

**CONCEPTUAL OVERLAP BETWEEN THEORIES
OF
ATTACHMENT AND MOTIVATION**

by

Bob Chow
B. Comm., Concordia University, 1976
M.B.A., National University of Singapore, 1992

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APPROVAL

NAME Bob Chow
DEGREE Master of Arts
TITLE Conceptual Overlap between Theories of Attachment and Motivation

EXAMINING COMMITTEE:

Chair Maureen Hoskyn

Lucy LeMare, Associate Professor
Senior Supervisor

Philip Winne, Professor
Member

Dr. John Nesbit, Associate Professor, Faculty of Education,
SFU
Examiner

Date December 8, 2006



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ABSTRACT

This paper focuses on the connection between early life experience and later life development. It is believed that humans have an innate curiosity or quest for knowledge. A securely attached infant is more likely to explore, leading to positive development. Recent motivation research has observed a similar positive inter-personal relatedness effect for students. There is thus a connection between “attachment”, where learning begins, and “motivation”, where learning continues. The major difference is that whereas infants explore naturally in matters of interest to them; school children have to be motivated or directed to perform tasks that may or may not be of interest to them. The outcome of this study shows the exploratory instinct, as described in attachment literature, is connected with three specific areas of motivation research: (1) goal orientation – how to explore, (2) self-efficacy – confidence to explore, and (3) intrinsic motivation – innate drive to explore.

DEDICATION

I dedicate this paper to all the mothers in the world.

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TABLE OF CONTENTS

Approval	ii
Abstract	iii
Dedication	iv
Acknowledgements	v
Table of Contents	vi
Chapter 1: Introduction	1
1.1 Overview	1
1.2 Aims and Scope	3
1.3 Limitations.....	5
1.4 Data and Methods.....	5
1.5 Organization of the Thesis.....	6
1.6 Summary: Background and Nature of the Study.....	7
Chapter 2: Attachment Theory	8
2.1 Overview: Parent-Child Dynamics.....	8
2.2 Internal Working Model	9
2.3 Basic Assumptions of Attachment Theory.....	11
2.4 Attachment and Exploration.....	12
2.5 Adult Attachment	14
2.6 Summary: Attachment – A Lifelong Process.....	17
Chapter 3: Motivation	18
3.1 Overview – Motivation Defined.....	18
3.2 Lines of Motivation Inquiry in this Thesis.....	20
3.3 Motivation and the Self-System	22
3.3.1 The Self	22
3.3.2 Goal-Directed Behavior	24
3.4 Summary: Motivation – Cognitive Perspective.....	25
Chapter 4: Common Theoretical Bases of Attachment and Motivation Theories	26
4.1 Introduction: Bringing Attachment and Motivation together from a Developmental Perspective.....	26
4.2 Developmental Nature of Motivation.....	27
4.3 Common Cognitive Nature of Attachment and Motivation	31
4.4 Innate Nature of Exploration Drives and Competence Acquisition.....	36
4.5 Self Determination Theory	39

4.6	Summary: Common Developmental-Cognitive Platform	41
Chapter 5: Attachment and Goal Orientation		43
5.1	Introduction: Conceptual Path Analysis of Attachment Types and Goal Orientations.....	43
5.2	Theoretical Background	43
5.3	Attachment, Exploration, Effectance Motivation and Goal Orientation.....	48
5.4	Social Comparison Theory	50
5.5	Conceptual Overlap and Empirical Evidence.....	52
5.6	Summary: Attachment Pattern and Developmental Pathway.....	55
Chapter 6: Attachment and Self Efficacy.....		57
6.1	Introduction: Social Origin of Attachment and Self-Efficacy	57
6.2	Social Cognitive Theory	57
6.3	Self-Efficacy and Development.....	59
6.4	Self, Goal Orientation, and Self-Efficacy.....	62
6.5	Summary: Human Learning Experience – Attachment and Self-Efficacy.....	65
Chapter 7: Attachment and Intrinsic Motivation.....		66
7.1	Introduction: The Human Factor	66
7.2	Overview – Intrinsic Motivation	66
7.3	Intrinsic Motivation and Self-Determination Theory	68
7.4	Intrinsic Motivation, Relatedness, and Attachment	71
7.5	Summary: Relatedness – Social Origin of Intrinsic Motivation.....	74
Chapter 8: Conclusion.....		76
References.....		83

CHAPTER 1: INTRODUCTION

1.1 Overview

Throughout much of human civilization, scholars have speculated about how the child predicts the adult that is to be. During the past century of development in psychology, psychologists' answer to this classic question has been sought in studies of long-term effects of early differences in intelligence and personality (Karen, 1994). At the same time, psychoanalytic theorists have argued that early relational influences also have enduring consequences for psychological growth (Ainsworth, 1985). This view was crystallized in Bowlby's (1969) attachment theory. Drawing on his psychoanalytic heritage, Bowlby enlisted formulations from evolutionary biology, developmental psychology, information-processing theory, and control systems theory to argue that a warm and continuous relationship with a caregiver promotes psychological health and well-being throughout life. Ainsworth's collaborative work with Bowlby is particularly significant, because it prefigures later work on patterns of attachment. Her contribution to the development of early attachment theory was a system for classifying three basic relationship patterns in school-aged children who had been reunited with parents after prolonged sanatorium stays: those with strong positive feelings toward their mothers; those with markedly ambivalent relationships; and those with non-expressive, indifferent, or hostile relationships with mother (Bretherton, 1992). Ainsworth (1985) later categorized attachment into two broad categories: secure and insecure, the development

of which depend on the availability or unavailability of a supportive caregiver. Beginning in the 1980s, in a series of longitudinal studies, researchers found that attachment types foreshadow later psychological functioning. In recent years, attachment researchers have demonstrated a relationship between early attachment style and adaptive or maladaptive adult outcomes such as having or not having a sense of trust, constructive thinking, coherent self-concept, and social self-efficacy (Baumeister & Leary, 1995; Berk, 2002; Leaner & Kruger, 1997; Mikulincer 1998). Given the possible links between these outcomes and achievement motivation there is reason to believe that early attachment status may also be related to student learning. The focus of the present paper is to make clear the conceptual links between the attachment and motivation literatures.

Study of the conceptual connection between attachment and motivation theories is timely. Although Bowlby conceived attachment theory to be a lifespan developmental theory (Sroufe, Egeland, Carlson, & Collins, 2005), early research on attachment tended to follow Bowlby's and Ainsworth's primary focus on infants and explored the developmental roots of infants' attachment to their parents (Crowell, Fraley, & Shaver, 1999). The study of attachment in older children and adults and associated developmental outcomes, such as school achievement, has grown from virtual non-existence in the 1980s to become one of the most visible areas in developmental, social, and clinical psychology as researchers extrapolated their studies on infants to older children and adults (Crowel, Fraley, & Shaver, 1999; Sroufe, Egeland, Carlson, & Collins, 2005).

While attachment researchers have, until very recently, concerned themselves with infants and their rearing environments; motivation scholars have focused more on school-aged children and adults in achievement contexts. Even though early life

experiences and their impact on later life development are often discussed in both the attachment and motivation literatures respectively, major research and texts in both areas typically do not refer to each other. In the words of Robert Karen (1994), “in the past thirty years, there (has been) no conversation between these different theoretical paradigms”.

1.2 Aims and Scope

Ever since Coleman et al’s (1966 cited in Grolnic & Ryan, 1989) then controversial conclusion that family background factors are the primary influences in determining children’s achievement, researchers have been interested in the connection between home and school, particularly in the areas of the impact of home characteristics and demographic factors on achievement relevant outcomes (Grolnic & Ryan, 1989).

Another trend that has become apparent in recent years is the increasing cognitive emphasis in academic motivation theory (Zimmerman & Schunk, 2003). In the current cognitive zeitgeist, research direction has shifted from entity to process, from static to dynamic, from dichotomous to dialectical (Deci & Ryan, 1985). This shift has turned the attention of motivation researchers to ontogenetic lines of inquiry – the origins, development, and direction of the phenomenon (Kegan, 1982). Some recent cognitive scholars, following an etiological orientation, have placed more emphasis on learners’ subjective experiences such as their prior experiences and inner worlds as a step in this cognitive direction (Brophy, 2004). This cognitive movement has brought motivation researchers closer to the traditional research ground of attachment scholars, areas such as

the effect of personality (or individual differences) and anxiety (or insecurity) on achievement.

The primary goal of this paper is to provide a cogent summary and synthesis of the current status of scientific knowledge that has accumulated on the topic of attachment and motivation by emphasizing the conceptual and empirical overlap between the two theories. Some of the arguments advanced in this study are inevitably exploratory in nature. Therefore, this study is not an attempt to build a meta-theory, or in anyway attempt to conflate the two literatures into one form or another, subsuming both attachment and motivation literatures under one broad theory. It is hoped, however, that this study makes commonalities between the two literatures more transparent by synthesizing scattered arguments and findings into a set of shared common assumptions and observations. It is also hoped that, in doing so, this will enhance explanatory powers of both attachment and motivation theories and provide clearer direction for future cross-disciplinary research.

In this study, two types of evidence are considered: direct and indirect. Direct evidence refers to empirical studies, typically by experimental methods, involving a specific attachment experience and its impact on a specific motivational outcome. Indirect evidence involves examining motivation and attachment literatures to identify common threads and assumptions shared between the two literatures. The ideal evidence would be strong enough to allow claim of a specific cause and effect relationship between attachment and motivation. However, such evidence in any discipline has typically been obtained by large scale rigorous longitudinal studies. This is obviously not feasible here.

Consequently, in this study I rely on a comprehensive literature review of attachment and motivation literatures to develop my thesis.

1.3 Limitations

It is important to recognize that this paper is more descriptive (i.e. describing available works and studies) than predictive (i.e. theoretical) in nature. Further, as this is an exploratory study, the theoretical roots of attachment and motivation theories have not been comprehensively covered. As concerns motivation theory, the scope of this paper is limited to three specific constructs; namely, goal-orientation, self-efficacy, and intrinsic motivation. Further, in this study I only analyze specific construct overlaps, such as “relatedness” in motivation theory and “attachment” in attachment theory, and pathways connecting different constructs, such as “sense of security” and “mastery orientation”. Although in this study I cite self-theories, social psychology, and cognitive psychology to support my analysis, the discussion of these theories is limited to examining their specific contributions to bridging the attachment and motivation literatures.

1.4 Data and Methods

This study began with a comprehensive review of scholarly literature, both theoretical and empirical, from a variety of perspectives to articulate the theoretical foundation of educational research on rearing environment and motivational pattern. My aim was to find gaps, consistencies, common assumptions, and links between different lines of research in the areas of attachment theory and motivation. Literatures in both fields were searched for specific references made to one another. Where direct references

were not made, indirect evidence was sought. For instance, where direct reference to motivation was not made within research or theory on attachment, such literature might still contain discussion on academic performance and achievement. This was considered indirect evidence of a link. Further investigatory works were followed up on links, that is, related studies, provided on library data base. Often, these related studies, such as social psychology, developmental psychology, self theory, and philosophy were able to provide much of the theoretical and empirical evidence to support the findings of this study. ERIC data bases were searched for literature that made more direct connections between attachment and motivation. In the electronic search engine, attachment was entered in one field; concurrently, in another field motivation was also entered to look for specific cross-disciplinary evidence. Through this process I was able to narrow down the diverse motivation fields into three areas that showed the strongest direct relevance to attachment – goal theory, self-efficacy, and intrinsic motivation.

1.5 Organization of the Thesis

Broadly, this thesis is divided into two parts. It begins with a critical examination of attachment and motivation literatures from a broad theoretical perspective. Conceptual equivalences are identified and similar lines of inquiry between the two literatures are highlighted. The first part of the thesis ends with a description of a set of common assumptions and processes within the two literatures, which provides the theoretical foundation to examine more direct evidence in the second half of the paper. More direct relations, some from empirical studies and others with clear conceptual overlaps, are discussed in the second part of this study. Although the links between attachment and

motivation are most explicit in goal theory, self-efficacy, and intrinsic motivation, self-determination theory (Deci & Ryan, 1991) also provides a forum to look at the links between attachment and motivation both directly and indirectly, and is discussed throughout this thesis.

1.6 Summary: Background and Nature of the Study

Attachment and motivation theories have developed independently of each other. However, the recent trend in attachment theory to focus on older children and adults and in motivation theory to focus on cognitive aspects of motivation has brought the two theories onto common ground, such as the developmental roots of motivation and long-term impact of early attachment experience on achievement. In this paper I explore and discuss the conceptual overlap between the two theories.

CHAPTER 2: ATTACHMENT THEORY

2.1 Overview: Parent-Child Dynamics

One of the principal theories describing parent-child relationships is attachment theory. Attachment theory has its roots in both psychoanalytical theory and ethology, but it is considerably more circumscribed than either (Holden, 1997). Attachment security, which is believed to stem from quality of the caregiving relationship in early life, is only one of many environmental influences on the developing child. Some important aspects of parenting, even in early years, lie outside the purview of attachment (Belsky, 2005). Attachment generally refers to the bond a child forms with a caregiver and is based on his or her need for a haven of safety, a secure base for exploration and source of reassurance when distressed. The theory was designed to address the establishment, maintenance, and consequences of the affectionate bonds between a parent and child. John Bowlby, a British child psychiatrist, initially formulated the central ideas. As the theory evolved, it grew to reflect Bowlby's long-term collaboration with Mary Ainsworth, a Canadian psychologist (Karen, 1994) exploring early attachment as a foundation for later life experience, both inside and outside the family (Belsky, 2005).

The core notion of attachment theory is that the relationship between a parent and infant reflects a behavioral system that has been adapted to promote survival and competent functioning of the offspring. One part of the system, the attachment system, promotes proximity between the infant and caregiver, serving the function of protecting

and nurturing the infant. The other part of the system, the exploratory system, facilitates the development of exploratory and independent behavior in an infant. This is achieved when caregivers provide protection, or a “secure base” (Bowlby, 1988) for the infant. Such a base allows infants to feel comfortable exploring their environment because they know they can retreat to the safety of the caregiver if danger is sensed. After gaining a sense of well-being, infants in the presence of the caregiver can then return to exploring the environment hence developing competencies. Caregivers establish this feeling of security over the first year of life by being sensitive to the cues emitted by infants, attending to the infants’ needs, and supporting emotional regulation. In turn, infants learn to trust that caregivers will be available to take care of their needs. This trust develops into a secure attachment that further promotes exploration of the environment that leads to the development of social and cognitive competence, and establishes a feeling of efficacy (Grossmann, Grossmann, & Kindler, 2005; Weinfield, Sroufe, Egeland, & Carlson, 1999).

2.2 Internal Working Model

The quality of this early relationship can evolve into two fundamentally different types of attachment – secure attachment and insecure attachment. The theory holds that from these attachment relationships emerge corresponding internal cognitive representations of the self and the social world, referred to as internal working models. Because individuals base their interpersonal behavior on their internal working models, insecurely attached children are expected to behave differently from securely attached children when interacting with people other than their parents, such as peers and teachers

(Bowlby, 1988). Bowlby (1969, 1988) posited that children with sensitive and responsive attachment figures would learn to approach with confidence or seek help if they could not manage on their own. This behavior would be based on a working model of a worthy self, caring parents, and a reasonably benign world. In contrast, children who cannot count on an available or responsive attachment figure would come to see the world as unreliable and unpredictable, leading them to either retreat from it or to fight it.

The internal working model construct within attachment theory is central to Bowlby's lifespan hypothesis concerning the importance of early attachment experience for later life development (Bretherton, 2005; Crowel, Fraley, & Shaver, 1999). The concept has strong cognitive roots (Bretherton, 1992; Crowel, Fraley, & Shaver, 1999) and, within attachment theory, is the foundation for an integrated self-concept that serves as a roadmap, providing predictability for an otherwise uncertain life journey (Bretherton, 2005; Crowel, Fraley, & Shaver, 1999; Sagi-Schwartz & Aviezer, 2005).

From the very beginning, Bowlby (1969) maintained that the human capacity for foresight and insight was difficult to understand without the assumption of mentally manipulable cognitive models of the environment and the self within it. Bowlby (1969) proposed, that on the basis of attachment experience, the child develops internal working models of relationships. Patterns of attachment develop in the course of behavioral interaction between a child and parents and reflect expectations about the child's own behavior and likely behavior of others in various situations (Crowel, Fraley, & Shaver, 1999). These internal working models are cognitive-affective structures that mirror and guide future working relationships between the "self" and the environment (Crowel, Fraley, & Shaver, 1999). Over time, internal working models develop and differentiate

from the more instinctual model of the infant to the more intellectual adult version (Thompson, 1999), that allows individuals to function adaptively in the context of daily tasks and in particular when social situations are involved (Sagi-Schwartz & Avierzer, 2005). In short, it is Bowlby's conception of internal working model that allows attachment theory's lifespan proposition a possibility (Crowell, Fraley, & Shaver, 1999).

2.3 Basic Assumptions of Attachment Theory

Attachment theory offers a comprehensive framework for exploring both early emotional experiences and later adult interpersonal orientations that may contribute to positive personal attributes (Karen, 1994). Attachment theory assumes (1) that humans are innately programmed to seek and form enduring affectional bonds with others, (2) that the nature and quality of the emotional bonds between the developing child and his or her primary caregivers shape the person's representational schema regarding other close relationships, and (3) that, once formed, these attachment orientations tend to exert enduring influences on adjustment by organizing ongoing relationship perceptions and behavior in schema-consistent ways.

Attachment theory further assumes that warm and responsive parental caregiving in early childhood coupled with caregiver support for autonomy and exploration maximizes the likelihood that the child will develop a secure attachment orientation (Crowell, Fraley, & Shaver, 1999). Just as infants who feel secure in the care of caregivers will be more ready to explore their surroundings (Thomson, 1999); so too adults with a secure attachment history are more likely to find supportive relationships to support various goal-oriented life pursuits (Baumeister & Leary, 1995).

2.4 Attachment and Exploration

Bowlby (1969) defined attachment as a behavioral system designed to provide proximity to attachment figures, who ensure the protection and hence survival of offspring, and saw attachment as essentially complementary to exploration (Bowlby, 1988). When attachment behavior is activated, often because of fear, exploratory behavior is shut down. When security – in the form of proximity seeking or felt security is achieved, attachment behaviors are shut down and exploration may begin again. The balance between proximity, which is essential for survival, and distance, which is necessary for exploration and increasing the chance for survival needs to be maintained for healthy development. Over time, the cumulative experience of an infant alternating between “attachment” and “exploration” forms the “internal working model” (Bretherton & Munholland, 1999). The internal working model serves the function of regulating behavior and includes mental schema of the self and attachment figures – whether one can find safety in or support from the attachment figure; whether the caregiver provides room for one to explore and learn about one’s environment; whether the caregiver provides one with warmth and love, and therefore, frees the self from anxiety and fear (Bowlby, 1988). The relationship between attachment / exploration and the development of competence and confidence is a very direct one. In Bowlby’s (1988) words, “Children with a secure relationship to both parents were most confident and most competent; children who had a secure relationship to neither were least so; and those with a secure relationship to one parent but not to the other came in between”. In other words, a person’s “internal working model” enables him/her to explore and make sense of the world. As in all mental schemata, internal working models once formed, tend to persist,

leading to self-fulfilling prophetic behavior – for instance, insecure attachment experience leads to lower quality of exploratory behavior; this in turn leads to lower achievements resulting in a heightened sense of insecurity (Karen, 1994).

For Ainsworth, Bowlby's most important collaborator, having a "secure base from which to explore" is an important condition for the infants' healthy development (Ainsworth, Blehar, Waters, & Wall, 1978), and she continuously emphasized exploration and competence as complementary to attachment in social development (Grossman, Grossmann, & Kindler, 2005). A major contribution of Ainsworth to attachment theory was the development of an experimental paradigm, called the Strange Situation, to assess attachment in young children. This method involves a series of brief separations and reunions of caregiver and infant and observation of the infants' reactions, particularly during re-union periods. Typically, two-thirds of infants show secure attachment patterns. Insecure infants exhibit either ambivalent or avoidant attachment styles. Descriptions of these three attachment styles identified by Ainsworth and their relationship to exploratory behaviour have been presented by Elliot (2003): (1) Secure attachment results if the caregiver is readily available when the child seeks attachment. Secure attachment is hypothesized to allow the child to explore the environment in unimpeded fashion, because the child expects the caregiver to be available and responsive when needed. (2) Insecure-Anxious/Ambivalent attachment results if the caregiver is inconsistently available or responsive when the child seeks attachment. Anxious/ambivalent attachment is hypothesized to make the child anxious and distracted during exploration, as the child is pre-occupied with the uncertainty of whether a secure base will be available if needed. (3) Insecure – Avoidant attachment results if the

caregiver neglects or rejects the child's entreaties for attachment. Avoidant attachment is hypothesized to lead to rigid exploration devoid of true interest – a high level of object-focused behavior, functioning to maintain emotional neutrality and often resulting in lower quality of play, as the child defensively tries to cope with the perceived unavailability of a secure base (Moss & St-Laurent, 2001).

Although the attachment and exploration systems are both integral to attachment theory, the two systems have received dramatically different amounts of attention in the attachment literature (Elliot, 2003). As attachment is conceptualized to begin with the infant-caregiver relationship, understandably, the attachment system, or seeking of security, has been the primary focus of attachment researchers. The exploration system, on the other hand, has received much less attention. Bowlby (1969), however, did acknowledge the distinctive nature of exploration and stated: “During the past decade a view long held by Piaget has become widely accepted: exploration and investigation constitute a class of behavior that is distinct and important as are such recognized classes as feeding and mating”.

2.5 Adult Attachment

Bowlby (1988) explicitly theorized that the attachment-exploration link as initially articulated in reference to infants, was generalizable across life course. This is because children generalize the experiences acquired from interactions with caregivers into mental representations of the availability and responsiveness of attachment figures, and of their own worthiness of love and support. These working models are thought to guide cognition, behavior, and affect in attachment relationships and beyond, and are

presumed to provide continuity in attachment relationships over time into adulthood. While secure infants tend to find secure adult attachment relationships (romantic love or relationships with other significant persons in life), insecure infants tend to end up with insecure ones. Secure/insecure attachment styles and their related behavior patterns are carried forward from childhood into adulthood in accordance with the blueprint of internal working models (Hesse, 1999; Kobak & Sceery, 1988).

Adult attachment researchers (Crowell, Fraley, & Shaver, 1999) have identified two ideas from attachment theory that underpin attachment behavior beyond childhood into adulthood. The first is that the attachment system is normative – that is, relevant to the development of all people, and active and important in adult life. The second is that there are individual differences in the expression of attachment behavior in the context of attachment relationships. A number of recent investigations have explored the links among attachment history, adult attachment orientations, and various indices of adult behavior and adjustments (Hazan & Shaver, 1987; Kobak & Sceery, 1988; Mikulincer, 1998). These empirical studies on adult attachment, however, have focused primarily on the domain of interpersonal relationships (a domain that overlaps with intrinsic motivation discussed in later part of this thesis), particularly, but not exclusively, on adult romantic relationships (Karen, 1994).

Hazan and Shaver (1987) facilitated the investigation of adult attachment by drawing a parallel between infant-caregiver relationships and adult love relationships, and by demonstrating the applicability of Ainsworth's (1985) notions of attachment security and exploration. Hazan and Shaver investigated a link between security and exploration in adults, as Ainsworth had found in infants. To that end they launched their

“love and work” study. These researchers found that those adults identified as secure seemed to be doing fairly well, while the insecure participants had problems. Those in the ambivalent group, for instance, tended to procrastinate; they had difficulty concentrating, and were most distracted by inter-personal concerns. They also had the lowest average income. “It’s very parallel to infants in Strange Situation,” Hazan says, “where the ambivalent kids are not able to engage in exploratory behavior because they are so pre-occupied with where their mother is and what she is doing”. The avoidants, meanwhile, were most likely to be workaholics and most inclined to allow work to interfere with their social life. Not surprisingly, their incomes were as high as the secures, but their satisfaction was as low as the ambivalents. Again, Hazan says, “it is like the avoidant infants – they are not exploring happily, but they are putting all their energy into it”.

Although much of the work on adult attachment has been premised on the assumption of continuity between attachment bonds formed in early childhood and later adult attachment orientation, there is little in the way of a deeper conceptual analysis of the nature of the exploration system in adulthood (Elliot, 2003). Moreover, attachment theory does not preclude the possibility that significant later life experiences can disconfirm the predictive validity of earlier formed attachment models and lead to modifications in attachment schema and in their adjustment-related sequelae (Bowlby, 1988). This in fact is to be expected. As the life of a person becomes more complex with age – although it remains important, attachment is no longer the central focus of a mature person as it was of the infant. Further, adult attachment relationships tend not to be asymmetric like caregiver-infant relations but rather, are more complex symmetrical inter-personal dyadic relationships (Main, 1999). This is perhaps the reason why

Thomson (1999) suggests future adult attachment research to address the need for greater clarity by paying attention to diverse mediating influences affecting adult life.

2.6 Summary: Attachment – A Lifelong Process

The attachment theory proposed by Bowlby is a thorough-going developmental theory, in which the focus has gone beyond just correlated outcomes of early attachment into the process of development itself. Development in attachment theory is represented by its internal working model construct, an affective-cognitive framework for organizing the ongoing experience of the developing “self” in its environment. This development framework, the internal working model, provides a bridge between early attachment and various later developmental outcomes, such as motivation patterns, which will be discussed in second half of this paper.

CHAPTER 3: MOTIVATION

3.1 Overview – Motivation Defined

The term motivation is derived from the Latin verb *movere* – that is “to move” (Pintrich & Schunk, 1996). However, contemporary definitions of motivation in education and achievement contexts are numerous and varied, and there is much disagreement over the precise nature of motivation (Bandura, 1995; Deci & Ryan, 1985; Pintrich & Schunk, 1996). In this chapter I discuss motivation in very general terms, focusing on the broad construct and leaving more specific definitions and detailed descriptions of goal theory, self-efficacy, and intrinsic motivation that show clear areas of overlap with attachment theory for chapters five, six, and seven.

On the whole, most motivation theories share a common set of assumptions about people and the factors that give impetus to action. These assumptions and the theories that follow from them can be viewed on a continuum, from mechanistic to organismic (Deci & Ryan, 1985). Mechanistic theories tend to view the human organism as passive, that is, as being moved around by the interacting forces of physiological drives and environmental stimuli; whereas organismic theories tend to view the organism as active, that is, as being volitional and agentic in initiating actions (Bandura, 1995; Dweck, Higgins, & Grant-Pillow, 2003). According to the latter perspective, humans have psychological needs and physiological drives, and these psychological needs have an energizing effect to drive humans to act on (rather than simply to be reactive to) the

environment and to manage aspects of their drive and emotions (Deci & Ryan, 1985). The organismic view of motivation is the contemporary cognitive view of motivation, stressing the influence of individuals' thoughts, beliefs, and emotions on motivation (Pintrich & Schunk, 1996). In this tradition, stimuli are viewed not as causes of human behavior, but rather as affordances or opportunities that an organism can utilize in satisfying its needs. Organismic motivation theories are formulated around two core notions: that behavior is regulated in part by mental structures that are refined through experience; and that human beings are innately active (Deci & Ryan, 1985). When theories are based on the assumption of an active organism, they give primacy to the structure of people's experience, and are concerned more with the psychological meaning of stimuli than with the objective characteristics of those stimuli (Deci & Ryan, 1985). The general definition used in this thesis is one that is consistent with the cognitive focus on persons' thoughts and beliefs as central to motivation. Motivation is the process whereby goal-directed activity is instigated and sustained. It is an internal state that arouses, directs, and maintains behavior (Woolfolk, Winne, & Perry, 2000). According to this definition, motivation involves process, goal, and activity.

Motivation is more of a process than of a product. As a process, motivation cannot be observed directly but rather must be indirectly inferred from such behaviors as choice of tasks, effort, persistence, and verbalizations (Pintrich & Schunk, 1996). Motivation involves goals that provide impetus for and direction to action. Cognitive views of motivation are united in their emphasis on the importance of goals and that humans are naturally active in pursuit of various goals (Brophy, 2004). Goals may not be well formulated and may change with experience, but the point is that individuals have a

goal in mind that they try to attain or avoid (Pintrich & Schunk, 1996). Finally, motivation requires activity – physical or mental, and this activity needs to be sustained in the face of difficulty or failure in service of attainment of a goal (Pintrich & Schunk, 1996).

This thesis focuses on some current cognitive motivation theories that have provided the foundation for much of the education-relevant research in recent years: self-determination theory, goal theory, self-efficacy, and intrinsic motivation (Bandura, 1995; Brophy, 2004; Deci & Ryan, 2000; Elliot, 1999). My aim in discussing these theories is to explicate attachment-motivation links by highlighting some interesting issues that represent conceptual overlap between attachment and motivation theories.

3.2 Lines of Motivation Inquiry in this Thesis

In line with the definition of motivation as a process of selecting a goal and maintaining an action for attainment of that goal, motivation researchers (Deci & Ryan, 1985; Elliot, 1999; Reeve, 1992) have broadly based their research on two major themes about this process. The first concerns why a goal is selected and not another; that is, whether to approach or avoid an outcome or result. The second concerns whether an action can be maintained with sufficient tenacity and persistency in service of a goal, and the course of action taken (e.g. defensive or proactive) to achieve this goal; that is, the energization and directionality of goal-directed behavior.

(1) Avoidance-Approach: Approach-avoidance conflict is a source of daily stress coming from choices people have to make in negotiating daily life (Erikson, 1963). In the motivation literature, approach-motivational behavior is instigated or directed by a

positive or desirable event or the possibility of such an event, whereas avoidance motivational behavior is instigated or directed by a negative or undesirable event or its possibility (Elliot, 1999).

(2) Energization-Direction: Deci and Ryan (1985) define achievement motivation as the energization and direction of competence-based affect, cognition, and behavior. The energy source is rooted in the assumption that humans as active organisms have an instinct to “master the environment” (Bandura, 1997), which Freud (cited in Pintrich & Schunk, 1996) originally conceived as psychological energy. This energy manifests itself in many observable forms – or the directionality of motivation (Deci & Ryan, 1991). According to Deci and Ryan (1985), energy in motivation theory is fundamentally a matter of needs. An adequate theory of motivation must therefore take into account both the needs that are innate to the organism (e.g. basic biological needs) and those that are acquired through interaction with the environment. Direction in motivation theory concerns the processes and structures of the organism that give meaning to the stimuli, thereby directing action toward the satisfaction of needs. Simply put, then, the field of motivation explores all aspects of an organism’s needs and the processes and structures that relate those needs to behavior. In the words of Bandura (1997), “the study of motivation is the study of human agency and is concerned with discovering principles about how to structure environmental influences and enlist cognitive activities to promote human adaptation and change”. This energization-direction dimension provides the framework to summarize the common assumptions shared between attachment and motivation theories discussed in the next chapter.

3.3 Motivation and the Self-System

From a cognitive perspective, a comprehensive discussion of motivation involves the understanding of the whole system and process of activating mental resources to carry out an action in pursuit of a goal (Reeve, 1992; Zimmerman & Schunk, 2003). A central construct within this cognitive framework is “self”, also variously described as “self concept” or “self system” (Dweck, Higgins, & Grant-Pillow, 2003; Jacobs, Bleeker, & Constantino, 2003). The discussion that follows is divided into two parts: (1) the self, and (2) goal-directed behavior. While consideration of the “self” concerns the energy behind an action, e.g. intrinsic motivation; goal-directed behavior is concerned more with the directionality of motivation, e.g. goal orientation. The self concept construct thus allows me to pull together different motivation constructs discussed in latter part of this paper under one theoretical framework.

3.3.1 The Self

In a sense, we are what we do and we do because of who we are. A person’s sense of identity, or self, is by and large defined by the actions and achievements of the person. As people aggregate their experiences, that information must be summarized and organized into a coherent whole. From the active information processing of a multitude of specific experiences, the individual constructs a general representation of the self. This sense of self allows the individual to repeat certain actions given similarity of past experience under similar circumstances (Reeve, 1992). According to Markus (1987), the self is a composite of various domain-specific “self schemata”. Self-schemata are cognitive generalizations about the self that are derived from past experience and are

useful in guiding and organizing the processing of self- related information contained in the individual's social experiences. Self-schemata emerge from reflections upon social evaluations, from self and others, and appraisals of what those evaluations mean. Once constructed, self-schemata then serve as summary labels to organize the wealth of the individual's past and future social experiences.

The self relates to motivation in two ways. First, the self is a cognitive structure that functions as a standard and is capable of imagining a possible future state. Two important functions of the self in motivation are making mental plans and selecting reachable goals for action. Second, the self, once formed, seeks out feedback consistent with the self- concept and avoids contradictory self-concept information; therefore, it serves a controlling function to allow action to be carried out in a goal-directed manner (Jacobs, Bleeker, & Constantino, 2003).

Therefore, in the current cognitive zeitgeist, the study of motivation and self (or identity) have become intertwined as self-theories, and have moved away from a focus on static qualities, such as self doubt, toward an emphasis on more dynamic variables, such as environment changes (Dweck, Higgins, & Grant-Pillow, 2003). This trend has brought motivation to the forefront in the study of self by showing the strong motivational power of self variables, as well as the properties of self variables as they relate to motivation-relevant events. More specifically, Dweck et al. (2003) posit that the concepts of self-efficacy and goals are particularly relevant to how we define "self".

From a social cognitive perspective, the origin and function of self- efficacy offers certain other analytical and operative advantages. It specifies other aspects of the

conglomerate self-system. These include personal aspirations, outcome expectations, perceived opportunity potentials and constraints, and conceptions of personal efficacy. Bandura (1997) considers the analysis of how these constituent personal variables work together and their relative contribution to adaptation and change provides an integral view of the self. Further, Bandura (1997) suggests that the self- concept is a composite view of oneself that is presumed to be formed through direct experience and evaluations adopted from “significant others”. The influence of “significant others” on the development of self is certainly a central issue in attachment theory (Bowlby, 1969, 1988) and in the formation of intrinsic motivation (Deci & Ryan, 1985, 1991). As such, self is one area of overlap between attachment and motivation and will be discussed in greater details in the second half of this paper.

3.3.2 Goal-Directed Behavior

In motivation theories, self-concept and other self-defining beliefs such as perceived self-efficacy manifest their presence through people’s goals (Bandura, 1997). In self theories, goals are what give the term “self- system” real and important meaning. A goal approach can capture the dynamic but also coherent, nature of the self, illuminating both individual differences and situational influences (Dweck, Higgins, & Grant-Pillow, 2003). Dweck et al. (2003) propose that the contents of the self gain their importance and exert their influence through the motivational value they possess – through their ability to shape and energize people’s goals, i.e., sense of agency. This conceptualization of the self is consistent with Deci and Ryan’s (1985) postulation that motivation is fundamentally the energization of goal- directed behavior (or “goal

corrected” – as in Bowlby’s (1969) words: “moving in a direction according to a person’s mental structure”). According to Deci and Ryan (2000) a sense of “relatedness” to significant others is a source of this (motivating) energy, a view that is also found in attachment theory (Bowlby, 1979). Corroborating evidence for the relatedness-motivation connection comes from the Minneapolis longitudinal study finding that infants with secure histories were rated higher on self-esteem and agency, and that high self-esteem is generally associated with greater persistence in the face of failure (Thomson, 1999). This suggests that self-esteem facilitates resilience (Baumeister, 1999), which is an important motivation construct, a hallmark of mastery or task-involved goal orientation in motivation theory (Ames, 1992).

3.4 Summary: Motivation – Cognitive Perspective

Although there are numerous approaches to understanding motivation, in this thesis I have adopted a cognitive approach. Central to cognitive motivation theories is the assumption that humans are active agents in their environments. Because of this emphasis on motivation as manifestation of human agency, a comprehensive discussion of motivation involves consideration of the self. Self theory subsumes several different motivation constructs including goal orientation, self-efficacy, and intrinsic motivation that are discussed in second part of this paper. Consideration of the self also serves as a bridge between the focus of the current chapter, and that of the previous chapter on attachment, in that both attachment theory and cognitive approaches to motivation share a common concern with the self as a cognitive structure and its impact on theoretically relevant behavior.

CHAPTER 4: COMMON THEORETICAL BASES OF ATTACHMENT AND MOTIVATION THEORIES

4.1 Introduction: Bringing Attachment and Motivation together from a Developmental Perspective

In chapters 2 and 3, I reviewed attachment and motivation theories and noted how attachment behaviors and motivational traits were powerfully affected by people's experience of the world. In this chapter I examine how the recent paradigmatic shift from drive to cognition has brought motivation scholars to view motivation as a process, explaining the process as change, or development, over time. Viewed in this manner, motivation theory has developmental roots as attachment theory does (section 4.2). From a developmental perspective, both attachment and motivation theories examine the process and result of human learning beginning at infancy and the impact of such learning across lifetime.

As attachment theory is fundamentally a developmental theory, it has much to offer in explaining the process of developing nuanced individual differences (these differences are discussed in details in chapters 5, 6, and 7) in various motivation constructs, particularly in a cognitive paradigm (section 4.3). Because of the common developmental and cognitive roots of the two theories, attachment theory has the potential to shed light on not only cognitive development in acquisition of competence

through exploration (section 4.4), but also on the role of affective factors in explaining motivation (section 4.5).

4.2 Developmental Nature of Motivation

The very foundation of the cognitive motivation theories discussed in chapter 3 is developmental by definition – the development of mental structure and how this structure regulates behavior. Development has been defined as “orderly, adaptive changes (people) go through from conception to death” (Woolfolk, Winne, & Perry, 2000). The internal working model, a cognitive-affective mental structure described in attachment theory, and organismic motivation theories described in chapters 2 and 3 respectively will underpin my examination of the developmental nature of motivation. The developmental nature of motivation was not apparent until Bowlby, the name most associated with attachment theory, and Bandura, one of the names most associated with motivation, became troubled by what they saw as psychoanalysts’ overemphasis on unconscious motives or drives and underemphasis on people’s actual relationship experiences (Bandura & Walters, 1963; Karen 1994). From a socio-cultural perspective, psychologists today generally recognize that the child’s environment shapes cognitive development by determining what and how the child will learn in the world (Woolfolk, Winne, & Perry, 2000). Development implicates adaptive changes and because cognitive development refers to changes in mental processes, that is, the cognitive view of motivation described in chapter 3, therefore, motivation is also developmental in nature. In the current section (4.2), I will examine the role development plays from the formation of self-system to factors affecting development.

From a cognitive psychology perspective, the development of the self does not begin with a blank state (Bruning, Schraw, & Ronning 1999). Biological and genetic history, as well as social learning history influences interact dynamically and continuously in the developing self-system (Mischel & Morf, 2003). The self-system, in turn, serves as a mediator to translate development histories into personality dispositions, or pre-dispositions, and manifests itself in goal-directed actions (Grazino, Campbell, & Finch, 1997). These pre-dispositions ultimately influence such personality and self-relevant qualities as sensory and psychomotor sensitivities and vulnerabilities, skills and competencies, and affective states (Plomin, DeFries, McClearn, & Rutter, 1997 cited in Mischel & Morf, 2003). Mischel et al. (2003) considered the interactions between the young child and his/her significant others as they deal with the stress of growing up as crucial for healthy development. If given freedom and support at each stage of development, the young child's opportunities for self-actualization (i.e. realization of personal potentials) would be enhanced (Mischel & Morf, 2003). This idea that positive affect from secure attachment is widely seen as a resource that promotes exploration (Bowlby, 1988), and that the positive experiences from exploration represent psychological resources that open people to noticing and taking advantage of emergent opportunities, or in Baumeister's (1999) words "enjoyment of variety and a wide range of possibilities", is apparent to attachment and self theorists (Baumeister & Vohns, 2003; Bretherton, 2005), and is increasingly being recognized by motivation scholars (Bandura, 1997; Deci & Ryan, 1985).

The developmental nature of motivation and the importance of inter-personal factors, particularly those embedded within the familial environment, in cognitive

development are now regularly being discussed in the mainstream motivation literature. Very recently, some motivation scholars have even adopted Bowlby's term "attachment", instead of "relatedness", to describe a child's tie to his/her mother (Deci & Ryan, 1991, 2000). Perhaps one of the most comprehensive motivation conceptual frameworks featuring familial factors is social cognitive theory. One central thesis of social cognitive theory is that the self is socially constructed (Bandura, 1987). The newborn arrives without any sense of self. The self must be socially constructed through transactional experiences with the environment. Infants' exploratory experiences in which they see themselves produce effects by their actions provide the initial basis for moving beyond understanding action causation to developing a sense of personal agency. Environments that are responsive to infants' actions nurture the development of causal agency. Infants who experience success in controlling environmental events by their actions become more self-confident, or self-efficacious, about their own competence.

Bandura (1997) particularly pointed out the importance of family as a source of self-efficacy. Further, this familial source of developing competence or self efficacy could be divided into cognitive and affective components. Cognitively, a high level of adult contingent responsiveness helps newborns and infants to learn that they can make things happen by their actions. This development of a sense of personal agency is not solely the result of solitary exploratory initiatives. Bandura (1997) specifically mentioned the role of mothers in promoting infants' competencies by segmenting activities into manageable sub skills to foster infant mastery; by providing infants with modelling opportunities and by allowing infants to draw on vicarious experiences to expand and verify their sense of personal efficacy. Affectively, close personal ties bring satisfaction

and render the stressors of everyday life more bearable for both older infants and adolescents (Bandura, 1997). Similarly, Ainsworth et al (1978) demonstrated that responsive environments, particularly the ones created by the mother, are extremely important for children's effective development in general. When children are deprived of regularity, lawfulness, and contingency in their environments, they tend to lag developmentally. Further, both attachment theory and social cognitive theory share a life-time perspective of this process; different periods of life present certain prototypic competency requirements (Bandura, 1997). In the words of Bandura: "social cognitive theory analyzes developmental changes in perceived self-efficacy in terms of evolution of human agency across the life span". Bandura's social cognitive theory and its central construct self efficacy will be discussed in greater details in chapter 6: Attachment – Self Efficacy.

In cognitive development terms, Ainsworth et al (1978), Bandura (1997), and Deci and Ryan (1985) all referred extensively to Piaget's cognitive concepts of accommodation (i.e. altering existing schemes or creating new ones in response to new information) and assimilation (i.e. fitting new information into existing schemes) in their discussions of growth. According to Deci and Ryan (1985), as a general rule, the role parents play is central to children's development by showing concern and by providing informational, not controlling, structures to allow optimal formation of mental schemes in children. The nature of this development is the organismic tendency toward an organism's own maintenance and enhancement which Rogers (1963 cited in Deci & Ryan, 1985) described as "actualizing tendency" and "is the very nature of the process we call life". Piaget (1971 cited in Deci & Ryan, 1985) viewed it similarly when he stated

that “the nature of life is constantly to overtake itself”. Viewed in this way, the nature of development might be seen as a process of change, and motivation is the energy, which is rooted in the organismic innate propensity to self-actualize, behind the change. Thus, the study of human development is partly the study of this energy and partly the structure created by this energy. The role of caregivers and educators, then, is to provide an environment that allows optimal expression of this energy and form an internal structure that is conducive for further development. This leads to Deci and Ryan’s (1985) thesis that the central development issue of an organism concerns having extrinsically regulated behaviors gradually being internalized of their regulation, in other words, their integration into one’s internal, organized structures as basis for further development. For children, this energy that powers the forming and shaping their internal experience structure is their natural curiosity that leads them to engage in a wide range of exploratory, manipulatory, and experimental behaviors, which leads to development of different kinds of competencies (Deci & Ryan, 1985; Bandura, 1997).

4.3 Common Cognitive Nature of Attachment and Motivation

Psychology’s prevailing view of human nature changed fundamentally during the so-called cognitive revolution of the 1970’s and 1980’s (Bruning, Schraw, & Ronning, 1999). Prior to that time, psychologists had been largely divided into two main camps. Psychodynamic psychologists were the heirs of Freud and regarded human nature as a complex mixture of dark, instinctive forces, including sex and aggression, which provided the central motivations that had to be channelled and transformed into everyday behavior, or else consigned to lurk in the unconscious (Bandura & Walters, 1959, 1963;

Karen 1994). Behaviorists, in contrast, clung to the far simpler theories that were heavily based on conditioning research done with dogs and other animals. Human beings were regarded as merely complex products of reinforcement histories, copycat modelling, and other simple learning processes (Zimmerman & Schunk, 2003). Hull's (1952) research was perhaps the most elaborate during the 1940's, in which he tested vigorously the strength of association between reward and habits and drive in laboratory setting.

However, some behaviorists also went beyond behavioral psychology to discuss individual differences and social influences on motivation. For instance, Tolman (1932) sought to include cognitive variables (e.g. cognitive maps as result of past experience) to explain motivation to reach a goal. Rotter's (1966, cited in Pintrich & Schunk, 1996) expectancy theory, which integrates learning and personality theories, stresses the role of social mediation (in the form of social support) in learning. Finally, Bruner's (1956) work, which incorporates socio-cultural factors in learning, finally opened the door to serious cognitive study of human motivation (Zimmerman & Shunk, 2003).

The cognitive revolution introduced a new model: The human being is similar to a computer, in that it takes in information from the environment, stores it and uses it in practical situations, and formulates its own behavioral responses based on its memories and social calculations. Further, as cognitive psychology evolves into more mature form, it is emphasizing social influences on cognitive development and connections between cognition and motivation (Bruning, Schraw, & Ronning, 1999). One powerful concept that has arisen within cognitive psychology, which has considerable explanatory value for mental process, behavior and motivation, is the concept of schemata, the idea that there are mental frameworks, which incorporate cognitive and affective variables, for

comprehension and to guide actions (Deci & Ryan, 1985). Some cognitive study scholars even suggest that all cognitive activity, even the most mundane, occurs within and through a conceptual framework of schemata, and that meaning is never directly available to cognizers in some unmediated way; rather, meaning is constructed only through cognitive lenses embedded within existing cognitive framework in virtue of which epistemic perception is made possible (Fay, 1996).

Not surprisingly, the cognitive revolution changed the way psychologists thought about the self. While psychodynamic theory depicted the ego as the agent trying to serve the powerful forces of instinctive cravings and internalized prohibitions while dealing with the practical constraints of the external world (Bandura & Walters, 1959, 1963; Karen, 1994); social cognitive theorists came to regard the self as an important and autonomous player that both actively intervenes in the processing of information and is itself a knowledge structure resulting from information processing (Baumeister, 1999).

The significance of putting the self in the centre of cognitive study of people is the recognition that people change, or develop, over time (the developmental nature of self was described in Section 4.2), and that the self is socially constructed by accumulating social experiences in people's mental structure (Baumeister, 1999). At a broader level, attachment theory's conception of the internal working model can be conceptualized as such mental structure that makes up the self; the internal working model contains not only direct experiences regarding the attachment figures, but also concepts of the self which are derived from such experiences (Bowlby, 1988; Bretherton, 2005).

The role of self in cognitive development focuses on three important functions: (1) Organizational Role: self provides a script to organize behavior and interpret experience. (2) Goal-Setting Role: self allows people to develop goals that fit with their self-images and guide their choices of social behavior. (3) Motivational Role: beliefs about the self can be powerful motivators for future development (Jacobs, Bleeker, & Constantino, 2003). The concept of self is certainly the cornerstone of the organismic view of motivation (described in chapter 3) that behavior is regulated by mental structure which itself is the result of accumulation of exploratory experiences. This idea that the self as a knowledge structure is motivated by its own development in organismic motivation theories (Deci & Ryan, 1985) is consistent with the definition of development; therefore it is also consistent with Bowlby's (1969) original conceptualization of attachment theory (which is fundamental a theory of development (Karen, 1994)) as a general theory of motivation and behavior regulation.

A major appeal of attachment theory is its theoretical breadth and integration; the theory provides a powerful link between social and psychological aspects of human behavior (Karen, 1994; Marris, 1993). Bowlby's claim of the importance of a warm and enduring early caregiving relationship for psychological well being was based on considerations related to the biological heritage of the human species, relational dynamics, and developing understanding of self and others (Thomson, 1999). This perspective on human agency and growth has been shared by contemporary motivation researchers. Motivation theory is concerned with the energization and direction of goal-directed initiatives (Deci & Ryan, 1985), which is similar to infants' engagement in "goal-corrected" activities from a secure base and the resultant organization of

experiences into an “internal working model” that guides future actions as described in attachment theory (Bowlby, 1988). The cognitive nature of attachment and motivation is thus rooted in the mental framework that is formed and shaped as a result of the experience of social interaction and that serves as a blueprint to guide future behavior.

The paradigmatic shift from drive to cognition has had another very important impact on both attachment and motivation research, that is, line of inquiry has gradually moved its focus from physiological needs to psychological ones (Ainsworth, Blehar, Waters, & Wall, 1978; Deci & Ryan, 2000). There is a major difference between physiological needs and psychological needs. When a physiological need is thwarted, people typically step up their efforts to satisfy it, and are not able to focus on anything else until and unless the need is satisfied. However, when a psychological need is deprived, people are more ready to make accommodations of such deprivations. Such defensive adaptations will have significant negative impact on a person’s vitality, integrity, and health (Deci & Ryan, 2000). The significance of the role of psychological needs in motivation is that it helps to explain more nuanced, or subtle, but can be qualitatively different motivation orientations (For example, intrinsic versus extrinsic motivation, mastery versus performance goal). In attachment, when the psychological need of forming secure attachment is thwarted, this will lead to negative emotions, such as jealousy, anxiety, anger, grief, and depression (Bowlby, 1988). Consequently, cognitive motivation theories such as self-determination theory (discussed in later section of this thesis), in order to provide a fuller account of human psychological health development, focus mainly on issues concerning psychological needs by connecting

inter-personal relatedness (attachment), autonomy (freedom to explore), and competence (exploration) together .

4.4 Innate Nature of Exploration Drives and Competence Acquisition

Bowlby conceptualized the foundation of attachment theory at a time when motivation theorists, working within the psychoanalytic tradition, were proposing that individuals have an innate propensity for curiosity, play, and exploration. White's (1959) conceptualization of effectance motivation was perhaps the most elaborate and influential of the motivational models proposed during his time (Elliot, 2003). Although Bowlby did not directly refer to White's theorizing, Ainsworth (1967) used White's terminology in characterizing the exploration system. Subsequently, Ainsworth stated that the attachment theory's exploration system seems parallel with White's effectance motivation concept.

Considering attachment theory's exploration system as the conceptual equivalence of effectance motivation opens the door to a more extensive theoretical analysis of the exploration-motivation link. This exploration-motivation link and the innate nature of exploratory drive and motivational instinct are supported by social psychologists' view that it is human nature to have a strong desire for control and choice (Baumeister, 1999). These contemporary social psychologists considered the motive to control to be as pervasive and as well established as the motivation to satisfy basic survival needs. Moreover, the desire to achieve control is beneficial and adaptive which makes it all the more plausibly innate.

The motivation to attain control has been proposed and supported in many contexts. An early formulation was White's (1965) theory of effectance motivation. At that time, most motivation theories were based on some lack or deficit in the organism, such as a need for food. Although those theories had much to offer, White proposed that they were inadequate for explaining several varieties of important behavior, such as curiosity, exploration, striving for competence, and the pursuit of mastery seemingly for its own sake (Baumeister, 1999). White (1959) broke away from early drive-based motivation paradigm and defined effectance motivation as the innate desire to be effective (i.e. intrinsic need to deal effectively with the environment), and characterized this motivational source as an innate, organismic propensity that impels the individual to investigate, manipulate, and master the environment. The infant's natural tendency toward investigatory, exploratory play is considered the prototypic behavioral manifestation of effectance motivation (Elliot, 2003). Effective engagement with the environment is said to produce an intrinsically pleasurable affective experience labelled "a feeling of efficacy", which White (1959) likened to "joy in being a cause". Effectance motivation is presumed to be in perpetual operation unless interrupted by pressing concerns (e.g. food, safety concerns). Interestingly, White (1963) identified unresponsive or inconsistently responsive caregivers as a common source of such concern. This is consistent with Maslow's (cited in Ormrod, 1999) hierarchy of need theory, in which lower order needs (e.g. food) have to be satisfied before one is motivated toward higher order needs (e.g. self-actualization).

White (1959) also postulated that the biological / evolutionary function of effectance motivation is to promote learning and build competencies; the psychological

function of effectance motivation is said to be satisfying in its own right. White (1960) viewed effectance motivation as an important motivational source throughout the life course, stating that one reason that adults invest effort in sport, school, and work activities is the desire to be effective and competent in their daily behavior. White (1959) portrayed effectance motivation in infants and young children as undifferentiated, but he presumed it became differentiated and integrated over time, through exploratory play activities, into more complex motivational constructs such as intrinsic mastery motivation and the motive to achieve. As such, it seems logical to suggest that the innate motivational propensity proposed by White (1960) represents a need to be competent in one's actions, and to view effectance motivation as the initial manifestation of competence motivation. In essence, effectance motivation is what competence motivation looks like in its most basic form (Elliot, 2003).

In proposing an innate non-drive based competence model of development and stressing the role of exploration in human development, White raised the possibility of suggesting a developmental framework for analyzing human development connecting motivation theory with attachment theory, in which both theories share the same assumptions of innate nature of competence exploratory drive of human learning and adaptation. The achievement motivation literature contains much research on how this initial form of competence motivation changes from infancy to adulthood as a function of maturation and experience. The emergence of the self-concept, the development and elaboration of reasoning capacities, the acquisition of self-regulatory and metacognitive skills, and repeated encounters with success and failure all influence how competence motivation develops into its "differentiated" adult form (Elliot, 2003).

According to Deci and Ryan (1985), differentiation involves the exercise of existing capacities in such a way that a relatively global aspect of one's internal structure, or "schema" (Piaget, 1952), becomes broken down into more specific elements. Differentiation is perhaps easiest to see with respect to perceptual development in which the child continually detects properties and patterns in the environment that had previously elicited no response. But differentiation is evident in personality development as well. For example, consider the baby who has achieved the sense of mother as an entity separate from him or herself. The baby gradually learns through experiences that mother both gratifies and frustrates, thus differentiating mother into good mother and bad mother – the good mother gratifies and the bad mother frustrates. Depending on the growing experience of the organism in his or her acquisition of competence, the organism forms certain general pattern or orientation in the types of "competence" needed to function effectively in his or her growing up environment. In some adult instantiations, competence motivation is innately driven and task-involved; whereas in other forms it becomes reoriented from its natural appetitive nature toward more self-protective, avoidance-oriented desires and strivings (Deci & Ryan, 1985; Elliot, 2003).

4.5 Self Determination Theory

A more coherent and recent concept that embraces attachment, motivation and self, is self determination theory. Self-determination theory is an organismic dialectical theory. It describes the continual process of how humans develop and grow. The dialectic occurs "between the active self and the various forces, both within and without, that the person encounters in the process of development" (Deci & Ryan, 1991). The organismic

process works for the satisfaction of three basic psychological needs: competence, autonomy, and relatedness. The environment can foster or impair human development to the extent that these needs are supported or thwarted. The need for competence is the need for being effective in one's interaction with the environment. The need for autonomy is the need to be self determined and to have a choice in the initiation, maintenance, and regulation of an activity. The need for relatedness is the need to feel securely connected to others and the need to experience oneself as capable and worthy of love and respect (Deci & Ryan, 1991).

The social context can facilitate the satisfaction of these needs. Competence is facilitated by the provision of structure, the communication of realistic expectations, consistent consequences, and competent-relevant feedback. Autonomy is fostered by a context that provides autonomy support in the form of acknowledging the person's perspective, opportunity for initiative, and the provision of choice. Relatedness develops from the involvement of others in the context by their consistency in providing support and safe harbor (Deci & Ryan, 1991). The same social context, however, is also observed to influence goal orientation (competence), self-efficacy (competence), intrinsic motivation (autonomy), and secure-attachment (relatedness). There is thus a clear connection between attachment and motivation in that both are elements of the broader self-determination theory's conceptualization of the development of human agency.

Motivation researchers (Deci & Ryan, 1985) have acknowledged that there is a rich research literature on "competence" and "autonomy". On the other hand, the need for inter-personal relatedness, while no less important, remains to be explored, and the findings from those explorations will need to be integrated with the present theory to

develop a broad, organismic theory of human motivation. Interestingly, more recent research has variously shown positive relationships between the sense of relatedness (i.e. secure attachment) and the development of positive motivational outcomes such as intrinsic motivation, self-efficacy, and effective strategy use (La Guardia, Jennifer, & Ryan, 2002; Furrer & Skinner, 2003; Soares, Gualtar, Lemos, & Almeida, 2005). As both relatedness and attachment refer to the quality of inter-personal connection with others, therefore, conceptually, the construct of “relatedness” as understood by motivation researchers is similar to “attachment” as defined by developmental psychologists (Bowlby, 1969), except that early attachment research focuses more on infants than on school students as motivation literature does. However, in their later work, Deci & Ryan (2000) clearly re-defined relatedness construct as one that is “to seek attachments and feelings of security”, thus drawing a direct parallel between “attachment” as in attachment theory with “relatedness” as in self determination theory. In recent years there are increasing amounts of research on adult-attachment relationships (Thomson, 1999). All this adult-attachment literature provides a theoretical and empirical base to bridge the attachment-motivation link, which is manifested in adult-exploratory behavior.

4.6 Summary: Common Developmental-Cognitive Platform

Learning about the self is one of primary tasks of social cognitive development. This developmental process begins at infancy and extends across lifespan. Over many pursuits in life, in general, success breeds success expectations, and failure breeds failure expectations; however, both success or failure experiences can be affected, or mediated, by the expectations and reactions of other significant persons in life. The mental process

of this learning experience is captured by both attachment and motivation theories. In motivation theory, success or failure in life leads to experience-dependent (e.g., goal-orientation) and experience-expectant (e.g., self-efficacy) forms of learning. In attachment theory, early-developed attachment patterns influence early success or failure experience in exploratory behavior; over time, these experiences organize into a form of personality that pre-disposes future development outcomes. The idea that human motivation derives from an interplay of familiarity (e.g., in the context of consistent supportive relationship) and novelty-seeking (e.g., confident to explore) underpins the common cognitive (mental structure that is formed by experience) and developmental (mental structure that is constantly refined by new experiences) nature of attachment and motivation.

CHAPTER 5: ATTACHMENT AND GOAL ORIENTATION

5.1 Introduction: Conceptual Path Analysis of Attachment Types and Goal Orientations.

While in chapters 2, 3, and 4 I described major assumptions underpinning attachment and motivation theories, in chapter 5 I examine more specifically at some theoretical and empirical works showing specific connections between attachment quality and motivation orientation. While secure attachment experience leads a person to engage in comparing one's performance with one's own internal standards, resulting in mastery goal orientation, insecure experience leads a person to engage in comparing one's performance with externally imposed normative standards, resulting in performance goal orientation.

5.2 Theoretical Background

Interestingly, Bretherton (1992) describes aspects of attachment formation as a process similar to Vygotsky's concept of "zone of proximal development", in which parental scaffolding enables a child to explore new skills and ideas with the assistance of an adult. For example, in describing the development of self-regulation Bretherton notes: "It is not surprising that during infancy and early childhood these functions (capacity for self-regulation) are either not operating at all or are doing so most imperfectly. During this phase of life, the child is therefore dependent on his mother performing them for him.

She orients him in space and time, provides his environment, permits the satisfaction of some impulses, and restricts others. Gradually he learns these arts himself, and as he does, the skilled parent transfers the roles to him. This is a slow, subtle and continuous process, beginning when he first learns to walk and feed himself, and not ending completely until maturity is reached". Such early mastery experiences are believed to have long-term implications, for psychological well-being and "general competence" (Holden, 1997). A competent child is defined as "one who is able to make use of environmental and personal resources to achieve a good developmental outcome". Parenting is related to children's competence through quality of the parent-child attachment (Holden, 1997). Recent research has provided evidence that this early learning experience, described as "attachment experience", is closely associated with exploration in adults (Green & Campbell, 2000). Closely related research exploring competence-seeking behavior and motivation has been conducted within the theoretical framework of competence motivation (Elliot, 2003). A key concept within this framework is goal orientation. Goal orientations are defined as the reasons and purposes for approaching and engaging in achievement tasks. In recent years, research on achievement goal orientation has become one of the most active areas of motivation research in classroom contexts (Pintrich, 2003).

Goal orientation represents an integrated pattern of beliefs that lead to "different ways of approaching, engaging in, and responding to achievement situations" (Ames, 1992). In addition, goal orientation can reflect a type of standard by which individuals judge their performance or success, which then has consequences for other motivational beliefs such as attributions and affect as well as actual performance and behavior. Goals

are cognitive representations of a general “energy” construct that has long-standing history in psychology, especially motivational psychology (Pintrich & Schunk, 1996). Orientation of goals is the directionality of how this goal-inspired energy manifests itself in achievement contexts (Deci & Ryan, 1985).

The two most prominent constructs that have grown out of achievement motivation research on goal theory concern mastery-oriented goals, also described as task-involved goal, and performance-oriented goals, also described as ego-involved goal, (Deci & Ryan 1985; Pintrich, 2000). Central to a mastery orientation is the urge to master new skills or acquire new knowledge (Ames, 1992), resulting in task-involved and persistent adaptive learning behaviour, such as not giving up easily despite encountering failures (Bergin, 1995). At the heart of performance orientation is the drive to outperform others or to perform in a superior manner (Ames, 1992), resulting in ego-involved maladaptive behaviour, such as giving up easily or not seeking help to avoid being seen as incapable in the face of difficulty or the experience of failure (Bergin, 1995).

Ames (1992) identified classroom structures that foster a mastery orientation. Mastery oriented behavior is likely to evolve when students are given choice in selecting meaningful challenging tasks, are provided with constructive task-based feedback, and receive support and encouragement (Ames, 1992; Bergin, 1995). As “support from significant others” (support and encouragement) and “autonomy” (choice to select task) are the necessary conditions for a person to focus on a task, the concept of goal orientation is thus closely related to the concepts of quality of exploration in attachment theory and autonomy and relatedness in self-determination theory. Ward’s (1988) definition of self-determination is particularly enlightening: “Self-Determination refers

both to the attitudes which lead people to define goals for themselves and to their ability to take the initiative to achieve those goals. Acquiring the personal characteristics which lead to self-determination is a developmental process that begins early in childhood and continues throughout adult life". This definition connects early life experience with later goal preference in the developmental process of a person; this development process was also elaborated in chapter 4.

Self determination theory proposes that human nature, phenotypically expressed, can be either active or passive, constructive or indolent. Such differences are a function of both biological endowments and social environment influences (Ryan & Deci, 2000). Environment influences shape the "self" of a person from very young childhood, when people begin able to evaluate themselves from the perspectives of both themselves and various other people (Baumeister, 1999). A possible link between early attachment and goal orientation can be inferred from Bowlby (1988) when he summarized the result of a longitudinal study of patterns of attachment and stated that: "those who showed an anxious pattern are also likely to be described as unduly seeking of attention". Attention seeking may correspond to ego-involved goal orientation, in inasmuch as it suggests a dependence on others for approval to compensate for a lack of confidence (Elliot, 2003); Bowlby stated that those assessed as securely attached "are likely to be described as cheerful, resilient, and resourceful", which may correspond to task-involved goal orientation, as it suggests enthusiasm to engage in tasks (Csikszentinihalyi, 1997; Deci & Ryan, 1985). Further, Bowlby (1988) emphasized that whether a mother supports the child's desire for autonomy and encourages exploration is a key determinant of attachment pattern. This would also seem to be important for goal-orientation. It seems

that a sense of insecurity affects the very young for it reduces their capacity for effortful pursuits for it interrupts their automatic and innate exploratory drive. (Hastof & Isen, 1982). Prior deficits in need fulfilment (e.g. from poor caregiving) might also lead individuals to yearn for more extrinsic goals as a substitute for lack of warm human connectedness or as compensatory mechanism (Ryan & Deci, 2000).

In a sense, ego-involved orientation is a self-protective mechanism. When “ego”, as an organization of one’s self knowledge, feels deprived or threatened, one’s energy will be directed to protect the ego, or self-esteem, resulting in having a low level of need for achievement of tasks. Further, a person who has a high level of ego need tends not to reflect on failure as a way of protecting the ego, at the cost of not able to learn from one’s mistakes (Hastof & Isen, 1982). In fact, a study found that teens who had been exposed to cold, controlling maternal care were more likely to have materialistic orientations, compared with better nurtured teens who more strongly valued the intrinsic goals for personal growth, relationships, and community (Deci & Ryan, 2000). (The connections between attachment, goal orientation, and intrinsic motivation are discussed in chapters 6 and 7.) There is thus a clear and direct conceptual relationship between secure/insecure attachment types and various motivation constructs such as mastery/performance, task/ego, intrinsic motivation/extrinsic motivation, and approach/avoidance. Some of these conceptual overlaps will be discussed in the next section (5.3), connecting the constructs I have examined thus far and the current chapter on goal orientation.

5.3 Attachment, Exploration, Effectance Motivation and Goal Orientation

In one study, children's motivational patterns were found to vary directly with attachment quality, which is defined as an optimal balance between attachment behavior and exploration (Bowlby, 1988). Secure attachment was also related to deeper engrossment in play, longer bouts of engaged play activities, and greater versatility in manipulating different aspects of play. In another study, insecurely attached children appeared less effective in their efforts to master challenging tasks, were less enthusiastic, and were less persistent during tasks (Grossmann, Grossmann, & Zimmermann, 1999).

The developmental role of play is clearly central to effectance motivation (White, 1959), and competent cognitive development (Grossmann, Grossmann, & Zimmermann, 1999; Ryan & Deci, 2000). Bowlby (1988) posited that children's exploration, or play, activities are biologically rooted. The innate nature of exploratory play is consistent with motivation theorists' suggestion that humans have a natural curiosity and need for competence, which is prototypically manifested in intrinsically motivated activity, such as play, that spurs on cognitive, motor, and social growth (White, 1959). Observational data suggest that exploration is typically accompanied by interest and excitement, more commonly found in curiosity-inspired play behavior (Deci & Ryan, 1985). Beginning with early motor play, manipulation of objects, and exploration of surroundings, competence tendency extends and differentiates toward activities and practices that are specifically relevant to effective social interaction and physical survival. Play is thus the manifestation of innate motivational propensities to develop competence (Deci & Ryan, 1985). Conceptually, exploratory behavior as described in attachment theory

(Grossmann, Grossmann, & Zimmermann, 1999) and exploratory behavior as in effectance motivation (White, 1959) as well as self-efficacy (Bandura, 1997) share the same functional role in developing one's competence and satisfying a person's quest for knowledge.

A central assumption of attachment theory is that the operation of the attachment and exploration systems are closely intertwined (Ainsworth, Blehar, Waters, & Wall, 1978). Moreover, different attachment styles are theorized to be systematically linked to different exploratory patterns (Elliot, 2003). Consequently, exploratory pattern might be seen as a function of differences in attachment pattern. How these exploratory differences lead to different learning outcomes might be explained by motivation researchers (Deci & Ryan, 1985), who propose that there are two kinds of exploration, specific and diversive. Specific exploration refers to behaviors that are responses to a person's experience of uncertainty. Diversive exploration arises out of people's response when they receive too little stimulation; under such circumstances, they seek out novelty; they explore and manipulate. Functionally, specific exploration leads to intentional learning (i.e. learning directed at a specific aim); diversive exploration leads to incidental learning (i.e. learning for learning sake) (Rothkopf, 1966). Furthermore, exploratory behaviors that deal with the avoidance of anxiety-producing events are considered specific exploration, therefore, specific exploration does not account for the essence of intrinsic motivation. In contrast, diversive exploratory behaviors reflect the active nature of human development in that they derive from a person's natural desire to learn (Deci & Ryan, 1985). Conceptually, specific exploration seems similar to insecure attachment behavioral type and ego-involved learning; when people are deprived of a sense of security, resulting in learning

that is narrowly focusing on resolving the sense of insecurity (e.g., a student focuses only on materials relevant to passing exam for fear of failing). On the other hand, diverse exploration appears linked to secure attachment behavioral type and mastery learning; with a sense of security, people are free to explore matters of interest to them (e.g., a student reads widely outside prescribed course readings for interest). The pathway leading from attachment differences to motivation types is elaborated in theoretical (section 5.4) and empirical (section 5.5) discussions below.

5.4 Social Comparison Theory

A theory that describes some of the dynamics between self variables (e.g., sense of security and motivation orientation) and social factors (e.g., supportive parents) is social comparison theory. Social comparison theory is predicated on the notion that people want to understand their world better (Durkin, 1995). The main premise of social comparison theory is that people need other people in order to determine what is distinctive about their own selves. They come together, communicate, and influence one another to gain cognitive clarity, to validate their opinions and to evaluate their skills (Baumeister, 1999). Developmentally, this self-definition develops in the course of interactions with the social world and nurtures a sense of self-efficacy that grows with success in gaining influence (Durkin, 1995). In terms of goal orientation, social comparison theory does prominently include the notion that there is a unidirectional drive upward with respect to abilities (i.e. demonstrating competence as opposed to developing competence), which is the defining characteristic of performance in ego-involved learning orientation (Ames, 1992; Baumeister, 1999; Deci & Ryan, 2000). Relevant to a

discussion on social comparison as part of the self-system and learning orientations in schools are social discrepancy theory and differentiation between types of comparison.

Social Discrepancy Theory: At the heart of this theory is the differentiation of the self into three different domains: - (a) the actual self, which is one's representation of the attributes that someone (oneself or another) believes one actually possess; (b) the ideal self, which is one's representation of the attributes that someone (oneself or another), would like ideally to possess; and (c) the ought self, which is one's representation of the attributes that someone (oneself or another) believes one ought to possess (Baumeister, 1999). Research on self discrepancy theory indicates that low achievers have a tendency to interpret their performance on the basis of whether it is above or below their ought/other standard, in contrast to high achievers who have a tendency to interpret their performance as a success or failure on the basis of its relation to their ideal/own standard (Markus & Wurf, 1987). This research finding provides a useful conceptual bridge between social comparison and learning orientation. By differentiating "self" into different domains, the theory is able to deduce the influence of social comparison based on types of self-domains that one is comparing with. While low-achievers are comparing with normative standard (ought/other) corresponding to a "performance goal orientation"; high achievers are comparing with own, internal standards corresponding to a "mastery goal orientation".

Types of Comparison: Research by Frey and Ruble (1985) provides a more direct connection between social comparison and learning orientation. With learning goals, also being described as "mastery goal" or "task-involved goal", competence is judged in terms of mastery and effort, leading naturally to a focus on temporal or autonomous (self-

focused) standards, indicating whether or not progress is being made. In contrast, with performance goals, also being described as “competitive goal” or “ego-involved” goal, competence is evaluated through normative or social standards. Two important findings from this research are: (1) young children tend to engage in social comparison as a way of obtaining information about the uncertain world, and (2) individuals espousing a mastery goal are more adaptive as they stress on their own unique contribution as a result of effort. These two findings might be suggestive of a link between “attachment” and “goal orientation”: that uncertainty associated with insecure attachment may lead to social comparison; which, in turn leads to a performance goal orientation. On the other hand, a sense of certainty associated with secure attachment seems to free the self from the anxiety associated with social comparison but to focus on comparing against one’s own/ideal standard; which, in turn lead to mastery goal orientation (Hastof & Isan, 1982).

5.5 Conceptual Overlap and Empirical Evidence

Beginning in the late 1990’s, education researchers have conducted a number of empirical studies providing clear and consistent evidence for the hypothesized link between attachment and achievement motivation from childhood to adulthood. In general, across several studies, levels of analysis, and operationalizations of attachment, secure attachment is linked to high need for achievement and low fear of failure, and is found to be a positive predictor of mastery-oriented goal. Insecure attachment, however, is linked to low need for achievement and high fear of failure, and is a positive predictor of performance-oriented goal (Carr, 2001; Elliot, 2003; Elliot & Reis, 2003; Green & Campbell, 1997). Similar results were observed in a longitudinal study in which secure

children had higher scores than insecure peers on communication, cognitive engagement, and mastery motivation (Ellen & St-Laurent, 2001). These results are important, because they suggest that attachment relations lead individuals to interpret achievement settings with personal meanings, which then impact on how persons self-regulate in such settings. This is consistent with Bowlby's (1969) proposed relationship between attachment and exploration: that secure attachment promotes challenge seeking and exploration, and that insecure attachment leads to caution and a preoccupation with safety and precaution. Thus, attachment security facilitates optimal achievement motivation because it enables individuals to view achievement contexts in terms of potential gains, and to fully focus on meaningful pursuits. Insecure attachment undermines optimal achievement motivation because it impels individuals to view achievement tasks in terms of potential losses and feel a heightened sense of needing to do well, both of which produce a defensive focus on avoiding negative outcomes (Elliot, 2003). However, it is important to point out that the urge to outperform others, which is described as performance-approach orientation (Pintrich, 2000), a sub-type of performance orientation, may not be maladaptive in achievement context (Sideridis, 2005).

Links between attachment and goal orientation can also be found in Csikszentmihalyi's concept of "flow". Csikszentmihalyi (1997) proposed that the experience of flow is a holistic sensation of total involvement with the activity itself. Flow involves a feeling of "loss of ego" and experiential unity with one's surroundings. Csikszentmihalyi's research suggests that flow states emerge under some specifiable conditions. Most important among these is optimal challenge. When one engages in an optimally challenging activity with respect to one's capabilities there is maximal

possibility for task-involved enjoyment or flow. Activities that are below or over one's optimal challenge disrupt flow. Mastery-oriented learners are more likely to achieve flow state in that they are more likely to engage in optimally challenging tasks. Performance-oriented learners, on the other hand, are pre-occupied with performing better or avoiding being out-performed by others; therefore, are more likely to seek challenges that are either too high or too low in relation to their capabilities, resulting in failure to achieve flow.

Family seems to be a source of "flow", which Csikszentmihalyi described as "autotelic". His research found that autotelic people spend significantly higher amount of time with family compared to others. Moreover, Csikszentmihalyi theorized that family seems to act as "as a protective environment where a child can experiment in relative security, without having to be self-conscious and worry about being defensive or competitive"; further, if "left to fend for themselves too early, young people can easily become insecure and defensive".

The most important contribution of these researchers' works is not only to link attachment quality with learning orientation, but also to demonstrate that the effect of attachment experience can be long lasting and generalizable across different task domains, academic and non-academic. For instance, in addition to genetic and other cultural factors, a person's personality is by and large shaped by early childhood experience – whereas a secure environment fosters healthy growth; an insecure attachment distorts development (Durkin, 1995; Jacobs, Bleeker, & Constantino, 2003). In essence, as an individual matures, representations of specific attachment figures become internalized as internal working models (i.e. expectations, beliefs, and emotions),

or in Vygotsky's words: "internal patterns" (Mahn, 2002), describing the availability and supportiveness of caregivers in general (Cassidy, 1999). Thus, the conceptualization assumes that adult exploration, in the form of achievement motives and goals, is impacted by a generalized set of mental representations about attachment figures (Elliot, 2003). The condition that breeds mastery-oriented behavior is a secure environment, in which there exists a warm, responsive, and supportive environment that the learner feels a sense of relatedness to, and regard for, important other people: In the absence of external evaluative concerns, people can fully concentrate on matters of interest to them till their satisfaction (Ormrod, 1999). The condition that breeds performance-oriented behavior is an insecure environment, in which there exists uncertainty regarding others' expectations for our performance: In the absence of definitive criteria about what good performance is, people compare themselves with their peers as a general indication of how well they are doing" (Elliot, 2003).

5.6 Summary: Attachment Pattern and Developmental Pathway

Within the framework of the relationship between attachment patterns and developmental pathways outlined by Bowlby's attachment theory, motivation researchers of various origins were able to chart more specifically the course of actions taken by people in achievement context. Secure attachment pattern seems to support exploratory activities and provide a self-referenced, therefore, less distracted, feedback system, leading to the ability to focus on the task on hand i.e. mastery-goal orientation. Insecure attachment pattern seems to distract exploratory activities and divert attention to seek

reference from other-referenced feedback system, leading to a focus on gaining approval or avoiding criticism from others i.e. performance-goal orientation.

CHAPTER 6: ATTACHMENT AND SELF EFFICACY

6.1 Introduction: Social Origin of Attachment and Self-Efficacy

While empirical works described in chapter 5 outlined the pathway connecting attachment types and goal orientation differences, chapter 6 brings the discussion a step further into the broader social context. Bandura's conception of self-efficacy is rooted in social learning. Self-efficacy is developed when a person learns from social interaction that one can be effective in one's environment. The earliest social environment and learning begins at infancy when the infant comes into contact with its caregiver. Bandura's conceptualization of the developmental and social nature of self-efficacy thus echoes Bowlby's theorizing of the roles of attachment and exploration in the development of competence.

6.2 Social Cognitive Theory

Bandura's research on self-regulation and self-efficacy culminated in his book entitled social learning theory (1977), in which he analyzed human learning and self-regulation in terms of triadic reciprocal causations involving complex inter-play between personal (cognitive and affective), behavioral, and environmental determinants (Zimmermann & Schunk, 2003). Bandura's later thinking expanded the notion of self-efficacy into a broader set of ideas regarding human agency in general, and viewed

perceived efficacy as a set of self-regulatory behaviors that serves as the foundation of human motivation and action (Baumeister, 1999). This focus on self-regulatory processes, such as goal setting and self-efficacy beliefs, led Bandura to integrate his earlier theorizing and re-label his theory as social cognitive theory. The theory was re-labelled “cognitive” in the 1980’s because his research had expanded beyond just learning and had become increasingly concerned with motivation and regulation behavior (Zimmermann & Schunk, 2003). The significance of this shift to cognitive focus is that one of its central constructs, self-efficacy, has expanded beyond efficacy in specific areas to self-belief or self-concept in general, reflecting a mental structure formed as a result of efficacy experiences (Bandura, 1993; Pajares, 1996) Self-efficacy and self-concept will be discussed in Section 6.4.

Bandura (1995) defines self-efficacy as “beliefs in one’s capabilities to organize and execute the courses of action required to manage prospective situation”. At the heart of Bandura’s theory is the idea of reciprocal determinism (Bandura, 1993), which suggests that motivation is the result of three interacting variables: personal, behavioral, and environmental factors. Personal factors include beliefs and attitudes that affect learning, especially in response to behavioral and environmental stimuli. Behavioral factors include the response one makes in a given situation. Environmental factors include the role played by parents, teachers, and peers. The idea of reciprocal determinism suggests that personal factors, such as self belief, affect behavior and the interpretation of environmental cues. Two personal factors provide especially powerful influences on behavior. One is self-efficacy, or one’s confidence in one’s ability to achieve a goal. A second factor is outcome expectancy, or the perceived relationship

between performing a task successfully and receiving a specific outcome as a consequence of that performance (Pajares, 1996).

Conceptually, the personal factor in Bandura's framework seems to share some of the elements of one's internal working model. The personal determinants in Bandura's reciprocal framework are essentially a set of self-beliefs, or an "internal model of experience" (Maddux & Gosselin, 2003), for example, self-efficacy and self-esteem (Bandura 1997). The internal working model includes these elements as they are formed through interactions with attachment figures (Thomson, 1999). Bandura (1997) also clearly identified early familial relationships as a source of self-efficacy and parents as an important component of the environmental determinants in his social cognitive theory. Moreover, the behavioral factor in social cognitive theory seems concordant with exploratory behavior as described in attachment theory. Just as attachment and exploration are intertwined sets of behavior (Bowlby, 1988), environment and behavior factors are inter-connected in the triadic reciprocal determinism framework (Bandura, 1997).

6.3 Self-Efficacy and Development

Self-efficacy is best understood in the context of social cognitive theory – an approach to understanding human cognition, action, motivation, and emotion that assumes that people actively shape their environments rather than simply react to them (Maddux & Gosselin, 2003). Social cognitive theory describes developmental changes in self-efficacy, in terms of evolvement of human agency across life span (Bandura, 1997). During the first few months of life, infants face several tasks that lay the groundwork for

the development of self, including forming attachment to caregivers and developing a sense of agency (Bandura, 1997; Jacobs, Bleeker, & Constantino, 2003). Bandura (1997) suggests that parents' responses to a child's attempts at exercising agency can influence greatly the development of efficacy beliefs. Therefore, initial development of self-efficacy and exploratory behavior of infants are based similarly on having a supportive environment: "secure base from which to explore" as in attachment theory (Bowlby, 1988); "enabling reciprocal environmental determinant" as in self-efficacy (Bandura, 1997). Furthermore, the continuity of this human agency development is made possible by ways of internal working model (Thomson, 1999) and internal model of efficacy experience, that is, mastery experience (Bandura, 1997).

Bandura (1993) suggests that the most powerful factor in building self-efficacy is past mastery experience. However, self-efficacy also depends on other personal and environment factors. Self-efficacy is found to relate more closely to one's perceived capacities and the ability to cope with anxieties than with actual skill (Schunk, 1996). The ability to cope with anxieties again is found to relate closely to self-regulatory ability (Jakubowski, Terrance, Dembo, & Myron, 2002) and attachment quality (Karen, 1994). Therefore, overall, self-efficacy works within a broader internal mental structure which cognitively appraises past experience in a task environment (Schunk, 1996). Confidence, belief that one can succeed, and tolerance of frustration in goal seeking have long been studied in relation to attachment history. This behavior takes the form of "ego resilience", or a child's ability to respond flexibly to the changing environments of a situation, particularly in the face of set-backs. These dimensions of personal efficacy were explored in a Minnesota longitudinal study, which found that children with secure attachment

experiences appeared more competent in tool use than those with anxious experiences, showing more vigor and persistence (Weinfield, Sroufe, Eggleland, & Carlson, 1999).

Early models of achievement motivation and behavior postulated that when people expect to do well, they tend to try hard, persist, and perform better (Pintrich, 2003). However, it is important that these self-efficacy and competence beliefs are adaptive, in terms of representing a fairly accurate perception of one's capabilities (Bandura, 1993). According to Bandura (1993), it is one's perceived self-efficacy that operates as an important contributor to academic achievement. However, many activities do not provide objective standards for one to assess one's abilities. People must, therefore, assess their capabilities in relation to the attainment of others. In schools, students receive a great deal of comparative information about their capabilities from grading practices and teachers' evaluation of their scholastic performances. These unremitting comparative evaluations carry strong efficacy implications. Research confirms that social comparison affects performance through its self-regulatory mechanisms (Bandura & Jourden, 1991). Seeing oneself surpassed by others undermines personal efficacy, increases erratic analytical thinking, and progressively impairs performance attainments. By contrast, seeing oneself gain progressive mastery strengthens personal efficacy, fosters efficient thinking, and enhances performance attainment. Bandura's main contribution is his concept of self-efficacy, the product of interaction of "self" and "environment". This helps to narrow educators' focus in helping students to achieve academic progress by focusing on creating a supportive environment to nurture students' mastery experience, and recognizing the importance of considering

working models and self-efficacy in a developmental context (Bandura, 1997; Thomson, 1999).

6.4 Self, Goal Orientation, and Self-Efficacy

Ames (1992) has extended Bandura's work by relating learning goal orientation to self-efficacy. According to Ames, learning environments' influences on learners can be differentiated in terms of specific information cues – social comparative versus self-referenced feedback. As children progress through school, evaluation becomes more formal and more closely tied to performance criteria than to simple assignment completion. When evaluation is normative, emphasizes social comparison, is highly differentiated, and is perceived as threatening to one's sense of control, it contributes to a negative motivational climate. Students' behavior can be either "achievement driven" or "failure avoidance" depending on school environment. If the focus of the school is on the intrinsic value of learning, students will gain a sense of self-efficacy through the investment of effort. If the focus of the school is on performance, students will focus on their sense of self-worth, and strive to protect this sense of self-worth through failure-avoidance behavior (Ames, 1992; Pintrich & Schunk, 1996).

Ames' and Bandura's work provides useful connections to earlier discussion on "self", "self efficacy" and "learning orientation". To Pajares (1996), self efficacy differs from self-concept in that self-efficacy is a context-specific assessment of performance in performing a task. Self-concept, on the other hand, is measured at a broader level of specificity and includes the feelings of self-worth associated with the behavior in question. As self-efficacy is part of self-belief, therefore, self-efficacy can be classified

into two types on a specificity-generalty dimension : self-efficacy for performance of previously learned behavior (specific self-efficacy) and self-efficacy for learning (general sense of self-efficacy i.e. self-concept about general capabilities). When students are familiar with the skills to accomplish an academic task, they can interpret their prior attainments and identify the skills on which to formulate their self-efficacy for performance. When students are unfamiliar with the specific tasks that confront them, they have to gauge progress based on their own prior experience in similar situations to formulate their self-efficacy for the new task. Students, particularly younger students, who are progressing rapidly through the school systems, will naturally be expected to face unfamiliar tasks on a regular basis. The prior experience they can fall back on for reference and to gain a sense of self-efficacy for learning is, therefore, very likely to be early attachment-exploratory experience. Developmentally, a sense of self-efficacy for learning is particularly beneficial because it motivates individuals to improve their performance across different task domains which are new to them. In contrast, self-efficacy for performance of a learner relates more specifically to specific task and develops over a history of mastery experiences of repeat successful performance of the same task (Schunk, 1996).

This distinction between a general sense of self-efficacy for learning and the task-specific self-efficacy for performance is important. The concept of general sense of self-efficacy shares with attachment theory not only the formative nature of learning but also the generality of its motivational properties. This conceptual connection was made possible by Bandura's (1997) clarification of a common misconception about self-efficacy that, self-efficacy is commonly misconstrued as being concerned solely with

“specific behaviors in specific situations”. This is an erroneous characterization according to Bandura. Domain particularity does not necessarily mean behavioral specificity. Further, Bandura (1997) suggests that there are three levels of generality of assessment. The most specific level measures perceived self-efficacy for a particular performance under a specific set of conditions. The intermediate level measures perceived self-efficacy for a class of performances within the same activity domain under a class of conditions sharing common properties. And finally, the most general and global level measures belief in personal efficacy without specifying the activities or the conditions under which they must be performed. At the global level, therefore, the conceptions of self-efficacy and self-concept share the same origin in a person’s mental “internal structure” formed since early life. Consequently, at self-efficacy for learning level of generality, self-concept and self-efficacy beliefs may be empirically similar (Pajares, 1996). This is perhaps why Bandura (1993) suggested that “the traditional distinction between self-concept and self-efficacy may have been overstated in the literature” and that self-concept and self- efficacy act as common mechanisms of personal agency in that both “contribute in their own way to the quality of human life” (Bandura, 1995).

Overall, findings on self-efficacy suggest that early attachment history does contribute to a child’s growing effectiveness in the world. Children with secure histories seem to believe that, as was true in infancy when infants learn that they can influence the world around them, they can get their needs met through their own efforts and bids. In contrast, children with insecure histories seem to believe that, as with their early attachment relationships, their efforts are often ineffective, and they must rely extensively

on others who may or may not meet their needs (Weinfield, Sroufe, Egeland, & Carlson, 1999). The impact of early attachment histories is felt most strongly in one's sense of self, or more specifically, self-esteem (Crowell, Fraley, & Shaver, 1999). Self-esteem again is an important construct of self-efficacy (Bandura, 1997) and goal orientation (Pintrich, 2003). The attachment and motivation connection is clarified by attachment researchers' (Ijzendoorn & Sagi, 1999) proposition of competence hypothesis which hypothesized that attachment security leads to more effective functioning. Operationally, attachment security is often measured by autonomy, that is, self-initiated exploration (Crowell, Fraley, & Shaver, 1999); a concept also central to goal theory (Ames, 1992), social cognitive theory / self-efficacy (Bandura, 1997), and self determination / intrinsic motivation theory (Deci & Ryan, 1985).

6.5 Summary: Human Learning Experience – Attachment and Self-Efficacy

Human mastery of skills and competencies are developed and manifested in many forms. Attachment theory and self-efficacy (social cognitive) theory share the common belief that much of human learnings are taken place in the context of social support and that of particular importance is the organization of learning experience that is originally shaped by formative experience, into self-knowledge as a basis to support further competence development. Overall, healthy development is contingent upon having a continued supportive environment, particularly from significant others, to refine and update one's self-knowledge about one's capabilities, in the forms of internal working model as in attachment theory and personal determinant as in social cognitive theory, in specific task areas or efficacy in general.

CHAPTER 7: ATTACHMENT AND INTRINSIC MOTIVATION

7.1 Introduction: The Human Factor

In chapters 5 and 6 I explored how attachment experience influences the directionality of motivation and suggested that secure attachment engenders a mastery goal orientation and self-efficacious behavior, and that both goal orientation and self-efficacy share a common cognitive and developmental origin with attachment theory. The current chapter examines the energizing role of the affective factor of human relatedness, or attachment, in nurturing intrinsic motivation.

7.2 Overview – Intrinsic Motivation

“That children can be regulated by external constraints and controls is without dispute. The question is whether this describes the atmosphere and goals of education to which we as educators, and as a culture, aspire.

An alternative perspective, more complex and subtle than the one (external regulation of learning behavior) just described, considers the motivation to learn to be a developmental issue. While learning can be wholly controlled and prompted from the outside, or externally regulated, the goal of education is, from the alternative view, the development of self-regulation for learning. This is conceptualized as a movement away from heteronomy and toward autonomy in the acquisition of knowledge, away from

reliance of others for the incentives to learn toward internal satisfaction with accomplishment and the learning process itself'. (Ryan, Connell, & Grolnick, 1992).

A long tradition of theorists, including Csikszentmihalyi (1997), Deci and Ryan (1985), Maslow (1970 cited in Pyszczynski, Greenberg, & Goldenberg, 2003), Piaget (1952), and Rogers (1961), have argued that people are intrinsically motivated to expand their understandings and capacities. More prosaically, intrinsic motivation generally refers to motivation to engage in activity because that activity is enjoyable and satisfying to do. According to Deci and Ryan (1985), intrinsic motivation is founded upon innate needs for competence and self-determination. These researchers hypothesize that when people are free to choose to perform an activity, they will seek interesting situations where they rise to the challenges that the activity presents. By striving to meet these challenges, they develop a sense of competence in their ability. Deci and Ryan (1985) proposed that the conception of intrinsic motivation was derived from ego-energy of psychodynamic theory -it was an "instinct to master". White's (1959) concept of effectance motivation was an extension of this non-drive based energy to describe an innate, intrinsic energy source that motivates a wide variety of behaviors and is central to much of a child's development. White (1959) further demonstrated that the inclusion of effectance motivation would provide a more satisfactory account of the child's striving to master each of the critical conflicts in his or her early life. When people, as in infancy, are free from the intrusion of drives and emotions, they seek situations that interest them and require the use of their creativity and resourcefulness. They seek challenges that are suited to their competencies that are neither too easy nor too difficult. They seek out information about their environment in order to achieve a broader and better supported

account of their world (Fay, 1996). When they find optimal challenges, people work to conquer them, and they do so persistently. In short, the needs for competence and autonomy keep people involved in ongoing cycles of seeking and conquering optimal challenges (Linnenbrink & Pintrich, 2002; Miserandino, 1996). When people are intrinsically motivated, they experience interest and enjoyment, they feel competent and autonomous, they perceive the locus of causality to be internal, and in some instances they experience flow (Deci & Ryan, 1985), a concept related closely to mastery goal orientation as discussed earlier. The concept of intrinsic motivation is thus closely related to self-determination theory and is observable from early childhood. However, earlier conceptions of intrinsic motivation had overlooked the interpersonal connection, or relatedness, or attachment as a source of intrinsic motivation (Baumeister & Leary, 1995; Deci & Ryan, 2000; Furrer & Skinner, 2003; Reitzes & Mutran, 1980).

7.3 Intrinsic Motivation and Self-Determination Theory

“It is in fact nothing short of a miracle that the modern methods of instruction have not yet entirely strangled the holy curiosity of inquiry; for this delicate plant, aside from stimulation, stands mainly in need of freedom; without this it goes to wrack and ruin without fail.” (Albert Einstein cited in Rogers, 1994).

From the perspective of self-determination theory, intrinsic motivation is part of the broader framework of self development. Accordingly, intrinsic motivation instigates optimal self-development and more elaborate and extensive self-organization (Pyszczynski, Greenberg, & Goldenberg, 2003). Furthermore, the premise of self-determination theory is that intrinsic motivation is the “energizing basis for natural

organismic activity” (Deci & Ryan, 1991). Intrinsic motivation is, therefore, the inner drive toward achieving self-determination (Brophy, 2004); it is defined in terms of the presence of subjective perceptions of self-determination rather than in terms of the absence of extrinsic incentives or pressures (Deci & Ryan, 2000).

Deci and Ryan (1985) proposed that humans are innately active.

Developmentally, children are active in their surroundings. Curiosity is the basic human disposition to seek out information about one’s environment in order to adapt oneself to the environment (Fay 1996). Curiosity and interest are also the driving force behind children’s curious exploration, investigatory manipulation, vigorous play, and other spontaneous activities. By exploring, testing, succeeding, and failing, children develop their capacities and construct ever more elaborate and refined internal mental structures that serve as the basis for future actions. Functionally, interest generates “a feeling of wanting to investigate, become involved, or extend or expand the self by incorporating new information and having new experiences with the person or object that has stimulated the interest (Pyszczynski, Greenberg, & Goldenberg, 2003). Interest and cognitive development are intimately connected. According to Piaget (1974, cited in Woolfolk, Winne, & Perry, 2000), developmentally, even adults may be able to use formal-operational thought, the highest form of cognitive function, only in areas where they have the greatest interest. Thus the emotion of interest plays an important directive role in intrinsically motivated behavior in that people naturally approach, with great enthusiasm, activities that interest them (Deci & Ryan, 1985). Interest is, however, a function of optimal challenge (Deci & Ryan, 1985). However, the necessary conditions to enable people to engage in optimally challenging activities are having a certain level

competence and enjoying the freedom of choice (Deci & Ryan, 2000). The constructs of competence and autonomy are central to self-determination theory (Deci & Ryan, 1985). Therefore, from this perspective, intrinsic motivation is a function of self-determination (Brophy, 2004).

It is humans' interest in self-determination (i.e. human as active agent) that underpins early development and different motivation traits (Furrer & Skinner, 2003). Deci and Ryan (1985) further suggested that the environmental circumstance, particularly those created by parents that will facilitate internalization are those that support autonomy, feeling related (i.e. appreciated and loved), and recognize competence. In a later study, Deci and Ryan (1991) found that even young children can distinguish between intrinsic and extrinsic motivation. Intrinsic motivation at age seven was correlated with intrinsic motivation two years later, and was positively related to academic achievement. Against this backdrop, it is not surprising to find in recent motivation literature and empirical studies that intrinsic motivation is closely related to mastery goal orientation (Pintrich, 2003), secure attachment (La Guardia, Jennifer, & Ryan, 2002), adult exploration activities (Green & Campbell, 2000), and self-efficacy (Linnenbrink & Pintrich, 2002). These results are consistent with Deci and Ryan's (1985) proposed idea that human motivation is based on a set of innate psychological needs: autonomy, competence, and interpersonal relatedness as the central thesis of self-determination theory.

According to self-determination theory, when any of the three needs are thwarted, the individual is hypothesized to experience negative affect and to disengage from the task regardless of positive outcome (Deci & Ryan, 1985; Miserandino, 1996). In other

words, the three psychological needs taken together promote the development of intrinsic motivation (Ormrod, 1999). As discussed earlier, the concepts of autonomy and competence are positively related to mastery goal orientation and self-efficacy. The concept of relatedness is of particular interest as it relates closely to attachment, and hence indirectly relates to all the other motivational constructs, particularly intrinsic motivation, discussed thus far in this paper.

7.4 Intrinsic Motivation, Relatedness, and Attachment

In many ways humans are essentially social (Fay, 1996). And as such have distinctive capacities (e.g., self-awareness) that require the presence of and interaction with others; they act on the basis of roles and rules which they glean only from others; and one of their most characteristic needs – the need for recognition – arises out of their relations to others. This means that humans are necessarily connected, or related, to others.

Relatedness is studied under a variety of labels, such as social cognitive view of motivation (Weiner, 1990), attachment behavior (Bowlby, 1969, 1988), and relationship representation (Mikulincer, 1998). The core notion is that a history of interactions with specific social partners leads children to construct generalized expectations about the nature of the self in relationships. Also referred to as a sense of relatedness (Weiner, 1990), or attachment relationship (Bowlby, 1969), these organized self-system processes include views about the self as lovable (or unworthy of love) and about the social world as trustworthy (or hostile). Children rely on these beliefs when predicting, interpreting,

and responding to social exchanges; these exchanges can in turn be used to confirm or revise children's beliefs.

Although Deci and Ryan (2000) hypothesized that autonomy and competence are the most powerful influences on intrinsic motivation in the self-determination theory framework, they maintained that relatedness also plays a role, albeit a more distal one, in the maintenance of intrinsic motivation. Deci and Ryan (2000) supported their theorizing by citing a serendipitous finding that when children worked on an interesting activity in the presence of an adult experimenter who ignored their attempts to interact, the children displayed a very low level of intrinsic motivation.

A sense of relatedness may function as a motivational resource when children are faced with challenges or difficulties (Baumeister & Leary, 1995; Bowlby, 1988; Bandura, 1997). In times of stress, children who experience trusted others as "backup" respond with more vigor, flexibility, and constructive actions. The basic idea underlying the notion of relatedness has been described in many theoretical perspectives. Perhaps the most important developmental and relatedness construct ever investigated is attachment because it provides a comprehensive analysis of the effect of inter-personal connectedness on developmental outcomes throughout life course (Grossman, Grossman, & Waters, 2005). Within the broader attachment framework, relationship representations are referred to as internal working models of attachment figures (Bowlby, 1988).

Functionally, a secure attachment base provides a form of social support (Thomson, 1999). Over and above the effects of actual support, it seems that the perceived availability of trusted others acts as a buffer, allowing people to show more

self-reliance, vigor, and tenacity in the face of obstacles. Children with a history of secure attachments to their caregivers have been shown to function well throughout childhood and adolescence in a variety of life domains, including peer relations and school performance. Research suggests that secure attachment and its corresponding internal representations function as a safe haven, allowing children the freedom to explore and to engage constructively in activities and interaction with others (Carr, 2001; Durkin, 1995; Mikulincer, 1998). In recent years the need to feel connected has gained increasing recognition in motivation research (Bandura, 1997; Deci & Ryan, 1985, 1991, 2000). Several motivational models explicitly posit that people have a basic need to be connected or related to others. For example, Baumeister and Leary (1995) argue for the “belongingness hypothesis”, which states that “human beings have a pervasive drive to form and maintain at least a minimum quantity of lasting, positive, and significant interpersonal relationships”. Attachment theorists (Ainsworth, 1985; Bowlby, 1988) also assume that infants come biologically prepared to form attachments, and research shows that humans are innately predisposed to be interested in, responsive to, and comforted by contact with others (Csikszentmihalyi, 1997; Furrer & Skinner, 2003). The relational zone has been coined as a term to communicate the centrality of interpersonal caring to children’s participation and learning in Vygotsky’s concept of zone of proximal development (Bretherton, 1992; Young, 1997). From a broader perspective, the relational zone is the zone of mediation where meaning is made and self knowledge developed, the result of which has been variously described by personality psychologists as the “ego”, the “self”, or the “person” (Kegan, 1982). Accordingly, key self-system processes, such as a sense of relatedness, are hypothesized to have energetic functions; they are

considered catalysts for engagement or disaffection (Furrer & Skinner, 2003; Pyszcznski, Greenberg, & Goldenberg 2003). Engagement is considered a primary pathway by which motivational processes contribute to learning and development (Pintrich, 2000). The relationship between relatedness and intrinsic energy to explore is very well explained by the developmental framework outlined by attachment theory, in which a secure attachment base nurtures and allows the innate exploratory instinct to optimally manifest itself in service of survival and development.

7.5 Summary: Relatedness – Social Origin of Intrinsic Motivation

Scholars of various traditions have long recognized that people have an innate propensity to be intrinsically motivated (i.e., wanting to do as opposed to having to do as in extrinsic motivation) to expand their knowledge and competencies. In a sense, intrinsic interest is biologically motivated and adaptive. Recently, there is increasing recognition that the social environment can nurture or stifle such intrinsic interest to explore; more specifically, whether the social environment, particularly from significant others, provides one with emotional support in one's life pursuits. Though there are many theories describing the positive effect of emotional attachment on interest-driven exploratory behaviors, attachment theory is perhaps the most comprehensive. Still more recently is the recognition of the impact of affective and relational factors on motivation. The motivation construct that is most strongly connected with affect/attachment is intrinsic motivation. As attachment begins at infancy and is postulated to have lifespan implication, therefore, it is believed that much of the foundation for intrinsic motivation is laid in relation to children's early attachment quality. Such early attachment experience

then serves as a blueprint for future attachment relationships. Therefore, attachment and intrinsic motivation are closely connected across lifespan.

CHAPTER 8: CONCLUSION

This paper focuses on two theories, attachment and motivation, that are central to the understanding of human development and achievement. The two theories are inter-related in that quality attachment relationship with significant others supports all sorts of life pursuits in one way or another; put in another way, quality achievement reflects quality attachment relationship. Two general lines of motivation theory are discussed in this paper. One concerns directionality of motivation as a result of self-perception, such as self-efficacy and goal orientation; the other concerns energization of motivation about more recent research on interpersonal relatedness and intrinsic motivation. The broad psychological needs framework of motivation suggests that both self-perception and relatedness are essential to energize and direct motivation. Two lines of attachment theory were reviewed – attachment and exploration. Attachment theory and motivation theory are intertwined in all three basic psychological needs: competence, autonomy, and relatedness. As such, for attachment researchers this connection suggests focusing future research on the long-term effects of early attachment and exploratory activities on learning. The implications for motivation researchers are two fold. First, early intervention is possible if there is a better understanding of a child's early attachment history and recent social circumstances. Certainly, recent interest in the effect of interpersonal relatedness is a step in this direction. Second, motivation is a dynamic multifaceted phenomenon is rooted in early childhood experience and current familial environment. In other words, teachers should not base on just school performance to label

students as “motivated” or “not motivated” in some global fashion. The important issue is the understanding of how and why students are motivated for school achievement, and students can be motivated in multiple ways in the broader social cognitive framework. The current theoretical attention on affective processes (e.g., relatedness or attachment) than merely on cognitive aspect on motivation will bring new perspectives on motivation. One positive outcome of teachers being aware of and sensitive to students’ attachment histories is that such knowledge might help in reversing or mitigating insecure behavior by providing students with a caring and supportive learning environment (Leaner & Kruger, 1997). At the minimum, teachers should endeavor not to replicate, thus reinforce, particularly students’ insecure experiences in a manner consistent with the Minnesota Studies (Karen, 1994): “Teachers tend to treat securely attached children in warm, matter-of-fact, age appropriate ways; to indulge, excuse, and infantilize the clinger, more scattered ambivalent children; and to be controlling and angry with the avoidant children, despite the fact that they were equally needy”. Based on evidences reviewed thus far, signs of insecurity are observable in behaviors such as overly relying on external regulation and reward for task accomplishment, showing excessive concern for performance, and lacking confidence in achievement context. Viewed in this manner, motivation is at least partly the manifestation of attachment quality, whether past or present, in a broader cognitive development framework of analysis.

Arguably, the three most seminal contributors to Western psychology are Freud, Piaget, and Skinner (Kegan, 1982); two of these, Freud and Piaget, are developmental. Freud and Piaget are also cited widely in both attachment and motivation theories (Ainsworth, Blehar, Waters, & Wall, 1978; Deci & Ryan, 1985; White, 1960 & 1963).

However, motivation theories had been more psychoanalytical and behavioral until the recent shift of interest to developmental and cognitive. This paradigm shift to developmental directs research attention to not only the origin of the behavior or motivation phenomenon under study, but also the developmental, or ontogenic, direction of the phenomenon. This developmental-cognitive orientation of current motivation research has opened up dialogue potential with attachment theory, which Bowlby (1988) clearly describes his theory as developmental. This paradigmatic shift has reflected in contemporary motivation researchers' works, such as those of Bandura, Deci, and Ryan, which are significantly dedicated to the origin, or developmental nature, of motivation. Bandura (1997) even suggests that future research in self-efficacy be focused on clarification of types of social environment that is most useful for efficacy evaluation on young children. Bandura's suggestion underscored the recognition of the significance of early childhood experience on future efficacy beliefs. At a more theoretical level, although both cognitive and affective factors have clear links with motivation, current motivation research tends to down play the role of affect and stress on cognition. Affect regulation is clearly embedded in a person's social environment, at the center of this environment is one's relationships with one's significant others, that is, the attachment relationships. Considering the role of affective processes in motivation theories should aid in the development of more nuanced and accurate models of motivational processes in school. The inclusion of affective considerations may also be particularly important for students who are having behavioral, or affective response, problems in school or achievement. At a more philosophical and also more practical level, the recognition of affective factors leads researcher to focus on the learner as a "whole person" instead of

just the learner's component parts, such as "cognitive / affective" or "school / home", to formulate a holistic model of development.

Though Bowlby clearly conceives of development of attachment as intertwined with cognitive development (Ainsworth, Blehar, Waters, & Wall, 1978), most early attachment research tends to center on toddlers' attachment to parents. Clearly, Bowlby's (1988) original conception of attachment behaviors is not only about infants' and young children's passing phase of growing up process with no long term ramification. However, to study the long-term impact of early attachment on development, a nagging challenge for researchers is to find irrefutable empirical results relating child attachment and later, especially adult, behavior. This is not only practically infeasible but also theoretically untenable. It is impracticable because of the inherent difficulty of tracking a person's development from infancy to adulthood; more so, for research result to be meaningful, the sample size, which must allow for attrition of research subjects, is expected to be sizeable. It is theoretically challenging because the maturation process of a person will inevitably introduce innumerable mediating or confounding factors offering alternative explanations to the effect of attachment experience. Consequently, many contemporary attachment researchers suggest future research to focus on the effect of these mediating factors, such as peer relations and school environment, on shaping or changing the internal working model formed as a result of attachment history (Elliot, 2003; Moss 2001; Thomson, 1999). As these mediating variables are varied and numerous, any study of them will inevitably implicate cross-categorical studies forging links with fields that are currently separated. One field of study clearly identified to offer rich research

potentialities is cognitive psychology (Main, 1999), and by extension, cognitive motivational theory, the focus of this thesis.

At a higher theoretical template, early attachment scholars have clearly laid the ground work for future inter-disciplinary collaboration. From the very beginning, Bowlby took an eclectic approach in his formulation of attachment theory (Bretherton, 1992; Karen, 1994). Later, in her elaboration of attachment theory Ainsworth (Ainsworth, Blehar, Waters, & Wall, 1978) suggests that attachment theory might be described as “open- ended”. All these suggestions open the door for attachment theory researchers to incorporate other theories or collaborate with researchers in other disciplines to explain various attachment-related exploratory behaviors. I feel there are two future research directions that will add depth and breadth to attachment theory. One is longitudinal study of attachment histories and adults’ work-related motivational patterns; the other is cross-cultural attachment and motivation differences.

If one of the purposes of understanding the attachment relationship in education contexts is to predict later functioning in school, it will then stand to reason that attachment researchers have to extend their research to scholastic achievement. By extension, if one of the objectives of education is to produce future productive citizens for society, it is then crucial for educators to understand the impact of learning environment on later working styles, or productivity, of learners. This is so as a working professional in today’s knowledge economy would have spent close to a quarter of his or her life time engaging in various forms of learning before becoming a productive member of the work force. This early, and increasingly extended, learning experience, including pre-school attachment experience, of a person is expected to shape his or her value,

belief, personality, and behavior far beyond a person's school years into his or her working life. Therefore, it is timely and important for attachment and motivation researchers to examine the relationship between early life experiences and later work-related motivation pattern. For instance, whether, or to what extent, security of attachment has impact on intrinsic motivation, goal orientation, and self-efficacy; whether, or to what extent, intrinsically motivated, mastery goal oriented, and self-efficacious learners are able to extrapolate their learning experiences into their working lives. It is timely because the current emphasis on humanistic factors, such as creating a kinder and gentler work place, and the recognition of affective factors, such as relatedness, in motivating learners. It is significant because it has long been recognized by attachment scholars (Bowlby, 1988; Main, 1999) that the internal working model formed as a result of early attachment experience, though enduring, is changeable by a person's latest, particularly affective, overriding experience. With a more integrated knowledge of human motivation, educators are then able not only to understand and predict attachment-related motivation issues, but also to address and remedy any resulting problems from prior inter-personal relationship experiences.

One major challenge facing attachment research is scope limitation. Many studies have limited external validity because they involved just twenty or so subjects and observed over a couple of months' period. More so, most attachment research are conducted in Western cultural settings, therefore, might not be applicable in other cultural environments. (Bretherton, 1992; Ijzendoorn & Sagi, 1999). The need for cross-cultural study of attachment and motivation differences are particularly heightened in today's increasingly globalized environment. As different cultures have different child-rearing

practices and living environments, it is to be expected that style and quality of infant-caregiver attachment relationship are expected to be different. Besides child-rearing practice differences, institutional differences, such as education policy, are also expected to play a major role in shaping attachment and motivation style differences across cultures. As socio-economic factors could vary widely across cultures, therefore, different cultures offer particularly rich research ground for attachment and motivation studies. For both theoretical and practical reasons, studying different cultural groups offers breadth and depth that is useful to test the hypothesized universality of attachment and motivation link. For example, policy makers might be interested to examine differences across nations the relationship between school drop-out rates and attachment types; the relationship between educational policy and goal orientation preference. Various extreme conditions are easier to locate as research settings to examine the impact of various socio-economic factors, such as abject poverty and competitive school environment, on attachment and motivation in different cultures. Domestically, cross-cultural research offers immediate benefit to understand better the special aspects of multi-cultural education facing major Canadian cities today.

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