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**On the Nature of Basic Human Needs:  
The Desire for Self-Consistency versus Self-Growth**

Kim M. Tuson  
School of Psychology

Thesis submitted to the School of Graduate Studies and Research  
of the University of Ottawa in partial fulfillment of the requirements  
for the degree of Doctor of Philosophy

April, 1995

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**This thesis is dedicated to  
Yves for his generous love, support, and understanding  
and to my parents for instilling in me the virtues of hard work**

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## ABSTRACT

Swann's (1983, 1987, 1990) self-verification theory assumes that people are invested in preserving a stable and unchanging sense of self, and that they do so by interacting with others who treat them in a manner consistent with their sense of self. Deci and Ryan's (1985, 1987, 1991) self-determination theory assumes that people are intrinsically oriented towards seeking growth and progressive change in their sense of self, and that it is by interacting with others who support their autonomy that these growth strivings are best satisfied. Two pilot studies and three full-scale studies tested (a) whether self-consistency versus self-growth needs govern people's preferences for who they interact with, and (b) the kinds of consequences that ensue from such interactions. Globally, we hypothesized that if Swann's self-verification theory holds true, self-determined individuals will prefer to interact with others who are also self-determined in their motivation, and who are autonomy-supportive in their interpersonal style. Nonself-determined individuals, on the other hand, will prefer interactions with others who are nonself-determined in their motivation, and rather directive and controlling in their interpersonal style. By contrast, we anticipated that if Deci and Ryan's self-determination theory holds true, all persons, regardless of their motivational orientation, will prefer to interact with others who are relatively self-determined in their motivation and autonomy-supportive in their interpersonal style. In line with Swann's self-verification theory, results of Pilot Study 2, Study 2, and Study 3 indicated that subjects preferred to interact with others who were similar to themselves. Specifically, when we examined the similarity between university students and their two closest university friends in terms of their motivation for attending school, findings indicated that self-determined students preferred to associate with friends who were significantly more self-determined than the friends of nonself-determined students (Pilot Study 2, Study 2). Similarly, when we examined married and common-law couples' motivation for being involved in their relationship, a significant correlation emerged between their motivational orientations (Study 3). In both cases, the pattern of results held up whether we considered actual motivation similarity or perceived motivation similarity between subjects and their relationship partners. Despite the fact that subjects chose to affiliate with others similar to themselves, results of Pilot Study 1, Study 1, and Study 3, revealed that such types of interactions were not the kind that subjects would prefer to have, nor the kind that were associated with superior relationship outcomes. In line with Deci and Ryan's self-determination theory, when students were presented with descriptions of two types of teaching styles -- one autonomy-supportive, the other directive and controlling -- students of both motivational orientations indicated a clear preference for the autonomy-supportive teaching style (Pilot Study 1, Study 1). When asked which of the two teaching styles they considered to be more effective, students again judged the autonomy-supportive teaching style to be superior (Study 1). Finally, when couples were asked to rate the quality of their relationship, they reported greater adaptiveness in their couple behaviors, more commitment towards their relationship, and higher levels of happiness within their relationship to the extent that their motivation towards the relationship was self-determined and that their partner was perceived to be autonomy-supportive (Study 3). Results are discussed in terms of reconciling this apparent difference between what people seem to want (self-growth) and what people seem to do (self-consistency).

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## INTRODUCTION

Why do people behave the way they do? What are the reasons for their actions? For years, motivational theorists have endeavored to bring answers to these questions. And in doing so, they have struggled with many difficult philosophical questions about the essence of human nature. For instance, are we by nature irrational and unaware of the true reasons for our actions (e.g., Freud, 1959; Nisbett & Wilson, 1977) or are we in fact fully conscious and aware of why we behave the way we do (e.g., Kelley, 1967)? Are we born with a limited number of innate motives that universally define the core of human behavior (e.g., Maslow, 1970) or do we learn to value and desire certain things such that each of us is driven by a different set of motives (e.g., McClelland, 1951)? Are we responsible for determining our own behavior (e.g., Maslow, 1970) or are we pawns to nature's powerful laws of human behavior (e.g., Skinner, 1953)? Are we oriented towards seeking growth, progressive change, improvement, and development in our selves (e.g., Rogers, 1961; Deci & Ryan, 1985), or are we oriented towards seeking stability, consistency, and the status quo (e.g., Hull, 1943; Swann, 1983)?

The purpose of the present research is to explore the debate surrounding one of these philosophical questions about the essence of human nature, the question of whether people strive for growth and change in their sense of self or whether they strive for consistency and stability. In addressing this question, we focus on two currently popular theoretical perspectives that represent opposite ends of this motivation continuum. Near one end of the continuum is Swann's (1983, 1987, 1990) self-verification theory which is based on the core assumption that people are invested in preserving a stable and

unchanging sense of self, and that they do so by choosing to interact with others who are most likely to confirm their sense of self. Toward the other end of the continuum is Deci and Ryan's (1985, 1987, 1991) self-determination theory which is based on the assumption that people are intrinsically oriented towards growth and progressive change, and that it is by interacting with others who support their autonomy and foster their sense of competence that these growth strivings are most likely to be satisfied.

In comparing these two theoretical viewpoints, a series of studies have been designed to contrast the hypotheses advanced by each of these theories with regards to the preferences and choices that people make about the persons they interact with. That is, do people prefer to interact with others who are likely to maintain their sense of self, whether that sense of self is positive or negative, or do they in fact prefer to interact with others who are likely to promote change and growth within them?

The contents of this thesis are grouped into six broad sections. The first section, the introduction, provides a detailed description of each theoretical perspective, beginning with Swann's self-verification theory followed by Deci and Ryan's self-determination theory. In reviewing each theory, those theoretical concepts which are most relevant to the present research are highlighted. The second section presents the results of two pilot studies that were conducted in an initial attempt to empirically test the competing viewpoints offered by the two theoretical perspectives. The first pilot study surveyed the interaction preferences expressed by university students with regards to their professors. The second pilot study examined the kinds of friends that university students choose to affiliate with most closely. Three full-scale studies were then conducted as follow-ups to these pilot studies. Each study is treated within a separate section of the thesis. The first study was

designed to replicate and extend the results obtained in the first pilot study. In addition to evaluating the kinds of professors students preferred to interact with, we also explored the beliefs that students held about the consequences of interacting with such professors. The second study was intended to provide a replication of the findings obtained in the second pilot study. Thus, using an independent sample of students, we again inquired about the kinds of friends that students preferred to associate with. Finally, the third study explored what kinds of partners people gravitate towards in establishing couple relationships, and the impact of this choice on their level of satisfaction with, and commitment to, the relationship. For each study, we sought to test a specific set of competing hypotheses that were derived from the two theoretical perspectives. In the sixth and final section of the thesis, a general discussion of the results obtained in the five studies is presented. Implications of the studies, their limitations, and possible directions for future research are given consideration.

### The Need for Self-Consistency

Swann's perspective of human nature is rooted in the cognitive consistency tradition which held tremendous authority during the 1950's and 1960's, an era many consider to be the "golden years" of social and personality psychology (Swann, 1990). Beginning with Lecky's (1945) seminal theory of self-consistency, a view of human nature emerged that placed the need for cognitive consistency or balance as the central motivating force behind all behavior (e.g., Aronson, 1968; Festinger, 1957; Heider, 1946, 1958; McGuire, 1960; Newcomb, 1956; Osgood & Tannenbaum, 1955; Rosenberg & Abelson,

1960; Secord & Backman, 1965). For nearly two decades, the concepts of "balance", "congruity", and especially "dissonance" dominated the field of social psychology.

As is the fate of all popular trends in psychology, however, interest in cognitive consistency eventually began to wane. Some no longer felt challenged by the subject, satisfied that the most important theoretical questions had been answered, while others were critical of the theoretical explanations and offered alternative ones (e.g., Bem, 1967; Schlenker, 1980; Tedeschi, Schlenker, & Bonoma, 1971). Gradually, attention shifted to other social psychological phenomena and the once prominent consistency theories became a tradition of the past.

Several years later, however, a renewed interest in the consistency perspective surfaced with the introduction of Swann's self-verification theory (1983, 1987, 1990). Although Swann recognized that past consistency approaches had been flawed in certain respects, he felt convinced that abandoning the perspective in its entirety was premature. Thus, building on the principles of earlier consistency formulations, he devised a new, and arguably more comprehensive theory of self-consistency.

Like dissonance and balance theories, Swann's self-verification theory assumes that people have a need for cognitive consistency. Self-verification theory diverges from these theories, however, in that it rejects their idea that people are interested in consistency for its own sake, and instead proposes that people want consistency for the sense of predictability and controllability it affords them in their lives. The central argument of self-verification theory is that, because of this need to make their worlds predictable and controllable, people are highly motivated to maintain stable beliefs about themselves. As a result, Swann suggests that people "create -- both in their actual social environments and in their

own minds -- a social reality that verifies and confirms their self-conceptions" (Swann, 1983, p. 33).

### Self-Verification Theory

In line with the symbolic interactionists (e.g., Cooley, 1902; Mead, 1934), Swann (1983, 1987, 1990) believes that once children begin interacting with their social environments they become concerned with anticipating how others will respond to them. Consequently, they try to imagine how they appear to others, to see themselves as others see them. Gradually, these images become internalized and develop into self-concepts. He then suggests that, as people mature and collect more and more evidence on which to base their self-conceptions, they become increasingly motivated to ensure that these conceptions do not change. He offers several explanations to account for this phenomenon.

Most central to his theorizing is the suggestion that people's desire to maintain an unchanging self-concept is the result of an inborn preference for things that are predictable, familiar, stable, and uncertainty reducing (Swann, 1983). People need to know that their world is controllable, that their understanding of the world is accurate and reliable, and that their predictions about future events are dependable. If people's self-concepts, and the self-concepts of those around them were continually changing, people would be lost, as Swann puts it, in the same way as scientists would be lost without theories; they would not know what to look for or what to expect (Swann, 1983).

The research literature does provide some support for this notion that people prefer phenomena that are predictable and consistent with their expectations. For example,

Swann points to studies of judgmental processes which have shown that people are more likely to solicit and rely on evidence that confirms rather than disconfirms their hypotheses and beliefs, apparently because they find such confirmatory evidence to be especially trustworthy, diagnostic, and easy to process (e.g., Bruner, Goodnow, & Austin, 1956; Klayman & Ha, 1987; Snyder & Swann, 1978; Wason & Johnson-Laird, 1972). The pervasiveness of this finding has led Swann to suggest that perhaps there is something inherent in human thought processing which leads people to regard information that confirms their self-conceptions as more diagnostic than information that disconfirms their self-conceptions (Swann, 1987). Indeed, a study by Swann and Read (1981a, Study 3) found that subjects felt they could learn more about themselves by examining information that confirmed their self-conceptions in comparison to information that disconfirmed their self-conceptions.

Swann further suggests that perhaps people seek self-confirmatory information for the sense of "existential security" it engenders within them (Swann, 1987, 1990). He reasons that, in this ever-changing world of ours, stable self-concepts allow people to feel confident in their ability to predict future events and to interact effectively with their environment. As such, events that confirm people's self-conceptions are thought to enhance their feelings of security, whereas events that disconfirm people's self-conceptions are thought to incite the fear that perhaps they do not know themselves after all.

Aside from such epistemic issues, Swann also believes that people may resist changes to their self-concepts for pragmatic reasons. Research on social interactions has shown that an implicit agreement exists between interaction partners whereby each person can expect that the other will behave in accordance with the identities they have already

negotiated with one another (e.g., Athay & Darley, 1981; Carson, 1969; Goffman, 1959; Jones, 1964; Swann, 1984). Thus, Swann proposes that it is in people's interest to maintain a stable self-concept because it helps to ensure that their interactions with others remain harmonious. Resisting changes to a negative self-view, for example, might help people to avoid situations where others would expect too much of them or place excessive demands on them; conversely, resisting changes to a positive self-view might help people avoid being patronized or belittled.

For these reasons, then, Swann proposes that people's thoughts and behaviors are directed towards protecting the stability of their self-concepts. Indeed, so powerful is this motivation for stability, that people will not only try to preserve those aspects of their self-concepts which are positive, but they will also attempt to preserve those aspects of their self-concepts which are negative, presumably because facing the epistemic and pragmatic consequences of not verifying one's self-conceptions is more painful than actually verifying one's negative self-conceptions.

### Strategies for Maintaining a Stable Self-Concept

In his theory of self-verification, Swann outlines a number of strategies that people use to ensure that their self-conceptions do not change. The strategies are grouped into two distinct categories: behavioral strategies and cognitive strategies.

**Behavioral Strategies.** The behavioral strategies are based on the assumption that the social environments in which people live are largely of their own making. That is, Swann believes that people work to create an environment around themselves that will promote the survival of their self-conceptions. Borrowing from the work of biologists,

ecologists, and sociobiologists (e.g., Clarke, 1954; McCall & Simons, 1966; Wilson, 1974), Swann proposes that people -- just like all other living organisms -- inhabit "ecological niches" or "opportunity structures" that satisfy their needs and desires. Given that, for Swann, self-consistency is the basic need underlying human behavior, he proposes that people attempt to construct opportunity structures that will provide them with self-confirmatory feedback.

In striving for self-confirmatory opportunity structures, people use three types of behavioral strategies according to Swann. One strategy they use is to display what he calls "identity cues": signs or symbols that convey to others who a person is and how he or she expects to be treated. For example, the clothes people wear, the cars they drive, the homes they live in, the titles they attach to their names, all make statements about the kind of person one is. By displaying identity cues, then, people can be sure that before they even say a word, others will already have a good idea about how they wish to be viewed.

Another behavioral strategy that people use in an effort to maintain the stability of their self-conceptions is to selectively interact with others who are likely to validate their self-conceptions. For example, Swann's own research has found that people prefer to have friends and intimates who are congruent with their self-conceptions (Swann, Hixon, & De La Ronde, 1992; Swann & Pelham, 1988), that people who are highly depressed prefer to interact with friends or dating partners who evaluate them negatively (Swann, Wenzlaff, Krull, & Pelham, 1992, Study 2) and that people prefer self-verifying interaction partners over ingratiating ones (Hixon & Swann, 1993, Study 4). Other researchers have also found evidence that people gravitate towards social relationships which validate their self-conceptions (e.g., Backman & Secord, 1962; Broxton, 1963; Pervin & Rubin, 1967;

Robinson & Smith-Lovin, 1992). The issue of selective interaction is of particular relevance to the present research and, therefore, a more in-depth review of the literature is presented shortly.

Finally, Swann suggests that even if people fail to obtain self-confirmatory feedback through the use of identity cues and selective interaction, they may still be able to gain such feedback by adopting particular interaction strategies. Specifically, he proposes that when people suspect that others have formed an inaccurate impression of them, they will intensify their efforts to elicit self-confirmatory feedback. For example, Swann and his colleagues have found that when targets who perceive themselves to be likeable are confronted with another person who they believe perceives them to be unlikeable, targets will go out of their way to try and convince the perceiver that they are likeable after all; the reverse of this also appears to hold true (Swann & Read 1981b, Study 2). This effect has been replicated using other dimensions as well, including dominance/submission (Swann & Hill, 1982) and introversion/extraversion (Swann & Ely, 1984).

Despite the apparent effectiveness of such behavioral efforts to create a self-confirmatory social environment, Swann acknowledges that people cannot always avoid self-disconfirmatory feedback. Yet, he argues, people may still try to preserve their self-conceptions through the use of various cognitive strategies.

Cognitive Strategies. Turning to the information processing literature (e.g., Higgins & Bargh, 1987; Kihlstrom & Cantor, 1984), Swann points out that expectancies, in general, and self-conceptions, in particular, have been shown to exert a powerful channeling influence on the way people process incoming information. This has led him to suggest that self-conceptions may actually guide the processing of social feedback so as to

promote their own survival (Swann, 1987).

Swann has identified three cognitive strategies that people use in an effort to maintain their self-conceptions. Starting with the earliest phase of information processing, he proposes that people selectively attend to information that is consistent with their self-conceptions. A study by Swann and Read (1981b, Study 1) supported this hypothesis. Subjects who viewed themselves as either likable or dislikable learned that they would be interacting with another person, and that prior to this interaction they would have the opportunity to examine a series of statements that the person had ostensibly made about them. Before reading the statements, some subjects were led to believe that the other person had formed a favourable impression of them while others were led to believe that the other person had formed an unfavourable impression of them. Results showed that subjects spent more time examining the evaluative statements when they believed that the statements had been prepared by someone who had evaluated them in a manner that was consistent with their self-conceptions. That is, people who saw themselves as likeable spent more time examining the statements if they believed that the evaluator had formed a favourable impression of them whereas people who saw themselves as dislikable spent more time examining the statements if they believed that the evaluator had formed an unfavourable impression.

A second cognitive strategy identified by Swann is the selective encoding and retrieval of self-confirmatory feedback. That is, just as people may preferentially attend to self-confirmatory feedback, he suggests that people may also encode and recall it preferentially. Support for this hypothesis comes from a study by Swann and Read (1981b, Study 3) in which subjects who viewed themselves as likeable or dislikable

listened to another person make a series of positive and negative statements about them. Some subjects developed the expectation that the statements would be generally positive; others developed the expectation that the statements would be generally negative. Following a brief delay, subjects were asked to recall as many of the statements as possible. Overall, results showed that subjects who saw themselves as likable recalled more positive statements and those who saw themselves as dislikable recalled more negative statements. Similar results have been obtained in studies by Crary (1966) and Silverman (1964).

Finally, Swann proposes that people interpret feedback about themselves in ways that fit with their existing self-views. Specifically, research has demonstrated that people are more likely to endorse the validity of self-relevant feedback when that feedback is consistent with their self-conceptions (Crary, 1966; Korman, 1968; Markus, 1977), are more likely to express greater confidence in the perceptiveness of an evaluator when the evaluation confirms their self-conceptions (Shrauger & Lund, 1975), and are more likely to attribute self-confirmatory feedback to characteristics of themselves and self-discrepant feedback to the source of the feedback (Swann, Griffin, Predmore, & Gaines, 1987).

Together, Swann's behavioral and cognitive strategies suggest that people possess an elaborate system of protection against self-discrepant information, rendering the possibility for changes to their self-concepts as very slim indeed. According to Swann, then, once people have formed a relatively stable sense of self, it essentially does not change.

In the next section, a closer look is taken at the literature supporting Swann's hypothesized selective interaction strategy. This particular strategy was chosen as the focal

point of the present research because it provided the necessary common ground for making comparisons between the theories of Swann and Deci and Ryan. Although each theorist has approached their position on the nature of human needs somewhat differently, each has given considerable attention to the way in which people's basic needs can influence their interactions with others. Swann, for example, suggests that one important way that people seek to fulfill their need for self-consistency is to selectively interact with people who are likely to confirm their self-conceptions. Deci and Ryan, by comparison, suggest that the success of people's self-growth strivings hinges on their interactions with others, as we will see shortly. Thus, it is with respect to the issue of selective interaction that the two theories merge to create an interesting point of comparison.

#### The Special Case of Selective Interaction

According to Swann's self-verification theory, people actively seek out interactions with certain kinds of people and avoid interactions with others. In particular, people are thought to pursue relationships with others who are likely to validate their self-conceptions and to avoid relationships with others who are likely to challenge their self-conceptions.

Early evidence of such a bias in the selection of interaction partners is found in a study by Backman and Secord (1962) which examined friendships among a group of sorority women. Their findings revealed that the sorority women interacted most frequently with other women in the group whom they thought perceived them in a manner that was congruent with the way they perceived themselves. Similar results emerged in a study by Broxton (1963) who found that college women who requested roommate changes believed that the new roommate had a more congruent view of them than did the old

roommate.

There are also some early studies indicating that people may have a tendency to gravitate towards and remain in environments that are compatible with their self-conceptions. For example, Pervin and his colleagues (Pervin 1967a, 1967b; Pervin & Rubin, 1967) have shown that students are happier if the characteristics of their college are compatible with their self-views. They have further shown that students enrolled in colleges that are discrepant with their self-views are more likely to consider dropping out.

More recent research by Swann and his colleagues has revealed somewhat more direct evidence for the hypothesized selective interaction effect. Using various laboratory setups, for example, they have shown a consistent tendency for people to select interaction partners whose view of them is congruent as compared to incongruent with their own self-views. In a study by Swann, Pelham, and Krull (1989, Study 3), for instance, subjects were given feedback about themselves from two other persons (perceivers) who had ostensibly rated them on either their "best" or their "worst" attribute (e.g., intellectual ability, social skills, athletic ability, etc.) following a brief "getting-acquainted" period. One perceiver gave an evaluation that was congruent with the subjects' self-view (e.g., favourable feedback for their best attribute; unfavourable feedback for their worst attribute) while the other gave an evaluation that was incongruent with the subjects' self-view (e.g., unfavourable feedback for their best attribute; favourable feedback for their worst attribute). Results indicated that subjects preferred to interact with perceivers who evaluated them in a manner that was congruent with their self-views. That is, subjects preferred to interact with perceivers who gave favourable feedback regarding their best attribute or unfavourable feedback regarding their worst attribute.

In a somewhat similar vein, Swann, Wenzlaff, Krull, and Pelham (1992, Study 1) had depressed and nondepressed students choose between an interaction partner who thought poorly of them and one who thought well of them. They found that whereas nondepressed students were especially apt to choose the favourable evaluator, highly depressed students (but not mildly dysphoric ones) were especially inclined to choose the unfavourable evaluator.

Finally, in a third laboratory study, Swann, Stein-Seroussi, and Giesler (1992) showed that when students with either a positive or a negative self-view regarding their sociability were given the choice between interacting with someone who evaluated their sociability favourably and someone who evaluated it unfavourably, students chose the interaction partner who verified their self-views. Specifically, students with positive self-views chose to interact with the favourable evaluator whereas students with negative self-views chose to interact with the unfavourable evaluator.

Perhaps of greater importance, however, are findings from a series of field studies conducted by Swann and his colleagues which suggest that this tendency for people to prefer self-verifying interaction partners manifests itself in their choice of actual relationship partners. An initial demonstration of this effect comes from a study of college roommates by Swann and Pelham (1988). Results indicated that when students found themselves in relationships with a roommate whose appraisal of them was incongruent with their personal self-views, students were more likely to plan to change roommates. As with the laboratory studies, this finding held true regardless of whether the students' self-view was positive or negative. Thus, just as students with positive self-views wanted to drop roommates holding an unfavourable view of them, students with negative self-views wanted to leave

roommates holding favourable views of them.

Further evidence of self-verification processes operating in people's real-life choices of relationship partners comes from a study by Swann and his colleagues (Swann et al., 1992, Study 2) in which the preferred friends and dating partners of depressed persons was compared to that of nondepressed persons. Once again results indicated that people who were depressed preferred to affiliate with others who viewed them in a rather unfavourable way whereas nondepressed persons preferred to be seen in a more positive manner. Interestingly, this trend emerged at both specific and global levels of appraisal.

Taking the degree of intimacy one step further, Swann, Hixon, and De La Ronde (1992) examined the relationships of married couples and the extent to which spouses with negative, moderate, or positive self-concepts were committed to spouses who appraised them relatively favourably or unfavourably. Results yielded an interaction between self-concept and spouse appraisal such that subjects with positive self-concepts were more committed to their relationships when their spouses thought well of them, and subjects with negative self-concepts were more committed to the extent that their spouses thought poorly of them. Those with moderate self-concepts were not influenced by the nature of their spouses' appraisals.

This study further revealed that several alternative explanations for the self-verification effect could be ruled out in explaining the rather provocative finding that people with negative self-views were most committed to spouses who held unfavourable opinions of them. In particular, they found no evidence that people with negative self-views were committed to spouses who rated them unfavourably because of a belief that such partners were more perceptive and intelligent. Nor did they find that people with negative self-

views were committed to spouses who perceived them negatively out of a desire to win their spouses over. Most interesting to the debate on self-consistency versus self-growth is the finding that people did not appear to be committed to spouses who appraised them unfavourably because of a belief that such partners would help them improve themselves. In fact, people with negative self-views were actually less confident that feedback from their spouses would help them improve themselves than were people with moderate and positive self-views. According to this study, then, it would seem that it is concerns for self-verification, and not concerns for self-improvement or self-growth, that are influencing people's choice of mates and their ensuing level of couple happiness.

Together, Swann's research on selective interaction suggests that people carefully choose self-congruent interaction partners for themselves, and in so doing, create an interpersonal environment that ensures the stability of their self-concepts. Presumably, by maintaining stable self-concepts, people are able to satisfy their needs for control and predictability.

This position is not without its problems, however. Indeed, Swann's characterization of his data as demonstrating a consistency effect appears to hinge largely on the frame of reference he has taken in making his interpretations. Across all studies, the strongest evidence for a consistency effect emerged in the case of subjects possessing a positive self-view. These subjects demonstrated a clear tendency to prefer feedback or interactions with others who viewed them favorably and to avoid feedback or interactions with others who viewed them unfavorably. However, in the case of subjects possessing negative self-views, the consistency effect is much less evident. In fact, the general tendency for subjects possessing negative self-views was to indicate a liking for feedback

or interactions with people who viewed them moderately favorably as well as unfavorably.

For example, research by Swann and his colleagues (1992) concerning the interaction preferences of nondepressed and depressed subjects revealed that depressed subjects' preference for negative feedback did not differ significantly from their preference for neutral feedback (Study 1). Similarly, when considering the interactions of nondepressed and depressed subjects with their roommates (Study 3), results suggested that both groups of subjects significantly preferred positive feedback over negative feedback, albeit to a lesser degree for depressed subjects.

Further evidence of this trend emerges in the study by Swann and his colleagues (Swann, Hixon, De La Ronde, 1992) on marital commitment and the congruency of married persons' self-views with their partners' appraisals of those self-views. Although Swann concludes that commitment was higher when persons with negative self-views were paired with partners who appraised them unfavorably, results indicated that they were equally committed when paired with a partner who appraised them moderately favorably.

Finally, the study by Swann, Pelham, and Krull (1989) concerning subjects' feedback-seeking for their best and worst attributes found marginal differences (i.e.,  $p = .06$ ) when considering subjects with extreme scores on the two types of attributes, but when the entire sample of subjects was considered, favorable and unfavorable feedback were equally sought for the worst attribute.

Perhaps a more plausible interpretation of Swann's results, then, would be to characterize people possessing positive self-views as having a kind of Pollyana bias, with a strong preference for positive feedback. The preferences of people with negative self-views, on the other hand, may in fact be evidence of a more balanced, realistic, and

evenhanded kind of feedback-seeking as opposed to a consistency effect as suggested by Swann (e.g., Hooley & Richters, 1992).

Having considered Swann's consistency perspective, we now turn to another theoretical perspective on the essence of human nature, one that characterizes people as actually desiring self-concept change.

### The Need for Self-Growth and Change

Challenging Swann's self-consistency perspective that people strive to maintain a stable, unchanging sense of self, is the theory of self-determination advanced by Deci and Ryan (1985, 1987, 1991). As an outgrowth of the humanistic tradition, Deci and Ryan's theory assumes that people have a fundamental need to strive for self-growth and change in order to develop a fully integrated, autonomous, and competent sense of self. In their view, human nature is such that people are continually seeking to improve, to progress, and to overtake themselves. Life, for them, is the process of self-expansion.

The philosophical underpinnings of the self-determination theory have their roots in the pioneering humanistic theories of Carl Rogers and Abraham Maslow. It was the theories of Rogers and Maslow that launched the "growth psychology" movement and marked the beginning of an emphasis on psychological "wellness" or the healthy side of human nature, as opposed to the prevailing emphasis on psychological "illness" (Schultz, 1977). With these theories came a focus on psychological growth and fulfillment: the notion that people desire to be better and more than they currently are. Critical of the pessimistic view of human nature offered by behaviorists who described people as passive responders to external stimuli, and by psychoanalysts who saw people as victims of

biological forces and childhood conflicts, these growth theorists held a much more optimistic and hopeful view of human nature. They highlighted people's capacity for growth and change, and for actualizing their full potential.

Both Rogers and Maslow agreed that although self-actualization is an innate need, it is very much dependent on social forces which can either facilitate or thwart its development, particularly during childhood. Thus, even though people have a need to actualize themselves and to become all that they are capable of becoming, whether or not that potential is actually fulfilled depends on a person's social environment. It will soon be seen that this suggestion has come to take a central place in the self-determination theory proposed by Deci and Ryan.

Although the theories of Rogers and Maslow have shared considerable popularity and have inspired the development of numerous later theories, they suffer from some serious shortcomings. Chief among these is the relative absence of rigorous empirical evidence supporting their ideas, and the lack of clarity in the operational definitions of many of their terms (Arkes & Garske, 1977; Geller, 1982; Neher, 1991; Schultz, 1977). For example, the precise definition of the self-actualizing tendency in operational terms is not clear, nor is the way in which this tendency generates one particular behavior over another. Similarly, despite the fact that the environment is regarded as an important source of developmental change, it is unclear which environmental conditions will enhance growth and which will hinder it. Although Rogers, in his theory, does distinguish between conditional and unconditional positive regard, their definitions are vague and the situations which produce each of these are not explicitly outlined. In short, the theories of Rogers and Maslow are weak empirically. Unfortunately, the various components of their theories

have not been specified in a manner that allows them to be easily tested.

Deci and Ryan's self-determination theory represents an extension of Rogers' and Maslow's early growth perspectives of human nature, formulated in a more precise and scientifically verifiable theoretical framework. The theory postulates two basic human needs closely related to actualization: the needs for competence and self-determination<sup>1</sup>. Though not stated explicitly, the theories of both Rogers and Maslow imply that the fully functioning or self-actualized person is both competent and in control of his or her environment, as well as an active voice in the determination of his or her behavior. As will be seen, Deci and Ryan and their colleagues have collected considerable empirical evidence pointing to the superior psychological health and well-being of people who feel competent and self-determining in what they do. In addition, their theory presents clear definitions and hypotheses regarding the environmental conditions that should facilitate a person's strivings for competence and self-determination, and those conditions that should forestall such strivings.

### Self-Determination Theory

Unlike Swann and the symbolic interactionists who conceptualize the self as a reflection or "mirror" of social evaluations and pressures, Deci and Ryan (1991) view the self as a much more active entity that actually directs and regulates people's contact with

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<sup>1</sup> In their theory, Deci and Ryan (1985, 1991) have also postulated a third basic need: the need for interpersonal relatedness. While considered no less important than the needs for competence and self-determination, it remains largely at a theoretical level having been studied in a preliminary fashion only. For this reason, it was not considered in the thesis.

their social environment. For them, the self is not simply an outcome of others' evaluations and appraisals, but rather it represents the very processes that guide people's interactions with their social environment and bring integration and organization to these experiences. In other words, Deci and Ryan view the self as a motivational entity rather than as a cognitive one. Although they acknowledge that the self does contain knowledge structures, they believe that at its core the self has a vital energizing component, something they have termed intrinsic or growth motivation.

Deci and Ryan suggest that, from the time of their birth, people are intrinsically oriented towards exercising their capacities and interests (Deci & Ryan, 1991). This tendency, they argue, can be most readily seen in the natural curiosity displayed by children. Without incentives or prods, indeed frequently in the face of open discouragement, children work determinedly to figure out how things go together or what actions produce what effects. They are fascinated by the novel, and persistent in their attempts to make it familiar. They seek out challenges for themselves and continually attempt to master and integrate new experiences. Development of the self, then, is seen as a process intrinsic to people's nature and characterized by the tendency towards a more elaborate and extensive organization.

Like other theorists, Deci and Ryan suggest that people strive to achieve a coherent and harmonious sense of self. In other words, as people encounter new experiences and social situations, they attempt to assimilate these into their existing sense of self. Deci and Ryan (1991) point out, however, that this tendency towards integration and synthesis of the self does not mean that people suppress and rationalize dissonant aspects of themselves in order to achieve self-consistency. In fact, they believe that this synthetic nature of the

self actually leads people to seek out inconsistencies, and to treat these as nutriments to growth (provided that the inconsistencies do not constitute challenges that are too far beyond what is optimal for their capacities). Thus, unlike Swann who believes that people seek out familiar and predictable surroundings that are likely to provide them with self-consistent feedback, Deci and Ryan believe that people seek out novel and challenging situations that may even provide feedback that is inconsistent with their sense of self, because such situations offer people the opportunity for growth.

In their self-determination theory, Deci and Ryan suggest that people's intrinsic growth strivings are fueled by two basic psychological needs: the need for competence and the need for self-determination. The need for competence is defined as people's desire to experience control and effectance in their interactions with the environment . People want to understand the way in which their behavior can lead to desired outcomes and to be able to reliably effect those behavioral contingencies. The need for competence is also thought to encompass people's desire to continually exercise and extend their capacities, and to thus experience the inherent feelings of satisfaction that are evoked when interacting effectively with the environment (Deci & Ryan, 1985, 1991).

The need for self-determination (or autonomy) is defined as people's desire to feel like the "origin" of their behavior (deCharms, 1968), to experience their actions as emanating from the self and as being their own. It concerns people's desire to experience an internal locus of causality and a sense of choice with respect to their actions. In other words, people want to experience themselves as the initiators of their behavior (Deci & Ryan, 1985, 1991).

Of central concern to the self-determination theory is the way in which the social

context influences the satisfaction of these basic psychological needs. Social conditions that facilitate the satisfaction of the basic needs are theorized to promote intrinsic growth processes whereas those conditions that impede satisfaction of the needs are theorized to undermine such processes. The following section presents a review of the research examining the impact of various environmental conditions on people's intrinsic growth processes.

### Environmental Influences on Growth Processes

In examining the impact of the environmental context on people's growth strivings, Deci and Ryan have often classified environments into two broad categories: those which are autonomy-supportive and those which are controlling (Deci & Ryan, 1985, 1987).<sup>2</sup>

Autonomy-supportive environments are believed to enhance a person's strivings for self-growth, and are characterized as providing people with the opportunity to make choices for themselves, encouraging people to take initiatives, and minimizing the amount of pressure put on people to behave in specific ways. They are not laissez-faire environments free of any kind of structure, but rather they are structured in such a way that people are able to feel a sense of personal choice and freedom within the structure. Controlling

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<sup>2</sup> Autonomy-supportive and controlling environments are, in fact, opposite ends of a single dimension which Deci and Ryan postulate as being important to the development of self-determination. In their theory, Deci and Ryan also postulate a second dimension of environmental influences, anchored at its end-points by what are termed informational and non-informational contexts. This second dimension is considered to be important for the development of a sense of competence (Deci & Ryan, 1985). This second dimension, however, has been given far less attention by the theorists, as they have chosen to focus more intently on factors influencing self-determination over those influencing competence (E. L. Deci, personal communication, 1991). Given that the present research is primarily concerned with issues of self-determination, consideration will be given to the first dimension only.

environments, by contrast, are believed to be counterproductive to people's strivings for self-growth, and are described as those which pressure people to think, feel, and behave in very specific ways. When in such environments, people experience a feeling of having to do what they are doing, such as following the orders or directives of another person.

Research examining the autonomy-supportive versus controlling distinction can be grouped into two clusters. The first cluster of studies have explored specific external events -- things like task-contingent rewards, positive feedback, or imposed deadlines -- that tend to promote or undermine people's intrinsic motivation strivings. The second cluster of studies have focused on interpersonal contexts, showing that even the general ambience of an environment can effect people's experience, attitudes, and behavior within those contexts.

Early studies comparing autonomy-supportive and controlling environments examined their effects on people's level of intrinsic motivation. Intrinsic motivation was chosen as the dependent variable because it is considered to be the prototype of self-determination and the state most conducive to self-growth (Deci & Ryan, 1991). Later studies then began exploring the effect of the two contexts on other relevant variables. Thus, in reviewing the research on external events and interpersonal contexts, studies that used intrinsic motivation as a dependent variable are presented first followed by studies that considered other factors as dependent variables.

External Events. Initial experiments exploring the effects of autonomy-supportive versus controlling environments, focused on various specific external events that might impact an individual's intrinsic motivation and the behavioral qualities associated with it. Only a brief summary of the findings from these studies is presented, given that our

primary concern relates to the influence of interpersonal contexts. Nonetheless, as will be seen, external events and their influences have also been considered within interpersonal contexts and therefore an understanding of their impact is considered germane.

Certainly the most widely studied external event has been the task-contingent reward. Rewards have consisted of such things as monetary payments (Deci, 1971), good-player awards (Lepper, Greene, & Nisbett, 1973), food (Ross, 1975), and prizes (Harackiewicz, 1979). In general, it has been found that rewards tend to undermine people's intrinsic motivation. That is, when people received a reward for doing an interesting activity, they displayed less interest and willingness to work on that activity following termination of the reward than did people who had worked on the activity without receiving a reward. Later research found, however, that rewards do not always undermine people's intrinsic motivation, and that sometimes rewards can actually increase intrinsic motivation (Harackiewicz, Manderlink, & Sansone, 1984; Ryan, Mims, & Koestner, 1983). It seems that the way in which rewards are given is the key factor. Rewards that are given in a way that highlights their controlling aspect (i.e., pressuring people to do things they would not freely do) tends to reduce intrinsic motivation, whereas rewards that are given in a way that conveys positive competence feedback (i.e., that a person has performed well) tend to maintain or even enhance intrinsic motivation.

In addition to rewards, the effects of threats (Deci & Cascio, 1972), deadlines (Amabile, DeJong, & Lepper, 1976), imposed goals (Mossholder, 1980), evaluation (Benware & Deci, 1984; Harackiewicz et al., 1984; Maehr & Stallings, 1972; Smith, 1974), surveillance (Enzle & Anderson, 1993; Lepper & Greene, 1975; Pittman, Davey, Alafat, Wetherill, & Kramer, 1980; Plant & Ryan, 1985), and competition (Vallerand,

Gauvin, & Halliwell, 1986) have been studied, and all shown a tendency to decrease people's intrinsic motivation. It appears that these events, like many instances of rewards, tend to be experienced as controlling and therefore diminish people's intrinsic motivation or self-determination.

Events that have been shown to increase intrinsic motivation include: offering people the opportunity to choose what to do (Zuckerman, Porac, Lathin, Smith, & Deci, 1978), acknowledging and accepting people's differing perspectives about a task (Koestner, Ryan, Bernieri, & Holt, 1984), and providing people with positive competence feedback (Blanck, Reis, & Jackson, 1984; Boggiano & Ruble, 1979; Vallerand & Reid, 1984), although again this appears to only be true under certain circumstances (Fisher, 1978; Ryan, 1982) or for certain kinds of people (Boggiano & Barrett, 1985; Deci, Cascio, & Krusell, 1975). As can be seen, these events have a clear interpersonal component to them, and it was for this reason that research eventually shifted towards the study of interpersonal contexts.

Aside from studying how autonomy-supportive and controlling events affect intrinsic motivation, researchers have also examined their effects on various other behavioral qualities. For example, interest and enjoyment have been found to be strongly correlated to intrinsic motivation (Harackiewicz, 1979; Ryan et al., 1983), and to be higher following autonomy-supportive events than following controlling events (e.g., Enzle & Ross, 1978). Similarly, creativity (Amabile, 1979, 1982, 1983; Amabile, Hennessey, & Grossman, 1986; Kruglanski, Friedman, & Zeevi, 1971), cognitive flexibility (Benware & Deci, 1984; Grolnick & Ryan, 1987; McGraw & McCullers, 1979), emotional tone (Boggiano, Klinger, & Main, 1985; Garbarino, 1975), and maintenance of behavior

change (e.g., Dienstbier & Leak, 1976) have all demonstrated higher or more positive levels in association with autonomy-supportive events as opposed to controlling events.

It would seem, then, that when behavior is undertaken in the presence of autonomy-supportive events people are likely to experience positive effects that are conducive to their growth strivings as compared to when their behavior is undertaken in the presence of controlling events.

Interpersonal Contexts. The preceding research considered specific external events relevant to the autonomy-supportive versus controlling distinction. Numerous other studies have focused on interpersonal contexts rather than specific events. Just as external events can create an autonomy-supportive or controlling environment, it is argued that the general atmosphere of an interpersonal situation can tend either to support autonomy or to control behavior (Deci & Ryan, 1987). Research examining interpersonal contexts have been of two types. Some are correlational field studies in which the context is assessed as being autonomy-supportive or controlling and is then related to motivationally relevant variables of the people in those contexts. The others are laboratory experiments in which external events such as rewards or feedback are administered within experimentally created autonomy-supportive versus controlling contexts. Once again, in reviewing the research on interpersonal contexts, studies that used intrinsic motivation as the dependent variable are presented first.

Early research examining the influence of interpersonal contexts on people's motivation began by considering the effects of an environment's general interpersonal ambience. For example, in one study (Deci, Nezlek, & Sheinman, 1981), teachers of children in grades four through six were given a questionnaire to complete which assessed

whether their teaching orientation was towards supporting children's autonomy or towards controlling children's behavior. The researchers reasoned that teachers oriented towards supporting autonomy would create a classroom climate supportive of children's intrinsic motivation and growth strivings, whereas those oriented towards control would create a climate detrimental to such strivings. To test this, children in each teacher's classroom were asked to complete Harter's (1981) intrinsic-extrinsic motivation scale for children. A strong positive correlation was found between teacher's autonomy support and children's intrinsic motivation. A similar study was conducted by Deci, Schwartz, Sheinman, and Ryan (1981), in which changes in children's intrinsic motivation from the second day of school to the end of the second month were examined. They found that children in classrooms with autonomy-supportive teachers became more intrinsically motivated relative to children in classrooms with controlling teachers. Finally, in a study by deCharms (1976), it was found that inner-city students who were taught by teachers who had been trained in using an autonomy-supportive teaching style, had higher intrinsic motivation and better academic achievement relative to students of teachers who had not received the training.

Once it became evident that general interpersonal contexts can be experienced as autonomy-supportive or controlling, in the same way that certain external events tend to support autonomy or to control, researchers began to consider how the same external event might be perceived in different experimentally created interpersonal contexts.

Focusing on the most widely studied external event -- the reward -- Ryan, Mims, & Koestner, (1983) explored whether the effect of a reward could be altered by the interpersonal context within which it was received. Previous research had shown that

performance-contingent rewards -- those that are given when a person attains a specified level of good performance -- generally undermined people's intrinsic motivation. However, because these types of rewards inherently provide positive competence feedback, they have also lead to enhanced intrinsic motivation, but only when their controlling and evaluative component was removed (Harackiewicz et al., 1984). Ryan et al. argued that the way in which a performance-contingent reward is conveyed through the interpersonal context could serve to either heighten or minimize its controlling and evaluative aspects. Two groups of college students were given performance-contingent rewards for working on a series of hidden-figures puzzles. One group of students was told that they would receive a \$3 reward if they "performed well," while the other group was told that they would receive a \$3 reward if they "performed well, as you should." After completing each of the three puzzles, students were given positive feedback in a manner consistent with their initial instructions. Thus, one group of students was told, "You have done well," and the other group was told, "You have done well, just as you should." Then, at the conclusion of the performance period, subjects were given their reward either "for doing well" or "for doing well and performing up to standards". The researchers reasoned that words like should and standards would tend to create a controlling and evaluative context that would lead students to experience the reward as controlling, which in turn would undermine their intrinsic motivation. Results supported their hypothesis. Students who received rewards in an autonomy-supportive context were found to be more intrinsically motivated than their counterparts who received rewards in a controlling context.

This finding is consistent with those reported by other researchers. For example, a

similar study by Harackiewicz (1979) found significant differences in the intrinsic motivation of students given performance-contingent rewards when they were either allowed to self-monitor their performance or not. Students allowed to self-monitor evidenced higher levels of intrinsic motivation, presumably because this diminished the controlling aspect of the reward. In another study, Ryan (1982) examined the effect of the interpersonal context on the way in which positive competence feedback was perceived. By itself, positive competence feedback is not considered to be inherently autonomy-supportive or controlling. However, once embedded within an interpersonal context, Ryan found that it led to decreased intrinsic motivation when it was received in a controlling context (e.g., "Excellent, you did just as you should") as compared to a noncontrolling context. Finally, Koestner, Ryan, Bernieri, and Holt (1984) found that even setting limits on people's behavior, something that has the appearance of being controlling, can be perceived as relatively noncontrolling if the limits are set in ways that minimize the use of controlling words and expressions, and that acknowledge the likely conflicts between what a person would like to do and what the limits require.

Together, these studies suggest that the effect of an external event on people's intrinsic motivation can be significantly affected by the interpersonal context within which it is given. Other studies have shown that numerous other variables, aside from intrinsic motivation, can be influenced by the interpersonal context. For example, autonomy-supportive contexts have been linked to increased levels of self-esteem, perceived competence, and lower levels of aggression in school children (Deci et al., 1981; Deci, Schwartz, et al., 1981; Ryan & Grolnick, 1986). Interestingly, this latter finding goes against the common view that controls should be used to curb aggression, and instead

suggests that children's aggression may in fact be related to their feelings of being controlled (Deci & Ryan, 1987). Children's artistic creativity and spontaneity have also been examined in relation to the interpersonal context and found to be higher when children were given the opportunity to "create" within an autonomy-supportive environment as opposed to a controlling environment. A series of studies examining children's achievement and adjustment within schools found that children consistently learned better and demonstrated superior behavioral and emotional adjustment when their teachers, as well as their parents, possessed autonomy-supportive interaction styles as compared to controlling styles (Gottfried, Fleming, & Gottfried, 1994; Grolnick & Ryan, 1987, 1989; Grolnick, Ryan, & Deci, 1991).

Other research has examined the relation between interpersonal contexts in work organizations and the attitudes and perceptions of employees working in those environments, and found that managers' supervisory orientations were strongly related to their subordinates' level of trust. Specifically, subordinates with control-oriented managers had considerably less trust in the corporation and its top management than did those with autonomy-supportive managers (Deci, Connell, & Ryan, 1989). In a somewhat similar vein, college students who were given instructions to teach other students how to solve spatial relations puzzles in a controlling context (e.g., emphasizing their responsibility to see to it that their students performed up to high standards) were rated as using many more directives such as "should" or "have to", and were more inclined to give the solutions as opposed to simply giving hints, than students given teaching instructions within an autonomy-supportive context. Moreover, the style of the teacher impacted on their students' performance such that students with controlling teachers solved fewer puzzles

independently. Finally, autonomy-supportive interpersonal contexts have been linked to better mental health among the elderly. Both in studies that have experimentally induced autonomy-supportive versus controlling contexts and studies that have simply assessed the existing environment of various institutions for the aged, evidence has emerged pointing to the enhanced effects of autonomy-supportive environments on mental health (Langer & Rodin, 1976; Rodin & Langer, 1977; Vallerand & O'Connor, 1991).

The previous research provides considerable evidence that people seem to do better in autonomy-supportive environments than in controlling ones. They tend to be more intrinsically motivated, more creative, more academically successful, more positive emotionally and behaviorally, more trusting, and more healthy. Yet despite such benefits afforded by autonomy-supportive environments, there is no evidence to date indicating that people actually prefer or seek out such environments for themselves. That is, the "reactive" oriented research paradigm that has been adopted by Deci and Ryan and their colleagues, permits us only to observe how people react when placed in autonomy-supportive versus controlling situations, but it provides us with no information about the kinds of contexts that people actively seek out for themselves, or the kinds of people they prefer to interact with in their everyday lives. To answer these kinds of questions, a more "proactive" research orientation is needed, one that addresses people's preferences and choices regarding their social environment.

In their theory, Deci and Ryan (1985, 1991) acknowledge that people are not simply conditioned by the social context, and that people play an active role in the development of their self and the fulfillment of their growth strivings. It follows, then, that because autonomy-supportive environments are hypothesized to foster a person's

development and growth strivings, people should prefer and seek out for themselves environments and interaction partners who provide them with autonomy support. That is, they should prefer social contexts that engender them with a sense of self-determination, competence, and personal choice and freedom. Almost paradoxically, this implication of the theory has never been tested out, despite the central importance self-determination theory places on the “active” side of human nature. The present research, by examining people’s preferences and choices of interaction partners, represents a preliminary step in that direction.

#### Autonomous versus Controlled Behavior and Psychological Growth

What emerges from the preceding discussion is that external events or interpersonal contexts which are autonomy-supportive tend to initiate regulatory processes that are qualitatively different from those that are initiated in the presence of external events or interpersonal contexts which are controlling. When in autonomy-supportive environments, people’s behavior is regulated with more flexibility, less tension, and a more positive emotional tone. This greater flexibility often leads to enhanced creativity and conceptual understanding. People experience their behavior as being self-determined or autonomous, and they experience a greater sense of choice about their actions. By contrast, when in controlling environments, people’s behavior is regulated by processes that are more rigid, include greater pressure and tension, and a more negative emotional tone. As a result, learning tends to be more rote in nature and less integrated. Rather than experiencing their behavior as autonomous, people experience it as being controlled and pressured (Deci & Ryan, 1991).

This distinction in the regulatory processes that are engaged in different environments has often been linked to the intrinsic-extrinsic motivational distinction. Intrinsically motivated behaviors are defined as those which are done freely for the inherent satisfaction associated with their performance. The emphasis is on the process as opposed to the outcome of doing an activity. Intrinsically motivated behaviors are considered to represent the prototype of self-determination in that they emanate from the self and are fully endorsed as being one's own (Deci & Ryan, 1985). By contrast, extrinsically motivated behaviors are defined as those which are engaged in for the purpose of obtaining some reward or goal beyond those inherent in the activity itself. They are not performed purely for their enjoyment or pleasure, but rather because they are instrumental to gaining some consequence that is separable from the activity itself.

Early theorizing about extrinsic motivation assumed that it referred to nonself-determined behavior because of its instrumental nature (Deci, 1971). More recently, however, theory and research have suggested that extrinsically motivated behavior can also be self-determined (Deci & Ryan, 1985; Ryan & Connell, 1989; Ryan, Connell, & Deci, 1985). That is, a person might freely and willingly decide to pursue some extrinsic end. For example, a person might freely and willingly decide to clean the house, even though he does not enjoy the process of cleaning, because having a tidy house is important to him. The behavior is extrinsically motivated because it is instrumental to having a clean house, but it is self-determined because it is freely chosen. Of course extrinsically motivated behaviors can also be pressured and controlled. For example, another person might clean the house out of feelings that she has to, perhaps to impress some visiting friends, to please her husband, to avoid feelings of guilt, or to appease a compulsion.

To accommodate the varying degrees of self-determination that can be present in extrinsically motivated behavior, Deci and Ryan (1985) created a classification of different types of extrinsic motivation that is ordered along a continuum of increasing self-determination. From lowest to highest levels they are: external regulation, introjection, identification, and integration. External regulation refers to behaviors that are initiated for reasons totally outside the person, such as the expectations of rewards, punishments, bribes, or threats. When a person's behavior is externally regulated, it is not performed out of choice but rather as a means to achieving some external end. With introjected regulation, the formerly external source of motivation has been internalized such that its actual presence is no longer needed to initiate the behavior. Instead, these behaviors are reinforced through internal pressures such as guilt, anxiety, or emotions related to self-esteem. Although the reasons for engaging the behavior have been internalized, they are not endorsed as being one's own and are experienced as something that the person has to do. Identified regulation refers behaviors that are freely chosen by a person because they are congruent with his or her values and goals. The behavior is still performed for extrinsic reasons (e.g., to achieve some personal goal), but it is internally regulated and self-determined. The person engages in the behavior because it is personally important to him or her. Finally, integrated regulation refers to behavior that is performed not only because an individual values its significance, but also because it is coherent with his or her sense of self. In other words, it is fully consistent with the other values, needs, and identities that a person holds. Integrated regulation is the most developmentally advanced form of extrinsic motivation and therefore is not seen in children or young adolescents. It is the most fully self-determined of the extrinsic motivational types.

A final type of motivation that has been identified -- apart from the intrinsic and extrinsic types -- is known as amotivation. People are considered to be amotivated when they do not perceive a relationship between their actions and the outcomes that follow from those actions. They experience a feeling of incompetence and a sense of lacking control. The behavior is performed with no real sense of purpose or understanding of why it is being performed.

Not only is the motivational continuum useful in making predictions about the effects of various underlying reasons of behavior (e.g., on performance levels, persistence, creativity, emotional tone etc.), but it also serves as a developmental framework to understand how children come to eventually integrate and fully endorse behaviors that were once extrinsically regulated. The process of becoming increasingly self-determined with respect to the regulation of one's behavior is known as internalization. It is characterized by a movement away from dependence on external prompts and controls towards greater self-regulation (Deci & Ryan, 1985, 1991; Ryan, Connell & Grolnick, 1992). A fundamental aspect of the internalization process, as conceived by Deci and Ryan, is that it is a natural, growth-oriented process related to people's needs for competence and self-determination. In other words, the internalization process is allied to the innate growth propensity of people to become self-determining and competent. It thus represents the essence of Deci and Ryan's self-growth orientation. In describing human nature as oriented towards growth, development, and progressive change, Deci and Ryan are referring to the process of internalization. And, as with intrinsic motivation, the process of internalization is thought to be influenced by the social environment, such that the internalization process is hypothesized to be more likely to occur under autonomy-

supportive than under controlling conditions (Deci & Ryan, 1985).

Although Deci and Ryan's theory of self-determination has received extensive empirical support, the theory is not without its shortcomings. Perhaps the most striking weakness is that its very core premise -- the idea that people possess a fundamental need to be competent and self-determining -- has not been adequately substantiated. Research seems to indicate quite clearly that people do indeed experience superior outcomes when in environments that foster their sense of competence and self-determination, but this finding alone cannot be taken as evidence for the existence of these two basic needs. Perhaps a more telling indication of the needs underlying people's behavior is to examine the kinds of persons and contexts that people actively seek out for themselves. That is, if people are in fact striving to become increasingly competent and self-determined, this should be reflected in the kinds of preferences and choices that people make regarding their social environments. Thus, not only should people react better when in environments that foster their feelings of competence and self-determination, but they should also actively seek out such environments. The present research represents a preliminary attempt to address this issue.

A second and related shortcoming of the theory, is Deci and Ryan's notion that people become increasingly self-determined as they grow older. Because people are thought to be continually striving for greater self-determination in everything that they do, it is reasoned that as people mature, they experience higher levels of internalization (and consequently self-determination) than when they were younger. This proposition, however, has never been empirically substantiated. Clearly, this issue will need to be addressed through future research of a longitudinal orientation.

To summarize, Deci and Ryan propose a view of human nature that is characterized by an inherent movement towards self-growth, a process that is fueled by the needs for competence and self-determination. People are seen as being intrinsically oriented towards exercising their capacities and interests, and to seeking out the novel and the challenging. Environments that support people's autonomy are hypothesized to facilitate people's growth strivings, whereas as those that are controlling are hypothesized to interfere with such strivings. An extension of this hypothesis, one that has not yet been formally addressed by the theory, is the idea that people should actually prefer and seek out environments and interaction partners that provide them with autonomy-support. Given that people are seen as playing an active role in their development and growth strivings, and given that autonomy-supportive environments are hypothesized to enhance these processes, it follows that people should be inclined to actively seek out such environments for themselves. The present research represents an initial exploration into this question.

#### Overview of Studies

The research presented in this thesis was designed to compare Swann's self-consistency perspective of human nature to Deci and Ryan's self-growth perspective. That is, are people motivated to maintain unchanging views of themselves, as Swann suggests, or are they in fact motivated to change and expand their self-views as Deci and Ryan suggest? To explore this question, we compared the competing hypotheses that each of these theories makes about the kind of person that people should prefer to interact with. Specifically, do people prefer to interact with other people who are likely to maintain their

self-views, as proposed by Swann's self-verification theory, or do they in fact prefer to interact with others who are likely to promote change and growth within their self-views, as proposed by Deci and Ryan's self-determination theory?

In examining this question, we focused on the specific self-view that people hold about their motivation. People's views about their motivation was chosen as the self-view of interest because it permitted a formulation of hypotheses that were amenable to both sets of theories.

To determine whether self-consistency versus self-growth needs govern people's preferences for whom they interact with, a total of five studies were conducted: two were exploratory pilot studies, and three were full-scale studies which attempted to replicate and elaborate upon the findings of the initial pilot studies. Each investigation compared the interaction preferences expressed by people having a self-determined motivational orientation (i.e., intrinsic, integrated, or identified regulatory styles) to those having a nonself-determined motivational orientation (i.e., introjected, external, or amotivated regulatory styles) in a particular life domain. Globally, we hypothesized that if Swann's consistency theory holds true, people should prefer to interact with others who will affirm or maintain their current motivational orientation. By contrast, if Deci and Ryan's growth theory holds true, people should prefer to interact with others who will enhance their strivings for greater self-determination.

In the first pilot study, students having self-determined and nonself-determined motivational orientations towards school were probed as to whether they would prefer to interact with professors possessing an autonomy-supportive teaching style or professors possessing a more directive and controlling teaching style. According to Swann's self-

verification theory, students with a nonself-determined motivational orientation towards school should prefer more directive and controlling professors, whereas students with a self-determined motivational orientation should prefer more autonomy-supportive professors. In other words, students should indicate a preference for the teaching style that is likely to maintain their motivational orientation. By contrast, Deci and Ryan's self-determination theory proposes that all students, regardless of their current motivational orientation, should prefer autonomy-supportive teachers over controlling ones, because it is within autonomy-supportive environments that people's strivings for growth and greater self-determination are supported.

In the second pilot study, we examined the degree of similarity between students' motivation for attending university and the motivation of their two favourite university friends. Swann's self-verification theory proposes that students should be inclined to form friendships with other students who share the same motivational orientation as themselves, because interacting with similar students is likely to preserve, rather than to threaten, their sense of self. Deci and Ryan's self-determination theory, on the other hand, proposes that students of both motivational orientations should prefer to affiliate with friends whose motivational orientation is relatively more self-determined, because such friendships are more likely to encourage their strivings for growth and self-determination.

Three full-scale studies followed these initial studies, that were intended to replicate the preliminary findings, to examine their generalizability to other important relationships beyond the university setting (i.e., couple relationships), and to examine some of the consequences that people perceive to be associated with having interaction partners whose styles either match or serve to enhance their motivational orientation. Study 1 replicated the

first pilot study's examination of the preferred teaching styles of self-determined and nonself-determined students, and also examined students' beliefs about the consequences associated with the two types of teaching styles. Study 2 replicated the second pilot study's inquiry into the congruence between students' motivation and the motivation of their two closest university friends. Finally, Study 3 explored the congruence between couples' motivations for entering into relationships with each other, and the impact of this congruence on their level of satisfaction with, and commitment to the relationship.

## PILOT TESTING

### Pilot Study 1

In the first pilot study, 86 francophone undergraduate students (64 women and 22 men, with a mean age of 24) enrolled in second year introductory social psychology courses offered by the University of Ottawa volunteered to complete a questionnaire package which assessed their motivation for attending university and their preference for professors' teaching styles (see Appendix A). Students' motivation for attending university was measured using the Échelle de Motivation en Éducation (EME; Vallerand, Blais, Brière, & Pelletier, 1989), which assesses student motivation on five of the motivational subtypes postulated by Deci and Ryan in their self-determination theory. The subtypes fall along a continuum of self-determination, and from highest to lowest levels, are: Intrinsic motivation, identified regulation, introjected regulation, external regulation, and amotivation. Subjects are asked to rate, along a 7-point Likert scale (1 = does not correspond at all; 7 = corresponds exactly), the degree to which each of the scale's 20 items corresponds to their reasons for attending university. An overall self-determination index was computed for each subject by assigning weights to each subscale's total according to its respective placement on the self-determination continuum. Thus, intrinsic motivation and identified regulation, because they are considered self-determined forms of motivation, were assigned the weights of +2 and +1, respectively. External regulation and introjection, because they are conceptualized as less self-determined forms of motivation, were assigned the weights of -2 and -1, respectively. Scores on the amotivation subscale were not

included in the computation of the index because an even number of subscales is required for the calculation, and because this subscale has typically not been included in previous calculations of the index (Grolnick & Ryan, 1987, 1989; Grolnick, Ryan, & Deci, 1991; Patrick, Skinner, & Connell, 1993; Ryan & Connell, 1989). The weighted scores from each subscale were then summated to produce a final total score. Based on this final score, subjects were grouped as either self-determined or nonself-determined in their motivation according to the theoretical mid-point of the index which was represented by a score of 0.0. Thus, subjects with scores greater than 0.0 were placed in the self-determined group whereas subjects with scores less than 0.0 were placed in the nonself-determined group.

Students' preferences for teaching styles were measured using a scale that was developed specifically for the present study. The scale presents subjects with four situations of student-professor interactions. For each situation, subjects are given two alternative ways that a professor might handle the situation (i.e., in an autonomy-supportive vs. a controlling manner), and are asked to rate the degree to which they feel each is appropriate along a 7-point Likert scale (1 = not at all appropriate; 7 = completely appropriate). A preference score for the two teaching styles was calculated for each subject by summing the ratings given across the four situations.

Two competing hypotheses were derived from Swann's self-verification theory and Deci and Ryan's self-determination theory. According to Swann's theory, students with a nonself-determined motivational orientation towards university should prefer more directive and controlling teachers, whereas students with a self-determined motivational orientation should prefer more autonomy-supportive teachers. In other words, students should indicate a preference for the teaching style that corresponds to their motivational orientation.

Students who are nonself-determined in their motivation rely on external forces and/or pressures from within in order to engage in school-related activities. They do not spontaneously initiate their own behaviors, but rather act when pushed to do so (Deci & Ryan, 1985). Therefore, according to Swann, such students should favour a directive and controlling teaching style because it conforms to their motivational orientation. By contrast, students who are self-determined in their motivation experience a sense of personal choice and freedom in their behaviors. They do not require probing or pushing in order to behave, but rather take responsibility for their behaviors, placing the source of their motivation within themselves (Deci & Ryan, 1985): Consequently, these students should favour a more autonomy-supportive teaching style because, again, it conforms to their motivational orientation.

Deci and Ryan's self-determination theory leads to a different prediction regarding students' preferences for teaching styles. According to their theory, all students, regardless of their current motivational orientation, should prefer autonomy-supportive teachers. This prediction stems from their basic premise that all people are compelled to strive for greater self-determination in everything they do, and that it is autonomy-supportive environments which provide the necessary conditions to nurture this process. Thus, Deci and Ryan propose that, in order to satisfy their need for self-growth, students of all motivational orientations will be attracted to the autonomy-supportive teaching style and will be rejecting of the more controlling teaching style.

Results of a 2 (student motivation: self-determined vs. nonself-determined) x 2 (teaching style: autonomy-supportive vs. controlling; a within-subjects factor) ANOVA on subjects' preference ratings revealed a single main effect for teaching style, indicating that

both self-determined and nonself-determined subjects favored the autonomy-supportive teaching style over the controlling teaching style,  $F(1, 84) = 4.17, p < .05$ . Thus results of the first pilot study were supportive of Deci and Ryan's position that, regardless of a student's motivational orientation, a preference for autonomy-supportive environments should prevail (see Table 1).

### Pilot Study 2

The purpose of the second pilot study was to obtain an actual measure of the motivational orientation held by students' two favorite university friends, and to compare whether their friends' motivation was higher than, lower than, or equal to students' perceptions of their own motivation, and their perceptions of how the general student population is motivated. Sixty-nine of the students who participated in the first pilot study (54 women and 15 men, with a mean age of 24) volunteered to participate in this second pilot study. Subjects were given a questionnaire package consisting of two parts (see Appendix B). The first part was completed by the subjects themselves, and measured their academic motivation using the EME, as well as their perceptions of student motivation in general using an adapted version of the EME. The second part of the questionnaire package required subjects to ask two of their closest university friends to complete the EME and to return it to them in an envelope. Subjects then handed in their completed questionnaire, along with the questionnaires completed by their two friends, to the experimenter.

Once again, two sets of competing hypotheses were derived from the theories of

Table 1

*Preference for autonomy-supportive and controlling teaching styles as a function of students' academic motivation (Pilot Study 1)*

Teaching Style	Student Motivation	
	Self-determined ( $M=1.33$ )	Nonself-determined ( $M=-1.09$ )
Autonomy-Supportive	3.79	3.93
Controlling	3.31	3.50

*Note.* Higher values indicate a greater preference.

Swann and Deci and Ryan. According to Swann's self-verification theory, self-determined students should prefer to affiliate with other students who are also self-determined, whereas nonself-determined students should prefer to affiliate with other students who are nonself-determined. Swann argues that people choose to interact with others who treat them in a manner that is consistent with their sense of self (e.g., Swann, 1983; Swann & Read, 1981b; Swann, Wenzlaff, Krull, & Pelham, 1992). As a result, students should be inclined to strike up friendships with students who share their motivational orientation for university because interacting with similar students is likely to preserve, rather than to threaten, their sense of self.

By contrast, Deci and Ryan's self-determination theory suggests that students of both motivational orientations should prefer to affiliate with friends whose motivational orientation is relatively more self-determined than nonself-determined, because such friendships are more likely to support and encourage their strivings for greater self-determination and growth. That is, when given a choice, people are assumed to gravitate towards others who are relatively more self-determined (Deci & Ryan, 1985).

No predictions were formulated for either theory with regards to the relationship between the motivation of students' friends and their perceptions of the motivation of the general student population since neither theory speaks to this issue. This measure was merely included as an interesting point of comparison: Are students' friends more or less autonomously motivated than the general student body?

Results of a 2 (student motivation: self-determined vs. nonself-determined) x 2 (target person: friends vs. students in general) ANOVA on target persons' motivation for attending university revealed a significant interaction,  $F(1, 67) = 5.63, p < .05$ . Post hoc

analyses indicated that self-determined and nonself-determined subjects did not differ in their perception of students' motivation in general. However, the motivation of subjects' favorite university friends was significantly different, with the friends of self-determined subjects being more self-determined than the friends of nonself-determined subjects. In other words, self-determined subjects preferred to associate with friends who were also self-determined, whereas nonself-determined subjects preferred to associate with friends who were nonself-determined. These results offer support for Swann's self-verification theory which proposes that people seek out others who will confirm their self-conceptions, presumably in order to bolster their perceptions of prediction and control (see Table 2).

Table 2

*Degree of self-determination present in the motivation of subjects' closest university friends and subjects' perceptions of student motivation in general as a function of subjects' academic motivation (Pilot Study 2)*

Target Person	Student Motivation	
	Self-determined ( $M=1.33$ )	Nonsself-determined ( $M=-1.12$ )
Friends	.77 b	-.19 a
Students in General	-.08 a	-.45 a

*Note.* Higher values indicate higher levels of self-determination. Means not sharing the same letter are significant at  $p < .05$ .

## STUDY 1

In Study 1, we sought to replicate and extend the results obtained in the first pilot study. Students were again surveyed about their preferences for the two teaching styles in order to permit a comparison of Swann's self-consistency prediction that nonself-determined students should prefer more controlling teachers while self-determined students should prefer more autonomy-supportive teachers, to Deci and Ryan's self-growth prediction that, regardless of their motivational orientation, all students should prefer autonomy-supportive teachers.

A measure of students' beliefs concerning the consequences associated with the two types of teaching styles was also added to the study. Numerous studies have accumulated over the years demonstrating the benefits of autonomy-supportive teaching styles over controlling teaching styles. These benefits include greater student interest (Ryan, Mims, & Koestner, 1983; Wild, Enzle, & Hawkins, 1992), superior conceptual learning (Benware & Deci, 1984; Grolnick & Ryan, 1987), enhanced creativity (Amabile, 1983; Amabile & Hennessey, 1992; Koestner, Ryan, Bernieri, & Holt, 1984), greater intrinsic motivation (Deci, Nezlek, & Sheinman, 1981; Enzle & Anderson, 1993), a liking for challenge (Boggiano, Pittman, & Ruble, 1982; Harter 1981), higher self-esteem and positive affect (Deci, Nezlek, & Sheinman, 1981; Garbarino, 1975; Ryan, 1982; Ryan & Grolnick, 1986), higher feelings of competence (Deci, Schwartz, Sheinman, & Ryan, 1981; Ryan & Grolnick, 1986), and longer persistence (Pelletier, Brière, Blais, & Vallerand, 1988; Vallerand & Bissonnette, 1992). Yet despite the well-documented benefits associated with an autonomy-supportive teaching style, other research has shown that, paradoxically,

parents and teachers believe that controlling strategies are in fact more effective (Barrett & Boggiano, 1988; Boggiano, Barrett, Weiher, McClelland, & Lusk, 1987; Boggiano & Katz, 1991; Flink, Boggiano, & Barrett, 1990). We were curious to learn about the perceptions that students themselves hold regarding the effectiveness of the two types of teaching styles. To the best of our knowledge, research to date has not yet explored the student perspective on this issue.

In terms of hypotheses, Swann's self-verification theory suggests that students with a nonself-determined motivational orientation towards university should indicate a belief that controlling teachers are more effective, whereas students with a self-determined motivational orientation should indicate a belief that autonomy-supportive teachers are more effective. In other words, students' beliefs about teaching style effectiveness should parallel their motivational orientation. Nonself-determined students must be pressured and pushed to do their schoolwork, therefore, according to Swann, they should perceive controlling teachers as more effective because this teaching style matches their motivational orientation. On the other hand, self-determined students do not require external forces to initiate their behavior, but rather take that responsibility on themselves. As such, they should perceive autonomy-supportive teachers as more effective because, again, this teaching style matches their motivational orientation.

Deci and Ryan's self-determination theory, however, leads to a different prediction. According to their theory, students of both motivational orientations should indicate a belief that autonomy-supportive teachers are more effective. Because all students are seen as striving for greater self-determination, and because autonomy-supportive environments are proposed to be most conducive to such strivings, it follows that both self-determined and

nonsel-determined students should hold the belief that an autonomy-supportive teaching style is most effective.

## Method

### Subjects and Procedure

Two hundred and twelve francophone undergraduate students enrolled in introductory psychology courses at the University of Ottawa took part in the study. Of the sample, 152 were women and 58 were men (2 cases did not report their gender); the age of subjects ranged from 18 to 45 years ( $M=21$ ). The sample consisted predominantly of students enrolled with a full-time status; only 3.3% reported attending university on a part-time basis. Students' areas of concentration spanned across 25 different fields of study, with sociology, political science, criminology, physical education, and administration being the most frequently reported aside from psychology, which was represented by 27% of the sample. The mean academic grade point average of students was 6.65 on a 10-point scale ( $SD=1.48$ ).

With the permission of class professors, students were given a questionnaire package to complete during a 20-minute period of class time. The questionnaire package contained: (a) a cover letter explaining the purpose of the study as well as standard ethical considerations<sup>3</sup>, (b) a measure of students' motivation for attending university, (c) a

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<sup>3</sup> In order to maximally protect subjects' anonymity, an actual consent form was not included in the study. Instead, all necessary ethical information was contained in the cover letter. It was assumed that if students chose to complete the questionnaire package, this could be considered an indication of their consent. This protocol was approved by the University of Ottawa's Research Ethics Board and has been used in several of our recent studies.

measure of their preference for the two teaching styles, (d) a measure of their beliefs about the consequences associated with the teaching styles, and (e) demographic questions pertaining to their age, gender, full-time/part-time student status, and current G.P.A. To safeguard students' confidentiality and anonymity, identifying information such as subjects' name or student number was not solicited (see Appendix C).

### Measures

Academic Motivation. Students' motivation for attending university was measured using the Échelle de Motivation en Éducation (EME; Vallerand, et al., 1989), a temporarily stable scale (average test-retest reliability over 1 month = .75) and internally consistent scale (average Cronbach's alpha = .80), that was developed to assess students' motivation on five of the motivational subtypes postulated by Deci and Ryan in their self-determination theory. The subtypes of motivation fall along a continuum of self-determination and, from highest to lowest levels, are: Intrinsic motivation (e.g., "For the pleasure I feel when completely absorbed by the writings of certain authors")<sup>4</sup>, identified regulation (e.g., "Because I think that a post-secondary education will help me better prepare for the career I have chosen"), introjected regulation (e.g., "To show myself that I am an intelligent person"), external regulation (e.g., "In order to have a better salary later on"), and amotivation (e.g., "Honestly, I don't know; I truly have the impression I'm wasting my time in university"). Subjects are asked to rate the degree to which each of the scale's 20 items corresponds to their reasons for attending university along a 7-point Likert scale

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<sup>4</sup> All examples of items provided for the measures used in Studies 1 and 2 represent English translations from the original French-Canadian version of the items.

(1 = does not correspond at all; 7 = corresponds exactly).

For the purposes of the present study, an overall self-determination index was computed for each subject. The index was used to integrate the information from the subscales under a single score in order to facilitate analysis and interpretation of the data. In line with previous studies using the index, weights were assigned to each subscale's total according to its respective placement on the self-determination continuum (Blais, Sabourin, Boucher, & Vallerand, 1990; Grolnick & Ryan, 1987, 1989; Grolnick, Ryan, & Deci, 1991; Patrick, Skinner, & Connell, 1993; Ryan & Connell, 1989). Intrinsic motivation and identified regulation, because they are considered self-determined forms of motivation, were assigned the weights of +2 and +1, respectively. External regulation and introjection, because they are conceptualized as less self-determined forms of motivation, were assigned the weights of -2 and -1, respectively. Scores on the amotivation subscale were not included in the computation of the index because an even number of subscales is required for the calculation, and because this subscale has typically not been included in previous calculations of the index (Grolnick & Ryan, 1987, 1989; Grolnick, Ryan, & Deci, 1991; Patrick, Skinner, & Connell, 1993; Ryan & Connell, 1989). The weighted scores from each subscale were then summated to produce a final total score.

Research across a variety of domains has yielded extensive support for the construct validity of such a composite index. For example, in the academic domain, a composite index of children's academic motivation has been shown to correlate appropriately with scales of self-rated and other-rated motivation (e.g., Harter, 1981), perceptions of control (Skinner, Chapman, & Baltes, 1988) and competence (Harter, 1982), perceptions of the classroom environment (deCharms, 1976), and children's

behavior and emotions in the classroom (Wellborn & Connell, 1987). In the interpersonal domain, a composite index of children's motivation for prosocial behavior has been shown to be meaningfully correlated with scales assessing children's level of empathy (Bryant, 1982), moral judgment abilities (Rest, 1979), and relatedness (Wellborn & Connell, 1987). Also in the interpersonal domain, a composite index of couples' motivation towards their relationship has been related to measures of couple happiness (Azrin, Naster, & Jones, 1973) and problem-solving behaviors (Spanier, 1976).

**Preferred Teaching Style.** Students' preferences for the two teaching styles were measured using a scale that was developed specifically for the purposes of the first pilot study and the present study. The scale presents subjects with descriptions of hypothetical situations involving student-professor interactions. For each situation, subjects are given two alternative ways that a professor might handle the situation (i.e., in an autonomy-supportive vs. a controlling manner), and are asked to rate the degree to which they feel each alternative is appropriate along a 7-point Likert scale (1 = not at all appropriate; 7 = completely appropriate). For example, an autonomy-supportive alternative provided for one particular situation is: "When I'm not doing very well during a course, the professor encourages me to try to figure out by myself what I'm doing wrong." The controlling alternative for the same situation is: "When I'm not doing very well during a course, the professor points out my mistakes for me." A preference score for each teaching style was calculated for every subject by summing their ratings for the two alternatives across all the situations.

The original version of the scale contained nine hypothetical situations. However during data analysis of Pilot Study 1, the number of hypothetical situations was reduced

down to four in order to eliminate pairs of items which did not demonstrate acceptable levels of internal consistency or construct validity. The internal consistency evidenced by the remaining four situations was quite satisfactory (Cronbach's alpha for autonomy-supportive alternatives = .88; Cronbach's alpha for controlling alternatives = .85) as was their construct validity (all exploratory factor analysis loadings were above .30, with no cross-loadings). For the purpose of further validating the scale, subjects participating in the present study were presented with six of the nine situations. Two additional situations were picked up and modified slightly, in an attempt to improve the quality of the scale.

Beliefs about Teaching Style Consequences. Students' beliefs about the consequences associated with autonomy-supportive and controlling teaching styles were assessed using a series of vignettes developed for the purpose of the present study. Four short vignettes, each describing a different professor with a unique teaching style, were presented to students. One vignette described a highly controlling professor (e.g., believes students need a strict authority figure in the classroom who is not shy to use tough sanctions in ensuring that coursework is properly completed); the second vignette described a moderately controlling professor (e.g., believes students need professors who help to discipline their students by imposing firm deadlines, closely monitoring students' work, and emphasizing the importance of evaluations and grades); the third vignette described a moderately autonomy-supportive professor (e.g., believes students at the university level must begin to take responsibility for their education and thus allows students some latitude in their learning activities); and finally the fourth vignette described a highly autonomy-supportive professor (e.g., believes students should be encouraged to follow their own interests and agendas, and thus provides students with a great deal of freedom to make

choices for themselves and minimizes the use of controls and pressures). Ordering of the vignettes was counterbalanced across subjects.

Each vignette was followed by the same 20 statements. The statements evaluated students' perceptions of the professor with respect to such things as his<sup>5</sup> competency, the degree of productivity and interest he would generate, and the quality of learning he would instill. Six of the 20 items were included as manipulation checks to permit an evaluation of whether the vignettes had produced the intended effects. The items evaluated the extent to which the professor: imposed strict deadlines, supported students' freedom, emphasized good grades, emphasized student evaluation, emphasized student enjoyment of learning, and appeared interested in his teaching and students. Students were asked to indicate the degree to which they endorsed each of the 20 statement using a 7-point Likert ranging from not at all true (1) to completely true (7).

Four graduate students familiar with Deci and Ryan's theory evaluated the vignettes for face validity in terms of the conceptual distinctions they were intended to represent. As well, preliminary tests of the vignettes were conducted on a subsample of 43 students (34 women and 9 men;  $M$  age = 22) to ensure that the vignettes contained roughly equal levels of social desirability, and were successful in distinguishing the professors from one another on the manipulation check items. Results of a within-subjects (highly controlling vs. moderately controlling vs. highly autonomy-supportive vs. moderately autonomy-supportive professor teaching style) analysis of variance (ANOVA) on the six manipulation check items, and subsequent post-hoc analyses using Scheffé's test, indicated that the

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<sup>5</sup> To control for the possible effects that professor gender might have on student perceptions, all vignettes described male professors.

vignettes were indeed producing the desired effects for all but two items (item 1:  $F(3, 114) = 1.93$ , *ns*; item 2:  $F(3, 120) = 3.16$ ,  $p < .05$ ; item 3:  $F(3, 120) = 2.98$ ,  $p < .05$ ; item 4:  $F(3, 117) = 3.31$ ,  $p < .05$ ; item 5:  $F(3, 120) = 7.87$ ,  $p < .001$ ; item 6:  $F(3, 120) = 8.96$ ,  $p < .001$ ). Thus minor modifications were made to the wording of the vignettes in an attempt to strengthen their distinctions. This modified version of the scale was used with all subsequent subjects.

## Results and Discussion

### Preliminary Analyses

Prior to analysis, all variables were screened for accuracy of data entry, missing values, skewness, and kurtosis. All variables were found to be normally distributed and because missing data appeared to be random, such cases were omitted from all remaining analyses through listwise deletion. One case with an extremely low  $z$  score on academic grade point average was found to be a univariate outlier and was therefore deleted from the sample. Eight cases evidenced high  $z$  scores with respect to their age, and a subsequent one-way ANOVA on motivation scores indicated that these subjects had significantly higher self-determination index scores than the remaining sample's average,  $F(1, 196) = 8.86$ ,  $p < .01$ . However, because this finding is in line with the Deci and Ryan's (1985) suggestion that people become increasingly self-determined as they grow older, the cases were retained for analysis. No multivariate outliers were detected using Mahalanobis distance at  $p < .001$ .

To evaluate the scale structure of the Preferred Teaching Style measure, exploratory

factor analyses using maximum likelihood extraction with varimax rotation were conducted. Varimax rotation was chosen as the preferred factor rotation procedure in the present case because factors were postulated to be orthogonal to one another. As expected, a two-factor solution emerged with items representing the autonomy-supportive teaching style loading on the first factor and items representing the controlling teaching style loading on the second factor. One item pair was eliminated from the measure due to poor construct validity (i.e., it evidenced poor factor loadings which cross-loaded on the two factors). The construct validity of the five remaining item pairs was satisfactory (i.e., all factor loadings were above .30 with no cross-loadings) as was the internal consistency of the two factors (Cronbach's alpha for autonomy-supportive alternatives = .78; Cronbach's alpha for controlling alternatives = .75). The solution accounted for 41% of the variance. The items retained in the final solution corresponded to those retained for analysis in pilot study 1, plus one additional item. Table 3 presents a summary of the factor loadings.

Preliminary tests were also conducted on the Beliefs about Teaching Style Consequences measure to ensure that the modified vignettes had effectively differentiated the four teaching styles from one another. Once again within-subjects (highly controlling vs. moderately controlling vs. highly autonomy-supportive vs. moderately autonomy-supportive professor teaching style) ANOVAs were performed on each of the six manipulation check items. All six items produced significant effects (item 1:  $F(3, 492) = 230.71, p < .001$ ; item 2:  $F(3, 498) = 309.21, p < .001$ ; item 3:  $F(3, 492) = 343.57, p < .001$ ; item 4:  $F(3, 486) = 307.99, p < .001$ ; item 5:  $F(3, 489) = 124.44, p < .001$ ; item 6:  $F(3, 495) = 27.99, p < .001$ ), with subsequent post-hoc analyses using Scheffé's test yielding a pattern of results largely supportive of the intended effects. As shown in Table

Table 3

*Varimax-Rotated Factor Loadings for Preferred Teaching Style Measure (Study 1)*

Scale Items	<i>Factor 1</i> Autonomy-Supportive Teaching Style	<i>Factor 2</i> Controlling Teaching Style
Professor asks me to discover my errors by myself	.78	
Professor encourages me to figure out my mistakes	.73	
When ask for help, professor seeks my opinion before giving solution	.62	
Professor provides me with many opportunities to make my own decisions	.55	
Can include my personal input on assignments	.50	
Professor indicates my mistakes for me		.79
Professor points out my errors for me		.65
When ask for help, professor gives solution directly		.58
Professor tells me exactly what to do		.46
Must follow strict guidelines for assignments		.50

4, the highly controlling professor was perceived to be the most strict in terms of course deadlines, followed by the moderately controlling professor, the moderately autonomy-supportive professor, and finally the highly autonomy-supportive professor. This same pattern of results also emerged for the items related to the importance attributed to grades and student evaluation. By contrast, the highly autonomy-supportive professor was seen as providing the greatest amount of personal freedom to students and placing the greatest importance on enjoyment of learning, followed by the moderately autonomy-supportive professor, the moderately controlling professor, and lastly the highly controlling professor. The final manipulation check item was intended to measure the degree of social desirability present in the vignettes. In developing the vignettes, an effort was made to portray the professors as equally interested and devoted to their teaching and students. However, this item also emerged significant, with post hoc analyses indicating that the highly controlling professor was perceived as less interested in his teaching and students than the other professors, while the moderately autonomy-supportive professor was perceived as having the greatest interest. Thus, with the exception of social desirability which evidenced some variability, the vignettes appear to have successfully created the desired effects.

#### Student Motivation and Preferred Teaching Style

Which teaching style did students prefer? Did they prefer the teaching style that was congruent with their motivational orientation, as suggested by Swann's self-verification theory, or did they prefer the autonomy-supportive teaching style, as suggested by Deci and Ryan's self-determination theory? To address this issue, two groups of students were formed on the basis of their self-determination index scores. Students with

**Table 4**  
***Mean Ratings on Manipulation Check Items for Each of the Four Teaching Styles (Study 1)***

Manipulation Check Item	Teaching Style			
	Highly Controlling	Moderately Controlling	Moderately Autonomy-Supportive	Highly Autonomy-Supportive
Imposition of strict deadlines	6.93 <sup>a</sup>	5.19 <sup>b</sup>	4.18 <sup>c</sup>	2.06 <sup>d</sup>
Supporting students' freedom	1.99 <sup>a</sup>	3.98 <sup>b</sup>	5.20 <sup>c</sup>	6.29 <sup>d</sup>
Importance of good grades	6.40 <sup>a</sup>	6.02 <sup>b</sup>	4.65 <sup>c</sup>	2.14 <sup>d</sup>
Importance of student evaluation	6.28 <sup>a</sup>	5.99 <sup>b</sup>	4.60 <sup>c</sup>	2.22 <sup>d</sup>
Importance of student enjoyment in learning	3.38 <sup>a</sup>	5.07 <sup>b</sup>	5.95 <sup>c</sup>	6.24 <sup>d</sup>
Interest in teaching and students	4.83 <sup>a</sup>	5.91 <sup>b</sup>	6.01 <sup>bc</sup>	5.69 <sup>b</sup>

*Note.* Means not sharing the same letter are significantly different at  $p < .05$ .

scores greater than 0.0 were classified as self-determined in their motivation for attending university whereas students with scores less than 0.0 were classified as nonself-determined in their motivation for university. One student obtained the score of 0.0 itself, and because this meant that theoretically she was neither self-determined nor nonself-determined, she was dropped from the analysis. A 2 (student motivation: self-determined vs. nonself-determined)  $\times$  2 (teaching style: autonomy-supportive vs. controlling; a within-subjects factor) ANOVA was then performed on students' preference ratings. In support of Deci and Ryan's self-determination theory, the only significant effect to emerge was a main effect for teaching style, suggesting that all students, regardless of their motivational orientation, favored the autonomy-supportive teaching style over the controlling one,  $F(1, 174) = 11.66$   $p < .01$ . As can be seen in Table 5, both self-determined and nonself-determined students allotted higher preference scores to the autonomy-supportive teaching style than to the controlling teaching style.

To test for possible sex differences, an additional 2 (student motivation: self-determined vs. nonself-determined)  $\times$  2 (gender: male vs. female)  $\times$  2 (teaching style: autonomy-supportive vs. controlling; a within-subjects factor) ANOVA was conducted on students' preference ratings. Results showed that men and women did not differ in their liking scores ( $F(1, 172) = 1.02$  ns), nor in their motivation scores ( $F(1, 172) = 2.39$  ns). As well, the interaction between participants' motivation, gender, and preference scores was not significant ( $F < 1$ )<sup>6</sup>.

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<sup>6</sup> We also tested whether the two motivational groups differed in their academic standings to ensure that intellect did not impact on students' preference ratings. Results of a one-way ANOVA on students' academic grade point average scores revealed that students of both motivational orientations were generally equal in their academic performance,  $F(1, 129) = 3.17$  ns. Thus, students' preference ratings appear to be independent of their academic abilities.

**Table 5**  
*Preference for autonomy-supportive and controlling teaching styles as a function of students' academic motivation (Study 1)*

Teaching Style	Student Motivation	
	Self-determined ( $M=3.99$ )	Nonself-determined ( $M=2.70$ )
Autonomy-Supportive	4.21	3.98
Controlling	3.61	3.75

*Note.* Higher values indicate a greater preference.

Thus, when asked what kind of teacher they would most prefer to interact with, students of both motivational orientations and of both genders expressed a partiality for the autonomy-supportive teaching style.

### Student Motivation and Beliefs about Teaching Style Consequences

Which teaching style did students find most effective? We expected that if Swann's self-verification perspective held true, self-determined students should express a belief that autonomy-supportive teachers are more effective, whereas nonself-determined students should express a belief that controlling teachers are more effective. By contrast, if Deci and Ryan's perspective held true, students of both motivational orientations were expected to express the belief that autonomy-supportive teachers are more effective.

To test these competing hypotheses, the 14 items assessing teaching effectiveness for each vignette were first submitted to a series of exploratory factor analyses using maximum likelihood extraction with oblique rotation. Oblique rotation was chosen over orthogonal rotation since the factor correlation matrix associated with each solution consistently indicated that the factors were moderately correlated. Separate factor analyses were conducted for each of the four vignettes, with the solution most representative of all four situations being retained. Final results suggested that a three-factor solution provided the most parsimonious and conceptually meaningful structure for the scale items. All four vignettes produced three factors with eigenvalues exceeding 1.0, and a scree plot of factor roots revealed a clear break after three factors that accounted for 62% of the variance on average. The first factor was labelled "student enjoyment", and was comprised of 5 items pertaining to student creativity, enjoyment, and amount of learning, and professors' ability

to engage the interest and motivation of students (Cronbach's alpha = .88). The second factor was labelled "student productivity", and consisted of 3 items relating to student productivity and performance, and professor competence (Cronbach's alpha = .81). Finally, the third factor was labelled "student anxiety" and included 2 items referring to students' feelings of anxiety and pressure (Cronbach's alpha = .72). Four items proved psychometrically problematic and were consequently dropped from the scale. Table 6 presents factor loadings for the three-factor solution obtained for the first vignette which are generally representative of the results obtained with the other three.

To determine whether the two motivational groups differed in their perceptions regarding the above three categories of teaching effectiveness, a 2 (student motivation: self-determined vs. nonself-determined) x 4 (teaching style: highly controlling vs. moderately controlling vs. highly autonomy-supportive vs. moderately autonomy-supportive; a within-subjects factor) ANOVA was performed on the enjoyment, productivity, and anxiety subscales. Results revealed a single main effect for teaching style on all three subscales ( $F(3, 429) = 48.81$   $p < .0001$ ;  $F(3, 405) = 11.29$   $p < .0001$ ; and  $F(3, 444) = 119.91$   $p < .0001$ , respectively). This finding suggests that although students did differentiate among the effectiveness of the four teaching styles, their evaluations did not differ according to their motivational orientation. Subsequent post-hoc analyses using Scheffé's test indicated that, in terms of enjoyment, students believed the moderately autonomy-supportive professor would generate the greatest student enjoyment, followed by the highly autonomy-supportive and moderately controlling professors, while the highly controlling professor was judged to generate the least amount of student enjoyment. With respect to productivity, students felt that the moderately autonomy-supportive and moderately

**Table 6**  
*Oblique-Rotated Factor Loadings for First Vignette in Beliefs about Teaching Style  
 Consequences Measure (Study 1)*

Scale Items	<i>Factor 1</i> Enjoyment	<i>Factor 2</i> Productivity	<i>Factor 3</i> Anxiety
Professor's course seems interesting	.95		
Would enjoy being in professor's course	.71		
Would learn many things	.69		
Professor would motivate me	.60		
Would have opportunity to be creative	.57		
Would be very productive		.95	
Would have good grades in professor's course		.70	
Professor seems competent		.51	
Professor would make me anxious			.80
Would feel lots of pressure in professor's course			.65

controlling professors would engender the most student productivity, while the highly controlling and highly autonomy-supportive professors were thought to engender the least productivity. Finally, student anxiety was deemed to be lowest with the highly autonomy-supportive and moderately autonomy-supportive professors, followed by the moderately controlling professor, and to be greatest with the highly controlling professor. Table 7 provides a summary of the results.

Once again we tested for possible sex differences using a 2 (student motivation: self-determined vs. nonself-determined) x 2 (gender: male vs. female) x 4 (teaching style: highly controlling vs. moderately controlling vs. highly autonomy-supportive vs. moderately autonomy-supportive; a within-subjects factor) ANOVA on each of the three teaching effectiveness subscales. Results indicated that subjects' effectiveness ratings did not differ according to gender ( $F(3, 423) = .43$  ns;  $F(3, 399) = .77$  ns;  $F(3, 438) = 1.38$  ns for the enjoyment, productivity, and anxiety subscales respectively), nor according to a gender by motivation interaction ( $F(3, 423) = 2.57$  ns;  $F(3, 399) = 2.52$  ns;  $F(3, 438) = .27$  ns for the enjoyment, productivity, and anxiety subscales respectively).

Overall, the findings lend support to Deci and Ryan's position that students of both motivational orientations should perceive autonomy-supportive professors as more effective than controlling professors. It was the autonomy-supportive professors who were seen as generating the greatest student enjoyment and productivity, and the least student anxiety. Contrary to Swann's position, students did not differentiate teaching effectiveness according to their motivational orientation.

Although the results were generally supportive of Deci and Ryan's position, some surprising findings did emerge. Specifically, counter to the self-determination formulation,

Table 7  
*Mean Ratings of Three Teaching Effectiveness Subscales for Each of the Four Teaching Styles (Study 1)*

Teaching Effectiveness Subscale	Teaching Style			
	Highly Controlling	Moderately Controlling	Moderately Autonomy-Supportive	Highly Autonomy-Supportive
Student Enjoyment	3.69 <sup>a</sup>	4.97 <sup>b</sup>	5.44 <sup>c</sup>	4.99 <sup>b</sup>
Student Productivity	4.95 <sup>a</sup>	5.46 <sup>b</sup>	5.58 <sup>b</sup>	4.83 <sup>a</sup>
Student Anxiety	5.13 <sup>a</sup>	3.41 <sup>b</sup>	2.50 <sup>c</sup>	2.32 <sup>c</sup>

*Note.* Means not sharing the same letter are significantly different at  $p < .05$ .

there was a tendency for students to accord greater teaching effectiveness to the moderately autonomy-supportive professor than to the highly autonomy-supportive professor. This finding suggests that while students appreciate some latitude and freedom in their learning, they are somewhat uncomfortable with a learning environment that is absent of any pressures or controls.

The results also provide an interesting compliment to previous research concerning teachers' and parents' beliefs about teaching effectiveness (e.g., Boggiano, et al., 1987; Boggiano & Katz, 1991). It would appear that, unlike teachers and parents who tend to perceive controlling styles as more effective, students themselves seem to believe that autonomy-supportive styles are more conducive to constructive learning.

## STUDY 2

Study 2 was intended to provide a partial replication of the results obtained in the second pilot study. As in the second pilot study, the present study was concerned with the degree of congruence between the motivational orientation of students and their two closest university friends. That is, do students' closest friends have a motivational orientation that is similar to their own, as Swann would predict, or do they have a motivational orientation that is relatively more self-determined, as Deci and Ryan would predict? Unlike the second pilot study, however, the present study did not address the issue of how students perceive the motivation of students in general.

In pilot study 2, the competing hypotheses of Swann's self-verification theory and Deci and Ryan's self-determination theory were tested using students' and friends' self-reports of their own motivation. In the present study, subjects not only rated their own motivation, but the friends were also asked to rate their perception of the target student's motivation. In other words, friends indicated in what way they perceived the target student to be motivated. A measure of friends' perceptions was added to the present study because Swann's experimental paradigm typically looks at the congruence between a target person's self-views and the views that others hold about that person, in an attempt to find support for his self-consistency formulation (e.g., Swann, Hixon, & De La Ronde, 1992; Swann, Stein-Seroussi, & Giesler, 1992; Swann, Wenzlaff, Krull, Pelham, 1992). Thus, we examined the congruence between students and their friends' motivations in terms of both their actual and perceived degree of similarity.

According to Swann's self-verification theory, both friends' actual motivation and

their perception of the target student's motivation, should be similar to the target student's reported motivation. That is, friends of self-determined students should be relatively self-determined in their motivation towards university, and they should also perceive the target student to be self-determined. The reverse should hold true for the friends of nonself-determined students. This prediction follows from Swann's premise that people selectively choose to affiliate with others who are similar to themselves as a way of preserving their sense of self. Thus, nonself-determined students, for example, should be attracted to other nonself-determined students who perceive them in a manner congruent with their own self-perceptions.

By contrast, Deci and Ryan's self-determination theory suggests that both self-determined and nonself-determined students should select friends who are relatively more self-determined, because such friends are more likely to support their strivings for greater self-determination. That is, there is a greater likelihood that students will become more self-determined in the presence of a friend who is more self-determined than in the presence of a friend who is more nonself-determined. As such, their theory suggests that both self-determined and nonself-determined students should have friends who are relatively self-determined. Friends of self-determined students, however, should perceive these students as relatively more self-determined than the friends of nonself-determined students.

## Method

### Subjects and Procedure

Seventy-five of the students who participated in Study 1 volunteered to participate

in the present study. The sample consisted of 59 women and 16 men whose ages ranged from 18 to 36 years ( $M=21$ ). Of the sample, 95% were enrolled as full-time students while only 5% were attending university on a part-time basis. Students' areas of concentration varied across 17 different fields of study, including political science, mathematics, administration, theatre arts, and exercise science. The field of psychology was represented by 25% of the sample. Students reported a mean academic grade point average of 6.94 on a 10-point scale ( $SD=1.27$ ).

Subjects were given a questionnaire package consisting of two parts. The first part of the questionnaire package was completed by the students themselves during the same 20-minute classroom testing period as in Study 1, and measured their academic motivation using the EME. The second part of the questionnaire package required students to ask two of their closest university friends to complete the EME as well as an adapted version of the EME designed to assess friends' perceptions about the target student's academic motivation. Also included in the questionnaire package was a cover letter explaining the purpose of the study, the protocol of the study, and standard ethical considerations (see Appendix D). In order to permit a pairing of the two questionnaire parts, students were asked to indicate the last four digits of their home telephone number and their date of birth on the first page of both questionnaire parts, before giving the second part to their friends. Students then asked their two closest university friends to complete their part of the questionnaire package at home in a quiet place. On average, completing the questionnaire required no more than 10 minutes. Once completed, the friends returned their questionnaires to the target student in sealed envelopes in order to protect the confidentiality of their responses. Students then returned their completed questionnaire, along with the

questionnaires completed by their friends, to the experimenter.

### Measures

Academic Motivation. Students' motivation for attending university, as well as their two friends' motivation for attending university, was assessed using the EME. As in Study 1, an overall self-determination index was computed for each student and their two friends. This index provided an overall motivation score for each subject.

Perception of Target Student's Motivation. To assess friends' perceptions of the target subject's motivation for attending university, an adapted version of the EME was used. This adapted scale was identical to the original scale, except for the instructions guiding their responses to the items. Rather than asking subjects to rate their own reasons for attending university, this modified version of the scale asked subjects to rate the extent to which they felt each item corresponded to the target student's reasons for attending university. A self-determination index score representing the friends' perceptions of the target student's motivation was calculated in the same way as with the original scale.

## Results and Discussion

### Preliminary Analyses

Once again, prior to analysis, all variables were screened for accuracy of data entry, missing values, skewness, and kurtosis. All variables evidenced adequate normality in their distributions, and missing values appeared to be random. Nonetheless, missing values proved to be problematic for data analysis in the present case because of the use of

compound variables (i.e., calculated by summing a series of variables together in a layered fashion) which resulted in considerable data loss. Therefore, according to standard practice (e.g., Tabachnick & Fidell, 1989), missing values were replaced by group means. Two cases evidenced high  $z$  scores with respect to their age, however as with before, these cases were retained for analysis because of their theoretical compatibility with the issues in question. No multivariate outliers emerged using Mahalanobis distance at  $p < .001$ .

#### Relation between Target Students' Motivation, Friends' Motivation, and Friends' Perceptions of Target Students' Motivation

What was the relation between students' motivation and the motivation of their two closest university friends? Did students and their friends share a similar motivational orientation as suggested by Swann's self-verification theory, or did students have friends who were relatively self-determined, as suggested by Deci and Ryan's self-determination theory? Furthermore, how were students perceived by their friends? Were they in fact perceived in a manner congruent to their actual motivation, as suggested by the two theoretical perspectives?

To explore these questions, correlations were first computed between students' and friends' actual motivation towards university, as well as between their actual and perceived motivations. Results indicated that although students and friends were relatively similar in their actual motivation for university,  $r(75) = .33$ ,  $p < .01$ , the degree of similarity increased when considering the relation between their actual and perceived motivations. Specifically, the correlation between friends' actual motivation and their perception of the target student's motivation was  $r(75) = .52$ ,  $p < .01$ , and the correlation between students' actual

motivation and their friends' perceptions of that motivation was  $r(75) = .44, p < .01$ .

We further explored the similarity between students' and friends' motivation using analysis of variance. Students were grouped as either self-determined or nonself-determined in their motivation for attending university according to their self-determination index scores. As in study 1, students with scores greater than 0.0 were classified as self-determined, while students with scores less than 0.0 were classified as nonself-determined. A 2 (student motivation: self-determined vs. nonself-determined) x 2 (friends' motivational ratings: actual vs. perceived; a within-subject factor) ANOVA was then conducted on the friends' motivational ratings. Results were generally supportive of Swann's self-verification formulation. Specifically, a single main effect for student motivation emerged significant,  $F(1, 73) = 7.49, p < .01$ , signifying that self-determined students had friends who were significantly more self-determined than the friends of nonself-determined students. In other words, students chose to affiliate most closely with other students who shared their general motivation towards university. This finding is consistent with that obtained in the second pilot study, and thus gives additional support for Swann's position.

Interestingly, as reflected by the means in Table 8, both sets of friends had mean motivation scores above the 0.0 cut-off point placing them both within the self-determined category. Thus, despite being significantly different from one another, both groups of friends were nonetheless relatively self-determined. Given that the friends of nonself-determined students had higher motivation scores than themselves ( $M = 1.02$  and  $M = -3.09$ , respectively), and given that the friends of self-determined students had lower motivation scores than themselves ( $M = 2.26$  and  $M = 4.38$ , respectively), this may indicate a regression towards the mean. Consequently, the fact that both sets of friends had motivation scores

Table 8

*Degree of self-determination present in the motivation of subjects' closest university friends and friends' perceptions of target student's motivation as a function of subjects' academic motivation (Study 2)*

	Student Motivation.	
	Self-determined ( $M=4.38$ )	Nonself-determined ( $M=3.09$ )
Friends' Actual Motivation	2.26	1.02
Friends' Perceptions of Target Student's Motivation	3.06	.86

*Note.* Higher values indicate higher levels of self-determination.

within the self-determined range cannot be taken as support for Deci and Ryan's position that all students, regardless of their motivational orientation, should tend to affiliate with relatively self-determined friends.

In terms of the perceptions that friends held about the target students' motivation, the results also revealed that, as predicted by both theories, friends did indeed view students in a manner that was congruent with students' actual motivation. That is, nonself-determined students were viewed as having significantly lower motivation for attending university than self-determined students ( $M=.86$  and  $M=3.06$ , respectively).

To determine whether any sex differences were present in the above findings, an additional 2 (student motivation: self-determined vs. nonself-determined) x 2 (gender: male vs. female) x 2 (friends' motivational ratings: actual vs. perceived; a within-subject factor) ANOVA was conducted on the friends' motivational ratings. Results revealed that target students' gender had no effect on their friends' ratings,  $F < 1$ , nor on their motivation scores  $F < 1$ . As well, the interaction between subjects' motivation, gender, and friends' ratings was not significant  $F(1, 71) = 3.70$  ns.<sup>7</sup>

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<sup>7</sup> As in Study 1, we also tested whether the two motivational groups differed in their academic performance. Results of a one-way ANOVA on students' academic grade point average scores revealed that students of both motivational orientations were once again approximately equal in their aptitude,  $F < 1$ .

## STUDY 3

In Study 3, we attempted to replicate and extend the findings from the second pilot study in another life context, namely that of couple relationships. Although the choice of university friends is an important reflection of the kinds of social contexts that people desire, perhaps a more revealing indication of people's desires comes from their choice of intimate relationship partners. To examine whether self-consistency versus self-growth needs govern people's choices of intimate partners, couples were invited to complete a questionnaire package containing measures of their personal motivations for being in the relationship, their perception of their partner's motivations for being in the relationship, their views about the interpersonal style of their partner, their opinions about the adaptiveness of their couple behaviors, and their level of commitment and happiness toward the relationship. These measures were intended to test the following competing hypotheses derived from the theories of Swann and Deci and Ryan.

According to Swann's self-verification theory, people's underlying need to view the world as a predictable and controllable place causes them to gravitate toward relationship partners who treat them in a manner that is consistent with their sense of self (e.g., Swann, 1983; Swann & Read, 1981b; Swann, Wenzlaff, Krull, & Pelham, 1992). This consistency between how people view themselves and how others treat them, Swann argues, provides a sense of existential security, a feeling of knowing who one is. A secure or stable self-concept, in turn, fosters people's feelings of control by allowing them to predict how others are likely to perceive and respond to them in the future. The corollary of this, then, is that interactions with others who treat people contrary to their self-views

leaves people's sense of self threatened and are thus avoided.

Extending these ideas to couple relationships, Swann's theory suggests that people should be inclined to enter into intimate relationships with others who share the same reasons for seeking intimate relationships. In other words, couples whose motivations for intimate relationships are matched should experience greater happiness, feel more committed to one another, and view the couple's problem-solving behaviors as more effective than couples whose motivations are mismatched, given that similar partners are more likely to reinforce one another's sense of self rather than to threaten it. For instance, a woman who is motivated towards her couple relationship for the financial security and material luxuries it offers her is likely to experience greater happiness and commitment with a partner who is also motivated by material concerns, because presumably such a person will not incite her to have questions or misgivings about her self-concept of materialism. Indeed, a study conducted by Swann and his colleagues (Swann, Hixon, & De La Ronde, 1992) found that marital commitment was higher among couples where there was a match between a spouse's self-concept and his/her partner's view of the self-concept than among couples where there was a mismatch.

A different set of predictions, however, are suggested by Deci and Ryan's self-determination theory. In contrast to Swann's self-consistency position that people seek out relationships which provide information consistent with their self-concepts, Deci and Ryan's self-growth orientation suggests that people actually seek out relationships that provide inconsistent as well consistent information about their self-concepts (provided that such information is presented in a context of autonomy support) because inconsistencies are seen as opportunities for self-growth. According to Deci and Ryan's theory, the

important determining factor in people's choices of intimate relationship partners and their ensuing couple happiness is not the degree of consistency present, but rather the degree of autonomy support present. That is to say, people having intimate relationship partners who provide them with an autonomy-supportive environment to grow, to mature, and to expand themselves, are more likely to feel positively about the relationship than people involved with relationship partners who do not provide autonomy support for their growth strivings.

The implications of this proposition, then, are that people's level of couple happiness, commitment, and adjustment should be more dependent on the degree of autonomy-support provided by their partner than on the degree of consistency present in the two partners' motivational orientations. Nonetheless, Deci and Ryan's theory does suggest that people should experience enhanced relationship quality when paired with a partner whose motivational orientation is relatively more self-determined than nonself-determined, because such relationship partners are more likely to provide support, and even a role model, for people's strivings towards greater self-determination and growth. The assumption here is that people having a more self-determined motivation toward their relationship should be better able to foster their partner's strivings for greater self-determination than people having a less self-determined motivation.

Although these ideas have not been directly tested, a study by Blais et al. (1990) does offer some indirect support. These researchers postulated a motivational model of couple happiness whereby partners' motivational orientation for their relationship was predicted to influence their perceptions of the adaptiveness of their couple problem-solving behaviors, which in turn was predicted to impact on their personal satisfaction and happiness with the relationship. More specifically, they hypothesized that the more self-

determined the motivation toward the relationship, the greater the perceptions of couple adaptive behaviors, and consequently the higher the level of couple happiness. Results of path analyses provided strong support for their model. Our study expands on their findings by considering the effect that the congruence or match between partners' motivational orientation has on couple relationship quality, whereas the study by Blais et al. considered each couple members' motivational orientation separately when examining the impact of couple motivation on relationship quality.

Both of the above sets of predictions were made concerning the congruence between partners' actual motivations. However, as with Study 2, we also included a measure of the perceptions that each partner holds regarding the others' motivation, in order to provide a more complete replication of Swann's paradigm. Thus, we examined the quality of couple relationships in terms of the congruence between each partner's actual motivations as well as in terms of the congruence between a partner's actual motivation and his or her spouse's perception of that motivation.

## Method

### Subjects

One hundred and ninety-two anglophone subjects (96 couples) involved in heterosexual couple relationships volunteered to participate in the study. Subjects were randomly selected from the Ottawa region, and were invited to take part in the study by an initial telephone call to their home. During the telephone call, the researcher described the purpose of the study and explained that participation involved completing a questionnaire

package that would be delivered to and picked up from their home. To be eligible for the study, couples were required to be in an ongoing relationship for a minimum of one year and to be cohabiting for a minimum of one year. One couple who completed the questionnaire package did not meet this criteria and was therefore dropped from our sample, leaving a total of 95 couples. The mean ages of men and women were 42.5 and 40, respectively. Subjects were either legally married couples (86%) or common-law couples (14%) that had been living together for 1 to 51 years ( $M=15$  years). The number of children per couple (whether from previous relationships or with their current partner) ranged from 0 to 5, with an average of 1.65. Most subjects had not had previous marriages (85.5%). Of those who had, 12.4% had been previously married once and 2.7% had been previously married twice. Subjects were predominantly Caucasian (93.6%) with either a highschool (35.1%) or college (40.5%) level of education whose annual income as a couple averaged \$45,000 to \$60,000.

### Procedure

Persons living in the Ottawa region were randomly selected for participation in the study using the following recruitment strategy. First, we examined a map of the Ottawa region and identified various streets that would be the focus of our recruitment effort. Next, we obtained a list of telephone numbers for people living on those streets using "Vernon Directories", a publication much like a telephone directory which lists telephone numbers according to street names as opposed to surnames. Persons living on those streets were then contacted by telephone and informed that a study was being conducted on the topic of couple relationships by a doctoral student in the School of Psychology at the

University of Ottawa. The study was described as an investigation of the factors that promote couple adjustment and satisfaction. It was explained that participation in the study involved each partner completing an identical questionnaire package that would be delivered to their home and picked up one week later. The questions contained in the questionnaire were described as pertaining to people's reasons for being in couple relationships, the perceptions that people have about their partner's reasons for being in the couple relationship, the degree of agreement or disagreement that couples experience in various aspects of their couple life, the level of satisfaction that people feel towards their couple relationship, people's thoughts about how their partner interacts with them, and general demographic information. It was further explained that participation was entirely voluntary and that answers would be kept anonymous and confidential.

Couples were asked to complete their questionnaires individually and to not discuss their answers until after the questionnaires had been returned. To guard the confidentiality of each partner's responses, separate envelopes were provided into which their completed questionnaires could be placed and sealed. To permit a pairing of the each partner's questionnaire, couples were asked to indicate the last 5 digits of their telephone number on the front page of their questionnaire. A detailed cover letter summarizing these instructions was included in the questionnaire package. (see Appendix E for sample of questionnaire).

### Measures

Couple Motivation. Couples' motivation to be involved in an intimate relationship with one another was measured using the Couple Motivation scale (Blais et al., 1990), a scale that was developed to assess the six subtypes of motivation postulated by Deci and

Ryan's self-determination theory within the context of couple relationships. The subtypes, from highest to lowest levels of self-determination are: Intrinsic motivation (e.g., "Because I love the many fun and crazy times that I share with my partner"), integrated regulation (e.g., "Because with my partner, I feel free to commit myself to future projects that I hold dearly"), identified regulation (e.g., "Because I value the way our life as a couple gives me the opportunity to participate in new activities"), introjected regulation (e.g., "Because my relationship is a commitment that I have to hold"), external regulation (e.g., "Because people who are important to me [e.g., children, family, friends] are proud of our relationship and I wouldn't want to disappoint them"), and amotivation (e.g., "I don't really know; I feel helpless to the fact that sooner or later we are going to separate"). When responding to the questionnaire, individuals are required to rate the extent to which each item corresponds to one of the reasons why they are presently involved in a relationship with their partner. Responses are rated on a Likert scale ranging from not at all (1) to exactly (7). The scale has demonstrated satisfactory levels of internal consistency (average Cronbach's alpha = .73), however its temporal stability has not yet been established.

Once again, in order to facilitate analysis and interpretation of the data, an overall self-determination index was computed for each subject, as described for the Academic Motivation Scale (EME). To be consistent with our previous calculations of this index, only four of the six subscales included in the Couple Motivation measure were used in the computation of the index. The subscales related to integrated regulation and amotivation were not included. The self-determination index provided an overall motivation score for each subject.

Perception of Partner's Motivation. Subjects' perceptions of their partners'

motivation to be involved in the couple relationship was assessed using an adapted version of the Couple Motivation Scale. This adapted scale was identical in all respects to the original scale, except for the instructions guiding subjects' responses to the items. In this modified version of the scale, subjects were asked to rate the extent to which they feel each item corresponds to their partners' reasons for being involved in the relationship. A self-determination index reflecting subjects' perceptions about their partners' motivation was calculated in the same manner as with the original scale.

Perception of Partner's Interpersonal Style. Subjects' perceptions about their partners' interpersonal style within the couple relationship was assessed using a scale that was developed specifically for the purposes of the present study. The scale was adapted from the first section of the Dyadic Adjustment Scale (items 1-15), and measures the extent to which subjects perceive their partners to be controlling and autonomy-supportive in various aspects of their couple life. Subjects are presented with the following three questions: "To what extent does your partner pressure you to think or do what he/she wants with respect to...?" (controlling style), "To what extent does your partner say positive things about you with respect to...?" (autonomy-supportive style), and "To what extent does your partner give you the freedom to make personal decisions with respect to...?" (autonomy-supportive style). Each question was followed by the same set of nine items that identified various aspects of couple life (e.g., family finances, household tasks, making major decisions). For each item, subjects were asked to circle the number that best represents their response to the corresponding question using a 7-point Likert scale ranging from 1 (not at all) to 7 (very, very, much). An overall interpersonal style score was calculated by summing subjects' responses to the controlling style question, multiplying

this score by -1, and adding it to the sum of subjects' responses to the two autonomy-supportive style questions. Higher interpersonal style scores indicated greater perceived autonomy-support.

Perceptions about Adaptiveness of Couple's Behaviors. To assess subjects' perceptions about the adaptiveness of their couple behaviors, we used three of the four subscales comprising the Dyadic Adjustment Scale (DAS; Spanier, 1976). The first subscale, dyadic consensus, evaluates the perception of agreement within the couple on different aspects of the relationship (e.g., "amount of time spent together" and "making major decisions"). The second subscale, dyadic cohesion, evaluates how often subjects, for example, "laugh together," "work together on a project," and "have a stimulating exchange of ideas." The third subscale, affectional expression, asks subjects to indicate the extent to which both members agree on items such as "demonstration of affection." The fourth subscale of the DAS, the satisfaction subscale, was not used in the present study in order to make a clear distinction between our assessment of couples' perceptions of their adaptive behaviors and couples' ratings of their happiness. A single score representing the total of all items from the three subscales was used in data analyses. The internal consistency demonstrated by this three-subscale version of the scale is very good (Cronbach's alpha = .84).

Commitment and Happiness Toward Couple Relationship. Subjects' level of commitment toward their couple relationship was assessed by the commitment scale used by Swann and his colleagues (1992) in their study of self-verification and marital commitment. The scale contains seven items which target subjects' intentions (e.g., plans to remain in the relationship), feelings (e.g., relationship satisfaction), and actions (e.g.,

amount of time spent talking together) regarding their couple relationship. Subjects are asked to rate the extent to which they agree with each of the items along a 7-point Likert scale ranging from not at all (1) to very, very, much. Responses to the items were summated to generate a total commitment score. The internal consistency of these items appears solid (Cronbach's alpha = .88).

Subjects' level of happiness toward their couple relationship was assessed using the Marital Happiness Scale (Azrin, Naster, & Jones, 1973). Subjects are asked to rate, on a scale from 1 (completely unhappy) to 10 (completely happy), their level of couple happiness in nine different aspects of intimate couple relationships (e.g., sex, communication), as well as to rate their global happiness with the relationship. The scale has evidenced a good level of internal consistency (Cronbach's alpha = .87).

## Results and Discussion

### Preliminary Analyses

Before data analysis, all variables were assessed for accuracy of data entry, missing values, skewness, and kurtosis. Instances of missing data were minimal, and because they appeared to be random, such cases were eliminated from subsequent analyses through listwise deletion. All variables demonstrated acceptable levels of skewness and kurtosis (i.e., values were less than 2.00) suggesting their distributions were normal. Two male subjects with high *z* scores on the variable of race were identified as univariate outliers (both Middle Eastern). Subsequent one-way ANOVAs on the various dependent variables indicated that these men had significantly lower scores on the affectional expression

subscale of the DAS than the rest of the men in the sample,  $F(1, 76) = 7.55, p < .05$ . Their overall score on the three DAS subscales combined, however, was not significantly different ( $F < 1$ ) and they were therefore retained in the sample. Five women were also identified as univariate outliers due to their race (3 Oriental, 2 Asian). Results of one-way ANOVAs on each of the dependent variables indicated that these women perceived their partners to be significantly more self-determined than other women in the sample,  $F(1, 76) = 4.29, p < .05$ . Because this did not present any conceptual problem for the questions of interest, they too were retained in the sample. Two men were found to be univariate outliers in terms of their level of education: both had Ph.D.s. Subsequent one-way ANOVAs on the dependent variables did not indicate any significant differences between these men and the rest of the sample ( $F_s < 1$ ) and consequently they were maintained in the sample. Finally, four women emerged as univariate outliers because they had had two previous marriages. One-way ANOVAs conducted on the dependent variables revealed that these women had significantly higher scores on the affectional expression subscale of the DAS than other women in the sample,  $F(1, 79) = 4.68, p < .05$ . However, their overall scores on the DAS subscales combined were not significantly different from the rest of the sample ( $F < 1$ ) and thus they were retained. No multivariate outliers were found using Mahalanobis distance at  $p < .001$ .

### Couple Motivation

Correlations were computed to determine the degree of similarity between men's and women' actual motivation towards their couple relationship, as well as the degree of perceived similarity in their motivation. Results indicated that couples were quite similar in

their actual motivation  $r(85) = .52$ ,  $p < .01$ . This finding exactly replicates the degree of similarity found in the study by Blais and his colleagues (1990). In terms of the relation between subjects' actual motivation and their perception of their partner's motivation, the correlations were much higher  $r(87) = .88$  for men and  $r(88) = .87$  for women,  $p_s < .01$ , indicating that subjects judged their partners to be motivated in a way very similar to themselves. Considering the value of their actual similarity, however, it can be seen that this perception was markedly inflated. Finally, with regards to the degree of accuracy between subjects' perceptions of their partner's motivation and that partner's actual motivation, the correlations were  $r(88) = .47$  for men and  $r(83) = .52$  for women,  $p_s < .01$ , suggesting that subjects were reasonably good at evaluating their partner's motivation.

#### Couple Motivation and Relationship Quality

To evaluate the relation between subjects' couple motivation and their ratings of relationship quality, a series of correlations were calculated between the six different types of motivation (i.e., intrinsic motivation, integrated regulation, identified regulation, introjected regulation, external regulation, and amotivation) and the three measures of relationship quality (i.e., dyadic adjustment, commitment, and couple happiness). In support of Deci and Ryan's self-determination theory, the pattern of correlations (see Table 9) revealed that all three indices of relationship quality were positively correlated with the self-determined types of motivation (i.e., intrinsic motivation, integrated regulation, and identified regulation) and negatively correlated with the nonself-determined types of motivation (i.e., introjected regulation, external regulation, and amotivation). Furthermore, consistent with Deci and Ryan's notion of a self-determination continuum, the correlations

Table 9

*Correlations Between Couple Motivation Questionnaire Subscales and Three Measures of Relationship Quality (Study 3)*

Motivation Subscale	Measure of Relationship Quality		
	Dyadic Adjustment	Commitment	Happiness
Intrinsic Motivation	.53**	.62**	.47**
Integrated Regulation	.39**	.44**	.33**
Identified Regulation	.34**	.39**	.29**
Introjected Regulation	-.18*	-.13	-.16*
External Regulation	-.32**	-.36**	-.24**
Amotivation	-.55**	-.71**	-.50**

*Note.* \*  $p < .05$  \*\* $p < .01$

yielded a clean simplex pattern for each of the three relationship quality indices. That is, the more self-determined the type of motivation, the higher the positive coefficient, and the less self-determined the type of motivation the higher the negative coefficient. Finally, correlations between partners' ratings for each of the three relationship quality indices indicated that the score of one partner was related to the score of the partner ( $r(78) = .57$  for dyadic adjustment,  $r(95) = .40$  for commitment, and  $r(95) = .49$  for couple happiness).

#### Relationship Quality as a Function of the Congruence between Partners's Couple Motivation

We expected that if Swann's self-consistency theory held true, subjects would indicate the greatest amount of dyadic adjustment, commitment, and couple happiness, when in a relationship with someone motivated towards the relationship in a manner similar to themselves. By contrast, we anticipated that if Deci and Ryan's self-determination theory held true, any subject (whether self-determined or nonself-determined) in a relationship with a self-determined partner would exhibit the highest ratings on the relationship quality indices, whereas any subject with a nonself-determined partner would exhibit the lowest ratings.

To test these competing hypotheses, separate multiple regressions were conducted on each of the three indices of relationship quality. We chose multiple regression analyses over analyses of variance due to the fact that the motivation of our sample was largely self-determined: only 12.2% of the sample yielded self-determination index scores falling below the zero-point grouping value used in the four preceding studies. Given this unequal distribution of motivation scores, it was not possible to categorize subjects into nonself-

determined and self-determined groups, and thus analyses were conducted retaining motivation as a continuous variable. This approach had the added advantage of being consistent with the previous research of Swann (Swann, De La Ronde, Hixon, 1994; Swann, Hixon, & De La Ronde, 1992) and Blais (Blais et al., 1990) who both presented their findings on couple relationships based on multiple regression analyses.

Dyadic Adjustment. Results of a simultaneous multiple regression, with men's motivation, women's motivation, and their interaction as predictors and dyadic adjustment as the criterion, revealed a significant interaction  $F(3, 65) = 5.71, p < .05$ . To explore the nature of this interaction, three groups of men were formed according to the guidelines proposed by Cohen and Cohen (1983) for probing significant interactions. The groups represented men who were highly self-determined in their couple motivation, moderately self-determined, and relatively low in their self-determination. Results of the post hoc probing revealed a tendency for (a) self-determined men to experience greater dyadic adjustment to the extent that their partner was also self-determined in her motivation towards the relationship,  $F(3, 65) = 21.72, p < .001$ ; (b) moderately self-determined men to experience greater dyadic adjustment to the extent that their partner was self-determined in her motivation towards the relationship,  $F(3, 65) = 18.92, p < .001$ ; and (c) nonself-determined men to experience marginally improved dyadic adjustment to the extent that their partner was self-determined in her motivation towards the relationship,  $F(3, 65) = 3.76, p = .06$  (see Figure 1). Thus, men of all three motivational groups experienced greater dyadic adjustment when paired with relatively self-determined partners as opposed to relatively nonself-determined partners. This effect, however, was strongest for men in the highly self-determined group, followed by the moderate and low groups, respectively.

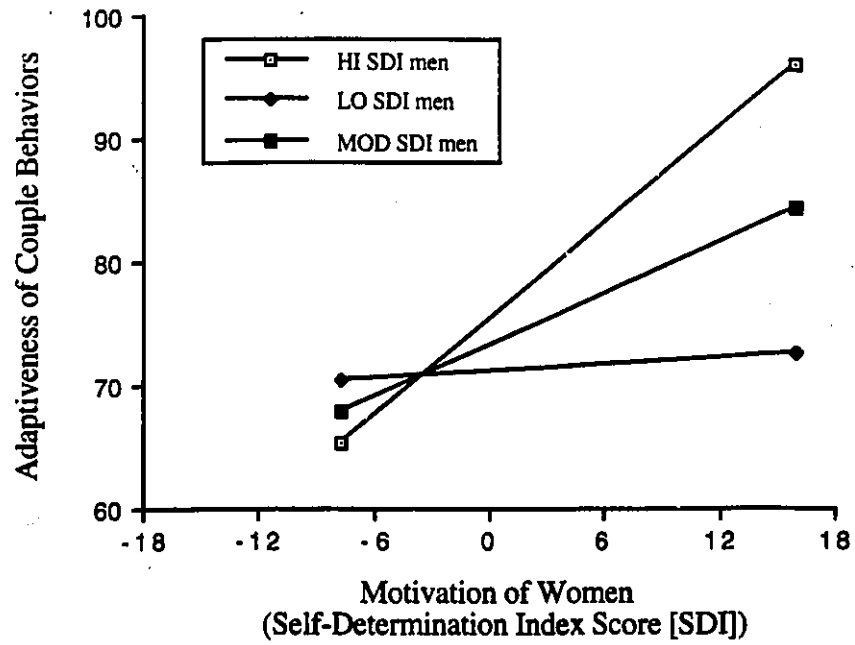


Figure 1. Dyadic adjustment as a function of men's and women's couple motivation.

It was this difference in the degree of improved dyadic adjustment experienced that accounted for the observed interaction effect.

The results are supportive of Deci and Ryan's self-growth perspective which suggests that greater couple adjustment should occur when people are paired with a partner whose motivational orientation is relatively self-determined, presumably because such partners are better able to foster their strivings for greater self-determination. These findings are consistent with the couple motivation study conducted by Blais and his colleagues (1990) which also found levels of dyadic adjustment to be influenced by partners' motivation, such that both men and women reported greater adaptiveness in their couple behaviors when more self-determined than nonself-determined in their couple motivation ( $r(63)=.48$  for men, and  $r(63)=.53$  for women). Contrary to the findings of Swann's previous research (Swann, De La Ronde, Hixon, 1994; Swann, Hixon, & De La Ronde, 1992), support for his congruency hypothesis -- whereby partners sharing a similar motivational orientation towards their relationship should experience greater couple adjustment -- did not emerge.

Commitment Towards the Relationship. A second simultaneous multiple regression using the same predictors as above and commitment as the criterion, revealed a significant effect for women's motivation only,  $F(3, 81) = 43.69, p < .001$  (see Figure 2). Thus, regardless of their partner's motivation, women's commitment towards their relationships increased as the degree of self-determination present in their motivation increased. The degree of commitment expressed by men, on the other hand, was not related to their motivation. This suggests that, for men, level of commitment towards couple relationships is not influenced by their motivation. For women, however,

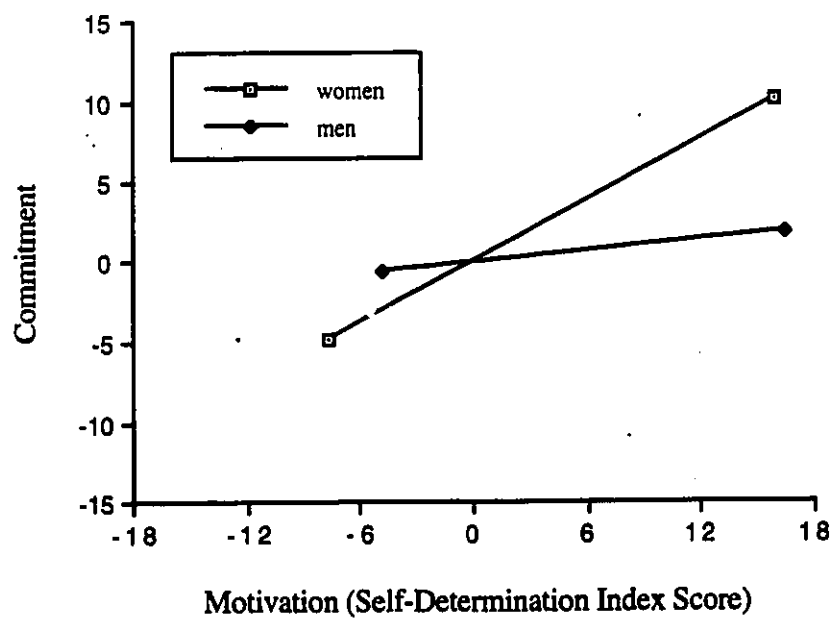


Figure 2. Commitment to relationship as a function of men's and women's couple motivation.

relationship commitment is strengthened to the degree that their reasons for being in a relationship are freely determined by feelings they value and fully endorse as their own, as opposed to internalized pressures or even external pressures which have locked them into the relationship. It would appear, then, that consistency concerns do not have a bearing on couples' level of commitment towards their relationships. Self-determination issues, by contrast, do appear to carry some influence, albeit seemingly in the case of women only.

Couple Happiness. A final simultaneous multiple regression was conducted replacing the criterion with couple happiness. As shown by the regression lines plotted in Figure 3, both men's and women's relationship motivation influenced the degree of happiness reported by couples ( $F(3, 81) = 7.08, p < .02$  for men;  $F(3, 81) = 5.66, p < .05$  for women). Specifically, for both men and women, greater self-determination was associated with greater couple happiness, a finding supportive of Deci and Ryan's position. Once again, the interaction effect predicted by Swann's consistency perspective did not emerge, suggesting that it is the degree of self-determination present in partners' motivation and not the degree of similarity, that contributes to couple happiness.

The observation that self-determined subjects experienced greater couple happiness is not in complete agreement with the findings obtained in the couple motivation study by Blais et al. (1990). In their multiple regression analyses, neither men's nor women's motivations were found to be significantly linked to couple happiness. However, given that their analyses were intended to test a model of couple happiness in which couple motivation was predicted to determine perceived adaptiveness of couples' behaviors, which in turn was predicted to determine couple happiness, they also included scores on the dyadic adjustment measure in their regression analyses. Furthermore, in line with path

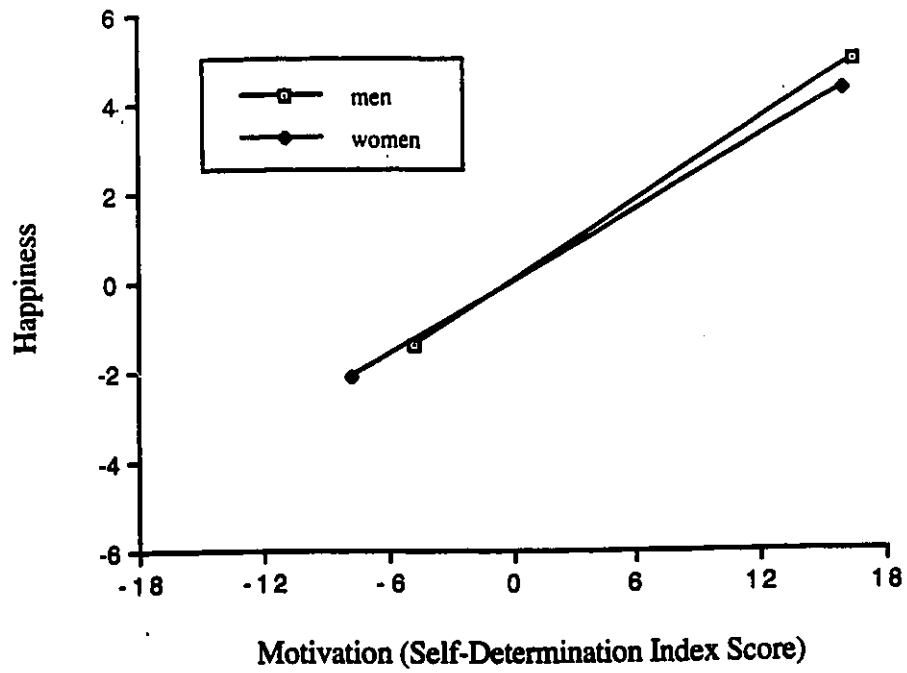


Figure 3. Couple happiness as a function of men's and women's couple motivation.

analysis model testing, variables were entered in the regression analysis in a hierarchical fashion, whereby couple happiness was the final variable to be entered. Consequently, couple happiness did not contribute significantly to the regression equation once dyadic adjustment had been entered. Thus it becomes impossible to discern whether a direct link between couple motivation and couple happiness was indeed present.

To summarize, all three indices of relationship quality yielded results in a direction generally supportive of Deci and Ryan's self-growth perspective. In terms of dyadic adjustment, higher ratings emerged to the extent that men were involved with relatively self-determined partners, suggesting that couples' behaviors are most adaptive when at least one partner has a self-determined motivational orientation. In terms of relationship commitment and happiness, ratings were independent of how subjects' partners were motivated, but instead were related to the degree of self-determination present in their personal motivation towards the relationship. Higher ratings were associated with greater levels of self-determination. The finding that subjects' ratings of dyadic adjustment were dependent on their partners' motivation, but not their ratings of relationship commitment or happiness, may be due to the fact that an evaluation of a couple's problem-solving abilities requires consideration of the other partner whereas an evaluation of one's relationship commitment or happiness remains largely at a personal level.

#### Relationship Quality as a Function of the Congruence between Partners' Actual Motivation and Spousal Perceptions

To provide an even more precise test of Swann's theory of self-consistency, we examined the relation between one partner's actual motivation and the other partner's

appraisal of that motivation. This has been the experimental paradigm most frequently adopted by Swann in demonstrating his self-consistency position. For Swann, partner perception is perhaps the most important determining factor for who people choose to become involved with, and for the relationship quality that ensues. Accordingly, it was presumed that evidence for Swann's self-consistency perspective should emerge most readily in the present design.

We anticipated that if indeed consistency is a determinant of relationship quality, subjects' ratings on the dyadic adjustment, commitment, and happiness measures would be highest when subjects were involved with a partner who perceived them in a manner consistent with their actual couple motivation. By comparison, we expected that if self-determination issues were involved in relationship quality as suggested by Deci and Ryan's theory, subjects would report higher relationship quality to the extent that their motivation towards the relationship was self-determined. Partner appraisal was not expected to have an influence on this effect, since Deci and Ryan propose that it is the degree of autonomy-support offered by a partner, regardless of that partner's perceptions of his or her spouse's motivation, that will influence relationship quality. In other words, even if a partner correctly perceives his or her spouse to be nonself-determined towards the relationship, that partner may nonetheless behave in an autonomy-supportive manner which in turn should enhance relationship quality. To test these competing hypotheses, separate multiple regressions were once again conducted on each of the three indices of relationship quality.

**Dyadic Adjustment.** Results of a simultaneous multiple regression using subject motivation, partner appraisal, and their interaction as predictors and dyadic adjustment as the criterion, revealed a significant effect for subject motivation only,  $F(3, 154) = 16.56, p$

< .001. That is, regardless of their partners' perceptions, subjects indicated greater adaptiveness in their couple behaviors to the extent that their motivation was self-determined (see Figure 4). This finding offers clear support for Deci and Ryan's self-determination theory. The interaction effect predicted by Swann's consistency theory did not emerge, indicating that the congruence between subject motivation and partner appraisal did not effect the degree of adjustment experienced by couples.

Commitment Towards the Relationship. A second simultaneous multiple regression using the same predictors employed in the preceding analysis and commitment as the criterion, once again revealed a significant effect for subject motivation only,  $F(3, 171) = 36.60, p < .001$ . Thus, as with dyadic adjustment, the greater subjects' degree of self-determination, the greater their degree of commitment towards the couple relationship. The effect emerged independent of their partners' appraisals (see Figure 5). This finding, then, provides further support to Deci and Ryan's position. Moreover, it goes against the findings obtained by Swann and his colleagues (1992) in their study of marital commitment. Using the same measure of commitment employed in the present study, these researchers found that when partners' appraisals of their spouse were congruent with their spouses' own self-views (categorized as either positive, negative, or moderate) relationship commitment improved. Surprisingly, this finding reflected that persons having negative self-views were more committed to spouses who appraised them unfavorably. In a similar vein, a more recent study by Swann and his colleagues (1994) found the same relationship to hold true with respect to married couples' degree of intimacy (it should be noted that their measure of intimacy was in fact the same one used to measure commitment, with the exception that two items had been deleted). In spite of these findings, the results of the

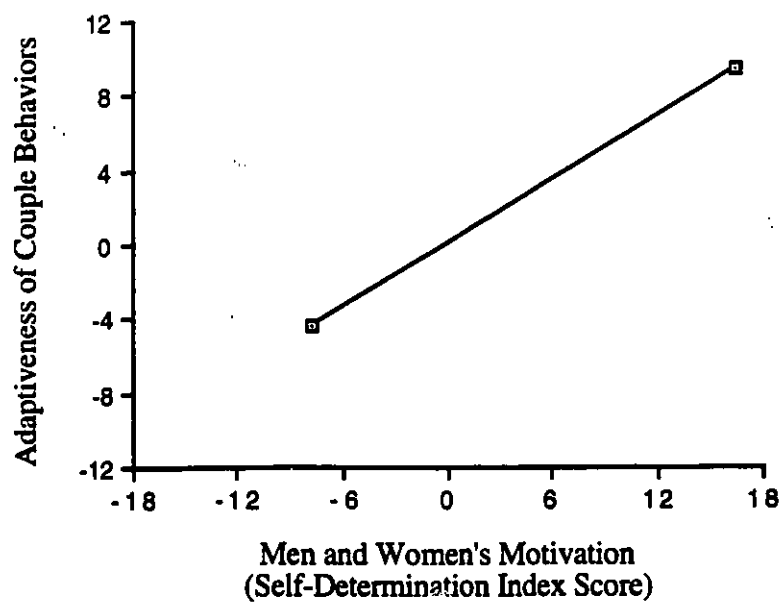


Figure 4. Dyadic adjustment as a function of couple motivation and spousal perceptions.

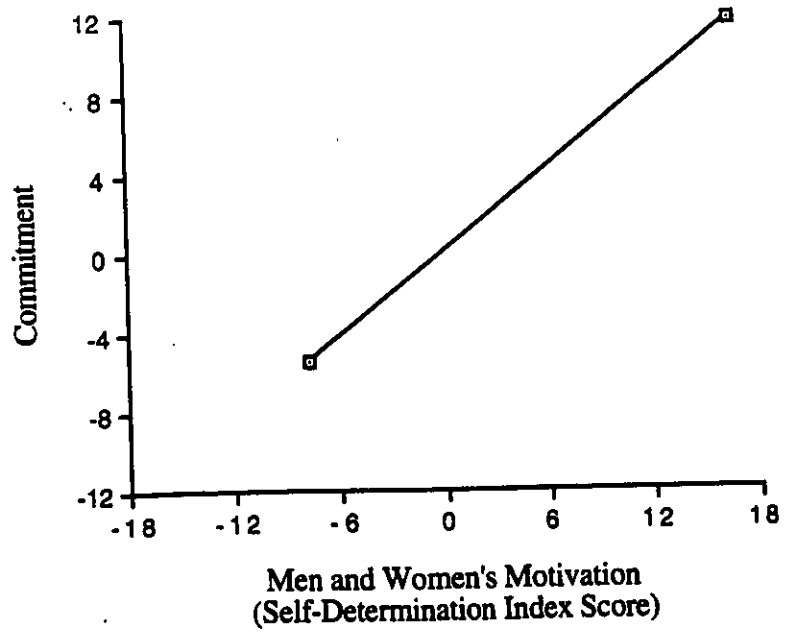


Figure 5. Commitment to relationship as a function of couple motivation and spousal perceptions.

present study seem to suggest that when confronted with a competing perspective on couple commitment, one emphasizing growth strivings over consistency strivings, the effect does not persist.

Couple Happiness. Finally, a simultaneous multiple regression was performed maintaining the same predictor variables as above but inserting couple happiness as the criterion. Once again, results revealed a significant effect for subject motivation only,  $F(3, 171) = 9.18, p < .01$ . Thus, in accordance with the findings of the two other indices of relationship quality, subjects demonstrated greater couple happiness to the extent that their motivation was self-determined, regardless of their partners' appraisals (see Figure 6).

In all three instances of relationship quality, then, Deci and Ryan's position was upheld with no evidence emerging in the direction of Swann's consistency principle. This despite the fact that the paradigm we implemented was that developed by Swann to demonstrate his consistency effect. Furthermore, our testing of the two theories was conducted using one of the measures developed by Swann himself (the commitment measure) in the context of his research on consistency needs and marital commitment (Swann, Hixon, & De La Ronde, 1992).

#### Relationship Quality as a Function of Partners' Perceived Interpersonal Style

Having evaluated relationship quality in terms of the constructs most relevant to Swann's consistency perspective, we felt it necessary to also examine the issue of relationship quality within a context more closely aligned to the ideas of Deci and Ryan. Thus, in a final series of regression analyses, we explored Deci and Ryan's position that it is the degree of autonomy-support present in a couple relationship, not the degree of

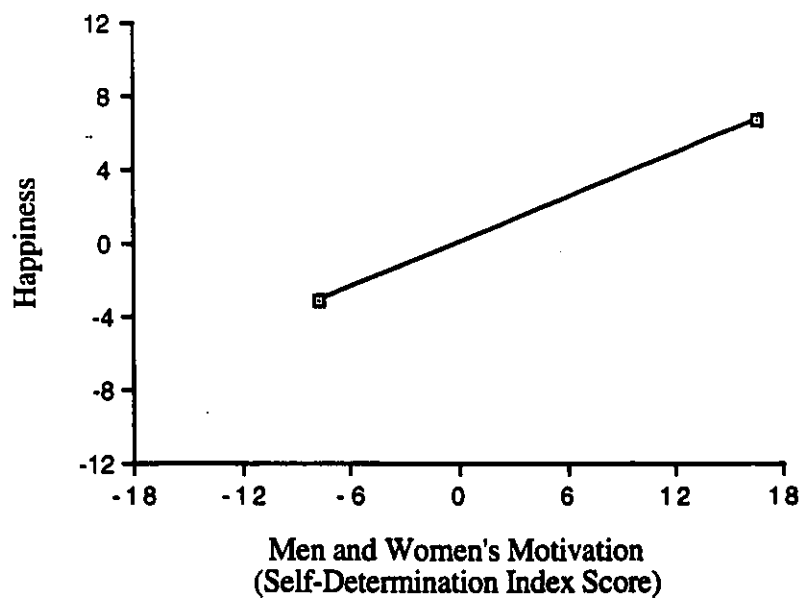


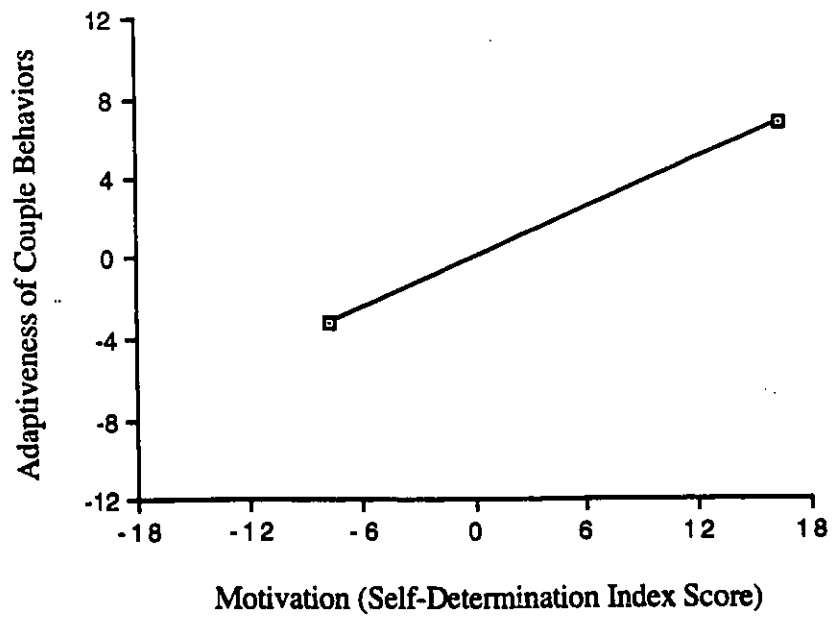
Figure 6. Couple happiness as a function of couple motivation and spousal perceptions.

congruence in partners' motivations, that is the most important determining factor of relationship quality. We expected that if this was indeed the case, subjects who perceived their partner to be relatively autonomy-supportive in their couple interactions would report the highest levels of relationship quality and subjects who perceived their partner to be relatively controlling would report the lowest levels of relationship quality. These effects were expected to remain true regardless of the particular motivational orientation subjects held towards their relationship. If, on the other hand, Swann's consistency perspective were to apply, we predicted that nonself-determined subjects would prefer more controlling types of partners whereas self-determined subjects would prefer more autonomy-supportive types of partners. This prediction was based on the same rationale we advanced in our previous studies addressing students' preferences for teaching styles.

**Dyadic Adjustment.** A simultaneous multiple regression with subject motivation, perception of partner's interpersonal style, and their interaction as the predictors and dyadic adjustment as the criterion yielded a significant effect for both subject motivation,  $F(3, 158) = 31.81, p < .001$ , and perception of partner's interpersonal style,  $F(3, 158) = 23.52, p < .001$  (see Figure 7). The first effect was consistent with our previous findings whereby greater self-determination was associated with greater dyadic adjustment. The second effect, of more relevance to the question at hand, reflected that subjects' perceptions of their couple adaptiveness were higher when they perceived their partners to be autonomy-supportive as opposed to controlling. Ratings of couple adaptiveness were not affected by the particular motivational orientation of subjects. This finding bears clear support for the predictions derived from the theory of Deci and Ryan. The interaction effect suggested by Swann's formulation did not emerge.

## Dyadic Adjustment and Couple Motivation

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## Dyadic Adjustment and Perception of Partner's Interpersonal Style

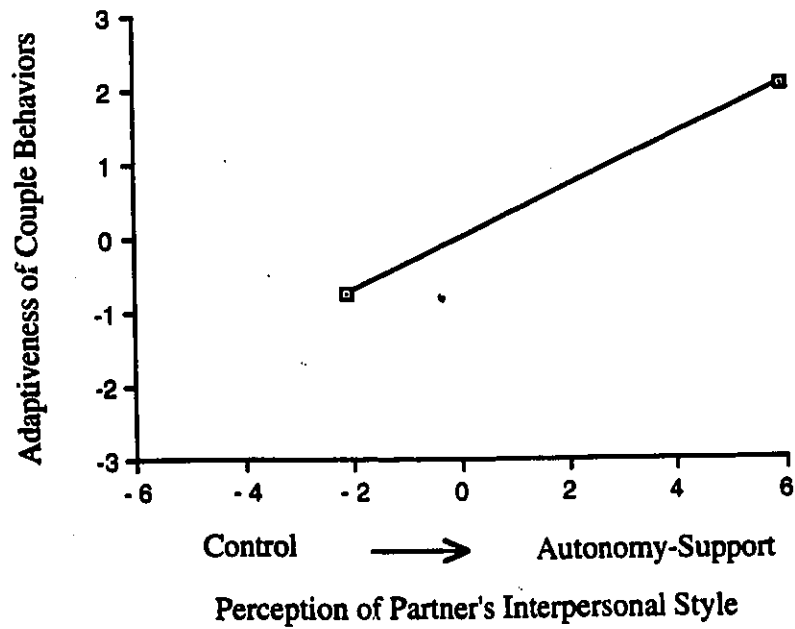


Figure 7. Dyadic adjustment as a function of couple motivation and perception of partner's interpersonal style.

Commitment Towards the Relationship. Substituting commitment as the criterion, a second multiple regression was run using the same predictor variables. As shown by the regression lines plotted in Figure 8, a significant interaction emerged,  $F(3, 176) = 4.97, p < .05$ . Again following the guidelines proposed by Cohen and Cohen (1983) for probing significant interactions, three motivational groups were formed which represented high, moderate, and low levels of relationship motivation. Results of the post hoc probing revealed a tendency for subjects of all motivation groups to report higher levels of commitment when paired with a relatively autonomy-supportive partner. However, when paired with a relatively controlling partner, nonself-determined subjects reported the lowest ratings of commitment  $F(3, 176) = 8.76, p < .01$ , followed by moderately self-determined subjects,  $F(3, 176) = 6.50, p < .05$ . The ratings of self-determined subjects were not affected by their partner's style,  $F < 1$ . They were equally committed when with a controlling partner as with an autonomy-supportive partner.

The findings can be taken as partial support for Deci and Ryan's standpoint. Although subject motivation did influence commitment ratings, autonomy-support was nonetheless linked to greater levels of commitment. The fact that nonself-determined subjects were most negatively affected by controlling partners and self-determined subjects were seemingly unaffected by such partners is not altogether surprising given that previous research on motivation and interpersonal styles has detected a tendency for nonself-determined individuals to be more under the influence of their interpersonal environments than self-determined individuals (e.g., Legault & Pelletier, 1994a). This may be owing to the fact that nonself-determined individuals are motivated by external contingencies or outer pressures, and consequently they may be more attuned to the climate of their external

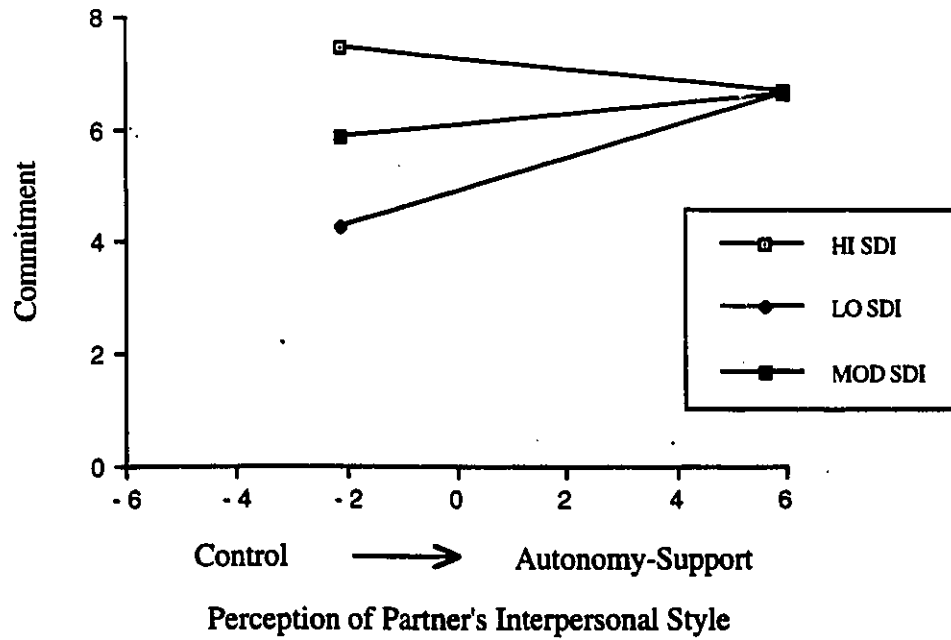


Figure 8. Commitment to relationship as a function of couple motivation and perception of partner's interpersonal style (Note. "SDI" = Self-Determination Index Score).

surroundings. Self-determined individuals, by comparison, are motivated by forces that come from within: their personal values, convictions, and desires. As a result, it may be less necessary for them to sustain the same degree of attentiveness to their surroundings as nonself-determined individuals.

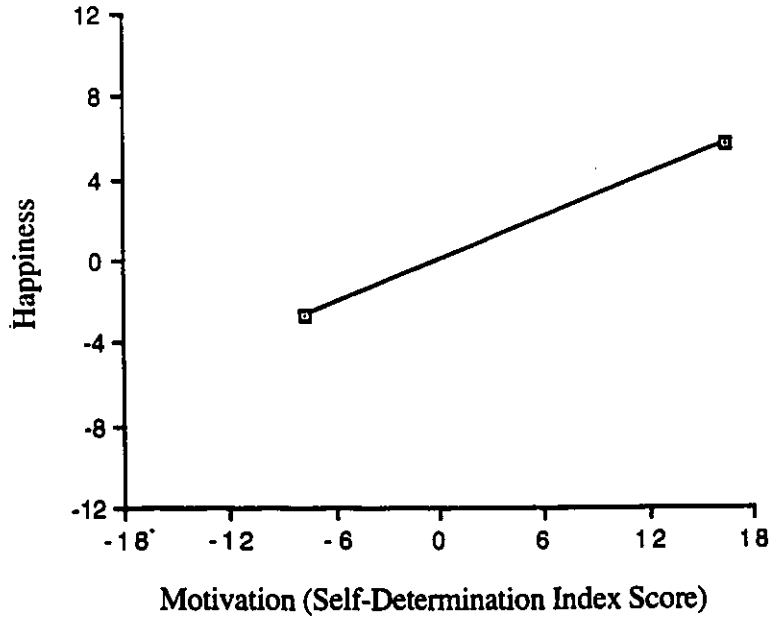
Couple Happiness. A final simultaneous multiple regression was performed retaining the same predictor variables as above but exchanging the criterion for couple happiness. A set of results parallel to those obtained for dyadic adjustment emerged. That is, a significant effect for subject motivation was observed,  $F(3, 176) = 23.04, p < .001$ , reflecting once again that subjects with higher levels of self-determination experienced greater couple happiness. As well, a significant effect for perception of partner's interpersonal style also appeared,  $F(3, 176) = 22.00, p < .001$ , whereby subjects who judged their partners to be autonomy-supportive encountered greater couple happiness than subjects who judged their partners to be controlling (see Figure 9). Perceptions of partner interpersonal style were independent of subject motivation. This finding offers further support to the position of Deci and Ryan.

Considered together, the results suggest no indication of a consistency effect, but instead point quite clearly towards the operation of a self-determination effect. It would seem that all persons, regardless of their motivational orientation, benefit from a partner who adopts an autonomy-supportive interactional style. This was evident on all three indices of relationship quality.

### Gender Issues

To examine whether subject gender had an influence on the preceding findings, all

### Couple Happiness and Couple Motivation



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### Couple Happiness and Perception of Partner's Interpersonal Style

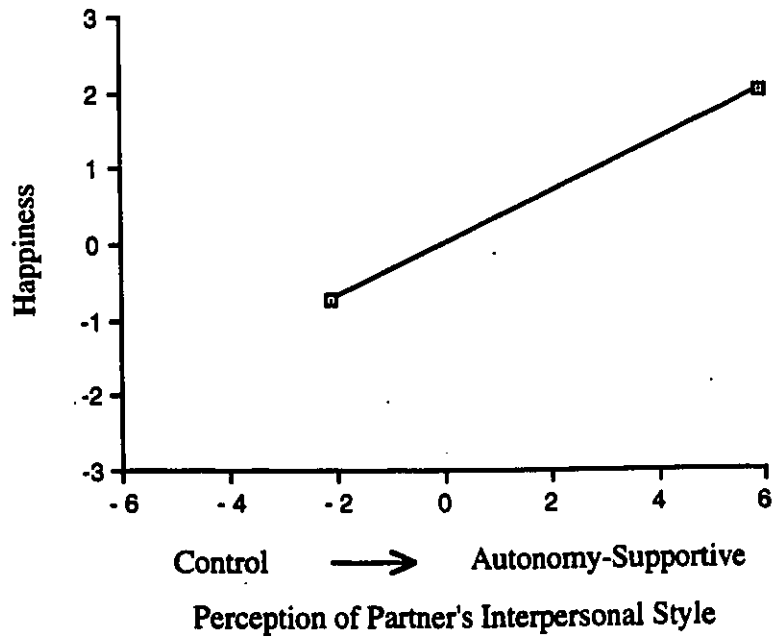


Figure 9. Couple happiness as a function of couple motivation and perception of partner's interpersonal style.

multiple regressions were repeated with gender added to the regression equations. Results of these analyses revealed only two instances of a gender effect. Both effects occurred when subject motivation and perception of partner interpersonal style were included as predictor variables in the regression equations. The first effect occurred when commitment was used as the criterion. Results revealed a significant triple interaction,  $F(7, 170) = 7.73, p < .02$ . The triple interaction was decomposed by first examining the responses of men. A single significant effect for subject motivation was found whereby men who were more self-determined expressed a greater level of commitment towards their relationship, regardless of their partner's interpersonal style,  $F(3, 84) = 21.81, p < .001$ . When women's responses were examined, a significant interaction between their motivation and perceptions of their partner's interpersonal style was found ( $F(3, 83) = 11.97, p < .001$ ). That is, both nonself-determined and moderately self-determined women expressed greater commitment towards their relationships as the degree of autonomy-support in their partners' interpersonal styles increased ( $F(3, 86) = 17.14, p < .001$  for nonself-determined group;  $F(3, 86) = 10.63, p < .01$  for moderately self-determined group). The commitment ratings of self-determined women, however, were not influenced by their partner's interpersonal style,  $F < 1$ . Regardless of their partner's style, self-determined women remained committed to their couple relationships.

The second gender effect occurred when couple happiness was considered as the criterion. Here, a significant effect emerged for gender alone,  $F(7, 170) = 5.11, p < .05$ , reflecting a tendency for men to give higher overall happiness ratings than women. This finding is consistent with research conducted in the area of marital adjustment which has found that, generally, men are happier when in couple relationships whereas women are

generally happier when out of couple relationships (Belle, 1987; Gove, 1972, 1973; Helgeson, 1994; Kessler, McLeod, & Wethington, 1985; Newcomb, 1985).

## GENERAL DISCUSSION

The five studies presented in this thesis represent a preliminary attempt to address the question of whether self-consistency versus self-growth needs govern people's choices of interaction partners and the kinds of consequences that ensue from such interactions. In other words, do people prefer to interact with others who are likely to maintain their sense of self, or do they prefer to interact with others who are likely to promote change and growth within their sense of self? Moreover, which kind of interaction partners do people reap the greatest benefits from associating with?

To explore these questions, we considered the types of interaction preferences expressed by people in two important life domains: the university setting and couple relationships. In the university setting, students were surveyed about the kinds of professors they would most like to interact with, the kinds of professors they judged to be most effective, and the kinds of friends they chose to affiliate with most closely. In the context of couple relationships, we explored what kinds of partners people selected as mates and the implication of that choice on relationship quality. In all instances, the pivotal question centred on whether people made choices that would preserve their current sense of self or, alternatively, that would lead to growth and development in their sense of self.

The advantage of observing the interaction preferences expressed by people within the two domains was that it allowed us to determine the generalizability of the results across different contexts, using different samples, having different characteristics. Certainly, there are numerous other contexts and scenarios in which consistency versus growth needs could be compared. Nevertheless, student-teacher relationships, friendships, and couple

relationships are undeniably some of the most important alliances that people establish in their lives, and therefore were deemed appropriate starting-points for addressing the issue.

To examine whether consistency versus growth needs influence the nature of people's social interactions, we tested the hypotheses advanced by Swann (1983, 1987, 1990) in his self-verification theory, against those offered by Deci and Ryan (1985, 1987, 1991) in their self-determination theory. The hypotheses were formulated in terms of the specific self-view that people held about their motivation. For each of the five studies, the interaction preferences exhibited by self-determined individuals (i.e., those having intrinsic, integrated, or identified regulatory styles) were compared to those exhibited by nonself-determined individuals (i.e., those having introjected, external, or amotivated regulatory styles).

Globally, we anticipated that if Swann's self-verification theory held true, self-determined individuals would prefer to interact with others who were also self-determined in their motivation, and who were autonomy-supportive in their interpersonal style. Likewise, nonself-determined individuals were expected to prefer interactions with others who were nonself-determined in their motivation, and rather directive or controlling in their interpersonal style. By comparison, we anticipated that if Deci and Ryan's self-determination theory held true, all persons, regardless of their particular motivational orientation, would prefer to interact with others who were relatively self-determined in their motivation and autonomy-supportive in their interpersonal style.

Aside from knowing who people actually chose to affiliate with in their day-to-day lives, we also inquired into the kinds of consequences that were associated with these interactions. For instance, even though nonself-determined persons may indeed choose to

affiliate with other nonself-determined persons, as suggested by Swann's self-verification, does this necessarily mean that such relationships will lead to more happiness, for example? We hypothesized that if Swann's self-verification theory was correct, "congruent" types of relationships should indeed lead to improved relationship consequences. By contrast, we hypothesized that if Deci and Ryan's self-determination theory was correct, people of any motivational orientation should experience improved relationship consequences when involved in relationships with others who were relatively self-determined or autonomy-supportive.

Two principal questions, then, were addressed by the present research: (a) what kinds of interaction partners do people actually choose to interact with? and (b) what kinds of consequences ensue from such interactions? The results pertaining to each of these questions are summarized in the sections below.

### Choice of Interaction Partners

The results of Pilot Study 2, Study 2, and Study 3, all suggest that subjects preferred to interact with others who were similar to themselves. In terms of university students and their friends, we found that self-determined students had friends who were significantly more self-determined than the friends of nonself-determined students. In other words, self-determined students preferred to associate with friends who were relatively self-determined whereas nonself-determined subjects preferred to associate with friends who were relatively nonself-determined. This pattern of results held up whether we considered actual motivation similarity or perceived motivation similarity between students

and their friends (Study 2). As well, this finding did not seem to be influenced by students' beliefs about how students in general are motivated, since self-determined and nonself-determined students gave comparable ratings for the motivation of students in general (Pilot Study 2).

In terms of couples involved in married or common-law relationships, we found significant correlations between (a) subjects' actual relationship motivation ( $r=.52$ ), (b) subjects' actual motivation and their perception of their partner's motivation ( $r=.88$  for men and  $r=.87$  for women), and (c) subjects' perceptions of their partner's motivation and that partner's actual motivation ( $r=.47$  for men and  $r=.52$  for women). These correlations were in fact higher than those found with regards to students and their friends ( $r=.33$  for actual motivation similarity;  $r=.52$  for friends' actual motivation and their perception of the target student's motivation;  $r=.44$  for students' actual motivation and friends' perceptions of that motivation). Thus, it would seem that couples were involved in relationships with others who were motivated towards the relationship in a way remarkably similar to themselves.

Together, these findings offer strong support for Swann's self-consistency formulation. That is, across two different types of relationships, involving subjects of considerably different ages and backgrounds, a clear consistency effect emerged whereby subjects chose to affiliate with others who were similar to themselves.

#### Consequences Associated with Interaction Choices

Despite the fact that subjects chose to affiliate with others similar to themselves, results of Pilot Study 1, Study 1, and Study 3, revealed that such types of interactions were

not necessarily the kind that subjects would prefer to have, nor the kind that were associated with superior relationship outcomes.

For instance, when students were presented with descriptions of two types of teaching styles -- one autonomy-supportive, the other directive and controlling -- students indicated a clear preference for the autonomy-supportive teaching style (Pilot Study 1, Study 1). That is, if given a choice, students would prefer to interact with professors who provide students with the opportunity to make their own decisions, who encourage students to figure out their mistakes by themselves, who invite students to include their personal input on assignments, and who seek out students' opinions before providing solutions. Moreover, when asked which of the two general teaching-style approaches they considered to be more effective, students again judged the autonomy-supportive teaching style to be superior (Study 1). Specifically, students believed that their enjoyment would be higher, their productivity greater, and their anxiety lower, when interacting with a relatively autonomy-supportive professor as opposed to a more directive and controlling one. Of special importance is the fact that both of these findings occurred regardless of students' particular motivation towards university.

Comparable results were obtained when we assessed the quality of couples' relationships (Study 3). Overall, subjects reported greater adaptiveness in their couple behaviors, more commitment towards their relationships, and higher levels of happiness within their couple relationships to the extent their motivation towards the relationship was self-determined (this finding emerged both in the multiple regression analyses, and in the correlational analyses between the six subtypes of motivation and the three relationship quality indices). In addition, subjects' ratings on all three relationship quality indices were

higher when they perceived their partner to have an autonomy-supportive interactional style. Only in two instances did subjects' ratings differ according to their partners' particular orientation. When considering dyadic adjustment in function of partners' actual motivation towards their relationship, self-determined men reported the greatest dyadic adjustment when paired with self-determined women, followed by moderately self-determined women, and finally the least when paired with nonself-determined women. In terms of commitment towards the relationship, nonself-determined subjects reported the least degree of commitment when paired with a relatively controlling partner, followed by moderately self-determined subjects. The level of commitment expressed by self-determined subjects, by contrast, was not influenced by their partners' interpersonal style.

Taken together, these results offer compelling support for Deci and Ryan's self-determination theory. In terms of what students ideally wanted for themselves, they indicated that, if given the choice, they would prefer to interact with professors who adopt relatively autonomy-supportive teaching styles over those who adopt more directive and controlling teaching styles. In terms of consequences, both students and couples reported superior relationship outcomes (whether expected or actual) when paired with autonomy-supportive interaction partners, and when they themselves were self-determined in their motivation. Thus, as the theory of Deci and Ryan would predict, subjects in both contexts appeared to do better when in environments that were supportive of their growth strivings.

What becomes evident from the two preceding sets of findings, is that there appears to be a distinct difference between the kinds of interaction partners that subjects actually chose to become involved with, and the kinds of interaction partners subjects judged to be ideal or to elicit the most positive types of outcomes. That is, although subjects

demonstrated a tendency to affiliate with others who were likely to maintain their current level of motivation, they also expressed the belief that it is when they are in relationships with others who support their strivings for greater self-determination that they experience better relationship outcomes. More will be said on this issue shortly.

### Implications

#### Swann's Self-Verification Theory

The results obtained in the present research carry a number of implications for both the theories of Swann, and Deci and Ryan. In terms of Swann's self-verification theory, support did emerge for his suggestion that people tend to seek out others who are most likely to maintain their self-views. As was found in Swann's previous research (e.g., Swann, et al., 1992, Studies 1 and 2; Swann, Hixon, & De La Ronde, 1992; Swann, Pelham, & Krull, 1989, Study 3; Swann, Stein-Seroussi, & Giesler, 1992), both the students and couples who participated in our studies chose to enter into close relationships with others who were congruent with their own self-views. Thus, there appears to be some support for the notion that people prefer to interact with others who are similar to themselves (e.g., Byrne, 1971; Byrne & Blaylock, 1963; Byrne, Clore, & Smeaton, 1986; Byrne, Ervin, & Lamberth, 1970; Kandel, 1978).

Swann's theory runs into difficulty, however, when considering the consequences that emerge when people interact with congruent others. In his theory, Swann assumes that people seek out congruent types of relationships because of a desire to make their worlds predictable and controllable (Swann, 1983, 1987, 1990). He suggests that, by

interacting with others who validate our sense of self, feelings of existential security are engendered as well as a sense of confidence that our personal interactions will proceed smoothly and harmoniously. As a result, interactions with similar others are thought to promote more favorable relationships outcomes.

The findings of the present research, however, do not support this position. Indeed, the issue of congruency was found to have no effect on the quality of relationship outcomes reported by subjects. For example, students neither indicated a preference to interact with professors whose teaching style provided a theoretical match for their motivational orientation, nor a belief that such types of professors would be more effective in their teaching. Instead, all students, regardless of their particular motivational orientation, demonstrated a preference for autonomy-supportive types of professors. Similarly, couples' ratings of their relationship quality were largely determined by the degree of self-determination present in their motivation for the relationship, and by the degree of autonomy-support offered by their partners. Again, evidence pointing to the merits of a match between relationship partners was virtually absent.

The results of the present research, then, call into question the generalizability of Swann's proposition that congruent relationships carry greater adaptiveness for social interactions. This is particularly concerning, given that the experimental paradigm adopted in the present research was borrowed from that developed by Swann himself to test his consistency formulation. It is true that the particular independent variables considered within our research were not those pertaining to the positivity of people's self-concepts, as is typically the case in Swann's research, but rather those pertaining to the particular self-concept that people hold about their motivation. Nevertheless, if Swann's self-verification

principle is accurate, people should strive to verify many aspects of their self-concept not simply those related to how positively they feel about the five specific attributes tapped into by Swann's self-concept measure (i.e., intellectual capability, physical attractiveness, athletic ability, social skills, and aptitude in arts and music). Once taken into a broader context, then, the reliability of Swann's contention that consistency strivings bear improved adaptiveness becomes questionable.

Thus, it would seem that, although people do have a tendency to enter into relationships with others who are relatively similar to themselves, such congruent types of relationships do not necessarily lead to more favorable relationship outcomes as Swann would have us believe. In fact it seems reasonable to suggest that, in some cases at least, such relationships persist in spite of, rather than because of, the consequences that they bring.

#### Deci and Ryan's Self-Determination Theory

Turning to Deci and Ryan's self-determination theory, it becomes evident that support for their theory emerges in a pattern reverse to that found for Swann. For example, contrary to the implications of their theory, subjects who took part in the present research did not choose to interact with others who were relatively more self-determined than themselves, but rather struck up relationships with others who generally shared the same motivational orientation as they. It is noteworthy, however, that this particular prediction represented an extrapolation from Deci and Ryan's theory and not a formal hypothesis actually put forth in their theory. The prediction grew out of two propositions advanced in the self-determination theory. The first proposition suggests that people play

an active role in their strivings for growth and greater self-determination. The second proposition suggests that it is within autonomy-supportive environments that such strivings are most readily accommodated<sup>8</sup>. We reasoned, therefore, that people should actively seek out close relationships with others relatively more self-determined than themselves because there is a greater likelihood that people will become more self-determined in the presence of a companion who is self-determined than in the presence of a companion who is nonself-determined.

The fact that support did not emerge for this derivation of their theory may be due, at least in part, to another aspect of their theory which suggests that it is the degree of autonomy-support provided by an interaction partner, and not necessarily the motivation of that partner per se, which should have the greatest influence on people's growth strivings. It is conceivable, therefore, that an interaction partner may in fact be nonself-determined in his or her motivation and yet remain autonomy-supportive in his or her interpersonal style. However, not only does this suggestion lack intuitive appeal, it also goes against the findings of several recent studies which have found a tendency for self-determined people to be perceived as relatively more autonomy-supportive than nonself-determined people (e.g., Amabile, Hill, Hennessey, & Tighe, 1992; Enzle & Anderson, 1993; Legault & Pelletier, 1994b; Wild, Enzle, & Hawkins, 1992). Furthermore, if it were indeed the case that people's interpersonal styles were completely independent of their motivational orientations, there would be no reason to expect that the interaction partners of self-determined subjects would be any different from the interaction partners of nonself-

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<sup>8</sup> To be more precise, this second proposition is in fact advanced within a subtheory of Deci and Ryan's self-determination theory, known as the Cognitive Evaluation Theory (Deci & Ryan, 1985).

determined subjects in terms of their motivational orientations. However, the motivational orientations of subjects' companions were found to be significantly different -- in a direction reflective of a similarity effect -- a finding that Deci and Ryan's self-determination theory has difficulty accommodating.

Notwithstanding, the results of the present research provide considerable support for Deci and Ryan's growth position that, in order to fulfill their strivings for greater self-determination, people desire to be in autonomy-supportive relationships and in fact do better when in such types of relationships. For instance, despite the tendency for subjects to become involved in relationships with others similar to themselves, when given the choice of deciding who they would ideally prefer to interact with, subjects in our university samples indicated a preference for interaction partners (i.e., professors) possessing an autonomy-supportive style.

It could be argued that the difference observed in students' selection of friends and their preference for professors is somehow linked to the nature of the relationships considered. That is, perhaps there are qualitative differences between student friendships and student-professor relations that are responsible for the differential preferences shown. However, even if such qualitative differences do exist (which undoubtedly they do), they still do not explain why students as a whole would choose autonomy-supportive professors over more controlling ones. For example, several theorists specializing in the area of autonomy versus control within the academic setting are of the opinion that a match between student motivation and professor teaching styles is critical to student learning and in fact desired by students (e.g., Eccles, Buchanan, Flanagan, Fuligni, Midgley, & Yee, 1991; Eccles & Midgley, 1988). They argue that when students are placed in an

environment that does not meet their motivational needs, negative subjective and behavioral consequences materialize, typically reflective of students being "turned off" to school and to learning. What comes out of such theorizing, is that there is little reason to believe that something intrinsic to student-professor relations should lead students to preferentially desire greater autonomy in school than in other contexts, such as friendships, for example. This leads us to conclude, therefore, that students' greater preference for autonomy-supportive professors may in fact be reflective of an underlying desire to be in relationships that support their growth strivings, as proposed by the theory of Deci and Ryan, although as the results of the present study also indicate, this may not always be reflected in their actual behavioral choices.

Finally, further to Deci and Ryan's self-growth position, the findings of the present research provide convincing support for their proposition that autonomy-supportive environments are most conducive to positive relationship outcomes. Both students and couples evidenced clearly favorable consequences when paired with an autonomy-supportive interaction partner as opposed to a more controlling one. This finding is not new to the field of motivation. Years of research conducted in a wide variety of settings using a wide variety of subjects has demonstrated this to be quite a robust phenomenon indeed (e.g., Deci, Connell, & Ryan, 1989; Deci, Nezlek, & Sheinman, 1981; Deci et al., 1981; Gottfried, Fleming, & Gottfried, 1994; Grolnick & Ryan, & Deci, 1991; Harackiewicz, 1979; Koestner et al., 1984; Pelletier, 1989; Pelletier et al., 1988; Ryan, 1982; Ryan & Grolnick, 1986; Ryan, Mims & Koestner, 1983; Vallerand & O'Connor, 1991). What is new about the current findings, however, is that even when pitted against another theoretical position offering opposing predictions, support for Deci and Ryan's

theory still emerges. It is also interesting to note that, for the first time, we obtained evidence suggesting that students actually hold the belief that autonomy-supportive teaching styles are more effective. That is, although it was previously known that students tend to do better when interacting with autonomy-supportive teachers (e.g., Amabile, 1983; Benware & Deci, 1984; Deci, Nezlek, & Sheinman, 1981; Harter, 1981; Ryan & Grolnick, 1986; Wild, Enzle, & Hawkins, 1992), it remained unclear as to whether students themselves in fact perceived this to be the case. The results of the present research suggest that they do. Interestingly, this finding is at odds with the commonly held belief of parents and teachers (e.g., Boggiano & Katz, 1991) that the use of controlling teaching strategies is more effective. Thus, it appears that educators and parents alike need to be educated about the merits of autonomy-supportive teaching styles.

#### Evidence for Two Kinds of Basic Human Needs?

Perhaps the most compelling implication of the findings obtained in the present research is that neither self-verification nor self-determination theory alone can adequately explain the nature of people's social interactions. This leads us to consider the very real possibility that people may in fact possess at least two kinds of basic human needs: both the need for self-consistency and the need for self-growth.

It may be that when considered on a short-term basis, the two needs appear very different from one another, even antithetical. This characterization came out in the findings of the present research which revealed that although subjects desired to be in relationships that fostered their self-growth strivings, and in fact did better when in such types of relationships, their choices of actual interaction partners did not always reflect this

predilection. Such findings give the impression that a distinct difference exists between what people want (i.e., self-growth) what people do (i.e., self-consistency). This proclivity, however, may not be as paradoxical as it first appears. Rather, it may be a reflection of the fact that, in the long run, people are both shooting for growth and improvement in themselves while at the same time striving to achieve a sense of continuity and constancy in their sense of self. This portrayal of the developmental struggle as being one directed towards both progressive change and a sense of continuity is present in the writings of several theorists (see Apter, 1982; Berlyne, 1965; Piaget, 1971). It is conceivable, therefore, that when considered at a single point in time, as was the case with the present research, the two needs reveal themselves in a seemingly contradictory fashion, and that it is not until people's behavior is considered over an extended period of time that the harmonious and complimentary nature of the needs becomes apparent. Further research will be needed to determine the tenability of this proposition.

#### Limitations of the Present Research

Although the present research yielded a clear pattern of results that replicated across different samples in different experimental contexts, it is important to highlight that the preceding studies contained several limitations. Perhaps the most serious of these is that all five studies were conducted using a correlational design making it hazardous to draw conclusions about causality. For instance, although we found a tendency for subjects to be involved in close relationships with others similar to themselves, we cannot be certain that subjects actually sought out companions who were like themselves or whether the two

persons simply became more similar as they spent increasing amounts of time together. Likewise, despite the fact that superior relationship consequences were found when subjects were paired with autonomy-supportive interaction partners, it cannot be assumed that partners' interpersonal styles caused the enhanced relationship quality. It is reassuring that certain aspects of the present research have been born out in laboratory experiments (see section entitled "Interpersonal Contexts" in review of Deci and Ryan's theory). However, an experimental analysis of the ideas in their entirety remains to be explored.

A second limitation of the present research concerns the subjects included in our samples. Although a wide assortment of people were surveyed across the various studies, we must nonetheless question how representative they are of the population in general. Certainly a common drawback to sampling university students is their narrow age range, their higher education level, and their presumably higher socioeconomic status. We must also question the makeup of our couple sample who, in all likelihood, were in more well-adjusted and better functioning relationships than couples who did not volunteer to participate in our study. Indeed the overall ratings of relationship quality expressed by our subjects were relatively high.

Finally, some methodological aspects of the studies could be improved upon in several ways. For instance, in Pilot Study 1 and Study 1, subjects were asked to rate which type of teaching style they most preferred and which type they found most effective by reading hypothetical descriptions of different professors. Although this questionnaire approach has its practical merits as well as the advantage of being able to control for extraneous professor characteristics, it raises the question of how generalizable the results may be to more naturalistic settings. An alternative approach, therefore, might be to ask

students to rate an actual professor teaching them with respect to his or her teaching style and teaching effectiveness. This would allow subjects to provide professor ratings based on their actual subjective experiences of having interacted with that particular professor. With respect to Pilot Study 2 and Study 2, information concerning the characteristics of students' university friends was lacking. For example, it might have been informative to gather details pertaining to the friends' age and sex, as well as information concerning the duration of the student-friend relationship and its level of intimacy. Lastly, inasmuch as Study 3 made improvements to the shortcomings of the preceding studies, it too had its limitations. The most significant of these being that our sample of couples turned out to be somewhat skewed in their motivation scores and ratings of relationship quality. Relatively few subjects indicated having a nonself-determined motivational orientation towards their relationships and relatively few judged their relationship quality to be poor. Researchers working in this area may therefore need to take extra measures to ensure that their samples include couples known to be experiencing difficulties, perhaps by soliciting the involvement of couples engaged in marriage counselling.

### Future Research

The results of the five studies presented in this thesis suggest several directions for future research. Perhaps the most striking implication to emerge, is the need for researchers working in the area of self-determination and intrinsic motivation to adopt a more "proactive" research paradigm as opposed to the predominantly "reactive" paradigm that has prevailed thusfar. That is, rather than observing how people react when placed in

certain experimental conditions, such as the widely studied autonomy-supportive versus controlling contexts, the present research points to the value of exploring what it is that people are actually doing in their everyday lives. For instance, what kinds of contexts do people actively seek out for themselves, and what kinds of persons do they prefer to surround themselves with? Almost paradoxically, this "active" side of people's behavior has never been explored from the self-determination framework -- this despite the central importance that is accorded to the agentic nature of the self and its development (Deci & Ryan, 1985, 1987, 1991; Ryan, 1991). It seems timely, therefore, for researchers to give real meaning Deci and Ryan's notion of "self-determination" by adopting an experimental paradigm that truly allows people to be "active agents" in the regulation of their motivation.

A second important question that needs to be addressed by future research concerns the issue of causality. Given the correlational nature of our data it becomes necessary to verify the findings obtained in the present studies within a more rigorous experimental design. For example, in order to ascertain whether people do indeed seek out others similar to themselves, a prospective-type of approach will need to be taken whereby the relationship patterns of people who are newly acquainted are observed over an extended period of time. Similarly, to determine the kind of interpersonal style that people are most attracted to and judge to be the most effective, an experimental situation will need to be created in which subjects are asked to select an actual interaction partner with whom they will engage in some type of interchange. Following the interchange subjects could be asked to rate the effectiveness of their partner's interpersonal style. In short, a "true" experimental approach would clearly add to the reliability of the findings obtained here.

Finally, there exists a pressing need for longitudinal research in this area. Neither

Swann nor Deci and Ryan have provided any longitudinal data supporting their respective positions that people remain relatively stable over time, or that people become increasingly self-determined. This would appear to be a glaring weakness for each of the theoretical positions. Furthermore, in light of the somewhat reconciliatory interpretation offered for the present findings whereby we suggest that people may indeed possess both types of needs, the manner in which the two needs may play out over time needs to be examined.

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**APPENDIX A**  
**Questionnaire used in Pilot Study 1**

**QUESTIONNAIRE SUR LES ÉTUDES UNIVERSITAIRES - I****Directives:**

Nous effectuons présentement une recherche pour mieux comprendre les comportements et attitudes des étudiants du milieu universitaire. Dans les pages qui suivent vous trouverez différents énoncés couvrant certains aspects du milieu académique. Vous êtes invité(e)s à indiquer à quel point chacun de ces énoncés correspond actuellement à ce que vous vivez dans le milieu académique.

Il ne s'agit ni d'un test, ni d'un examen: il n'y a donc pas de bonnes ou de mauvaises réponses. Nous vous demandons de répondre de façon spontanée, sans vous attarder à aucun énoncé en particulier.

Les identifications qui vous sont demandées vont servir uniquement à des fins de recherches. Toutes vos réponses demeureront absolument confidentielles.

Luc Pelletier, Ph.D.  
École de Psychologie  
Université d'Ottawa

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Veillez indiquer les 4 derniers chiffres de votre numéro de téléphone: \_\_\_\_\_

Votre date de naissance: \_\_\_\_\_

Sexe: masculin \_\_\_\_\_ féminin \_\_\_\_\_

Êtes-vous: étudiant(e) à temps plein présentement \_\_\_\_\_

sur le marché du travail à temps plein \_\_\_\_\_

## POURQUOI ALLEZ-VOUS À L'UNIVERSITÉ?

À l'aide de l'échelle ci-dessous, indiquez dans quelle mesure chacun des énoncés suivants correspond actuellement aux raisons pour lesquelles vous poursuivez des études au niveau universitaire.

	Ne correspond <u>pas du tout</u>		Correspond <u>Modérément</u>			Correspond <u>Exactement</u>	
	1	2	3	4	5	6	7
1) Parce que j'éprouve du plaisir et de la satisfaction à apprendre de nouvelles choses.	1	2	3	4	5	6	7
2) Parce que selon moi, des études universitaires vont m'aider à mieux me préparer à la carrière que j'ai choisie.	1	2	3	4	5	6	7
3) Parce que juste avec un diplôme d'études secondaires je ne pourrais pas me trouver un emploi assez payant.	1	2	3	4	5	6	7
4) Pour me prouver que je suis une personne intelligente.	1	2	3	4	5	6	7
5) Je ne le sais pas; je ne parviens pas à comprendre ce que je fais à l'université.	1	2	3	4	5	6	7
6) Parce que mes études me permettent de continuer à en apprendre sur une foule de choses qui m'intéressent.	1	2	3	4	5	6	7
7) Parce que je crois que des études de niveau universitaire vont augmenter ma compétence comme travailleur(se).	1	2	3	4	5	6	7
8) Pour pouvoir décrocher un emploi plus prestigieux plus tard.	1	2	3	4	5	6	7
9) Parce que le fait de réussir à l'université me permet de me sentir important à mes propres yeux.	1	2	3	4	5	6	7
10) Je ne parviens pas à voir pourquoi je vais à l'université et, franchement, je m'en fous pas mal.	1	2	3	4	5	6	7
11) Pour le plaisir que j'ai à découvrir de nouvelles choses jamais vues auparavant.	1	2	3	4	5	6	7
12) Parce qu'éventuellement cela va me permettre d'aller sur le marché du travail dans un domaine que j'aime.	1	2	3	4	5	6	7
13) Parce que je veux pouvoir faire "la belle vie" plus tard.	1	2	3	4	5	6	7
14) Honnêtement, je ne le sais pas; j'ai vraiment l'impression de perdre mon temps à l'université.	1	2	3	4	5	6	7
15) Pour le plaisir d'en savoir plus long sur les matières qui m'attirent.	1	2	3	4	5	6	7
16) Parce que je veux me prouver à moi-même que je suis capable de réussir dans les études.	1	2	3	4	5	6	7
17) Parce que cela va m'aider à mieux choisir mon orientation de carrière.	1	2	3	4	5	6	7
18) Pour avoir un meilleur salaire plus tard.	1	2	3	4	5	6	7
19) J'ai déjà eu de bonnes raisons pour aller à l'université mais maintenant je me demande si je devrais continuer à y aller.	1	2	3	4	5	6	7
20) Pour me prouver à moi-même que je suis capable de faire mieux que juste un secondaire.	1	2	3	4	5	6	7

## CARACTÉRISTIQUES DES PROFESSEURS

En utilisant l'échelle ci-dessous, indiquez à quel point vous jugez appropriée chacune des réactions suivantes lorsque vous interagissez avec un professeur.

	<u>Pas du tout appropriée</u>		<u>Modérément appropriée</u>			<u>Parfaitement appropriée</u>	
	1	2	3	4	5	6	7
1) Lorsque je ne réussis pas très bien, le professeur m'incite à trouver moi-même où je fais des erreurs.	1	2	3	4	5	6	7
Lorsque je ne réussis pas très bien, le professeur m'indique où je fais des erreurs.	1	2	3	4	5	6	7
2) Lorsque je demande à un professeur de l'aide pour solutionner un problème, il/elle me demande mon avis avant de me donner le sien.	1	2	3	4	5	6	7
Lorsque je demande à un professeur de l'aide pour solutionner un problème, il/elle m'indique directement comment solutionner ce problème.	1	2	3	4	5	6	7
3) Lorsqu'un professeur me demande de faire quelque chose, il/elle me donne suffisamment de structure de telle sorte que je sache ce qu'il y a à faire sans pour autant me sentir limité.	1	2	3	4	5	6	7
Lorsqu'un professeur me demande de faire quelque chose, les directives qu'il/elle me donne sont très structurées de telle sorte que je peux faire ce qui m'est demandé sans me poser de questions.	1	2	3	4	5	6	7
4) Lorsque je ne réussis pas très bien un examen, le professeur me dit exactement quoi faire pour que je réussisse mieux la prochaine fois.	1	2	3	4	5	6	7
Lorsque je ne réussis pas très bien un examen, le professeur me fait des suggestions quant aux moyens par lesquels je peux m'améliorer.	1	2	3	4	5	6	7
5) Le feedback que je reçois du professeur m'indique aussi bien mes points forts que mes points faibles.	1	2	3	4	5	6	7
Le feedback que je reçois du professeur m'indique principalement mes points forts.	1	2	3	4	5	6	7
6) Le professeur me donne plusieurs opportunités de prendre mes propres décisions dans ce que je fais même si cela implique que je puisse faire certaines erreurs.	1	2	3	4	5	6	7
Le professeur me dit exactement quoi faire ce qui a pour effet de limiter le nombre d'erreurs que je peux faire.	1	2	3	4	5	6	7
7) Le professeur n'a pas d'attentes élevées à mon égard.	1	2	3	4	5	6	7
Le professeur a des attentes qui sont relativement élevées à mon égard et qui m'incitent à me surpasser.	1	2	3	4	5	6	7
8) Le professeur identifie des objectifs réalistes pour moi.	1	2	3	4	5	6	7
Le professeur m'incite à identifier des objectifs par moi-même, même si cela implique que ceux-ci puisse être plus ou moins réaliste.	1	2	3	4	5	6	7
9) Le professeur me demande de trouver par moi-même où je fais des erreurs.	1	2	3	4	5	6	7
Le professeur m'indique lui-même où je fais des erreurs.	1	2	3	4	5	6	7

## POURQUOI LES ÉTUDIANTS VONT-ILS À L'UNIVERSITÉ?

À l'aide de l'échelle ci-dessous, indiquez dans quelle mesure chacun des énoncés suivants correspond actuellement aux raisons pour lesquelles vous croyez que les étudiants en général poursuivent des études au niveau universitaire.

	Ne correspond		Correspond			Correspond	
	<u>pas du tout</u>		<u>Modérément</u>			<u>Exactement</u>	
	1	2	3	4	5	6	7
1) Parce qu'ils éprouvent du plaisir et de la satisfaction à apprendre de nouvelles choses.	1	2	3	4	5	6	7
2) Parce qu'ils croient que des études universitaires vont les aider à mieux se préparer à la carrière qu'ils ont choisie.	1	2	3	4	5	6	7
3) Parce que juste avec un diplôme d'études secondaires ils ne pourraient pas se trouver un emploi assez payant.	1	2	3	4	5	6	7
4) Pour se prouver qu'ils ont des personnes intelligentes.	1	2	3	4	5	6	7
5) Ils ne le savent pas; ils ne parviennent pas à comprendre ce qu'ils font à l'université.	1	2	3	4	5	6	7
6) Parce que mes études leurs permettent de continuer à en apprendre sur une foule de choses qui mles intéressent.	1	2	3	4	5	6	7
7) Parce qu'ils croient que des études de niveau universitaire vont augmenter leur compétence comme travailleur(se).	1	2	3	4	5	6	7
8) Pour pouvoir décrocher un emploi plus prestigieux plus tard.	1	2	3	4	5	6	7
9) Parce que le fait de réussir à l'université leur permet de se sentir important à leurs propres yeux.	1	2	3	4	5	6	7
10) Ils ne parviennent pas à voir pourquoi il vont à l'université et, franchement, cela ne les préoccupe pas du tout.	1	2	3	4	5	6	7
11) Pour le plaisir qu'ils ont à découvrir de nouvelles choses jamais vues auparavant.	1	2	3	4	5	6	7
12) Parce qu'éventuellement cela va leur permettre d'aller sur le marché du travail dans un domaine qu'ils aiment.	1	2	3	4	5	6	7
13) Parce qu'ils veulent pouvoir faire "la belle vie" plus tard.	1	2	3	4	5	6	7
14) Honnêtement, ils ne le savent pas; ils ont vraiment l'impression de perdre leur temps à l'université.	1	2	3	4	5	6	7
15) Pour le plaisir d'en savoir plus long sur les matières qui les attirent.	1	2	3	4	5	6	7
16) Parce qu'ils veulent se prouver à eux-même qu'ils sont capables de réussir dans les études.	1	2	3	4	5	6	7
17) Parce que cela va les aider à mieux choisir leur orientation de carrière.	1	2	3	4	5	6	7
18) Pour avoir un meilleur salaire plus tard.	1	2	3	4	5	6	7
19) Ils ont déjà eu de bonnes raisons pour aller à l'université mais maintenant ils se demandent s'ils devraient continuer à y aller.	1	2	3	4	5	6	7
20) Pour se prouver à eux-même qu'ils sont capable de faire mieux que juste un secondaire.	1	2	3	4	5	6	7

**APPENDIX B**  
**Questionnaire used in Pilot Study 2**

## QUESTIONNAIRE SUR LES ÉTUDES UNIVERSITAIRES - II

### Directives:

Cette deuxième partie du sondage sur les études universitaires a pour but d'identifier quelles sont les raisons qui incitent vos ami(e)s intimes à poursuivre des études universitaires. Par ami(e)s intimes nous entendons les individus que vous considérez près de vous et sur qui vous pouvez compter pour étudier, réviser la matière d'un cours, ou effectuer les travaux demandés dans un cours. Ces ami(e)s intimes doivent être présentement étudiant au niveau universitaire. Ils peuvent être inscrit dans ce cours ou dans d'autres cours que vous suivez.

Si vous décidez de participer à cette étude, nous vous demandons de donner une des deux copies du questionnaire inclus dans cette enveloppe à deux de vos ami(e)s intimes après avoir demandé à ceux-ci s'ils veulent bien participer à cette étude. Il est important de mentionner qu'ils n'ont aucune obligation de participer à cette étude et que s'ils décident de participer, leurs réponses demeureront complètement anonymes (aucune identification n'est demandée). Il est aussi important de mentionner qu'il ne s'agit ni d'un test, ni d'un examen: qu'il n'y a donc pas de bonnes ou de mauvaises réponses. Finalement, ils doivent répondre de façon spontanée, sans s'attarder à un des énoncés en particulier.

Lorsqu'ils ont terminé, vous rapportez lors du prochain cours les deux questionnaires ainsi que la présente feuille dans la présente enveloppe. Sur cette feuille, il vous est demandé d'indiquer certaines informations (4 dernier du numéro de téléphone ou date de naissance) afin que nous puissions jumeller les informations recueillies dans cette deuxième partie aux informations recueillies dans la première partie. Ces informations nous permettent de jumeller les réponses des deux parties tout en gardant votre identité anonyme. Les identifications qui vous sont demandées vont servir uniquement à des fins de recherches, le tout demeurera absolument confidentiel. Si vous décidez de ne pas participer à cette étude nous vous demandons tout simplement de retourner l'enveloppe lors du prochain cours. Ainsi personne ne saura si vous avez participé ou non à cette étude.

Luc Pelletier, Ph.D.  
École de Psychologie  
Université d'Ottawa

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Veillez indiquer les 4 derniers chiffres de votre numéro de téléphone: \_\_\_\_\_

Votre date de naissance: \_\_\_\_\_

Sexe: masculin \_\_\_\_\_ féminin \_\_\_\_\_

(questionnaire completed separately by each friend)

## POURQUOI ALLEZ-VOUS À L'UNIVERSITÉ?

À l'aide de l'échelle ci-dessous, indiquez dans quelle mesure chacun des énoncés suivants correspond actuellement aux raisons pour lesquelles vous poursuivez des études au niveau universitaire.

	<u>Ne correspond pas du tout</u>		<u>Correspond Modérément</u>			<u>Correspond Exactement</u>	
	1	2	3	4	5	6	7
1) Parce que j'éprouve du plaisir et de la satisfaction à apprendre de nouvelles choses.	1	2	3	4	5	6	7
2) Parce que selon moi, des études universitaires vont m'aider à mieux me préparer à la carrière que j'ai choisie.	1	2	3	4	5	6	7
3) Parce que juste avec un diplôme d'études secondaires je ne pourrais pas me trouver un emploi assez payant.	1	2	3	4	5	6	7
4) Pour me prouver que je suis une personne intelligente.	1	2	3	4	5	6	7
5) Je ne le sais pas; je ne parviens pas à comprendre ce que je fais à l'université.	1	2	3	4	5	6	7
6) Parce que mes études me permettent de continuer à en apprendre sur une foule de choses qui m'intéressent.	1	2	3	4	5	6	7
7) Parce que je crois que des études de niveau universitaire vont augmenter ma compétence comme travailleur(se).	1	2	3	4	5	6	7
8) Pour pouvoir décrocher un emploi plus prestigieux plus tard.	1	2	3	4	5	6	7
9) Parce que le fait de réussir à l'université me permet de me sentir important à mes propres yeux.	1	2	3	4	5	6	7
10) Je ne parviens pas à voir pourquoi je vais à l'université et, franchement, je m'en fous pas mal.	1	2	3	4	5	6	7
11) Pour le plaisir que j'ai à découvrir de nouvelles choses jamais vues auparavant.	1	2	3	4	5	6	7
12) Parce qu'éventuellement cela va me permettre d'aller sur le marché du travail dans un domaine que j'aime.	1	2	3	4	5	6	7
13) Parce que je veux pouvoir faire "la belle vie" plus tard.	1	2	3	4	5	6	7
14) Honnêtement, je ne le sais pas; j'ai vraiment l'impression de perdre mon temps à l'université.	1	2	3	4	5	6	7
15) Pour le plaisir d'en savoir plus long sur les matières qui m'attirent.	1	2	3	4	5	6	7
16) Parce que je veux me prouver à moi-même que je suis capable de réussir dans les études.	1	2	3	4	5	6	7
17) Parce que cela va m'aider à mieux choisir mon orientation de carrière.	1	2	3	4	5	6	7
18) Pour avoir un meilleur salaire plus tard.	1	2	3	4	5	6	7
19) J'ai déjà eu de bonnes raisons pour aller à l'université mais maintenant je me demande si je devrais continuer à y aller.	1	2	3	4	5	6	7
20) Pour me prouver à moi-même que je suis capable de faire mieux que juste un secondaire.	1	2	3	4	5	6	7

**APPENDIX C**  
**Questionnaire used in Study 1**

## QUESTIONNAIRE SUR LES ÉTUDES UNIVERSITAIRES

### Directives:

Nous effectuons présentement une recherche pour mieux comprendre les comportements et les attitudes des étudiants du milieu universitaire. Dans les pages qui suivent, vous trouverez différents énoncés relatifs à certains aspects du milieu académique. Vous êtes invité(e)s à indiquer à quel point chacun de ces énoncés correspond actuellement à ce que vous vivez dans le milieu académique.

Le participation à cette étude est volontaire. Le choix de participer ou non vous appartient. Si vous décidez de participer, vous pouvez mettre fin à votre participation en tout temps, sans obligations de votre part. Il ne s'agit ni d'un test, ni d'un examen: il n'y a donc pas de bonnes ou de mauvaises réponses. Ce qui nous intéresse, c'est ce que vous pensez vraiment. Nous vous demandons de répondre de façon spontanée, sans vous attarder à aucun énoncé en particulier. Nous vous encourageons à répondre à tous les énoncés. Vous n'êtes toutefois pas dans l'obligation de répondre aux énoncés qui vous déplaisent ou qui vous mettent mal à l'aise.

Vos réponses demeureront anonymes. Il n'est pas nécessaire d'indiquer votre nom sur les questionnaires. Les identifications qui vous sont demandées (date de naissance et 4 derniers chiffres du numéro de téléphone) serviront uniquement à des fins de recherches. Toutes vos réponses demeureront absolument confidentielles. Votre professeur n'y aura pas accès.

Merci pour votre collaboration! Elle est très appréciée!

Kim Tuson, Candidate au Doctorat  
École de Psychologie  
Université d'Ottawa

Luc Pelletier, PhD  
École de Psychologie  
Université d'Ottawa

Veillez indiquer les 4 derniers chiffres de votre numéro de téléphone: \_\_\_\_\_

Votre date de naissance: \_\_\_\_\_

Sexe: masculin \_\_\_\_\_ féminin \_\_\_\_\_

Êtes-vous: étudiant(e) à temps plein présentement \_\_\_\_\_

sur le marché du travail à temps plein \_\_\_\_\_

Quelle est la concentration ou la spécialisation de vos études sous-diplômées (baccalauréat)?

Quelle est votre moyenne générale cette année?

A+   A   A-   B+   B   B-   C+   C   D+   D

Quelle est votre moyenne scolaire cumulative (G.P.A.) \_\_\_\_/10?

## POURQUOI ALLEZ-VOUS À L'UNIVERSITÉ?

À l'aide de l'échelle ci-dessous, indiquez dans quelle mesure chacun des énoncés suivants correspond actuellement aux raisons pour lesquelles vous poursuivez des études au niveau universitaire.

	Ne correspond <u>pas du tout</u>		Correspond <u>Modérément</u>			Correspond <u>Exactement</u>	
	1	2	3	4	5	6	7
1) Parce que j'éprouve du plaisir et de la satisfaction à apprendre de nouvelles choses.	1	2	3	4	5	6	7
2) Parce que selon moi, des études universitaires vont m'aider à mieux me préparer à la carrière que j'ai choisie.	1	2	3	4	5	6	7
3) Parce que juste avec un diplôme d'études secondaires je ne pourrais pas me trouver un emploi assez payant.	1	2	3	4	5	6	7
4) Pour me prouver que je suis une personne intelligente.	1	2	3	4	5	6	7
5) Je ne le sais pas; je ne parviens pas à comprendre ce que je fais à l'université.	1	2	3	4	5	6	7
6) Parce que mes études me permettent de continuer à en apprendre sur une foule de choses qui m'intéressent.	1	2	3	4	5	6	7
7) Parce que je crois que des études de niveau universitaire vont augmenter ma compétence comme travailleur(se).	1	2	3	4	5	6	7
8) Pour pouvoir décrocher un emploi plus prestigieux plus tard.	1	2	3	4	5	6	7
9) Parce que le fait de réussir à l'université me permet de me sentir important à mes propres yeux.	1	2	3	4	5	6	7
10) Je ne parviens pas à voir pourquoi je vais à l'université et, franchement, je m'en fous pas mal.	1	2	3	4	5	6	7
11) Pour le plaisir que j'ai à découvrir de nouvelles choses jamais vues auparavant.	1	2	3	4	5	6	7
12) Parce qu'éventuellement cela va me permettre d'aller sur le marché du travail dans un domaine que j'aime.	1	2	3	4	5	6	7
13) Parce que je veux pouvoir faire "la belle vie" plus tard.	1	2	3	4	5	6	7
14) Honnêtement, je ne le sais pas; j'ai vraiment l'impression de perdre mon temps à l'université.	1	2	3	4	5	6	7
15) Pour le plaisir d'en savoir plus long sur les matières qui m'attirent.	1	2	3	4	5	6	7
16) Parce que je veux me prouver à moi-même que je suis capable de réussir dans les études.	1	2	3	4	5	6	7
17) Parce que cela va m'aider à mieux choisir mon orientation de carrière.	1	2	3	4	5	6	7
18) Pour avoir un meilleur salaire plus tard.	1	2	3	4	5	6	7
19) J'ai déjà eu de bonnes raisons pour aller à l'université mais maintenant je me demande si je devrais continuer à y aller.	1	2	3	4	5	6	7
20) Pour me prouver à moi-même que je suis capable de faire mieux que juste un secondaire.	1	2	3	4	5	6	7

## CARACTÉRISTIQUES DES PROFESSEURS

*En utilisant l'échelle ci-dessous, indiquez à quel point vous jugez appropriée chacune des réactions suivantes lorsque vous interagissez avec un professeur.*

	<u>Pas du tout appropriée</u>		<u>Modérément appropriée</u>		<u>Parfaitement appropriée</u>		
	1	2	3	4	5	6	7
1) Lorsque je ne réussis pas très bien, le professeur m'incite à trouver moi-même où je fais des erreurs.	1	2	3	4	5	6	7
Lorsque je ne réussis pas très bien, le professeur m'indique où je fais des erreurs.	1	2	3	4	5	6	7
2) Lorsque je demande à un professeur de l'aide pour solutionner un problème, il/elle me demande mon avis avant de me donner le sien.	1	2	3	4	5	6	7
Lorsque je demande à un professeur de l'aide pour solutionner un problème, il/elle m'indique directement comment solutionner ce problème.	1	2	3	4	5	6	7
3) Lorsqu'un professeur me demande de faire quelque chose, il/elle me donne suffisamment de structure pour que je sache ce qu'il y a à faire tout en respectant mon apport personnel.	1	2	3	4	5	6	7
Lorsqu'un professeur me demande de faire quelque chose, les directives qu'il/elle me donne sont très structurées de telle sorte que je ne peux que faire ce qui m'est demandé sans me poser de questions.	1	2	3	4	5	6	7
4) Le professeur me donne plusieurs opportunités de prendre mes propres décisions dans ce que je fais même si cela implique que je puisse faire certaines erreurs.	1	2	3	4	5	6	7
Le professeur me dit exactement quoi faire ce qui a pour effet de limiter le nombre d'erreurs que je peux faire.	1	2	3	4	5	6	7
5) Le professeur identifie des objectifs réalistes pour moi.	1	2	3	4	5	6	7
Le professeur m'incite à identifier des objectifs par moi-même, même si cela implique que ceux-ci puisse être plus ou moins réaliste.	1	2	3	4	5	6	7
6) Le professeur me demande de trouver par moi-même où je fais des erreurs.	1	2	3	4	5	6	7
Le professeur m'indique lui-même où je fais des erreurs.	1	2	3	4	5	6	7

## RÉFLEXIONS SUR LES STYLES D'ENSEIGNEMENT

### Directives:

Vous trouverez dans les pages suivantes une série de courtes vignettes qui décrivent le style d'enseignement de professeurs imaginaires. À la suite de chaque vignette, il y a une liste d'énoncés qui visent à évaluer ce que vous pensez et ce que vous ressentez vis-à-vis du professeur qui est décrit dans la vignette. Nous vous demandons de lire chaque vignette avec attention, *en imaginant que vous êtes un étudiant dans la classe de ce professeur.*

Souvenez-vous: il n'y a pas de bonnes ou de mauvaises réponses! Les opinions des gens diffèrent! Ce qui nous intéresse, c'est de savoir à quel point vous considérez que les styles d'enseignement qui vous sont présentés dans les vignettes sont appropriés. S'il-vous-plaît, veuillez répondre à chacun des énoncés en encerclant le chiffre qui décrit le mieux ce que vous en pensez.

.....

### VIGNETTE I

Professeur Demers s'implique beaucoup dans l'enseignement et il prend plaisir à interagir avec les étudiants. Il prend son rôle d'éducateur au sérieux et il considère que c'est sa responsabilité de voir à ce que les étudiants maîtrisent bien la matière du cours. Sa philosophie vis-à-vis l'enseignement est rigide. Ce professeur croit que les étudiants ont besoin d'une figure d'autorité exigeante, de quelqu'un qui fixe des délais pour les travaux et qui voit à ce qu'ils soient respectés de façon stricte, de quelqu'un qui donne des instructions précises sur la façon de faire les travaux, qui vérifie si les travaux ont été faits et de quelqu'un qui n'a pas peur d'imposer des sanctions sévères lorsque c'est nécessaire. Il considère que c'est important d'avoir de bonnes notes et il essaie de pousser ses étudiants à performer en insistant sur l'importance des devoirs et des examens pour l'évaluation des étudiants. S'il-vous-plaît, veuillez évaluer ce professeur en fonction des énoncés suivants.

	Modérément vrai							7		
	Pas vrai du tout						Tout à fait vrai			
	1	2	3	4	5	6				
1. Ce professeur me semble compétent.				1	2	3	4	5	6	7
2. Je serais très productif avec ce professeur.				1	2	3	4	5	6	7
3. Ce professeur me rendrait anxieux.				1	2	3	4	5	6	7
4. J'aurais de bonne notes dans le cours de ce professeur.				1	2	3	4	5	6	7
5. J'aurais l'opportunité d'être créatif dans le cours de ce professeur.				1	2	3	4	5	6	7
6. J'aurais besoin de respecter des délais très stricts pour mes travaux avec ce professeur.				1	2	3	4	5	6	7
7. Je serais satisfait avec ce professeur.				1	2	3	4	5	6	7
8. Je prendrais plaisir de participer au cours de ce professeur.				1	2	3	4	5	6	7

	Modérément vrai							Tout à fait vrai		
	1	2	3	4	5	6	7	8	9	
9.	Je ressentirais beaucoup de liberté avec ce professeur.			1	2	3	4	5	6	7
10.	Il est probable que je serais tenté d'abandonner le cours de ce professeur.			1	2	3	4	5	6	7
11.	J'apprendrais beaucoup de choses avec ce professeur.			1	2	3	4	5	6	7
12.	Ce professeur considère qu'il est très important d'obtenir de bonnes notes.			1	2	3	4	5	6	7
13.	Ce professeur accorde beaucoup d'importance à l'évaluation des étudiants.			1	2	3	4	5	6	7
14.	Je travaillerais bien avec ce professeur.			1	2	3	4	5	6	7
15.	Le cours de ce professeur me semblerait intéressant.			1	2	3	4	5	6	7
16.	Ce professeur considère très important que les étudiants prennent plaisir au processus d'apprentissage.			1	2	3	4	5	6	7
17.	Je ressentirais beaucoup de pression dans le cours de ce professeur.			1	2	3	4	5	6	7
18.	J'aurais la possibilité de prendre mes propres décisions avec ce professeur.			1	2	3	4	5	6	7
19.	Ce professeur me motiverait.			1	2	3	4	5	6	7
20.	Ce professeur s'intéresse à son enseignement et à ses étudiants.			1	2	3	4	5	6	7

## VIGNETTE II

Professeur Legault aime beaucoup enseigner. La compagnie des étudiants le rend heureux. Il désire voir ses étudiants réussir bien et il pense que c'est son rôle de veiller à leur succès. Sa philosophie d'enseignement est que les étudiants ont besoin d'être poussé jusqu'à un certain point pour faire leur travail. Il établit donc des délais pour les travaux et il exerce des contrôles fréquents pour s'assurer que les étudiants accomplissent leur travail. Les étudiants, selon lui, doivent s'appliquer pour obtenir de bonnes notes car il croit que les notes sont un moyen efficace de les motiver, tout en permettant l'évaluation de leurs connaissances. S'il-vous-plaît, veuillez évaluer ce professeur en fonction des énoncés suivants.

	Pas vrai du tout			Modérément vrai			Tout à fait vrai				
	1	2	3	4	5	6	7				
1.					1	2	3	4	5	6	7
2.					1	2	3	4	5	6	7
3.					1	2	3	4	5	6	7
4.					1	2	3	4	5	6	7
5.					1	2	3	4	5	6	7
6.					1	2	3	4	5	6	7
7.					1	2	3	4	5	6	7
8.					1	2	3	4	5	6	7
9.					1	2	3	4	5	6	7
10.				1	2	3	4	5	6	7	
11.					1	2	3	4	5	6	7
12.					1	2	3	4	5	6	7
13.					1	2	3	4	5	6	7
14.				1	2	3	4	5	6	7	
15.					1	2	3	4	5	6	7
16.					1	2	3	4	5	6	7
17.					1	2	3	4	5	6	7
18.				1	2	3	4	5	6	7	
19.					1	2	3	4	5	6	7
20.					1	2	3	4	5	6	7

.....

## VIGNETTE III

Professeur Sabourin est très dévoué à son enseignement et à ses étudiants. Il croit que son rôle en tant qu'éducateur est de faciliter le processus d'apprentissage des étudiants en les encourageant à poursuivre leurs intérêts personnels. Sa philosophie d'enseignement est que les étudiants ont besoin d'un environnement stimulant et non-contraignant pour apprendre de façon optimale. Il essaie donc d'éviter d'exercer de la pression sur les étudiants et il tente de réduire au minimum l'utilisation des contrôles qui visent à évaluer si le travail a été fait. Il offre à ses étudiants la liberté d'effectuer leurs propres choix au niveau de plusieurs aspects du cours. Par exemple, les étudiants sont encouragés à développer leur autonomie en remettant leur travaux lorsqu'ils sont prêts. Il n'y a donc pas de délais fixes. Il encourage également les étudiants à se concentrer le plus possible sur le processus d'apprentissage au lieu de se concentrer sur le processus d'évaluation. En d'autres mots, il met de l'emphase sur l'apprentissage, pas sur le fait d'avoir de bonnes notes. S'il-vous-plaît, veuillez évaluer ce professeur en fonction des énoncés suivants.

	Pas vrai du tout		Modérément vrai					Tout à fait vrai		
	1	2	3	4	5	6	7			
1.	Ce professeur me semble compétent.			1	2	3	4	5	6	7
2.	Je serais très productif avec ce professeur.			1	2	3	4	5	6	7
3.	Ce professeur me rendrait anxieux.			1	2	3	4	5	6	7
4.	J'aurais de bonne notes dans le cours de ce professeur.			1	2	3	4	5	6	7
5.	J'aurais l'opportunité d'être créatif dans le cours de ce professeur.			1	2	3	4	5	6	7
6.	J'aurais besoin de respecter des délais très stricts pour mes travaux avec ce professeur.			1	2	3	4	5	6	7
7.	Je serais satisfait avec ce professeur.			1	2	3	4	5	6	7
8.	Je prendrais plaisir de participer au cours de ce professeur.			1	2	3	4	5	6	7
9.	Je ressentirais beaucoup de liberté avec ce professeur.			1	2	3	4	5	6	7
10.	Il est probable que je serais tenté d'abandonner le cours de ce professeur.			1	2	3	4	5	6	7
11.	J'apprendrais beaucoup de choses avec ce professeur.			1	2	3	4	5	6	7
12.	Ce professeur considère qu'il est très important d'obtenir de bonnes notes.			1	2	3	4	5	6	7

	Pas vrai du tout		Modérément vrai					Tout à fait vrai		
	1	2	3	4	5	6	7			
13.	Ce professeur accorde beaucoup d'importance à l'évaluation des étudiants.			1	2	3	4	5	6	7
14.	Je travaillerais bien avec ce professeur.			1	2	3	4	5	6	7
15.	Le cours de ce professeur me semblerait intéressant.			1	2	3	4	5	6	7
16.	Ce professeur considère très important que les étudiants prennent plaisir au processus d'apprentissage.			1	2	3	4	5	6	7
17.	Je ressentirais beaucoup de pression dans le cours de ce professeur.			1	2	3	4	5	6	7
18.	J'aurais la possibilité de prendre mes propres décisions avec ce professeur.			1	2	3	4	5	6	7
19.	Ce professeur me motiverait.			1	2	3	4	5	6	7
20.	Ce professeur s'intéresse à son enseignement et à ses étudiants.			1	2	3	4	5	6	7

#### VIGNETTE IV

Professeur Ménard est un professeur qui se consacre entièrement à son enseignement. Il apprécie le temps qu'il passe avec les étudiants et il désire les voir retirer du plaisir de leurs expériences d'apprentissage. Sa philosophie d'enseignement est relativement libérale. Il croit qu'au niveau universitaire les étudiants doivent commencer à prendre la responsabilité de leur éducation et il leur accorde donc un certain degré de latitude en classe. Ses cours sont plutôt structurés. Il essaie toutefois de demeurer flexible et il tente de s'adapter aux objectifs et aux intérêts des étudiants dans la mesure du possible. Il croit que la meilleure méthode pour amener les étudiants à obtenir de bonnes notes est de les inciter à se concentrer sur la compréhension de la matière à l'étude. Il encourage ses étudiants à se fixer des objectifs personnels et à travailler pour atteindre ces objectifs. S'il-vous-plaît, veuillez évaluer ce professeur en fonction des énoncés suivants.

	Pas vrai du tout		Modérément vrai					Tout à fait vrai		
	1	2	3	4	5	6	7			
1.	Ce professeur me semble compétent.			1	2	3	4	5	6	7

	Pas vrai du tout			Modérément vrai			Tout à fait vrai			
	1	2	3	4	5	6	7			
2.	Je serais très productif avec ce professeur.			1	2	3	4	5	6	7
3.	Ce professeur me rendrait anxieux.			1	2	3	4	5	6	7
4.	J'aurais de bonne notes dans le cours de ce professeur.			1	2	3	4	5	6	7
5.	J'aurais l'opportunité d'être créatif dans le cours de ce professeur.			1	2	3	4	5	6	7
6.	J'aurais besoin de respecter des délais très stricts pour mes travaux avec ce professeur.			1	2	3	4	5	6	7
7.	Je serais satisfait avec ce professeur.			1	2	3	4	5	6	7
8.	Je prendrais plaisir de participer au cours de ce professeur.			1	2	3	4	5	6	7
9.	Je ressentirais beaucoup de liberté avec ce professeur.			1	2	3	4	5	6	7
10.	Il est probable que je serais tenté d'abandonner le cours de ce professeur.			1	2	3	4	5	6	7
11.	J'apprendrais beaucoup de choses avec ce professeur.			1	2	3	4	5	6	7
12.	Ce professeur considère qu'il est très important d'obtenir de bonnes notes.			1	2	3	4	5	6	7
13.	Ce professeur accorde beaucoup d'importance à l'évaluation des étudiants.			1	2	3	4	5	6	7
14.	Je travaillerais bien avec ce professeur.			1	2	3	4	5	6	7
15.	Le cours de ce professeur me semblerait intéressant.			1	2	3	4	5	6	7
16.	Ce professeur considère très important que les étudiants prennent plaisir au processus d'apprentissage.			1	2	3	4	5	6	7
17.	Je ressentirais beaucoup de pression dans le cours de ce professeur.			1	2	3	4	5	6	7
18.	J'aurais la possibilité de prendre mes propres décisions avec ce professeur.			1	2	3	4	5	6	7
19.	Ce professeur me motiverait.			1	2	3	4	5	6	7
20.	Ce professeur s'intéresse à son enseignement et à ses étudiants.			1	2	3	4	5	6	7

\*\*\*\*\*

**APPENDIX D**  
**Questionnaire used in Study 2**

(instructions for students)

## QUESTIONNAIRE SUR LES ÉTUDES UNIVERSITAIRES - I

### Directives:

Cette deuxième partie du sondage sur les études universitaires a pour but d'identifier quelles sont les raisons qui incitent vos meilleurs(es) ami(e)s à poursuivre des études universitaires. Par "meilleurs ami(e)s" nous entendons les individus que vous considérez près de vous et sur qui vous pouvez compter pour étudier, réviser la matière d'un cours, ou effectuer les travaux demandés dans un cours. Ces ami(e)s doivent être présentement étudiants au niveau universitaire. Ils peuvent être inscrit dans ce cours ou dans d'autres cours que vous suivez.

Si vous décidez de participer à cette étude, nous vous demandons de donner un questionnaire et une enveloppe à deux de vos meilleurs(es) ami(e)s après avoir demandé à ceux-ci s'ils veulent bien participer à cette étude. Il est important de mentionner qu'ils n'ont aucune obligation de participer à cette étude et que s'ils décident de participer, leurs réponses demeureront complètement anonymes (aucune identification n'est demandée). Il est aussi important de mentionner qu'il ne s'agit ni d'un test, ni d'un examen: qu'il n'y a donc pas de bonnes ou de mauvaises réponses. Finalement, ils doivent répondre de façon spontanée, sans s'attarder à aucun énoncé en particulier.

Indiquez clairement à vos amis(es): (1) de compléter les deux parties du questionnaire, (2) de vous remettre ces questionnaires dans l'enveloppe scellée, et (3) d'écrire un mot de leur choix sur le rabat de l'enveloppe de telle sorte qu'il soit impossible d'ouvrir l'enveloppe sans briser le mot.

Veillez tout d'abord compléter les pages couvertures des questionnaires inclus dans chacune des enveloppes (ceux que vous allez donner à vos amis(es)). Sur ces feuilles, il vous est demandé d'indiquer certaines informations (4 derniers chiffres du numéro de téléphone et date de naissance) afin que nous puissions jumeler les informations recueillies dans cette deuxième partie aux informations recueillies dans la première partie. Ce système a pour but de garantir votre anonymat puisqu'il nous permet de jumeler les questionnaires sans utiliser votre nom. Les identifications qui vous sont demandées vont servir uniquement à des fins de recherche, le tout demeurera absolument confidentiel. Si vous décidez de ne pas participer à cette étude, nous vous demandons tout simplement de retourner l'enveloppe lors du prochain cours. Ainsi, personne ne saura si vous avez participé ou non à l'étude.

Kim Tuson, Candidate au Doctorat  
École de Psychologie  
Université d'Ottawa

Luc Pelletier, PhD  
École de Psychologie  
Université d'Ottawa

(instructions for friends)

## QUESTIONNAIRES SUR LES ÉTUDES UNIVERSITAIRES - II

### Directives:

Nous effectuons présentement une recherche pour mieux comprendre les comportements et attitudes des étudiants du milieu universitaire. Dans les pages qui suivent vous trouverez un questionnaire comprenant deux parties. Dans la première partie vous êtes invité(e)s à indiquer à quel point chacun de ces énoncés correspond actuellement **aux raisons pourquoi vous allez à l'université**. Dans la deuxième partie, vous êtes invité(e)s à indiquer **les raisons pouvant expliquer pourquoi votre ami(e) va à l'université**.

Si vous décidez de participer à cette étude, votre participation consistera à répondre aux questions qui apparaissent dans les pages qui suivent. Veuillez remettre le questionnaire complété à votre ami(e) dans l'enveloppe prévue à cet effet. Afin de préserver la confidentialité de vos réponses, veuillez cacheter cette enveloppe et apposer votre signature sur le rabat de l'enveloppe. Ainsi, il sera impossible d'ouvrir l'enveloppe sans briser votre signature.

Le participation à cette étude est volontaire. Le choix de participer ou non vous appartient. Si vous décidez de participer, vous pouvez mettre fin à votre participation en tout temps, sans obligations de votre part. Il ne s'agit ni d'un test, ni d'un examen; il n'y a donc pas de bonnes ou de mauvaises réponses. Ce qui nous intéresse, c'est ce que vous pensez vraiment. Nous vous demandons de répondre de façon spontanée, sans vous attarder à aucun énoncé en particulier. Nous vous encourageons à répondre à tous les énoncés. Vous n'êtes toutefois pas dans l'obligation de répondre aux énoncés qui vous déplaisent ou qui vous mettent mal à l'aise.

Vos réponses demeureront anonymes. Il n'est pas nécessaire d'indiquer votre nom sur les questionnaires. Les identifications qui vous sont demandées serviront uniquement à des fins de recherches. Toutes vos réponses demeureront absolument confidentielles.

Merci pour votre collaboration! Elle est très appréciée!

Kim Tuson, Candidate au Doctorat  
École de Psychologie  
Université d'Ottawa

Luc Pelletier, PhD  
École de Psychologie  
Université d'Ottawa

**\*\*\* À être complété par le sujet (pas leurs ami(e)s) \*\*\***

Veuillez indiquer les 4 derniers chiffres de votre numéro de téléphone: \_\_\_\_\_

Votre date de naissance: \_\_\_\_\_

## POURQUOI ALLEZ-VOUS A L'UNIVERSITÉ?

À l'aide de l'échelle ci-dessous, indiquez dans quelle mesure chacun des énoncés suivants correspond actuellement aux raisons pour lesquelles vous poursuivez des études au niveau universitaire.

	Ne correspond <u>pas du tout</u>		Correspond <u>Modérément</u>			Correspond <u>Exactement</u>	
	1	2	3	4	5	6	7
1) Parce que j'éprouve du plaisir et de la satisfaction à apprendre de nouvelles choses.	1	2	3	4	5	6	7
2) Parce que selon moi, des études universitaires vont m'aider à mieux me préparer à la carrière que j'ai choisie.	1	2	3	4	5	6	7
3) Parce que juste avec un diplôme d'études secondaires je ne pourrais pas me trouver un emploi assez payant.	1	2	3	4	5	6	7
4) Pour me prouver que je suis une personne intelligente.	1	2	3	4	5	6	7
5) Je ne le sais pas; je ne parviens pas à comprendre ce que je fais à l'université.	1	2	3	4	5	6	7
6) Parce que mes études me permettent de continuer à en apprendre sur une foule de choses qui m'intéressent.	1	2	3	4	5	6	7
7) Parce que je crois que des études du niveau universitaire vont augmenter ma compétence comme travailleur(se).	1	2	3	4	5	6	7
8) Pour pouvoir décrocher un emploi plus prestigieux plus tard.	1	2	3	4	5	6	7
9) Parce que le fait de réussir à l'université me permet de me sentir important à mes propres yeux.	1	2	3	4	5	6	7
10) Je ne parviens pas à voir pourquoi je vais à l'université et franchement je m'en fous pas mal.	1	2	3	4	5	6	7
11) Pour le plaisir que j'ai à découvrir de nouvelles choses jamais vues auparavant.	1	2	3	4	5	6	7
12) Parce qu'éventuellement cela va me permettre d'aller sur le marché du travail dans un domaine que j'aime.	1	2	3	4	5	6	7
13) Parce que je veux pouvoir faire " la belle vie " plus tard.	1	2	3	4	5	6	7
14) Honnêtement, je ne le sais pas; j'ai vraiment l'impression de perdre mon temps à l'université.	1	2	3	4	5	6	7
15) Pour le plaisir d'en savoir plus long sur les matières qui m'attirent.	1	2	3	4	5	6	7
16) Parce que je veux me prouver à moi-même que je suis capable de réussir dans les études.	1	2	3	4	5	6	7
17) Parce que cela va m'aider à mieux choisir mon orientation de carrière.	1	2	3	4	5	6	7
18) Pour avoir un meilleur salaire plus tard.	1	2	3	4	5	6	7
19) J'ai déjà eu de bonnes raisons pour aller à l'université, mais maintenant je me demande si je devrais continuer à y aller.	1	2	3	4	5	6	7
20) Pour me prouver à moi-même que je suis capable de faire mieux que juste un secondaire.	1	2	3	4	5	6	7

## POURQUOI TON AMI(E) VA-T-IL(ELLE) A L'UNIVERSITÉ?

À l'aide de l'échelle ci-dessous, indiquez dans quelle mesure chacun des énoncés suivants correspond actuellement aux raisons pour lesquelles ton ami(e) poursuit des études au niveau universitaire.

	Ne correspond <u>pas du tout</u>		Correspond <u>Modérément</u>			Correspond <u>Exactement</u>	
	1	2	3	4	5	6	7
1) Parce qu'il (elle) éprouve du plaisir et de la satisfaction à apprendre de nouvelles choses.	1	2	3	4	5	6	7
2) Parce qu'il (elle) croit que des études universitaires vont l'aider à mieux se préparer à la carrière qu'il (elle) a choisie.	1	2	3	4	5	6	7
3) Parce que juste avec un diplôme d'études secondaires il (elle) ne pourrait pas se trouver un emploi assez payant.	1	2	3	4	5	6	7
4) Pour se prouver qu'il (elle) est une personne intelligente.	1	2	3	4	5	6	7
5) Il (Elle) ne le sait pas; il (elle) ne parvient pas à comprendre ce qu'il (elle) fait à l'université.	1	2	3	4	5	6	7
6) Parce que des études lui permettent de continuer à en apprendre sur une foule de choses qui lui intéressent.	1	2	3	4	5	6	7
7) Parce qu'il (elle) croit que des études du niveau universitaire vont augmenter sa compétence comme travailleur(se).	1	2	3	4	5	6	7
8) Pour pouvoir décrocher un emploi plus prestigieux plus tard.	1	2	3	4	5	6	7
9) Parce que le fait de réussir à l'université lui permet de se sentir important à ses propres yeux.	1	2	3	4	5	6	7
10) Il (Elle) ne parvient pas à voir pourquoi il (elle) vont à l'université et franchement cela ne le (la) préoccupe pas du tout.	1	2	3	4	5	6	7
11) Pour le plaisir qu'il (elle) a à découvrir de nouvelles choses jamais vues auparavant.	1	2	3	4	5	6	7
12) Parce qu'éventuellement cela va lui permettre d'aller sur le marché du travail dans un domaine qu'il (elle) aime.	1	2	3	4	5	6	7
13) Parce qu'il (elle) veut pouvoir faire " la belle vie " plus tard.	1	2	3	4	5	6	7
14) Honnêtement, il (elle) ne le sait pas; il (elle) a vraiment l'impression de perdre son temps à l'université.	1	2	3	4	5	6	7
15) Pour le plaisir d'en savoir plus long sur les matières qui l'attire.	1	2	3	4	5	6	7
16) Parce qu'il (elle) veut se prouver à lui (elle)-même qu'il (elle) est capable de réussir dans les études.	1	2	3	4	5	6	7
17) Parce que cela va l'aider à mieux choisir son orientation de carrière.	1	2	3	4	5	6	7
18) Pour avoir un meilleur salaire plus tard.	1	2	3	4	5	6	7
19) Il (Elle) a déjà eu de bonnes raisons pour aller à l'université, mais maintenant il (elle) se demande s'il (elle) devrait continuer à y aller.	1	2	3	4	5	6	7
20) Pour se prouver à lui (elle)-même qu'il (elle) est capable de faire mieux que juste un secondaire.	1	2	3	4	5	6	7

**APPENDIX E**  
**Questionnaire used in Study 3**

### Instructions for Completing the Questionnaire Package

A study is presently being conducted at the University of Ottawa by Kim Tuson, a doctoral student in the School of Psychology who is working under the supervision of Dr. Luc Pelletier. We are interested in understanding people's reasons for being involved in couple relationships and how these reasons relate to couple adjustment and satisfaction. We would be very pleased to have your participation in this research.

We are looking for couples who have been involved in an ongoing heterosexual relationship for a minimum of one year and who are currently living together. To participate, we ask that you and your partner each complete a copy of the enclosed questionnaire packages in a quiet place in your home where you will not be interrupted. It is very important that you and your partner answer the questionnaires *individually* without discussing your answers to the questions until *after* you have returned your questionnaires. Our study will be seriously compromised if you compare and discuss your answers with your partner while completing the questionnaire. In the questionnaire, you will be asked questions about your reasons for being in your couple relationship, your perceptions about your partner's reasons for being in your couple relationship, how you and your partner interact with one another, the extent to which you and your partner agree or disagree on various aspects of your couple life, and your level of satisfaction with your relationship.

Your decision to complete the questionnaire is entirely voluntary. If you should decide to participate, your answers will be kept strictly anonymous and confidential. You will not be asked to disclose your name, although we do ask that you (clearly) indicate the last five digits of your home telephone number on the front page of the questionnaire package so that we can later match your answers with those of your partner. In this way, your identity will remain unknown.

While the amount of time it takes for people to complete the questionnaire package varies, usually it takes about 20 minutes. When answering the items, we ask that you try to answer them as honestly and accurately as possible. It is important to remember that there are no right and wrong answers, we are simply interested in your honest opinions. Also, we encourage you not to leave any items unanswered, but instead pick the response that best describes your thoughts and feelings for the item. Of course, you are not obligated to answer any question you do not feel comfortable in responding to.

We encourage you and your partner to complete the questionnaire packages at your earliest convenience. Once you have completed your questionnaire, place it back into its envelope, seal the envelope, and write your signature or some other word across the seal of the envelope to ensure that it will not be broken (this is to protect the confidentiality of your answers). Your partner is to place his/her questionnaire back into its corresponding envelope in the same way. Then, in one week's time, we will return to your home to pick up your completed questionnaire packages.

If you have any questions or comments about the research project, or if you would like to receive a report summarizing the results of the study once it is completed, please feel free to contact us at (613) 564-7116. Keep this cover page for your records so that you can refer to it if you need to contact us. We would like to extend our appreciation for your contribution to this research project.

Sincerely,

Kim Tuson, Doctoral Student  
School of Psychology  
University of Ottawa  
Ottawa, Ontario  
K1N 6N5

Luc Pelletier, Ph.D.  
School of Psychology  
University of Ottawa  
Ottawa, Ontario  
K1N 6N5

**LAST 5 DIGITS OF HOME TELEPHONE NUMBER:** \_\_\_\_\_

### ♂ ♀ QUESTIONNAIRE #1 ♂ ♀

*There are many different reasons why people get involved in couple relationships. Please take a few moments to think about the reasons why you are currently having a relationship with your partner. Then, using the scale below, please indicate the degree to which you feel each of the following items corresponds to your reasons for having a relationship with your partner by circling the appropriate number to the right of the item.*

Does not correspond at all	Corresponds very little	Corresponds slightly	Corresponds moderately	Corresponds well	Corresponds very well	Corresponds exactly
1	2	3	4	5	6	7

#### WHY ARE YOU HAVING A RELATIONSHIP WITH YOUR PARTNER?

- |  |   |   |   |   |   |   |   |
|--|---|---|---|---|---|---|---|
| 1. I don't know why. In all honesty, I don't really feel like making the effort necessary to keep this relationship together.                                  | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 2. Because I need to be in a relationship with my partner to feel important.   | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 3. Because I value the way my relationship with my partner allows me to improve myself as a person.  | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 4. I don't know why anymore. I think, to my deep disappointment, that our relationship is destined to fail since I no longer see any possibility of saving it. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 5. Because I value the way our life as a couple gives me the opportunity to participate in new activities.   | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 6. Because I love the many fun and crazy times that I share with my partner.   | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 7. Because I would feel very guilty if I separated from my partner.  | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 8. I don't really know; I feel helpless to the fact that sooner or later we are going to separate.   | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 9. Because my relationship with my partner allows me to have a more stable sex life with someone of my choice.   | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 10. Because people who are important to me (e.g., children, family, friends) are proud of our relationship and I wouldn't want to disappoint them.             | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 11. Because my partner wouldn't be able to cope with a separation.   | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 12. Because this is the person I have chosen to share in my important life projects.   | 1 | 2 | 3 | 4 | 5 | 6 | 7 |

Does not correspond at all 1	Corresponds very little 2	Corresponds slightly 3	Corresponds moderately 4	Corresponds well 5	Corresponds very well 6	Corresponds exactly 7				
13. There is nothing motivating me to stay in my relationship with my partner.				1	2	3	4	5	6	7
14. Because I experience enormous pleasure and freedom in our sexual life.				1	2	3	4	5	6	7
15. Because life with my partner offers me the opportunity to learn how to better communicate my ideas.				1	2	3	4	5	6	7
16. Because with my partner, I feel free to commit myself to future projects that I hold dear.				1	2	3	4	5	6	7
17. Because my relationship allows me to share my emotions and special moments with someone.				1	2	3	4	5	6	7
18. Because my relationship is a commitment that I have to hold.				1	2	3	4	5	6	7
19. Because the number of deep and meaningful discussions I share with my partner are very satisfying for me.				1	2	3	4	5	6	7
20. Because living with my partner gives me the opportunity to develop new abilities that I didn't know I had.				1	2	3	4	5	6	7
21. Because the moments I share with my partner are very stimulating and satisfying for me.				1	2	3	4	5	6	7

### ♂ ♀ QUESTIONNAIRE #2 ♂ ♀

*We are interested to know what reasons you think your partner might have for being involved in a couple relationship with you. In answering this section, we don't want you to actually ask your partner for his or her reasons. We simply want to know what you think are his or her reasons. Using the scale below, please indicate the degree to which you feel each of the following items corresponds to what you believe are your partner's reasons for being in a relationship with you.*

Does not correspond at all 1	Corresponds very little 2	Corresponds slightly 3	Corresponds moderately 4	Corresponds well 5	Corresponds very well 6	Corresponds exactly 7
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#### **WHY IS YOUR PARTNER HAVING A RELATIONSHIP WITH YOU?**

1. I don't know why. In all honesty, I don't really think my partner feels like making the effort necessary to keep this relationship together.				1	2	3	4	5	6	7
2. Because my partner needs to be in a relationship with me to feel important.				1	2	3	4	5	6	7

	Does not correspond at all 1	Corresponds very little 2	Corresponds slightly 3	Corresponds moderately 4	Corresponds well 5	Corresponds very well 6	Corresponds exactly 7				
3. Because my partner values the way our relationship allows him/her to improve as a person.					1	2	3	4	5	6	7
4. I don't know why anymore. I think, to my deep disappointment, that my partner feels that our relationship is destined to fail since he/she no longer sees any possibility of saving it.					1	2	3	4	5	6	7
5. Because my partner values the way our life as a couple gives him/her the opportunity to participate in new activities.					1	2	3	4	5	6	7
6. Because my partner loves the many fun and crazy times that we share together.					1	2	3	4	5	6	7
7. Because my partner would feel very guilty if he/she separated from me.					1	2	3	4	5	6	7
8. I don't really know; I think my partner feels helpless to the fact that sooner or later we are going to separate.					1	2	3	4	5	6	7
9. Because our relationship allows my partner to have a more stable sex life with someone of his/her choice.					1	2	3	4	5	6	7
10. Because people who are important to my partner (e.g., children, family, friends) are proud of our relationship and he/she wouldn't want to disappoint them.					1	2	3	4	5	6	7
11. Because my partner thinks I wouldn't be able to cope with a separation.	1				2	3	4	5	6	7	
12. Because I am the person my partner has chosen to share in his/her important life projects.					1	2	3	4	5	6	7
13. There is nothing motivating my partner to stay in a relationship with me.	1				2	3	4	5	6	7	
14. Because my partner experiences enormous pleasure and freedom in our sexual life.					1	2	3	4	5	6	7
15. Because life with me offers my partner the opportunity to learn how to better communicate his/her ideas.					1	2	3	4	5	6	7
16. Because with me, my partner feels free to commit him-/herself to future projects that he/she holds dearly.					1	2	3	4	5	6	7
17. Because our relationship allows my partner to share his/her emotions and special moments with someone.					1	2	3	4	5	6	7
18. Because my partner feels that our relationship is a commitment that he/she has to hold.					1	2	3	4	5	6	7

Does not correspond at all	Corresponds very little	Corresponds slightly	Corresponds moderately	Corresponds well	Corresponds very well	Corresponds exactly
1	2	3	4	5	6	7

19. Because the number of deep and meaningful discussions my partner shares with me are very satisfying for him/her.      1   2   3   4   5   6   7
20. Because living with me gives my partner the opportunity to develop new abilities that he/she didn't know he/she had.      1   2   3   4   5   6   7
21. Because the moments my partner shares with me are very stimulating and satisfying for him/her.      1   2   3   4   5   6   7



**♂ ♀ QUESTIONNAIRE #3 ♂ ♀**

Please take some time to think about the three questions presented below. Each question is followed by a series of 10 items that represent different aspects of your couple life. For each item, please circle the number between 1 and 7 that best represents your response to the corresponding question.

1. To what extent does your partner pressure you to think or do what he/she wants with respect to the following aspects of your couple life?

	Not at all		Somewhat			Very, very much	
handling of family finances	1	2	3	4	5	6	7
social activities	1	2	3	4	5	6	7
education of children	1	2	3	4	5	6	7
sex relations	1	2	3	4	5	6	7
philosophy of life	1	2	3	4	5	6	7
ways of dealing with parents or in-laws							
aims, goals, and things believed to be important	1	2	3	4	5	6	7
making major decisions	1	2	3	4	5	6	7
household tasks	1	2	3	4	5	6	7
career decisions	1	2	3	4	5	6	7

2. To what extent does your partner say positive things about you with respect to the following aspects of your couple life?

	Not at all		Somewhat			Very, very much	
handling of family finances	1	2	3	4	5	6	7
social activities	1	2	3	4	5	6	7
education of children	1	2	3	4	5	6	7
sex relations	1	2	3	4	5	6	7

	Not at all		Somewhat			Very, very much	
	1	2	3	4	5	6	7
philosophy of life	1	2	3	4	5	6	7
ways of dealing with parents or in-laws aims, goals, and things believed to be important	1	2	3	4	5	6	7
making major decisions	1	2	3	4	5	6	7
household tasks	1	2	3	4	5	6	7
career decisions	1	2	3	4	5	6	7

3. *To what extent does your partner give you the freedom to make personal decisions with respect to the following aspects of your couple life?*

	Not at all		Somewhat			Very, very much	
	1	2	3	4	5	6	7
handling of family finances	1	2	3	4	5	6	7
social activities	1	2	3	4	5	6	7
education of children	1	2	3	4	5	6	7
sex relations	1	2	3	4	5	6	7
philosophy of life	1	2	3	4	5	6	7
ways of dealing with parents or in-laws aims, goals, and things believed to be important	1	2	3	4	5	6	7
making major decisions	1	2	3	4	5	6	7
household tasks	1	2	3	4	5	6	7
career decisions	1	2	3	4	5	6	7



### ♂♀ QUESTIONNAIRE #4 ♂♀

*Please take some time to think about the questions below and, using the scale from 1 to 7, rate the intensity of your response.*

#### HOW MUCH DO YOU.....

	Not at all		Somewhat			Very, very much	
	1	2	3	4	5	6	7
1. desire to remain in your relationship with your partner?	1	2	3	4	5	6	7
2. spend time doing things together with your partner?	1	2	3	4	5	6	7
3. find your relationship satisfying?	1	2	3	4	5	6	7
4. spend time talking with your partner?	1	2	3	4	5	6	7
5. discuss problems and worries with your partner?	1	2	3	4	5	6	7
6. plan to remain in the relationship with your partner?	1	2	3	4	5	6	7
7. disclose personal matters with your partner?	1	2	3	4	5	6	7



### ♂ ♀ QUESTIONNAIRE #5 ♂ ♀

*This scale is for the purpose of understanding your level of satisfaction with each of the ten aspects of your couple life mentioned below. Please circle the number between 1 and 9 that best represents how satisfied you are with the different facets of your couple life. Please answer each item individually, without thinking about how you answered the other items.*

	Not at all satisfied			Somewhat satisfied			Very satisfied		
household responsibilities	1	2	3	4	5	6	7	8	9
education of children	1	2	3	4	5	6	7	8	9
social activities	1	2	3	4	5	6	7	8	9
money	1	2	3	4	5	6	7	8	9
communication	1	2	3	4	5	6	7	8	9
sex	1	2	3	4	5	6	7	8	9
progress of career	1	2	3	4	5	6	7	8	9
freedom to do what you want	1	2	3	4	5	6	7	8	9
freedom for you partner to do what he or she wants	1	2	3	4	5	6	7	8	9
overall satisfaction (happiness)	1	2	3	4	5	6	7	8	9



### ♂ ♀ QUESTIONNAIRE #6 ♂ ♀

*Most persons have agreements and disagreements in their relationships. Please indicate below the approximate extent of agreement or disagreement between you and your partner for each item on the following list.*

	Always Agree	Almost Always Agree	Sometimes Agree	Almost Never Agree	Never Agree
1. Handling family finances	5	4	3	2	1
2. Matters of recreation	5	4	3	2	1
3. Religious matters	5	4	3	2	1
4. Demonstrations of affection	5	4	3	2	1
5. Friends	5	4	3	2	1
6. Sex relations	5	4	3	2	1
7. Conventionality (correct or proper behavior)	5	4	3	2	1
8. Philosophy of life	5	4	3	2	1
9. Ways of dealing with parents or in-laws	5	4	3	2	1
10. Aims, goals, and things believed important	5	4	3	2	1

	Always Agree	Almost Always Agree	Sometimes Agree	Almost Never Agree	Never Agree
11. Amount of time spent together	5	4	3	2	1
12. Making major decisions	5	4	3	2	1
13. Household tasks	5	4	3	2	1
14. Leisure time interests and activities	5	4	3	2	1
15. Career decisions	5	4	3	2	1
	All the time	Most of the time	Sometimes	Rarely	Never
16. How often do you discuss or have you considered divorce, separation, or terminating your relationship?	5	4	3	2	1
17. How often do you or your mate leave the house after a fight?	5	4	3	2	1
18. In general, how often do you think that things between you and your partner are going well?	5	4	3	2	1
19. Do you confide in your mate?	5	4	3	2	1
20. Do you ever regret that you married (or lived together)?	5	4	3	2	1
21. How often do you and your partner quarrel?	5	4	3	2	1
22. How often do you and your mate "get on each other's nerves?"	5	4	3	2	1
	Every Day	Almost Every Day	Occasionally	Rarely	Never
23. Do you kiss your mate?	5	4	3	2	1
	All of them	Most of them	Some of them	Very few of them	None of them
24. Do you and your mate engage in outside interests together?	5	4	3	2	1

How often would you say the following events occur between you and your mate?

	Never	Less than once a month	Once or twice a month	Once or twice a week	Once a day	More often
25. Have a stimulating exchange of ideas	1	2	3	4	5	6
26. Laugh together	1	2	3	4	5	6
27. Calmly discuss something	1	2	3	4	5	6
28. Work together on a project	1	2	3	4	5	6

These are some things about which couples sometimes agree and sometimes disagree. Indicate if either item below caused differences of opinions or were problems in your relationship during the past few weeks. (Check yes or no)

	Yes	No	
29.	0	1	Being too tired for sex.
30.	0	1	Not showing love.

31. The numbers on the following scale represent different degrees of happiness in your relationship. The middle point, "happy," represents the degree of happiness of most relationships. Please circle the number which best describes the degree of happiness, all things considered, of your relationship.

Extremely Unhappy	Fairly Unhappy	A little Unhappy	Happy	Very Happy	Extremely Happy	Perfect
1	2	3	4	5	6	7

32. Which of the following statements best describes how you feel about the future of your relationship?

- 6 I want desperately for my relationship to succeed, and would go to almost any length to see that it does.
- 5 I want very much for my relationship to succeed, and will do all I can to see that it does.
- 4 I want very much for my relationship to succeed, and will do my fair share to see that it does.
- 3 It would be nice if my relationship succeeded, but I can't do much more than I am doing now to help it succeed.
- 2 It would be nice if it succeeded, but I refuse to do any more than I am doing now to keep the relationship going.
- 1 My relationship can never succeed, and there is no more that I can do to keep the relationship going.



♂ ♀ **BACKGROUND INFORMATION** ♂ ♀

1. Age: \_\_\_\_\_
2. Gender: male \_\_\_\_\_ female \_\_\_\_\_
3. What racial group do you most identify with?
 

White _____	SE Asian _____	Other (please specify): _____
Black _____	Native Indian _____	_____
Oriental _____	Middle Eastern _____	
4. What religion do you most identify with?
 

Catholic _____	Hindu _____	
Protestant _____	Muslim _____	
Jewish _____	Other (please specify): _____	
Buddhist _____	None _____	
5. Marital status: married \_\_\_\_\_ common-law \_\_\_\_\_
6. How long have you been involved in a couple relationship with your partner?
 

years \_\_\_\_\_ months \_\_\_\_\_
7. How long have you been living together with your partner?
 

years \_\_\_\_\_ months \_\_\_\_\_
8. Have you had any previous marriages? \_\_\_\_\_ How many? \_\_\_\_\_
9. How many children do you have (from previous relationships or with your current partner)? \_\_\_\_\_
10. Please indicate the highest educational degree you have received:
 

high school _____	college _____	B.A (or equivalent) _____
Master's (or equivalent) _____	Ph.D (or equivalent) _____	
11. What is your annual income as a couple?
 

\$0-15,000 _____	\$15,001-30,000 _____	\$30,001-45,000 _____
\$45,001-60,000 _____	\$60,001-75,000 _____	\$75,001-90,000 _____ \$90,001 + _____

*Thank-you for taking the time to participate. Your contribution is greatly appreciated!*