stingy
☐ bossy	☐ friendly	☐ peculiar	☐ stolid
☐ calm	☐ frivolous	☐ persevering	☐ straight-forward
☐ calculating	☐ fussy	☐ persistent	☐ strong
☐ capable	☐ generous	☐ pessimistic	☐ stressed
☐ careless	☐ gentle	☐ planful	☐ stubborn
☐ casual	☐ gloomy	☐ pleasant	☐ submissive
☐ cautious	☐ good-looking	☐ pleasure-seeking	☐ suggestible
☐ challenged	☐ good-natured	☐ poised	☐ sulky
☐ changeable	☐ greedy	☐ polished	☐ superstitious
☐ charming	☐ gregarious	☐ practical	☐ suspicious
☐ cheerful	☐ handsome	☐ praising	☐ sympathetic
☐ civilized	☐ hard-headed	☐ precise	☐ tactful
☐ clear-thinking	☐ hard-hearted	☐ prejudiced	☐ tactless
☐ clever	☐ hasty	☐ preoccupied	☐ talkative

___coarse	___headstrong	___progressive	___tempera- mental
___cold	___healthy	___prudish	___tense
___commonplace	___helpful	___quarrelsome	___thankless
___complaining	___high-strung	___queer	___thorough
___complicated	___honest	___quick	___thoughtful
___conceited	___hostile	___quiet	___thrifty
___confident	___humorous	___quitting	___timid
___confused	___hurried	___rational	___tired
___conscientious	___idealistic	___rattle- brained	___tolerant
___conservative	___imaginative	___realistic	___touchy
___considerate	___immature	___reasonable	___tough
___contented	___impatient	___rebellious	___trusting
___conventional	___impulsive	___reckless	___unaffected
___cool	___independent	___reflective	___unambitious
___cooperative	___indifferent	___relaxed	___unassuming
___courageous	___individual- istic	___reliable	___unconvent- ional
___cowardly	___industrious	___resentful	___undependable
___cruel	___infantile	___reserved	___under- standing
___curious	___informal	___resourceful	___unemotional
___cynical	___ingenious	___responsible	___unexcitable
___daring	___inhibited	___restless	___unfriendly
___deceitful	___initiative	___retiring	___uninhibited
___defensive	___insightful	___rigid	___unintell- igent
___deliberate	___intelligent	___robust	___unkind
___demanding	___interests narrow	___rude	___unrealistic
___dependable	___interests wide	___sad	___unscrupulous
___dependent	___intolerant	___sarcastic	___unselfish
___depressed	___introverted	___self- centred	___unstable
___despondent	___inventive	___self- confident	___unwell
___determined	___irresponsible	___self- controlled	___uptight
___dignified	___irritable	___self- denying	___vindictive
___discreet	___jittery	___self- pitying	___versatile
___disorderly	___jolly	___self- punishing	___warm
___dissatisfied	___kind	___self- seeking	___wary
___distractable	___lazy	___selfish	___weak
___distrustful	___leisurely	___sensitive	___whiny

☐ dominant	☐ listless	☐ sentimental	☐ wholesome
☐ dreamy	☐ logical	☐ serious	☐ wise
☐ driving	☐ loud	☐ severe	☐ withdrawn
☐ dull	☐ loyal	☐ sexy	☐ witty
☐ happy	☐ joyful	☐ pleased	☐ experiences
			☐ enjoyment
☐ unhappy	☐ depressed	☐ frustrated	☐ angry/hostile
☐ worrying	☐ zany		

Part 2: For the adjectives which you checked, place a second check mark beside those which apply to you a great deal (e.g., more than the others).

Part 3: Out of the double-checked adjectives, select the three which most apply to you. Place a third check mark beside these adjectives.

APPENDIX I

Demographic Data Sheets

DEMOGRAPHIC INFORMATION

Please complete the following:

1. GENDER_____
2. AGE_____
3. MARITAL STATUS: SINGLE.....
MARRIED/Common-LAW.....
OTHER.....

4. DO YOU HAVE CHILDREN? YES____
NO____

IF YES, HOW MANY?____

WHAT ARE THEIR AGES?_____

DO THEY LIVE WITH YOU? YES____ NO____

IF YES, WHAT SORT OF CHILDCARE ARRANGEMENTS DO YOU
HAVE?

5. DO YOU LIVE ALONE OR WITH OTHERS? ALONE____
WITH OTHERS____

IF YOU LIVE WITH OTHERS, PLEASE SPECIFY HOW MANY:_____

6. WHERE WERE YOU BORN?_____

7. WHAT ARE/WERE YOUR PARENTS' OCCUPATIONS?
MOTHER_____
FATHER_____

8. ARE YOU CURRENTLY EMPLOYED? YES____ NO____

IF YES: PART-TIME____

FULL-TIME____

WHAT SORT OF JOB DO YOU HOLD?_____

9. ACADEMIC STATUS (CIRCLE ONE): FULL-TIME PART-TIME
SPECIAL

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. WHAT IS YOUR CURRENT YEAR OF STUDY AT CARLETON?_____

(E.G., QUALIFYING YEAR, FIRST YEAR, SECOND YEAR, ETC.)

12. WHAT IS YOUR ACADEMIC MAJOR?_____

DECLARED_____ UNDECLARED_____

13. 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%

END

2 9-05-95

FIN