

Explaining the relationships between age, job satisfaction, and commitment:

An empirical test

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## ABSTRACT

### **Explaining the Relationships Between Age, Job Satisfaction, and Commitment: An Empirical Test**

Nicole Bérubé  
Concordia University, 2010

A substantial body of research has established that both job satisfaction and organizational commitment are important work attitudes. Yet, while scholars have proposed some possible explanations for the positive relationship between age and job satisfaction, and between age and organizational commitment, these explanations have rarely been investigated directly. In addition, researchers who investigated reasons for demographic differences in job attitudes measured only chronological age, not subjective age (how old a person feels). The present study sought to redress this major shortcoming by testing alternative explanations for age-related differences in job satisfaction and commitment, and doing so by investigating both chronological age and subjective age.

The study investigated four proposed mediators of the relationship between age and job satisfaction, and age and commitment. A survey was administered to 888 middle managers in a single large organization, and 458 usable questionnaires were obtained.

The first proposed mediator, *assessments about the employment relationship*, emerged as a full mediator of the relationships between both chronological and subjective age, and affective commitment. In addition, it partially explained the relationship between both age measures and overall job satisfaction, as well as satisfaction with the work in the present job. In contrast, retirement *reminders* could not explain the

relationship between age and continuance commitment because in this sample, tenure captured most of the variance in continuance commitment in the regression model.

The next proposed mediator, recognitions *from others about one's experience*, partially mediated the relationship between subjective age and satisfaction with the work in the present job. Next, *self-recognitions about one's work experience* partially mediated the link between subjective age and affective commitment. However, recognitions by self and others did not explain the relationship between chronological age and either job satisfaction or affective commitment, emphasizing the importance of measuring subjective age in management studies.

The findings also show that compared to chronological age, subjective age was a stronger correlate of overall job satisfaction, satisfaction with the work in the present job, and affective commitment, but a weaker correlate of continuance commitment. Subjective age contributed uniquely to predicting overall job satisfaction, satisfaction with work in the present job, and affective commitment, beyond chronological age.

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**DEDICATION**

For my parents, Gaston and Fernande Bérubé, and my husband, Pierre Bissonnette.

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## CHAPTER 1

### Introduction

*“A man's age is something impressive, it sums up his life: maturity reached slowly and against many obstacles, illnesses cured, griefs and despairs overcome, and unconscious risks taken; maturity formed through so many desires, hopes, regrets, forgotten things, loves. A man's age represents a fine cargo of experiences and memories.”*

~Antoine de Saint-Exupéry, *Wartime Writings 1939-1944*, translated from French by Norah Purcell

As Antoine de Saint-Exupéry implied, the age of human beings is a highly meaningful marker; one against which people consciously or subconsciously take stock of their accomplishments, desires, and goals in relation to their expected lifespan. Aging is inevitable – and age is thus a pervasive point of reference throughout life. As people use age as a temporal benchmark to take stock of their lives, they may modify their attitudes about various aspects of life, including work.

Understanding the relationship between age and work attitudes is essential for organizational success. The purpose of this research is to investigate why age influences work attitudes and to use this knowledge to help develop interventions to manage effectively workers at different stages of life.

## **1.1 Problem statement and objectives**

Scholars have long been interested in age differences in work attitudes. Starting from the premise that age constitutes a temporal and social benchmark for self-assessment (Lawrence, 1987, 1988), empirical studies have demonstrated that age accounts for variance in important work variables such as work values, satisfaction, and turnover intentions (Doering, Rhodes, & Schuster, 1983b). The present research investigates the relationship between age and two commonly investigated work attitudes: job satisfaction and organizational commitment.

Although scholars have discussed contextual and dispositional explanations for the relationships between age and these important work attitudes, these explanations have not been tested directly. Explaining the mechanisms by which these differences operate thus constitutes a major shortcoming in our knowledge about age-related attitudinal differences at work.

The present research specifically addresses this question by investigating alternative explanations for these relationships, as illustrated in Figure 1.

## **1.2 Key constructs for the direct relationships**

### ***1.2.1 Predictors***

In management research, age is most often operationalized as a chronological variable and most studies on age and work attitudes have followed this norm (Rhodes,

1983). Chronological age constitutes a universal signal of the passage of time and since it can be easily measured simply by asking respondents how old they are, it is a convenient measure of time of life. In order to compare results with those of previous studies, chronological age will be a major predictor in the present research. However, scholars agree that it may not adequately reflect age-related attitudes because individuals of identical chronological age may attach different subjective meanings to their age (Barak & Schiffman, 1981; Cleveland, Shore, & Murphy, 1997; Sterns & Doverspike, 1989; Sterns & Miklos, 1995). In addition, the age individuals identify with may be different than their chronological age (Montepare, 1996c) and may change as people get older (Bultena & Powers, 1978). If differences in the meaning and perception of one's age are associated with differences in work outcomes, relying only on chronological age may lead investigators to underestimate the effects of age on work outcomes.

In search of a more effective operationalization of age for studies on attitudes and behaviors, gerontologists pioneered the development of non-chronological age constructs (e.g., Blau, 1956; Kastenbaum, Derbin, Sabatini, & Artt, 1972). Barak and his colleagues conducted reviews of the literature on non-chronological age measures and identified three broad categories: *biological*, *social* and *social-psychological* age (Barak & Gould, 1985; Barak & Schiffman, 1981; Barak & Stern, 1986). *Biological age* measures are concerned with individuals' estimation of their remaining life span (e.g., Birren & Renner, 1977; Jarvik, 1975). *Social age* measures reflect socially-determined norms of behaviour and roles that people are expected to engage in at different stages of the life cycle, such as finishing school, starting a career, establishing a home, and retiring from work (e.g., Birren & Renner, 1977; e.g., Blau, 1956). These include measures of

perceptions or judgments by others about a person's age, used in perceptual bias studies (e.g., Finkelstein & Farrel, 2007; e.g., Rupp, Vodanovich, & Credé, 2006).

The present study focuses on *social-psychological age*, which is concerned with how people identify with age groups and with subjective assessments of how old a person generally feels, and how old individuals perceive themselves to be relative to certain age groups. Based on the work of Kastenbaum, Derbin, Sabatini and Artt (1972), these measures have different names, including *personal age*, *cognitive age*, *psychological age*, and *subjective age*; however, all include four items that ask respondents about how they look, feel, act/ behave, and which age group they have the most interests in common with. In the present study, the term *subjective age* is used to describe a personal evaluation of how old or young individuals perceive themselves to be on the basis of shared characteristics with others (Cleveland & Shore, 1992).

### **1.2.2 Outcome variables**

#### *a) Job satisfaction*

*Job satisfaction* refers to people's self-assessments about the extent to which they like or dislike their jobs (Spector, 1997). This attitudinal construct is assessed either globally or using facets. *Global* job satisfaction assesses an individual's overall feelings about various aspects of the job, whereas *facet* satisfaction focuses on specific aspects, such as satisfaction with the work itself, with promotion opportunities, or satisfaction with co-workers or supervisors. In addition to global job satisfaction, the present study

includes two facets as outcome variables: satisfaction with the nature of the work and satisfaction with promotion opportunities.

Job satisfaction is one of the most frequently researched concepts in management research. Scholars have generally agreed that job satisfaction arises from the interaction of individuals with their work environments, but have proposed different approaches to discuss its underlying mechanisms (Locke, 1976). Earlier models argued that job satisfaction depended on the degree of congruence or discrepancy between people's expectations from their work environment and what they obtained (e.g., McClelland, Atkinson, Clark, & Lowell, 1953), or that job satisfaction was a function of needs fulfillment (e.g., Porter, 1962) or the attainment of values or wants (Locke, 1976). More recently, the predominant perspective has been to treat job satisfaction as an attitudinal variable (Spector, 1997).

The importance of job satisfaction is well documented in a substantial body of literature. It is positively associated with desirable work behaviours such as attending meetings that are not mandatory, taking steps to prevent interpersonal problems, displaying a positive attitude rather than focusing on what is wrong at work and other organizational citizenship behaviours (McNeely & Meglino, 1994; Organ & Ryan, 1995). Furthermore, empirical research has overwhelmingly found that people who report a high level of job satisfaction have lower levels of absenteeism (Farrell & Stamm, 1988), turnover (Judge, 1993) and counterproductive behaviours (Dormann & Zapf, 2001). They also enjoy better physical health (Lee, Ashforth, & Bobko, 1990) and are less likely to suffer from anxiety (Spector, Dwyer, & Jex, 1988), depression (Shaubroeck, Ganster, & Fox, 1992) and burnout (Lee & Ashforth, 1993) than less satisfied workers. Although the

relationship between satisfaction and job performance has long been recognized as complex, substantial evidence on the relationship between job satisfaction and other work outcomes suggests that it is and indirectly related to performance (Judge, Thoresen, Bono, & Patton, 2001). Furthermore, turnover is associated with several facets of job satisfaction – satisfaction with the work itself, pay, promotion, co-workers and supervision, although the first three facets have received the strongest empirical support (Cook, Hepworth, Wall, & Warr, 1981). The multitude of variables with which job satisfaction has been found to be significantly associated establishes its value as a major outcome variable.

*b) Organizational commitment*

*Organizational commitment* is a work attitude that describes various reasons employees feel loyal to their employers. Although scholars have proposed various definitions of organizational commitment, Meyer and Allen (1991) observed that these definitions agreed fundamentally in “the view that commitment is a psychological state that (a) characterizes the employee's relationship with the organization, and (b) has implications for the decision to continue membership in the organization” (p. 67). The prevailing conceptualization of organizational commitment is the tripartite model proposed by Allen and Meyer (1990). It includes individuals' emotional attachment to the organization (*affective commitment*), a perception that the cost of leaving the organization is high (*continuance commitment*), and feelings of moral obligation to remain in the organization (*normative commitment*). These are conceptually independent constructs –

“...the extent to which one is affectively committed does not affect the degree of continuance commitment and vice versa” (Meyer & Allen, 1984, page 573). Meyer and Allen (1991) noted that their conceptualization reflects the three broad themes shared by the various definitions in their review of the commitment literature. For example, these are similar to the three forms of commitment reviewed by Mathieu and Zajac (1990): identification with and involvement in the organization (*attitudinal commitment*), based on the work of Porter and his colleagues (Mowday, Steers, & Porter, 1979; Porter, Steers, Mowday, & Boulian, 1974); a calculation of sunk costs or side-bets (*calculated commitment*), based on the work of Becker (1960); and loyalty derived from duty to the organization (*normative commitment*), as described by Weiner (1982).

Affective commitment has been most frequently studied (Wright & Bonett, 2002) and normative commitment has received the least attention as a separate construct. In their review, Mathieu and Zajac (1990) noted that normative commitment (Weiner, 1982) was conceptually and empirically subsumed into the affective (attitudinal) component. Moreover, empirical studies using Meyer and Allen’s instrument (1991, 1997) generally did not support theoretical expectations of differentiation between normative and affective commitment (Bergman, 2006). In addition, Cooper-Hakim and Viswesvaran (2005) used meta-analytical techniques to determine the degree of overlap between various forms of commitment, separating in their analyses attitudinal, affective, calculative, continuance and normative forms. They concluded that the true score correlations between the various forms of organizational commitment suggested no concern for overlap among the various forms, with the exception of normative and affective commitment, which had an estimated true score correlation of .64. Since

affective and normative commitments are highly correlated, this study focuses on affective and continuance commitment.

The distinction between affective and continuance commitment is important because they imply different reasons for remaining loyal to the organization: “Employees with strong affective commitment remain with the organization because they *want* to, whereas those who have strong continuance commitment remain because they *have* to (i.e., to do otherwise would be costly)” (Meyer, Bobocel, & Allen, 1991, page 718). Affective and continuance commitment have been linked to different work attitudes and consequently, have different implications for work behavior. For example, empirical studies found positive relations between affective commitment and performance, but negative relations for continuance commitment and performance (Meyer et al., 1991).

Generally, affective commitment is associated with desirable organizational attitudes and behaviours, such as lower absenteeism, tardiness and turnover (Cooper-Hakin & Viwesvaran, 2005; Farrell & Stamm, 1988; Mathieu & Zajac, 1990); increased motivation, higher morale (DeCotiis & Summers, 1987), higher levels of altruism and compliance (Shappe, 1998), organizational citizenship behaviors, and well-being (Mowday, Porter, & Steers, 1982). Meyer and his colleagues summed up the benefits of affectively committed employees: “Because of their attachment to, and sense of identity with, the organization, employees with strong affective commitment are likely to behave in a way that they view as being in the organization’s best interest” (Meyer, Allen, & Topolnytsky, 1998, p. 83). On the other hand, high levels of continuance commitment have generally been associated with less desirable attitudes and behaviours, such as lower job satisfaction, poorer performance, increased absenteeism and higher stress (Meyer et

al., 2002). The work-related implications of these two different forms of commitment establish them as important outcome variables.

### **1.3 Conceptual Framework**

In the following chapter, arguments based on a review of the literature will provide the rationale for the relationships illustrated in Figure 2. In sum, it will be argued that the relationship between age and organizational attitudes (job satisfaction, affective and continuance commitment) is mediated by people's shifting expectations (assessments about the employment relationship), recognitions about their work experience, and receiving reminders about their approaching retirement.

#### **1.3.1 Mediators**

The present study investigates three mediators. The first one is based on the premise that people evaluate and re-assess their relationship with their employer over time. In the present study, these *assessments about the work relationship* are evaluations people make about the relationship they have with their employer during the course of employment. It is argued here that people of different ages will feel differently about their relationship with their employer, and that this will help explain age differences in satisfaction and commitment.

The second mediator is based on substantial evidence from the literature on cognitive abilities which suggests that as workers age, they may compensate for declines

in cognitive abilities by selecting or focusing on work or goals and by using strategies that optimize their existing knowledge and skills (Ackerman, 1996; Beier & Ackerman, 2001, 2003). Consequently, as people age, the skills and abilities acquired during the course of their work and life experience should become increasingly important to them. The second mediator, *Recognitions about one's work experience*, includes two aspects. The first involves acknowledgments or signs of appreciation from others that one's work experience is valuable or important. The other aspect is the realization by the individual that his or her personal work experience is worthwhile or useful. It is expected that the salience of recognizing their own work experience, and having it recognized, will vary with age and that this will be useful to understand why satisfaction and commitment change with age.

Retirement, which is generally defined as withdrawal from the workforce in later life, has become a widespread transition, one which many older employees expect (Moen, 1996). Although retirement is an objective life course transition, Dannefer (1984) argued that the approach of retirement is a matter of subjective developmental and social psychological transformation in identity, expectations, preferences, and meaning. Along this line of thinking, the present study investigates a third mediator: *Retirement reminders*. These include events, such as someone talking about retiring or receiving information about retiring, which signal that retirement may be approaching. The salience of these reminders is expected to increase as workers get older and this is expected to help explain age differences in satisfaction and commitment.

#### **1.4 Importance of the topic**

Understanding the relationship between age and work attitudes is increasingly being recognized as a crucial determinant of organizational success (Bureau of Labor Statistics, 2007, 2008; Statistics Canada, 2008). Recent demographic trends emphasize our need for this information. Workers over 40 years of age currently dominate the North American workforce and we are experiencing unprecedented growth in the proportion of mature workers (Dychtwald & Baxter, 2007). In the United States, statisticians forecast that between 2006 and 2016, the labour force participation of American workers aged between 55 and 64 will increase dramatically by 36.5%, compared to a forecasted increase of only 2.4% for workers aged 25 to 54 (Bureau of Labor Statistics, 2007). In Canada, statisticians predict that by 2021, the proportion of the labour force over 55 years of age will be double what it was in the mid-1990s and therefore, about one in five workers in Canada will be over 55 years of age (Martel, Caron-Malenfant, Vézina, & Bélanger, 2007).

Although it is widely recognized that older workers are valuable human capital (Cloutier, Lefebvre, Ledoux, Chatigny, & St-Jacques, 2002; Crampton, Hodge, & Mishra, 1996; Critchley, 2004; DeLong, 2004), concerns about how to manage older workers are widespread (Schooler, Caplan, & Oates, 1998). The major driving force behind the interest in age at work is the aging of the Baby Boom cohort, born roughly between 1946 and 1964 (Foot & Stoffman, 1996), who represent a large and increasing proportion of the labour force (Bureau of Labor Statistics, 2007; Schetagne, 2001; Statistics Canada, 2008). In addition, increasing longevity, the elimination of mandatory

retirement age, the increase in the age for pension eligibility, as well as increasing cost of living, are all expected to contribute to continued increases in the proportion of older workers in the next few decades. At the same time, growing concern surrounds the effect on the workforce as Baby Boomers approach retirement age. Therefore, there is currently a great deal of interest in generating age-related management research.

Yet, a thorough review of the extant literature revealed that the surge of interest in studying the relationship between age and job attitudes in the early 1980s (e.g., Kalleberg & Loscocco, 1983; Rhodes, 1983) quickly waned, with few investigations published after 1986, until recently (e.g., Barnes-Farrell & Matthews, 2007; Bobko & Barishpolets, 2002; e.g., Kaliterna, Zvezdana, & Brkljacic, 2002; Shore, Cleveland, & Goldberg, 2003). Consequently, much of the available literature on the relationship between age and work attitudes is dated in light of the more volatile economic, social, and workplace conditions of the recent years (Kanfer & Ackerman, 2004; Lindgren, 2007). For example, overall tenure rates have been declining over the past three decades – with the most dramatic decline affecting men aged 45-64 with median tenure declining by 37% over the past thirty years (Farber, 2007).

Such changes mean that results of earlier studies on the relationship between age and work attitudes, which were conducted at a time of much higher job stability, may no longer hold today, when the organizational tenure of older and younger employees may not differ as much as it did two or three decades ago. In addition, with the exception of recent attention to bridge employment (working after retirement), most research on samples of workers aged 50 and older has focused on attitudes about adjusting to retirement rather than attitudes about working (Greller & Simpson, 1999; Greller &

Stroh, 1995). These gaps in managerial knowledge justify updating our knowledge about work attitudes in samples of older workers.

The main purpose of this study is to investigate alternative explanations for the relationships between age (chronological and subjective age) and important work outcomes (job satisfaction, affective commitment and continuance commitment). The results of this study will help further the process of inquiry on managing age at work and help determine what workers of various ages need to develop and maintain work attitudes that enable effective work performance.

Although scholars have proposed some possible explanations for the positive relationship between age and job satisfaction, and between age and organizational commitment, these explanations have rarely been investigated directly and have included only chronological age, not subjective age. The present study seeks to redress this major shortcoming by attempting to explain the mechanisms by which age-related differences in job satisfaction and commitment operate.

## **CHAPTER 2**

### **Theoretical background and hypotheses**

#### **2.1 How this chapter is organized**

This chapter contains the literature review and background explanations leading to the hypotheses which are tested in the present study. It begins with an introduction to how age was measured and interpreted in previous studies, focusing on the organizational behaviour and management literature but drawing also from the gerontology literature. Following this, the literature on the relationships between age and the focal work attitudes in the present study will be presented: job satisfaction, affective commitment and continuance commitment. Finally, the most common explanations for the relationships between age and these important work attitudes will be reviewed, and the focal mediators in the present study will be described. Hypotheses which will be tested will be introduced throughout the chapter and summarized at the conclusion of the chapter.

#### **2.2 Age and its meaning**

Age is essentially a measure of time which, for the individual, may constitute a series of temporal markers that mark changing expectations. Emphasizing the importance

of context in interpreting behavior and attitudes, Johns (2001), noted that time often substitutes for contextual changes. Therefore, age is an important measure of time and it is weaved surreptitiously into the work context. However, inconsistencies in the measurement of both chronological and non-chronological age make difficult comparing results across studies. To interpret the results of past research, it is necessary to acknowledge the inconsistencies in the measurement of age in earlier studies.

### *2.2.1 Chronological age*

In Chapter 1, chronological age was introduced as an important variable since it is a commonly used and easily understood way of marking the passage of time. From a psychological perspective, chronological age is part of people's identity (Bytheway, 2005), a benchmark for social expectations (Lawrence, 1984, 1987, 1988), and a way to recognize milestones in the life cycle such as starting the teen years, reaching voting age, marking the start of each decade in one's life (turning thirty, forty, fifty, etc.), or reaching the normative age of retirement (Kohli, 1986).

Studies of age at work have commonly used age ranges, typically classifying age in spans of about 10 to 15 years. When age ranges have been used, it has also been common practice, in studies on the effects of age on work attitudes and behaviors, to treat those over 45 years of age as an undifferentiated group (Cohen, 1993; Rhodes, 1983; Waldman & Avolio, 1986). Although this practice prevails in recent publications (e.g., Barnes-Farrell & Matthews, 2007; Cappelliez, Beaupré, & Robitaille, 2008), Sterns and Miklos (1995) pointed out that as people progress throughout their life span and through

their careers, their choice set increases in complexity. Moreover, there is substantial evidence that the midlife period, generally from age 45 to 64, is a tumultuous time characterized by major life changes, questioning, and re-orientation (Cappeliez et al., 2008; Greller & Stroh, 1995; Karp, 1987; Levinson, 1986). Consequently, differences in attitudes among workers over 45 may have been underrated in previous research. Measuring chronological age as a continuous variable may provide more meaningful results.

Another common practice in the organizational behaviour and organizational psychology literature has been to group respondents of different ages into generational cohorts such as the *Baby Boom* (born between 1942 and 1960-64) and *Generation X* (born approximately between 1960-64 and 1975-82). However, these cohorts are a better reflection of birth rate than work attitudes. The Baby Boom cohort is particularly problematic since it spans two generations. This may overly generalize work attitudes within this cohort and reduce the meaningfulness of comparisons with other cohorts. In addition, the Baby Boom and Generation X cohorts, which encompass the bulk of workers in today's workforce, have lived through a period of turbulent changes in the work domain, such as the dramatic rise in the proportion of women in the work force, policy changes with regards to age discrimination and the timing of retirement, increasing economic and employment instability and rapid technological advances. Cohort comparisons may thus be useful to assess the effects of these events. Although work attitudes may be influenced by generational values and common events, they also reflect personal beliefs and values. Consequently, generational comparisons mask individual differences in the work attitudes of employees of the same age.

### 2.2.2 *Non-chronological age*

Although the majority of researchers have adopted the look-feel-behave and interests operationalization described by Kastenbaum and her colleagues (1972), the measurement of subjective age has generally been inconsistent across studies. Several researchers have averaged responses to these items to create an index, thus treating subjective age as a unidimensional construct (e.g., Barak & Schiffman, 1981; e.g., Cleveland & Shore, 1992; Cleveland et al., 1997; Kaliterna et al., 2002; Van Auken, 2006). Montepare (1996a, 1996b, 1996c) argued that subjective age should be treated as a multidimensional construct and several researchers used the look-feel-behave and interest items as separate, single-item measures (e.g., Barnes-Farrell & Piotrowski, 1989; Barnes-Farrell, Rumery, & Swody, 2002; Iskra-Golec, 2002). Montepare (1996b) developed an 18-item multidimensional measure but used it as a unidimensional scale in a later study (Montepare & Clement, 2001).

In addition to the look, feel, act, and interests items, respondents were often asked about their “ideal” or “desired” age – the age respondents would most like to be if they could choose their age at the present time. This measure was first described by Zola (1962) but received little empirical attention until much later when Barak and his colleagues field tested various measures of *ideal age* (Barak, Stern, & Gould, 1988) in marketing research. Ideal age has generally been measured as a single item. Some investigators asked respondents whether their preferred age was older or younger than their chronological age (Barnes-Farrell & Piotrowski, 1989; Barnes-Farrell et al., 2002;

Iskra-Golec, 2002), while others required respondent to indicate an age (Barak et al., 1988) or age range (Cleveland & Shore, 1992; Cleveland et al., 1997; Shore et al., 2003). In most studies, desired or ideal age is a separate construct from other non-chronological age measures. However, gerontologists Joann Montepare and Margie Lachman (1989), referring to the earlier work by Kastenbaum and colleagues (1972), included *ideal age* in a 4-item “subjective age identity” scale in which they asked respondents to specify, in years, the age that most closely corresponded to the way they felt, the way they looked, the age of persons whose interests and activities were most like theirs, and the age they would like to be if they could choose their age right now. In work settings, Cleveland and Shore (1997) also based their *subjective age* scale on Kastenbaum and colleagues (1972) choosing four items essentially identical to those Montepare and Lachman (1989) had used in their study.

Although subjective age measures are relatively congruent relative to the items they contain, they vary widely in response format. These include age in years (Demakakos, Gjonca, & Nazroo, 2007), bipolar scales with endpoints such as “a lot younger than my age” and “a lot older than my age”(Montepare, 1996c, 2006; Montepare & Clement, 2001) , and groups of age such as “26-35,” “36-45”(Cleveland et al., 1997), or decades – for example “thirties,” and “forties” (Barak & Schiffman, 1981). Several studies used response categories that were subject to interpretation, such as “young,” “middle-aged” or “elderly” (e.g., Blau, 1956; Bultena & Powers, 1978; Cleveland & Shore, 1992; George, Mutran, & Pennybacker, 1980; Guptill, 1969; Peters, 1971) – an approach which Barak and Schiffman (1981) criticized as “suspect” because the meanings of the nominal age categories could vary among respondents. Although most

studies relied on ranges of age such as “36-45” for response categories, the ranges vary across studies and Rhodes (1983) noted that the oldest category often included a very broad age range – for example, “over 55” or “55 to 75.” These differences in measurement require a careful interpretation of subjective age results reported in various studies.

Studies in work settings using similar measures of subjective age found significant differences in the relationship between subjective age, job performance and stress, compared to chronological age (Bobko & Barishpolets, 2002; Iskra-Golec, 2002; Kaliterna et al., 2002). There appears to be consistent evidence that younger adults report acting older than their chronological age, while middle aged and older adults tend to report lower subjective ages than their chronological age (Barnes-Farrell & Piotrowski, 1989; Montepare, 1991, 1996b; Rubin & Berntsen, 2006; Uotinen, Rantanen, Suutama, & Ruoppila, 2006). These differences between subjective and chronological age have implications for understanding age differences in work outcomes, for example by reflecting a mechanism by which people reinforce their desired self-image (Demakakos et al., 2007; Montepare & Clement, 2001), with positive consequences such as increases in positive affect, life satisfaction and self-esteem (Steitz & McClary, 1988; Westerhof & Barrett, 2005). Therefore, subjective age is useful for aiding to our understanding of age differences in work outcomes.

Another category of social-psychological age includes self-assessments, or assessments by others, of a person’s age status based on his or her looks and perceived social roles in comparison with some normative group (Cleveland & Shore, 1992; Lawrence, 1984; Lawrence, 1971; Pfeffer, 1983). In the literature, it is referred to as

*social age* (Montepare, 1996b), *comparative age* (Barak & Gould, 1985), and *perceived relative age*. In the work domain, *perceived relative age* has been a construct of interest in research which focuses specifically on perceptual age biases and age discrimination, particularly in selection and hiring practices, where the perception of age bias may be more acute than among workers already established in an organization (Armstrong-Stassen & Templer, 2004; Barak & Stern, 1986; Cleveland et al., 1997).

Although the present study does not focus on age stereotypes, the literature on this subject can help explain the mechanisms by which people may evaluate their subjective age. Levy (2003) discussed that age self-stereotypes are readily internalized and reinforced through various cognitive processes. For example, the literature on age stereotypes at work has documented that older workers are generally perceived to be more knowledgeable and experienced. Forte and Hansvick (1999) found evidence of job specific stereotyping against younger workers for jobs requiring supervisory abilities. These qualities are especially relevant for managerial positions and may be associated with appreciation and respect from others. Therefore, younger managers may subjectively rate themselves as older to attribute to themselves the positive biases of knowledge and experience that are generally ascribed to older managers. Similarly, older individuals may attempt to capture the advantages of performance biases that favour younger managers, who are often perceived to be more adaptable and faster learners (Hassell & Perrewe, 1995). We do not know how common this phenomenon is but it is likely to vary contextually. Organizational contexts where negative age biases disadvantage both the oldest and youngest employees, the tendency for subjective age evaluations to move in the direction of the most advantaged age group would restrict the range of subjective age.

In such contexts, differences in subjective age may not be sufficient to establish useful comparisons. Therefore, the extent of the difference between chronological and subjective age is important to note when interpreting the results. However, no specific mentions of this important issue were found in the extant literature.

### *2.2.3 Age and tenure*

There is an ongoing debate about the relative utility of tenure and age as predictors of work attitudes such as job satisfaction and organizational commitment. Some researchers argue that tenure is the better predictor (e.g., Cohen, 1993), while others have provided evidence that that age and tenure can have different relationships with work attitudes. For example, Gibson and Klein (1970) found that overall job satisfaction increased with age over all tenure levels but that it decreased with tenure at any age. Furthermore, Meyer and colleagues found evidence that the relationship between tenure and work attitudes is largely due to employee age (Meyer, Allen, & Smith, 1993).

Although there is ample evidence from past research that age and tenure are positive correlates, this may be changing as modern workplaces are increasingly experiencing personnel changes due to the volatile economic context, global market forces, and rapid technological change. Consequently, a person's salary, tenure or organizational level cannot absolutely be assumed to be linearly related to age. Younger employees could be better educated than older ones, and thus have access to higher-level positions and higher salaries in the organization. Organizational changes leading to

downsizing and attrition may have affected age-tenure congruence. Older employees, who have found new employment in other organizations, may have less tenure than younger employees already established in the organization. In work environments where organizational tenure is decreasing, tenure may be less useful to help understand the attitudes of those with the most work experience, and who are generally older. Therefore, in modern workplaces, age is likely to be a more effective predictor of work attitudes than tenure.

#### **2.2.4 *The “older” worker***

Interest in the age of workers and important work outcomes has been present in the field of organizational behavior for several decades, but it has surged with the aging of the Baby Boom cohort and forecasts about unprecedented high proportions of what has been termed “older” workers (Claes & Van de Ven, 2008; Feldman, 2007; Rix, 1990; Taylor & Walker, 1998; Yeatts, Folts, & Knapp, 2000). Although the term “older” implies some relative level of aging and maturation, social definitions of “older worker” vary widely and this is a continuing problem for industrial gerontology researchers (Sterns & Miklos, 1995). Ashbaugh and Fay (1987) reviewed 105 studies that defined the term “older worker” in different ways. They found little agreement on the age at which individuals were considered “older workers” but reported that when chronological definitions of age were provided, the mean age of an “older worker” was 53.4 years. Later research on older workers (e.g.: Hirsch, MacPhearson, & Hardy, 2000; Moen, Erickson, Agarwal, Fields, & Todd, 2000) supports a general consensus among scholars

that older workers refer to those over 50 years of age. Research on age bias generally describes older workers as being between 55 and 65 years of age (Kite & Smith Wagner, 2002), and over 65 (Rupp, Vodanovich, & Credé, 2005). This may be due to the influence of the widely used life stage model of adult development developed by Levinson and colleagues (Levinson, Darrow, Klein, Levinson, & McKee, 1978), which proposes that the culmination of middle adulthood begins at that age. Moreover, people are likely to be considered “older” as they approach the common retirement age range – 55 to 65.

On the other hand, recent economic trends are delaying retirement and keeping workers over 55 in the workforce. In addition, the bulk of the Baby Boom cohort, born between 1942 and 1964, is now over 55 years of age and some studies indicate that they favour working past 65, even if well-established financially (Barnes, Parry, & Lakey, 2002; Byham, 2007; Kim & Feldman, 2000). This cohort, which was long defined as a youth culture, appears to be redefining the meaning of advancing age. For example, the popular press abounds with advertisement slogans such as “50 is the new 40,” which suggest that the number no longer means what it used to. The large Baby Boom cohort is undoubtedly influential in this regard. However, Newgarten (1974) noted a similar redefinition of aging at a time when the oldest Baby Boomers were only entering their thirties and the youngest were not yet in their teens. She noted that in industrialized societies, increased longevity and improved health were increasing the proportion of what she termed the “young-old” (50 to 75 years of age), and that they, the *parents* of Baby Boomers, were redefining earlier concepts of aging, which previously associated the period over age 50 with physiological decline and reduced work potential. Moreover, the

perception of later adulthood as a time of withdrawal and winding down from work may soon be outmoded as people embrace the increasing trend towards delaying retirement (Conlin, 2003; Freedman, 1999; Kim & Feldman, 2000; Marshall & Walker, 1999; Pienta & Hayward, 2001) and focus their attention away from limitations and towards continuing capacities and developmental achievements in later life (Wahl & Kruse, 2003).

The age norms relevant to work and career are likely to change with the increase in the proportion of older workers in the workforce, as it becomes increasingly acceptable to work, and even to establish new careers at an older age. In light of these trends, there has been a lot of interest in recent years in workers over the age of 50. These investigations, which focus on workers aged 50 and over, are restricted in range and this makes it impossible to tell from these investigations whether the attitudes and desires attributed to older employees are significantly different from those of young or middle-aged employees. For example, several studies have found that older workers desire more flexible working conditions (e.g., Armstrong-Stassen & Templer, 2004; Guérin, Wils, & Saba, 1997; Saba, 1995), something that other studies have found was very important to younger generations of workers (e.g., Smola & Sutton, 2002; Zemke, Raines, & Filipczak, 2000).

### **2.3 Age and work attitudes**

The following sections will review the direct relationships between age and two important job attitudes: job satisfaction and organizational commitment. As introduced in

Chapter 1, this study focuses on particular forms of job satisfaction and commitment. Therefore, the following sections will focus on reviewing the literature and presenting hypotheses for the links between age (chronological and subjective) and global job satisfaction, satisfaction with the nature of the work, and satisfaction with promotion opportunities. This will be followed by a review of the literature and hypotheses for the relationships between age (chronological and subjective) and both

## **2.4 Age and job satisfaction**

Interest in the age-job satisfaction relationship has a long history in management research, dating back nearly seventy years, with Super's early work on career development (Super, 1939). This interest has generated a substantial body of literature that generally confirms that age is a significant predictor of job satisfaction, and that it remains so after controlling for the effects of tenure or organizational level (Rhodes, 1983).

### ***2.4.1 Chronological age and overall job satisfaction***

Empirical evidence overwhelmingly supports a positive linear relationship between chronological age and both global and facet job satisfaction (Brush, Moch, & Pooyan, 1987; Doering et al., 1983b; Dormann & Zapf, 2001; Herzberg, Mausner, Peterson, & Capwell, 1987; Rhodes, 1983). This indicates that older employees are generally more satisfied with their job than younger employees, a finding that holds

across various types of organizations, among white and blue-collar workers, across genders (Doering et al., 1983b; Rhodes, 1983) and education levels (Herzberg et al., 1987).

The often-found positive linear pattern is not universal, however, although evidence of other patterns appears less frequently in the literature. The negative linear pattern between age and overall job satisfaction is only rarely reported and may be associated with particular contexts or sample characteristics. For example, in her study of U. S. Air Force pilots, Shriver (1953) reported a negative linear association between age and job satisfaction. Shriver explained that decreasing job satisfaction was related to various age-related changes. For example, in her sample, increasing age was associated with declines in physical abilities, energy, resistance to fatigue, speed, accuracy, control in emergency situations, ability and motivation to improve skills. Shriver proposed that declining job satisfaction was probably due to the sensitivity of Air Force pilots to age-related physiological and cognitive changes. Later investigations on pilots revealed no age-related differences in performance (Avolio, Waldman, & McDaniel, 1990; Waldman & Avolio, 1986), although several studies reported age-related physiological and psychological changes that made the job more challenging for older pilots (for details, see Gerathewohl, 1977). Although age-related physiological changes are a natural part of the aging process, the job of Air Force pilots is especially physically and cognitively demanding, compared to most other jobs. While people who occupy other jobs might have time to adapt to age-related changes and compensate by relying on strategies acquired through work experience, the physiological, cognitive and psychological demands of the Air Force pilot's job may be so intense that any decline in abilities may

not be compensated for by pilots' experience. Thus, it is possible that in this job, aging might be associated with increasing effort to maintain a steady level of performance. This which might explain the negative age-job satisfaction relationship Shriver (1953) found.

Some studies found evidence of a U-shaped curvilinear relationship, where satisfaction falls for several years and gradually rises through the middle years, rising sharply just before retirement (Clark, Oswald, & Warr, 1996; Handyside, 1961; Van Maanen & Katz, 1976; Zeitz, 1990). Early studies on job satisfaction found evidence that it declined sharply among workers in their twenties, then rose again as workers approached their thirties and thereafter, increased with increasing age (Benge, 1947; Bernberg, 1954; Hull & Kolstad, 1942). Herzberg and colleagues explained the initial drop in morale among workers in their twenties to the tempering of the exceptionally high level of initial enthusiasm among young workers just starting their career (Herzberg et al., 1987). Adjustments to new jobs can create a great deal of tension, especially when the work environment is not stable and the last ones hired are most likely to be the first ones downsized. Studies on job insecurity have found strong support for its negative association with job satisfaction (Bedeian, Ferris, & Kacmar, 1992; Hunt & Saul, 1975). Tenure is generally positively associated with age (Bedeian et al., 1992; Doering et al., 1983b), although the strength of this association may diminish with increasing economic instability. Nevertheless, where job security increases with seniority, older employees should feel more secure and therefore, be more satisfied than younger employees who may be more likely to experience job insecurity (Reisel, Chia, Maloles, & Slocum, 2007).

An alternative explanation is that middle age is typically a period of increasing worries and responsibilities, especially financial and vocational worries (Dykman,

Heimann, & Kerr, 1952; Van Zelst & Kerr, 1951). The potential for dissatisfaction may be greatest at a time when people form stronger attachments to family (start a family, get married) and make a more solid commitment to a particular occupation while the opportunities to change both occupation and specific job are still perceived to be high. If job satisfaction decreases at this point on worker's lives, the rise in job satisfaction in following the middle years could be partly explained by a lessening of child care responsibilities and thus fewer work-family conflicts (Ernst Kossek & Ozeki, 1998; Warr, 1992). Past research has generally shown that conflicts between the meaning of life, work and family have generally been shown to occur most frequently when people reach middle age (Kalleberg & Loscocco, 1983). By comparison, younger and older people have fewer work-life constraints. However, the studies on which this conclusion is based were conducted at least two decades ago and did not take into account the increasing importance of eldercare, which tends to become more prevalent when people reach their late 40s and 50s (Baltes & Young, 2007).

Some scholars have proposed that the U-shaped age-job satisfaction relationship might be due to a greater financial burden at the time most people settle down and raise families, generally from the mid-twenties to the late forties (Clark et al., 1996; Kalleberg & Loscocco, 1983; Warr, 1997). Presumably, greater financial responsibilities may create feelings of dependency and insecurity relative to the job. This may increase relative obligations to the job at a time when personal responsibilities are intensifying (e.g., purchasing a house, raising a family). Feelings of obligation and insecurity that arise from the increased financial burden may in turn reduce job satisfaction at midlife. This explanation assumes that younger and older people have more financial freedom than

middle-aged individuals, something that might have been the case when many of the age-job satisfaction studies were conducted, 20 or 30 years ago. However, economic and market conditions over the past two decades have displaced many workers of various ages, increased job insecurity, and dramatically inflated the cost of living – conditions that have affected everyone. Moreover, although the divorce rate in Canada is only slightly higher today than it was in 1970, a significant increase in divorce rate has recently been observed among Canadians aged 50 and older (HRDC, 2009). This transition is frequently associated with additional financial burdens. In addition, the emergence of the boomerang generation – a term that describes adult children, returning to their parents' home after completing university, losing a job, or divorcing (Mitchell, 2006, 2007). Consequently, we can no longer presume today that the greater financial burden will be felt at middle age, and necessarily abate later on. This makes less probable a curvilinear relationship between age and job satisfaction.

Some studies reported a curvilinear relationship in the shape of an inverted U, with job satisfaction rising until around age 60, then dropping off sharply (Luthans & Thomas, 1989; Saleh & Otis, 1964). Luthans and Thomas attributed the sharp drop in satisfaction after age 60 to unmet expectations and targeting older workers for early retirement in downsizing strategies. However, this finding may have been related to mandatory retirement, since Staines and Quinn (1979) found consistent, longitudinal evidence over a period of three years that workers over 66 years of age were more satisfied with their jobs than any other age group. Evidence of an inverted-U relationship is limited to studies that included samples of workers over age 60. Rhodes (1983) points out that the rarity of workers over 60 years of age in studies conducted prior to 1983

means that these studies cannot document well the level of satisfaction of workers in this category. It is only recently that organizational demographic trends have provided an opportunity to include a larger proportion of workers older than 60 years of age in investigations about age and work attitudes.

Clark and colleagues (1996) pointed out that restriction of range may explain the much more frequently found linear pattern of relationship between age and job satisfaction. In their large, diverse sample, the curvilinear pattern they found was only apparent when workers in their late teens were included. Furthermore, for the women in their sample, the curvilinear relationship between age and global job satisfaction was small in magnitude and was not significant for either satisfaction with the nature of the work, or satisfaction with pay.

The less frequent findings of a curvilinear chronological age-satisfaction relationship may be due to certain contextual or sample characteristics. Bedeian, Ferris and Kacmar (1992) suggested that the failure to find significant curvilinear relationships may be the result of low statistical power due to insufficient sample size, rather than to linearity. Indeed, Clark *et al.* (1996) found evidence of a U-shaped age-job satisfaction relationship in a large ( $N > 5,000$ ), broad sample of British employees. On the other hand, linear relationships were found, after controlling for tenure, in investigations with large sample sizes ranging from over 3,000 to close to 5,000 (e.g., Hunt & Saul, 1975; Weaver, 1980) and non-linear age-job satisfaction relationships have been found in much smaller samples. For example, Zeitz (1990) found evidence of nonlinear age-job satisfaction relationships in samples ranging from 97 to 434 government employees, including a U-shaped pattern for clerical staff and upward-sloping, double-bend

curvilinear pattern among professionals. Therefore, sample size does not provide a clear explanation for the various age-job satisfaction relationship patterns.

Zeitz (1990), argued that linearity was an artifact of research designs that generally sought to uncover a universal age-satisfaction tendency based on psychological development, independent of organizational context. He focused on public servants and found evidence on non-linearity in the age-job satisfaction relationship. However, there is no consistent evidence supporting the argument that organizational context explains nonlinearity in the age-job satisfaction relationship. For example, Clark *et al.* (1996) found evidence of a U-shaped age-job satisfaction relationship in a large ( $N > 5,000$ ), varied sample (for details, see Clark, 1996) that included respondents employed in various professions (e.g., sales, management, professionals, plant operatives) and sectors (e.g., agriculture, transportation, manufacturing, construction).

In sum, the literature provides substantial evidence of a positive, linear relationship between age and overall job satisfaction. Evidence of curvilinear relationships is less frequently reported and of these, U-shaped relationships predominate, while inverted-U patterns are exceptional. Restriction of range has been proposed as an explanation for the predominance of the linear pattern between age and job satisfaction. However, empirical evidence is inconsistent. The other commonly mentioned explanations for the U-shaped age-job satisfaction relationship hold that middle aged people have greater work/life conflict and bigger financial responsibilities. However, these may not adequately reflect the situation today, where youth and older people continue to accumulate debt, and in light of the increase in eldercare responsibilities which tend to increase around age 50.

Based on the foregoing, a first hypothesis emerges:

*Hypothesis 1: Chronological age will be positively related to overall job satisfaction.*

#### **2.4.2 Subjective age and overall job satisfaction**

Studies in the work domain have most often operationalized age as a chronological variable, and consequently, the work literature contains few studies featuring non-chronological age variables. Among these, very few have sought specifically to investigate the relationship between non-chronological age and job satisfaction. Cleveland and Shore (1992) found that among individuals who were relatively older than their coworkers, those who perceived themselves as subjectively older had higher job satisfaction than individuals of the same chronological age who perceived themselves as subjectively younger. This suggests that the relationship between subjective age and overall job satisfaction follows the general pattern for the association between chronological age and overall job satisfaction, discussed in the previous section. Based on this, subjective age should be positively related to job satisfaction.

However, studies in the health care context found that physical and mental fatigue increased with *feeling* subjectively older (single item) than one's chronological age (Bobko & Barishpolets, 2002; Iskra-Golec, 2002), while work effort increased and perception of work ability decreased (Iskra-Golec, 2002). Using an average of the look, feel, act and interests items, Kaliterna and colleagues (2002) reported that subjective age

(which they called cognitive age) was negatively related to perceptions about one's ability to complete physical, cognitive, and social work demands. Although these studies did not investigate the relationship between age and job satisfaction, variables such as increased fatigue and lower perception of work ability have been shown to predict job dissatisfaction (Spector, 1997). These findings suggest an inverse relationship between subjective age and job satisfaction.

Moreover, findings from non-work studies in the general population suggest that the pattern of relationships between subjective age and satisfaction may be inconsistent. For example, Westerhoff and Barrett (2005) found that people reported higher levels of *life* satisfaction when they feel younger than their chronological age but Montepare and Lachman (1989) found that younger respondents with older age identities reported higher life satisfaction but that older women with younger age identities reported the highest levels of life satisfaction.

There is evidence that prior to age 25, people tend to perceive themselves as acting older than their chronological age and that beyond the age of 30, they begin to perceive themselves as younger than their chronological age (Barnes-Farrell & Piotrowski, 1989; Montepare & Lachman, 1989). However, the point at which this change occurs may occur much later in managerial and administrative jobs, around age 50 (Lashbrook, 1996; Roscigno, Mong, Byron, & Tester, 2007), and that it may continue to be pushed back as the Baby Boom and Generation X cohorts age. Supporting this notion, a recent study by Rubin and Bernstein (2006) found in a sample of Danish respondents, that the discrepancy between subjective age and chronological age was greatest prior to age 40 and thereafter, subjective age stabilized at around 20% younger

than chronological age. In sum, these findings suggest that people might perceive an older age identity as advantageous up to a point, after which a younger age identity becomes more desirable. In work settings, discrepancies between chronological and subjective age may be more specifically associated with the process of managing personal age biases to one's advantage. On the other hand, evidence from the age bias literature shows that as the proportion of older workers increases, the negative stereotypes associated with becoming older are attenuated (Cleveland, Festa, & Montgomery, 1988).

In sum, while subjective age may be a way to, the prevailing evidence provides no definite indication for the direction of the association between subjective age and job satisfaction. However, the most recent evidence indicates that the point at which people begin to perceive themselves as subjectively younger is being pushed back. An explanation for this phenomenon is that as the large Baby Boom cohort ages and remains productive, negative perceptions about aging are attenuated. Furthermore, the prevailing evidence indicates that younger people have the tendency to perceive themselves as subjectively older to benefit from the joint advantages of their chronological youth and subjective maturity, thus managing their age identity to experience more positive outcomes. Younger persons who try to look, feel and act older may be perceived more favourably than older people who try to look and act younger than their chronological age. Looking, feeling and acting older would give younger persons the advantage of conveying maturity. This would be especially advantageous given that the demographic predominance of workers over 40 years of age in modern workplaces. On the other hand, it may be riskier, in the same context, for an older person to convey subjective

youthfulness without appearing outlandish. In light of the demographic profile in modern workplaces, it seems to be more advantageous for chronologically younger people to look, feel and act subjectively older and for older people to feel, look and act congruently with their own age. Since the most advantageous impression is likely to have the most benefits, people who perceive themselves to look, feel and act older are more likely to make a positive impression and thus feel more satisfied at work. In sum, the foregoing suggests the following hypothesis:

*Hypothesis 2: Subjective age will be positively associated with overall job satisfaction.*

#### **2.4.3 Age and job satisfaction facets**

In general, findings of studies on chronological age and facet satisfaction have reported a positive, linear relationship. Among all job satisfaction facets, the relationship between chronological age and satisfaction with the nature of the job is the strongest, although it is still weak. The weaker association between chronological age and other facets of job satisfaction is that these facets reflect aspects of work on which employees generally have little control.

Rhodes (1983) reported that the association between chronological age and satisfaction with pay yielded mixed results, with a comparable number of studies reporting negative or positive relationships, or no relationship. However, she found weak evidence that as people got older, they became less satisfied with promotion opportunities, supervision, and co-workers. She explained that it would be unreasonable

to expect a clear association between chronological age and those extrinsic facets of job satisfaction since the administration of pay and promotion, as well as the nature of interpersonal relationships would differ vastly across organizations and be outside most employees' control. However, it can be argued that those interested in obtaining promotions can engage in various self-directed behaviours to augment their promotability. For example, employees can increase their level of education, training or expertise, apply for open positions, express a desire for promotions during their performance evaluations, and consider taking a position outside the organization. Furthermore, while differences between organizations might obscure the relationship between chronological age and satisfaction with promotion opportunities, it would be reasonable to expect this association to be clear within a single organization, and in particular, within a certain type of job and especially, at a given hierarchical level in that organization. Therefore, the present study focuses on the two facets that employees are most likely to be able to manage – the content of the job and promotion opportunities.

#### *2.4.4 Age and satisfaction with the work itself*

In her review, Rhodes (1983) reported strong empirical evidence supporting a positive linear relationship between chronological age and satisfaction with the work itself, and that this association holds up to at least age 60, across organizational levels, and for both white-collar workers of both genders and blue-collar males. Negative linear relationships between age and satisfaction with the job content are rarely reported and

appear to be related to certain work contexts, such white collar public service workers (e.g., Hunt & Saul, 1975; Muchinsky, 1978).

Chronological age also remains a significant predictor of satisfaction with the work itself after controlling for tenure (Bedeian et al., 1992; Hunt & Saul, 1975; Lee & Wilbur, 1985). These findings are consistent with findings of a weak, positive association between chronological age and intrinsic work motivation (Hall & Mansfield, 1975; Warr, 1992). Although it can be argued that the job market may restrict people's opportunities to occupy jobs they find intrinsically satisfying, there is substantial evidence that people seek out *tasks* they enjoy within their job (Deci & Ryan, 1989; Gagné & Deci, 2005; Gagné, Sénécal, & Koestner, 1997; Lawler & Hall, 1970). As people get older, they generally acquire experience, skills and knowledge that should enable them to obtain, or to focus on, tasks they enjoy. These arguments suggest that satisfaction with the nature of the job itself is the one most likely to be under the employee's control, and that this should increase as people get older. Therefore:

*Hypothesis 3: Chronological age will be positively related to satisfaction with the work in the present job.*

No studies were found that investigated the relationship between subjective age and satisfaction with the work itself. Moreover, it is difficult to speculate on the nature of the association between people's subjective age and their satisfaction with the nature of their work. For example, feeling subjectively older than one's chronological age has been associated with physical and mental fatigue (Bobko & Barishpolets, 2002; Iskra-Golec,

2002) and greater effort to complete the work (Iskra-Golec, 2002). However, feeling tired and exerting more effort does not necessarily mean that people are less happy with the nature of their job. Some tasks are demanding and tiring and yet intrinsically satisfying.

What effect might feeling, looking, or acting younger/older have on intrinsic satisfaction with one's job? It is suggested here that the answer depends on the nature of the job. There is empirical evidence of favourable age biases for both older workers, who are perceived as more mature and wiser, and younger workers, who are perceived as having more energy and being more adaptable (Finkelstein & Farrel, 2007; Rupp et al., 2006). Work that is facilitated by increasing tacit knowledge and experience, such as managerial work and teaching, is likely to become easier as people age and acquire experience that could help facilitate their work. In work of this nature, an older subjective age might be associated with one's perceptions of maturity (acting more experienced) and establishing relationships that might help enhance one's tacit knowledge by drawing on the experience of others (having interests in common with, and associating with older people). On the other hand, jobs that are intensively demanding physically and which require frequent adjustments to change, might be facilitated by feeling younger (more energetic) and acting younger (eager to try new ways of working). Although these arguments are to some extent speculative, they illustrate how subjective age could be associated with intrinsic job satisfaction.

The present study focuses on managers, who rely quite extensively on their tacit knowledge to accomplish their work effectively. Given the nature of the manager's job, it is more likely that satisfaction with the nature of the work will increase with subjective age. This leads to the following hypothesis:

*Hypothesis 4: Subjective age will be positively associated with satisfaction the work in the present job.*

#### ***2.4.5 Age and satisfaction with promotion opportunities***

Although the trend for modern workplaces has evolved towards flatter hierarchies (Rajan & Wulf, 2006), large firms still have several levels of supervisory and managerial positions. Moreover, Ghiselli and Siegel noted that autonomous managers who shared information and objectives with their subordinates were more often rewarded by promotion in flat organizations than in tall organizations. Therefore, while organizational structures have tended to flatten, promotion continues to be an important mean to provide recognition to managers about their worth and status within the organization. Despite flatter organizational structures, opportunities for promotions remain highly salient across generations. For example, Smola and Sutton (2002) found that Generation X respondents expressed a stronger desire to be promoted more quickly than Baby Boomers.

Results from earlier studies on the relationship between age and satisfaction with promotion have generally found either inverse or nonsignificant associations (Doering et al., 1983b). Although more recent studies have found inverse age-promotion satisfaction relationships (Adams, 2002; De Souza, 2002) it is not clear whether the analyses took job level into account. Since fewer promotion opportunities are available at higher hierarchical levels and since incumbents at higher levels also tend to be older, overlooking hierarchical level would generate a spurious negative relationship between

age and promotions (Pritchard, Maxwell, & Jordan, 1984). Although the results of previous studies have yielded mixed results which are difficult to compare precisely, it is possible to rely on some information from the profuse literature on age bias to understand how satisfaction with promotion opportunities may change with age.

As people age, they are likely to acquire more experience, skills and abilities that may help them get promoted, and the literature provides some evidence of a positive age bias for experience (Forte & Hansvick, 1999; Gibson, Zerbe, & Franken, 1993b) and dependability (Postuma & Campion, 2009). However, research findings overwhelmingly support the notion of a bias in favour of younger candidates for hiring and promotions (Kite, Stockdale, Whitley, & Johnson, 2005), even when all other employability attributes are equal (Chiu, Chan, Snape, & Redman, 2001; Cleveland et al., 1988; Cox & Nkomo, 1992). Guérin, Wils and Saba (1997) reported that for their sample of professionals, opportunities to realize career aspirations dwindled after age 50 and as a result, professionals over 50 were more dissatisfied with their career development than those aged 25 to 39.

Moreover, a recent study provides evidence of supervisor bias against promotability for workers over 40 years of age, a finding that contradicted self-ratings by employees about their own promotability (Van der Heijden, de Lange, Demerouti, & Van der Heijden, 2009). This suggests that as people age, they are likely to experience greater conflicts between their self-perceptions about their promotability and those of their supervisors and are likely to reduce their satisfaction with promotion opportunities. Other studies provide evidence supporting the stereotype that older workers are perceived as less competent (Finklestein & Burke, 1998; Kite et al., 2005; Shore et al., 2003) and less

adaptable (Postuma & Campion, 2009), which may in turn lead to feelings of frustration about promotion opportunities (Adams, 2002).

Dissatisfaction with promotion opportunities is also likely to develop as people become aware of an age-based glass ceiling – age bias in employability and promotability decisions is often attributed to a perception that younger employees provide the organization with greater potential returns post-promotion (Cox & Nkomo, 1992; Finklestein & Burke, 1998; Goldberg, 2007; Rupp et al., 2006). Furthermore, promotion opportunities decline with age (Gibson, Zerbe, & Franken, 1993a) and organizational cost-cutting strategies detrimental to older workers can further reduce promotion opportunities as people age (Koeber & Wright, 2001). The exponential rise in age discrimination lawsuits provides further evidence of the existence of practices that disadvantage older workers (Hassell & Perrewe, 1995; McCann & Giles, 2002; Neumark, 2008; TAEN, 2008). Currently, age discrimination litigation is costing organizations more than sex and race discrimination lawsuits combined (Rupp et al., 2006). Litigation includes not only cases of discriminatory practices in hiring and firing, but also regarding promotion practices (Macnicol, 2006). As news stories about increasing numbers of discrimination lawsuits appear in the press (Schaeffer, MacGillivray, & Golden, 2005), people's awareness of age bias is likely to be piqued and this may incite them to reassess their level of satisfaction with promotion opportunities. Perceptions of age discrimination in promotability may lead to suspicion of the same in one's work situation, which would reduce satisfaction with promotion opportunities.

The relationship between age and satisfaction with promotion opportunities may reflect the existence of organizationally based age norms, which Lawrence (1988, p. 313)

defines as “widely shared judgments of the standard or typical ages of individuals holding each role or status.” Research on age typing of jobs has consistently supported the notion that people use age to classify organizational members according to the roles people are expected to enact and status people are expected to have reached at a certain age (Lashbrook, 1996; Lawrence, 1984, 1988; Sofer, 1970). Lawrence (1988) argues that these norms are generated by existing age distributions among positions. Based on these, people develop expectations about the “appropriate” age range for adopting various occupational roles such as starting a career, obtaining promotions, mentoring, and retiring. These expectations take the form of milestones or benchmarks against which people evaluate their own and other people’s career development, and may be reinforced when they are used by superiors to evaluate employee performance and potential (Lawrence, 1988). Using a large sample of male employees occupying various professions in different industries, Lashbrook (1996) found evidence that expectations of promotion vary across profession and industry. While the majority of construction workers, operators and non-farm labourers expected promotion opportunities early in their career (modal age group: 20 – 24), managers and administrators expected promotions much later (modal age group: 55 – 59). Lashbrook postulated that managerial and administrative jobs comported more opportunities for promotion than other types of jobs, and these opportunities may be available further into a person’s career. This would explain why managers and administrators expected promotions later in their working lives, compared to respondents working in other professions. Recent studies have found that perceived age discrimination peaks at around age 50 (Gee, Pavalko, & Long, 2007; Roscigno et al., 2007). This suggests that at this point, the desire for promotions may, in

management positions, intersect with the perception of an increased risk of being passed over, thus reducing satisfaction with promotion opportunities.

The previous arguments lead to the following hypothesis:

*Hypothesis 5: Chronological age will be negatively related to satisfaction with promotion opportunities.*

Cleveland and Shore (1997) established the incremental validity of the subjective age of employees, beyond their chronological age, as a predictor of their supervisors' perceptions about the promotability of employees. This means that subjective age is likely to be a useful predictor of satisfaction with promotion opportunities.

What is the likely direction of the relationship between subjective age and satisfaction with promotion opportunities? Although no studies were found that focused on this relationship, information on the relation between age and promotion decisions might provide some orientation. Cleveland and Landy (1983) conducted field experiments to test the influence on promotional decisions of age and "young" skill performance on stereotypically older, younger and age-neutral jobs. Although they found no evidence that chronological age affected promotion decisions in any of the job conditions, they found that employees of any age with high performance scores on "young" skills – for example, self-development skills and technical competence – were promoted more quickly compared to those with low scores. By extension, employees who feel and act younger are more likely to develop skills that may stereotypically be

associated with younger people. Consequently, employees who feel subjectively younger are more likely to perceive themselves as promotable as those who feel subjectively older. It follows that where promotion opportunities exist, satisfaction with these opportunities should decrease with perceptions of reduced promotability. Since subjectively older people are less likely to invest in updating their skills, they are also less likely to perceive themselves to be promotable. Thus, subjectively younger employees should have a more positive outlook on their promotion opportunities than subjectively older employees. By extension, as subjective age increases, satisfaction with promotion opportunities is likely to decrease. This leads to the following hypothesis:

*Hypothesis 6: Subjective age will be negatively related to satisfaction with promotion opportunities.*

## **2.5 Age and organizational commitment**

Organizational commitment has generally been viewed as an attitude that is situationally determined (Porter et al., 1974). As people age, physical, affective and situational changes can happen that can affect their work experiences and conditions. Overall, the present study aims to redress this major shortcoming – we try to explain the mechanisms by which age-related differences in work attitudes operate.

A large number of studies on organizational commitment include age as a statistical control in analyses, but those that include age as a focal variable are much less common. Rhodes (1983) reviewed 21 studies that investigated the age-organizational

commitment relationship among workers in various professions (e.g., police officers, nurses, accountants, supervisors and non-supervisory personnel), and sectors (e.g., health care, insurance, education, law enforcement) in private companies and public institutions. She reported that 80% of these studies had found a positive association between chronological age and organizational commitment while the remaining 20% found no significant relationship. She concluded that in general, correlational studies found that older workers were more committed to the organization than younger workers, although age-commitment relationships varied according to occupation in multivariate studies.

Generally, age appears to be a weak, but important antecedent of organizational commitment (Meyer, Stanley, Herscovitch, & Topolnytsky, 2002b). Meta-analytic evidence has generally shown small but significant positive associations between chronological age and various forms of organizational commitment (Allen & Meyer, 1993; Cohen, 1993; Meyer et al., 2002b) and age is more strongly related to affective commitment than to continuance commitment (Meyer et al., 2002b). Moreover, the prevailing evidence suggests that age and organizational commitment are significantly related, even when correlates of age such as tenure (Allen & Meyer, 1993) and career stage (Cohen, 1993) are controlled. Although a positive relationship between tenure and affective commitment has often been reported, Allen and Meyer (1993) found that partialling out age from the relation between tenure and affective commitment resulted in considerably reduced correlations evidence, suggesting that the relationship between tenure and affective commitment is really due to age.

These arguments suggest the following hypothesis:

*Hypothesis 7: Chronological age will be positively related to a) affective and b) continuance commitment.*

We now turn to the relationship between subjective age and commitment. Most of the literature on the relationship between age and organizational commitment investigated only the effect of chronological age on commitment, and did not consider perceptual age variables (the age a person feels), such as subjective age. An exception is the research by Cleveland, Shore and colleagues (Cleveland & Shore, 1992; Shore et al., 2003), who investigated the relationship between subjective age and several job attitudes, including organizational commitment. They reported a positive association between subjective age and organizational commitment. They also found that subjective age helped explain age differences in organizational commitment beyond the predictive power of chronological age alone. For example, they found that individuals who were chronologically older and also felt subjectively older than their co-workers had the highest levels of organizational commitment, while workers who were chronologically older but who felt subjectively younger had the lowest levels of organizational commitment. Although they measured organizational commitment and thus did not distinguish between affective and continuance commitment in their studies, the measure of organizational commitment they used denoted affective commitment (Mowday et al., 1979). Moreover, Shore and colleagues (2003) found that manager's ratings of their employees' affective commitment was positively related to employee's subjective age. Based on this, the following hypothesis emerges:

*Hypothesis 8a: Subjective age will be a positive correlate of affective commitment.*

What about the relationship between subjective age and continuance commitment? The link between subjective age and the approach of retirement may help explain this relationship. For example, the 50 year-old who feels, looks and acts subjectively younger is more likely to perceive that she has more job-related options than a subjectively older 50-year-old. Although both might be concerned with securing pension income and saving for retirement, the subjectively younger person may be more likely to be open to work alternatives and working past retirement age. Therefore, the subjectively older 50-year-old would be more likely to feel loyal to the organization because she has little choice and the subjectively younger 50-year-old would be more likely to feel able to embrace other options. This suggests that continuance commitment will increase with subjective age, at least for older workers.

Would this also be likely for chronologically younger people who feel subjectively older? As discussed previously, the prevailing evidence indicates that younger people have the tendency to perceive themselves as subjectively older to benefit from the joint advantages of their chronological youth and subjective maturity, thus managing their age identity to experience more positive outcomes. Consequently, an older subjective age may be associated with the hope of obtaining positive outcomes in the current organization. Moving to a different organization would require the individual to re-invest in managing impressions of maturity which are already acquired in the

current organization. Therefore, an older subjective age is also likely to be associated with increases in continuance commitment for younger people.

*Hypothesis 8b: Subjective age will be a positive correlate of continuance commitment.*

## **2.6 A closer look at explaining the relationship between age and work attitudes**

We saw earlier that management researchers have long been interested in age differences in work attitudes, particularly those that were presumably related to job performance. Among these attitudes, job satisfaction and organizational commitment have received noticeable attention. The major purpose of the present study is to investigate explanations for the relationship between age (chronological and subjective) and these important work attitudes.

I noted earlier that empirical evidence overwhelmingly supports a positive linear relationship between chronological age and both global and facet job satisfaction (Brush et al., 1987; Doering et al., 1983b; Dormann & Zapf, 2001; Herzberg et al., 1987; Rhodes, 1983). Limited evidence (e.g., Cleveland & Shore, 1992) suggests that the relationship between subjective age and job satisfaction follows that of chronological age.

Meta-analytic evidence also shows that age is a weak, but important positive antecedent of organizational commitment (Mathieu & Zajac, 1990) and its various facets (Meyer et al., 2002b). The following sections will review the explanations proposed or discussed in previous research.

### 2.6.1 Why job satisfaction increases with age

Different scholars have proposed alternate reasons to explain the relationship between age and job satisfaction but interestingly, empirical studies investigating mediators of these relationships have been sparse and have focused largely on explaining the relationship between chronological age and job satisfaction (e.g., Kalleberg & Loscocco, 1983; Wright & Hamilton, 1978). Four types of explanations have most commonly been discussed in the management and organizational behaviour literature.

They propose that job satisfaction increases with age because:

- a) older generations expect less than younger ones (cohort effects),
- b) people evolve into better jobs over time (self-selection),
- c) experience and mastery gained over time give people access to better jobs and more positive work experiences (the “job change” hypothesis) and
- d) over their life cycle, people reduce their job-related expectations.

#### *a) Cohort or generational effect*

Young people are generally portrayed as wanting very different outcomes from work than their more senior counterparts (Conger, 1998). People in each age cohort live through particular events in history, and consequently, different generations of employees have different expectations and values. For example, Wright and Hamilton (1978) suggested that younger Americans were less accepting of authority and expected

more from their jobs than older Americans. Consequently, younger workers were less satisfied than older workers. Although generational differences could help explain age variance in job satisfaction, separating the effect of age from those of generation in work settings would require longitudinal investigations extending over the working years of more than one generation.

*b) Self-selection*

Self-selection is a popular explanation for age differences in job satisfaction. It holds that people stay in jobs that they find satisfying and that those who are dissatisfied either find alternative employment or are discharged (Mobley, Griffeth, Hand, & Meglino, 1979). Since this process occurs over time, it follows that as people get older they are more likely to occupy jobs that they enjoy. This argument presumes a limitless supply of job alternatives and that people's chances of obtaining more desirable jobs necessarily increases with age. The reality is that job opportunities are limited, age discrimination in employment exists, and disliking a job is not the only motive for leaving it. In sum, other factors can incite people to stay or change jobs, thus making it difficult to disentangle the effect of self-selection from those of age. Therefore, simple self-selection is insufficient to explain why job satisfaction increases with age.

*c) The "job change" hypothesis*

The *job change* hypothesis is a life-cycle explanation, proposed by Wright and Hamilton (1978), which expanded on an earlier explanation by Quinn and colleagues that job satisfaction increases with age because older workers, especially older men, had better jobs (Quinn, Staines, & McCullough, 1974). Wright and Hamilton (1978) suggested that older workers were more satisfied with their jobs because their experience and mastery gave them access to more desirable jobs. Several studies found evidence that task complexity reduced the rate of decline in job performance with advancing age (Avolio et al., 1990; Sparrow & Davies, 1988; Waldman & Avolio, 1986). Avolio and Waldman (1987) explained that the level of task complexity was a source of cognitive stimulation, an important factor in the maintenance of performance levels as people age. Jobs that provide intellectual stimulation would thus support the maintenance and development of performance as employee's age. Rhodes (1983) explained that shared variance among variables indicating gains in experience (such as tenure or seniority), age, and a dependent variable would indicate an aging effect congruent with the life-cycle explanation. Since gains in experience provide knowledge that could potentially provide access to jobs comporting additional complexity, and that these are likely to be positively related to job satisfaction, it seems reasonable to suggest that the job change hypothesis would help explain the age-job satisfaction relationship.

Wright and Hamilton (1978) speculated that as workers age, they experience an increasing congruence between their individual values and needs and the characteristics of their jobs. However, findings of investigations about the age-job congruence explanation have been mixed. Earlier empirical tests failed to verify the relationship between age and job congruence (Phillips, Barrett, & Rush, 1978). Janson and Martin

(1982) tested the job change hypothesis by investigating differences in extrinsic and intrinsic sources of satisfaction across six age categories. After adjusting for occupational status, they reported finding no significant alteration in either intrinsic or extrinsic sources of satisfaction across age categories. However, later investigations found that the positive association between age and job satisfaction could be explained by better conditions for older employees, including a better fit between job conditions and expectations relative to job conditions and salary (White & Spector, 1987).

*d) Changing expectations over the life cycle*

The “changing expectations” explanation is a developmental argument that proposes that people reduce their expectations over time and therefore, older people have expectations that are easier to satisfy (Campbell, Converse, & Rodgers, 1976). Little research evidence addresses this proposed explanation (Spector, 1997). For example, people may be more interested in job stability once they settle down with a mortgage and start a family. Although they might be able to move elsewhere to access higher paying jobs, they may reduce their expectations of higher remuneration in favour of a stable home and family life. Later on, as people approach retirement, they may reduce their expectations of being promoted, and therefore may be less dissatisfied with promotion opportunities. Although scholars have acknowledged the relevance of these factors (Schooler et al., 1998), studies on the age-job satisfaction relationship have not included these in empirical investigations.

### 2.6.2 Explaining age-commitment relationships

The substantial body of research on organizational commitment has provided considerable evidence that people can decide to stay with an organization because they like the organization (high affective commitment), or because the cost of leaving is prohibitive (high continuance commitment).

Discussing reasons for age differences in commitment, Mathieu and Zajac (1990) argued that the relationship may be an artifact of generational cohorts in samples, or attributable to differences in satisfaction with work experiences across ages. Meyer and Allen (1984) suggested differences in levels of organizational commitment across age groups could also be motivated by the decreasing availability of alternative job opportunities as people age, or from the affective justification by older workers after long service in an organization. However, these explanations have not been investigated directly.

Meyer and Allen (1984) suggested that older employees are more affectively committed to their organization because they occupy better positions, are more satisfied with their jobs and have cognitively justified remaining with the organization. In a related vein, Kacmar and her colleagues reasoned that as people age, they accumulate investments in their organizations while their employment alternatives progressively diminish (Kacmar, Carlson, & Brymer, 1999). However, in their sample of hospitality managers, age was not a good predictor of any aspect of organizational commitment. There is some empirical evidence that age differences in affective commitment are

influenced by different work characteristics. For example, Finegold and his colleagues found that satisfaction with job security was a stronger predictor of affective commitment for technical professionals over 30 years of age than for those under 30 (Finegold, Mohrman, & Spreitzer, 2002).

In fact, very little empirical research has focused on explaining age differences in commitment. Exceptions include the work of Lincoln and colleagues, who investigated explanations for organizational commitment among Japanese and American samples of workers (Lincoln, Kalleberg, Hanada, & McBride, 1990) and the more recent work of Finegold, Mohrman, and Spreitzer (2002), who surveyed a large sample of technical workers employed in various organizations. Lincoln and colleagues found that a collectivist values explained why older Japanese workers were more committed to their organizations than older American workers. However, this study focused on cultural differences and not on differences in attitudes relative to the life stage. In their sample to technical workers, Finegold and colleagues found a positive association between age and organizational commitment. Furthermore, they found that sources of commitment differed across age groups with security driving the commitment of older workers and work-life balance motivating the commitment levels of younger workers.

### **2.6.3 Explanations investigated in the present study**

This research investigates three alternate explanations for the relationships between age (chronological and subjective) and job satisfaction (overall satisfaction, satisfaction with the work itself and satisfaction with promotion opportunities) and

organizational commitment (affective and continuance). As introduced in chapter 1, these explanations are: a) assessments about the employment relationship, b) recognitions of one's work experience, and c) retirement reminders.

*a) Assessments about the employment relationship*

Based on the premise that people evaluate and re-assess their relationship with their employer over time, it is argued here that people of different ages will feel differently about their relationship with their employer, and that this will help explain age differences in satisfaction and commitment. *Assessments about the employment relationship* are evaluations people make about the relationship they have with their employer during the course of employment.

The career literature provides substantial empirical evidence that workers' attitudes evolve as they progress in their career (Greller & Simpson, 1999; Karp, 1987; Sturges, 1999). Moreover, personal and career maturation involve physical, psychological and social changes that imply modifications in the interpretation and valuation of work, and adapting one's view of the relationship with one's employer (the psychological contract) to suit changing personal needs over time (Rousseau, 1995). The "changing expectations" argument which was previously introduced in section 2.6.1, suggests that people reduce their expectations over time and therefore, over the course of their lives, have expectations that are easier to satisfy (Campbell et al., 1976). This suggests that as people age, they would tend to assess their relationship with their employer more favourably. Moreover, people whose interests are more to those in older

age groups, and thus subjectively older, are likely to embrace congruent values.

Therefore, it is reasonable to expect that subjectively older employees would also have easier expectations to satisfy than subjectively younger employees, and that they would assess their relationship with their employer more favourably than subjectively younger employees.

These more favourable assessments may contribute to a more harmonious work environment by inciting those who make them to perceive their work and employer more positively, thus explaining why overall job satisfaction and affective commitment increase with chronological and subjective age. Moreover, there is evidence that people close to retiring find it difficult to distance themselves from favourable employment relationships (Beehr & Bennet, 2007), suggesting an increase in affective commitment. Since the “changing expectations” argument holds that as they age, people will assess their employment relationship more favourably, and that favourable employment relationships are likely to increase affective ties to the organization, assessments about the employment relationship should thus help explain why affective commitment increases with age.

Favourable assessments about one’s employment relationship may also help explain why satisfaction with the work in the present job increases with age. A substantial body of literature has shown that people who have a good relationship with their employer are likely to find their work more meaningful, personally involving, and important (Locke, 1976; Mount, 1984; Rice, Gentile, & MacFarlin, 1991).

The preceding arguments lead to the following hypotheses:

*Hypothesis 9: Assessments about the employment relationship will mediate the relationship between chronological age and a) overall job satisfaction; b) satisfaction with the work in the present job.*

*Hypothesis 10: Assessments about the employment relationship will mediate the relationship between subjective age and a) overall job satisfaction; b) satisfaction with the work in the present job.*

*Hypothesis 11: Assessments about the employment relationship will mediate the relationship between a) chronological age and affective commitment; b) subjective age and affective commitment.*

I did not consider *assessments about the employment relationship* as a potential mediator of either the link between age and satisfaction with promotion opportunities, or the relationship between age and continuance commitment. As discussed previously in section 2.3.5, both chronological and subjective age are expected to be negatively related to satisfaction with promotion opportunities (Hypotheses 5 & 6). Therefore, favourable assessments about the employment relationship, which are likely to be positively associated with satisfaction with promotion opportunities, would not explain a negative association between age and satisfaction with promotion opportunities.

Moreover, favourable assessments about the employment relationship would not help explain why continuance commitment increases with age. In effect, favourable assessments about the employment relationship would be more likely to reduce people's

focus transactional ties to the organization, thus reducing continuance commitment.

Therefore *assessments about the employment relationship* would not explain the positive association between the age variables and continuance commitment.

*b) Recognitions of one's work experience*

In line with the *job change* hypothesis (Wright & Hamilton, 1978), workers should, over time, develop expertise that facilitates their work in some manner. Even if they occupy different jobs, they bring to their job previous experience and their knowledge of working provides them with tools to cope with the everyday challenges of work. Older workers also tend to be perceived by others as having a great deal of work experience, even if they may actually have less than younger workers (Forte & Hansvick, 1999; Gibson & Klein, 1970).

Traditional management thinking about age at work is rooted in life and career development models (Levinson et al., 1978; Super, 1957). These models argue fundamentally that different experiences define life and career stages. Aging increases the probability that one will encounter situations that provide opportunities to recognize one's own work experience and have it be recognized by others. These might include encountering a work situation where past experience comes in handy, being told by someone at work that one's experience is valued, or being perceived as having a certain level of expertise in one's field of work. Since various work experience is likely to increase with age, older employees should be more likely than younger employees to be aware of circumstances where their work experience is appreciated or assessed in some

way. Therefore, older employees should be more likely to entertain expectations about their work experience being valued by others and experiencing situations where they could appreciate their own work experience firsthand.

How would subjective age relate to recognitions about one's work experience?

Let's take, for example, individuals who are chronologically 50 years old. Those who feel they are subjectively younger in appearance, deportment and interests, are more likely to want to maintain their youthful self-image and social connections. They would thus be expected to be less sensitive to recognition of their acquired experience, but may instead be more focused on learning new things. It follows that compared to those who perceive themselves to be subjectively younger, those who perceive themselves to look, feel and act older are more likely to value their already acquired experience and expect others to also recognize and appreciate it. Consequently, they are likely to be more sensitive to signals in their environment that emphasize their acquired experience. Therefore, these arguments suggest that both chronological and subjective age are positively associated with recognitions about a person's own work experience.

The extent to which people experience recognitions about their work experience should affect their level of job satisfaction. Job satisfaction denotes a personal evaluation about the content and context of one's job. Over the span of a person's career, work and performance become important sources of relational and ego needs. As individuals acquire relevant work experience, having this experience recognized by others or recognizing it themselves, could engage the process of job satisfaction. People could recognize the value of their own work experience by successfully handling a challenging work situation, or by recognizing that one's expertise has facilitated tasks. This should

increase the level of enjoyment in the work. Aside from the intrinsic satisfaction individuals get from accomplishing jobs they enjoy, people identify with their jobs for various reasons, including satisfying their sense of self-worth (Lemme, 1999), accessing socially satisfying relationships (Nuttman-Schwartz, 2004; Williams Walsh, 2001) and maintaining a recognized sense of place, usefulness and purpose in society (Shaw & Grubbs, 1981). Receiving validation from others of one's experience is a strong social signal that validates one's worth at work, a source of job satisfaction. In sum, the foregoing arguments lead to the following hypotheses:

*Hypothesis 12: Recognitions from others about one's work experience will mediate the relationship between chronological age and a) overall job satisfaction; b) satisfaction with the work in the present job.*

*Hypothesis 13: Recognitions from others about one's work experience will mediate the relationship between subjective age and a) overall job satisfaction; b) satisfaction with the work in the present job.*

*Hypothesis 14: Self-recognitions about one's work experience will mediate the relationship between chronological age and a) overall job satisfaction; b) satisfaction with the work in the present job.*

*Hypothesis 15: Self-recognitions about one's work experience will mediate the relationship between subjective age and a) overall job satisfaction; b) satisfaction with the work in the present job.*

I did not consider either *recognitions from others* or *self-recognitions about one's work experience* to be potential mediators of the link between the age variables and satisfaction with promotion opportunities since both chronological and subjective age are expected to be negatively related to satisfaction with promotion opportunities (Hypotheses 5 & 6). Since either form of recognitions is likely to be positively associated with satisfaction with promotion opportunities, they would not explain a negative association between age and satisfaction with promotion opportunities.

How would recognitions about one's work experience help explain the relationship between age and affective commitment? Limited but strong evidence on the development of affective commitment suggests that it is a function of the quality of employees' work experiences (Meyer & Allen, 1997). When employees feel that they make important contributions to the organization, their level of affective commitment increases (Meyer & Allen, 1997). The *job change* hypothesis (Wright & Hamilton, 1978) suggests that workers should, over time, develop expertise that facilitates their work in some manner. Their previous experiences and general knowledge about working constitute tools which help them cope with the everyday challenges of work. As mentioned previously, older workers also tend to be perceived by others as having a great deal of work experience, even if they may actually have less than younger workers (Forte & Hansvick, 1999; Gibson & Klein, 1970). Therefore, having others recognize one's work experience and being personally aware of its value might explain the positive link between age and affective commitment. Mathieu and Zajac (1990) found that among the various personal characteristics they examined in their meta-analysis, employees'

perceptions of their own competence were most strongly associated with organizational commitment. On the other hand, not receiving this recognition, or not recognizing the value of one's own experience, may increase people's focus on other reasons for remaining loyal to the organization (i.e., salary, investment in pension, etc.).

Consequently,

*Hypothesis 16: Recognitions from others about one's work experience will mediate the relationship between a) chronological age and affective commitment; b) subjective age and affective commitment.*

*Hypothesis 17: Self-recognitions about one's own work experience will mediate the relationship between a) chronological age and affective commitment; b) subjective age and affective commitment.*

Recognitions about one's work experience was considered an unlikely explanation for why continuance commitment increases with age. In effect, recognitions, particularly from others would be more likely to reduce people's focus transactional ties to the organization and explain a reduction in continuance commitment.

*c) Retirement reminders*

Cleveland et al (1997) found that chronological and subjective age were significant correlates of retirement intentions. Therefore, both chronological age and the

subjective evaluation individuals make about their age are important factors in reporting experiences of retirement reminders. Although retirement reminders are not indicators of retirement intentions, Cleveland et al's study show that retirement issues are more relevant as age increases. Therefore, it is reasonable to expect that such reminders will be more salient to older employees than younger ones.

Over the span of a person's career, work and performance become an important source of relational and ego needs. Experiencing events that signal the approach of retirement can generate feelings of uncertainty (Nuttman-Schwartz, 2004). One reaction to this uncertainty may be disengagement from social relations at work. Managerial practices may also reinforce disengagement from work, for example when the late career worker receives fewer training and promotion opportunities, or is targeted in cost-cutting efforts (Greller & Simpson, 1999). Accordingly, older employees may find social connections at work less rewarding, thus reducing job satisfaction, and may react by looking outside work to satisfy their relational needs, thus weakening affective commitment.

On the other hand, there is research suggesting that job identity increases over time (Ashforth, 2001), and Nuttman-Schwartz (2004) found that individuals who identified strongly with their jobs tended to perceive the prospect of retirement as a crisis. Aside from the intrinsic satisfaction individuals get from accomplishing jobs they enjoy, people identify with their jobs for various reasons, including satisfying their sense of self-worth (Lemme, 1999), accessing socially satisfying relationships (Nuttman-Schwartz, 2004; Williams Walsh, 2001) and maintaining a recognized sense of place, usefulness and purpose in society (Shaw & Grubbs, 1981). These arguments suggest that

experiencing reminders of retirement might cause people to value these feelings of self-worth and job identity more, and thus increase affective commitment. In addition, individuals who know that they could leave the job at any time in the future may rationalize their staying on affectively (Meyer & Allen, 1984).

Although a case can be made for either argument, retirement reminders are most likely to be salient for those who are close to retirement and who are likely to experience a decrease in affective commitment. Retirement reminders are also more likely to be noticed and remembered by employees who feel negatively or uncomfortable about retirement, or about talk of retirement. Continuance commitment denotes transactional ties. As retirement reminders become more salient, employees may increasingly feel concerned with securing pension income and saving for retirement, thus increasing preoccupation with the transactional aspects of work. Reminders of the end of one's career may also increase feelings of vulnerability, and acknowledgement that one is less likely to find a job elsewhere. These thoughts would tend to reinforce continuance commitment, hence the following hypothesis:

*Hypothesis 18: Retirement reminders will mediate the relationship between*  
*a) chronological age and continuance commitment; b) subjective age and continuance*  
*commitment.*

## **2.7 Summary of hypotheses**

This section presents a list of all the hypotheses tested in this study. The theoretical model is presented in Figure 3. Figure 4 summarizes the hypothesized direct links and predicted mediations for the relationship between chronological age and the job satisfaction variables in this study. Figure 5 presents the hypotheses for the direct and mediated links between chronological age and the commitment variables in this study. Hypotheses for the direct and mediated relationships between chronological age and the job satisfaction variables are presented in Figure 6. Finally, Figure 7 shows the hypotheses pertaining to the relationship between subjective age and the commitment variables in this study.

### **2.7.1 Hypotheses on the relationship between age and job satisfaction**

- Hypothesis 1: Chronological age will be positively related to overall job satisfaction.
- Hypothesis 2: Subjective age will be positively associated with overall job satisfaction.
- Hypothesis 3: Chronological age will be positively related to satisfaction with the work in the present job.
- Hypothesis 4: Subjective age will be positively related to satisfaction with the work in the present job.

Hypothesis 5: Chronological age will be negatively related to satisfaction with promotion opportunities.

Hypothesis 6: Subjective age will be negatively related to satisfaction with promotion opportunities.

### **2.7.2 Hypotheses on the relationship between age and organizational commitment**

Hypothesis 7: Chronological age will be positively related to:

- a) affective commitment;
- b) continuance commitment.

Hypothesis 8: Subjective age will be a positively related to:

- a) affective commitment;
- b) continuance commitment.

### **2.7.3 Mediation hypotheses**

Hypothesis 9: Assessments about the employment relationship will mediate the relationship between chronological age and:

- a) overall job satisfaction;
- b) satisfaction with the work in the present job.

- Hypothesis 10: Assessments about the employment relationship will mediate the relationship between subjective age and:
- a) overall job satisfaction;
  - b) satisfaction with the work in the present job.
- Hypothesis 11: Assessments about the employment relationship will mediate the relationship between:
- a) chronological age and affective commitment;
  - b) subjective age and affective commitment.
- Hypothesis 12: Recognitions from others about one's work experience will mediate the relationship between chronological age and:
- a) overall job satisfaction;
  - b) satisfaction with the work in the present job.
- Hypothesis 13: Recognitions from others about one's work experience will mediate the relationship between subjective age and:
- a) overall job satisfaction;
  - b) satisfaction with the work in the present job.
- Hypothesis 14: Self-recognitions about one's own work experience will mediate the relationship between chronological age and:
- a) overall job satisfaction;

b) satisfaction with the work in the present job.

Hypothesis 15: Self-recognitions about one's own work experience will mediate the relationship between subjective age and:

a) overall job satisfaction;

b) satisfaction with the work in the present job.

Hypothesis 16: Recognitions from others about one's work experience will mediate the relationship between:

a) chronological age and affective commitment;

b) subjective age and affective commitment.

Hypothesis 17: Self-recognitions about one's own work experience will mediate the relationship between:

a) chronological age and affective commitment;

b) subjective age and affective commitment.

Hypothesis 18: Retirement reminders will mediate the relationship between:

a) chronological age and continuance commitment;

b) subjective age and continuance commitment.

## **CHAPTER 3**

### **Methodology**

#### **3.1 Research design**

The nature of this study and the proposed hypotheses involving mediation require a sample with sufficient power to detect the proposed mediation effects. Since age is the major predictor, a sample of workers of various ages is required. Moreover, a study of this nature requires an organization interested in obtaining information about why job satisfaction and commitment change with age, and employees willing to complete a survey on this topic. The present research was conducted using an anonymous survey research design. The following sections describe the sample and data collection method, as well as the measures included in the surveys.

#### **3.2 Sample and data collection**

To reduce the possible effect of type of profession and type of organization, sampling focused on a single professional group in a single organization. The sample consisted of managers in the Canadian division of a large multinational firm in the services management industry. To maintain anonymity, the focal organization was given a pseudonym in this document: Anvil. This name is fictitious and does not in any way

resemble the name of the organization. Any similarity between this name and any organization is purely coincidental.

Data collection was conducted using an online questionnaire, administered to a sample of 888 managers. I requested and obtained the support of senior administrators of the company, who sent an e-mail to all potential respondents, informing them that they would be invited to respond to an online questionnaire during the next few weeks, and asking for their collaboration. I subsequently invited these managers by e-mail to respond to an online questionnaire. These invitations generally explained the purpose of the study, emphasized that participation was voluntary, and assured the strict anonymity of participants. A web link was provided in the body of the email to facilitate the participant's access to the online survey. Additional information concerning the survey was included on the cover page of the questionnaires. Upon completing the survey, respondents were invited to participate voluntarily in a draw for one of eight gift certificates (1 for every 110 invitations sent). To ensure the anonymity of their responses, those who chose to participate in the draw were redirected to a separate web site. Once all data collection was completed, respondents received a letter of appreciation. Samples of all correspondence and questionnaires are included in the appendix.

One concern in data collection was keeping the questionnaire short enough so that respondents could complete it in approximately twenty minutes. To accommodate inclusion of scales requested by the company without compromising the time limit, and to avoid data collection issue associated with lengthy surveys, two versions of the questionnaire were used and these were administered in two phases. In addition, administering the survey in two phases also allowed me to use the first group as a pilot to

verify whether the questionnaire or the measures needed improvement before distributing the survey more widely. In September 2007, 300 managers received e-mailed invitations to participate in the first survey, which was conducted online for a period of 12 days with one reminder halfway through. A second group of 588 managers were invited via email to participate in October-November 2007. This survey was conducted over a period of 24 days and two reminders were sent to encourage participation. Invitations and reminders included URL links to online surveys in English and French. Of the 888 people contacted, 506 responses were received (response rate = 56.98%). The response rate for the first phase was 52.67% and the response rate for the second phase was 59.18%. From these responses, 458 usable questionnaires were obtained, 146 from the first survey and 312 from the second survey. Thirteen questionnaires contained only partial demographic information and were not used. The great majority of respondents (91.3%) completed the English version of the questionnaire and the remainder responded to the French version. Detailed sample demographics will be presented in the following chapter.

Green (1991) suggested two formulas for determining the adequacy of sample size: 1)  $N \geq 50 + 8m$  for testing multiple correlations and 2)  $N \geq 104 + m$  for testing individual predictors. In these formulas,  $m$  is the number of independent variables. This study comprises 2 predictors, 3 mediators, and up to 3 control variables, for a total of up to 9 independent variables. Based on this, a sample size of 122 would be adequate for multiple regressions and a sample size of 113 would be required to test individual predictors. However, these commonly used rules of thumb assume a medium-size relationship between the independent and dependent variables,  $\alpha = .05$ , and  $\beta = .20$ . In

studies where age is the predictor, small effect sizes are common (Rhodes, 1983). In such cases, Green (1991) recommended using the following formula:

$$N \geq [(8/R^2)/(1-R^2)] + (m - 1)$$

In this formula,  $R^2$  is the expected squared multiple correlation and  $m$  is the number of independent variables. Based on reported correlations between age and either job satisfaction or commitment reported in previous studies (e.g., Cleveland et al., 1997; Meyer et al., 2002b; Rhodes, 1983), an  $R^2$  of .02 was used as a benchmark to evaluate the adequacy of the sample size. Based on these numbers, Green's formula suggests 416 cases for the present study. Consequently, the sample size obtained is adequate for this study.

### **3.3 Measures**

Measures used in this study included chronological and subjective age, job satisfaction, affective and continuance commitment, assessments about the employment relationship, recognitions about one's work experience and retirement reminders. Demographic data (e.g., gender, education, years to retirement, tenure) were also collected, along with other measures requested by the focal company and some additional measures which may be included in future work. Measures used in this study are described below.

### 3.3.1 Predictor variables

Two measures of age were used in this study. *Chronological age* was measured by asking respondents to report their actual age in years. *Subjective age* was measured using the 4-item subscale developed by Cleveland and her colleagues (Cleveland et al., 1997). Examples of items include: “The way you generally feel” and “The age of people whose interests and activities are most like yours” with response options: 16-25 years, 26-25 years, 36-45 years, 46-55 years, and 56-75 years. Cleveland *et al.* (1997) reported Cronbach’s alphas of .88 and .93 for this scale in their longitudinal study.

Following the first survey, the 56-75 year category of this scale was separated into two groups in the second questionnaire (56-65 and 66-75) to better reflect the age groups in typical work settings. However, none of the 312 respondents who completed the second version of the questionnaire chose the 66-75 category. The chronological age of respondents to the first and second questionnaire was almost identical (range of 21 to 64 for both samples, average age of 43 and 42.08 for the first and second sample, respectively). Moreover, the average frequency of responses to the 66-75 age category of the 146 participants who responded to the first questionnaire was only 1.4%. Overall, of the total 458 respondents to both questionnaires, only 1.2% selected either the 56-65 or the 56-75 age groups. Consequently, presuming that the older categories really reflect the 56-65 age group is unlikely to affect the interpretation of the results. Therefore, it is reasonable to conclude that in this particular context, the 66-75 age group is not relevant and that the 56-75 category in the first questionnaire really reflects a 56-65 age group. This is not surprising in a work context where the usual retirement age is 65.

Consequently, the 66-75 age group was disregarded and the data from the first and second questionnaire were aggregated. In the present study, internal consistency reliability for this scale was .84.

### 3.3.2 Outcome variables

#### a) Job satisfaction

*Overall job satisfaction* was measured using the short (5 item) version of the measure developed by Brayfield and Rothe (1951). This version had acceptable reliabilities between .82 and .86 in previous research (e.g. Bono & Judge, 2003; Judge, Bono, & Locke, 2000). Sample items include: "Most days I am enthusiastic about my work," and "I feel fairly well satisfied with my present job." Respondents rated statements on a 7 point agree-disagree scale (1 = completely disagree, 7 = completely agree). The internal consistency reliability for the present study was .83.

It is important to note at this point that all variables mentioned in the proposed hypotheses were included in both questionnaires, with the exception of the two facets of the JDI, which were not available for the first phase of data collection. In the second phase of data collection, two facets of job satisfaction were measured using the *Job Descriptive Index* (Smith, Kendall, & Hulin, 1969): *work on present job* and *opportunities for promotion*. These facets were thought to be most likely to be influenced by age, as explained in Chapter 2. The other three facets of the JDI measure satisfaction with supervision, co-workers and present pay, all of which are highly context-dependent.

In an effort to reduce problems associated with lengthy surveys, only the facets most likely to be influenced by age were included in the questionnaire. The JDI facets were not available at the time the first questionnaire was administered. Therefore, these facets were included only in the second questionnaire (N = 312).

To respond to the JDI, respondents read adjectives or brief phrases and evaluate whether each describes their job by answering either “yes,” “no” or “uncertain.” Sample items for the *work on present job* facet include “fascinating” and “can see results.” For the *opportunities for promotion* facet, examples of items are “opportunities somewhat limited” and “promotion on ability.” Ironson and colleagues reported internal consistency reliabilities ranging from .78 to .88 for the JDI subscales (Ironson, Smith, Brannick, Gibson, & Paul, 1989), and the validity of the JDI is well-established (Brief, 1998). More recently, Kiniki and colleagues reported average internal consistency reliabilities of .88 for both work on present job and opportunities for promotion facets (Kiniki, McKee-Ryan, Schriesheim, & Carson, 2002). In the present study internal consistency reliabilities were .91 for *work on present job* and .88 and for *opportunities for promotion*.

#### *b) Affective and continuance commitment*

The questionnaires included the *affective and continuance commitment* subscales developed by Meyer, Allen and Smith (1993). Each of these subscales contains six items. Meyer and colleagues (2002a), in their meta-analysis of the three facets of organizational commitment (i.e. affective, continuance and normative), reported an average n-weighted

reliability of .82 for the affective commitment scale and .76 for the continuance commitment scale.

Respondents rated statements on a 7 point agree-disagree scale (1 = completely disagree, 7 = completely agree). Sample items include: “This organization has a great deal of personal meaning to me” (affective commitment), and “Too much of my life would be disrupted if I decided I wanted to leave my organization right now” (continuance commitment). A maximum likelihood factor analysis with orthogonal rotation (Varimax with Kaiser normalization) showed that the subscales clearly loaded on two different components, with no factor loadings below .40. Although some scholars have argued that negatively worded items may be associated with response artifacts and lower factor loadings (Schriesheim & Eisenbach, 1995; Schriesheim & Hill, 1981), the lowest factor loadings in this sample were obtained with both negatively and positively worded items. Therefore, in this sample, negatively worded items did not seem to be a problem. The internal consistency reliability for the present study was .77 for affective commitment and .76 for continuance commitment. These are close to, or identical to the reliabilities reported in Meyer et al’s meta-analysis (Meyer et al., 2002b).

### **3.3.3 Mediators**

Three mediators are used in this study: assessments about the employment relationship, recognitions about the employment relationship and retirement reminders. The measures used for the proposed mediators were either adapted from other instruments or were created specifically for this study.

*a) Assessments about the employment relationship*

*Assessments about the employment relationship* was investigated using an adaptation of Rousseau's Transitional Contract Inventory (TCI), is a subscale of the Psychological Contract Inventory (Rousseau, 2000). Rousseau defined transitional "contracts" as a state of instability arising from organizational change. The transitional contract construct denotes a state of cognitive transition during which people assess their situation in terms of uncertainty, erosion and mistrust (Rousseau, 1995, 2000). Although Rousseau conceptualized this construct to reflect situations denoting breakdowns in psychological contracts, underpinning the measure are cognitive assessments arising from contextual change. Age is a measure of time which, for the individual, may constitute a temporal marker for changing expectations and a catalyst for assessing the employment relationship. Moreover, Sargent and Schlossberg (1988) argued that adults are motivated to re-assess their employment situation by a continual need, as they age, to belong, control, master, renew, and take stock. In light of the fact that the spirit of the TCI reflects assessments about the employment relationship that may occur as a result of various changes, it seemed appropriate to modify the TCI to reflect cognitive assessments about the employment relationship that arise from individual changes. Furthermore, the use of the TCI in empirical research has been limited to exploratory studies to determine the psychometric properties of the scale (Rousseau, 2000; Rousseau & Tijoriwala, 1998). Consequently, it was considered appropriate to adapt the instrument for the purposes of the present study.

Robinson et al. (1994) provided evidence that psychological contracts are dynamic and self-serving in nature, and that over time, people may develop a sense of entitlement that shapes perceptions of obligations in favor of the employee. This suggests that most people periodically assess their relationship with their employer to determine whether they are getting what they think they should be getting from the employment relationship. These types of assessments are likely to be closely related to certain turning points that occur as people get older. For example, the mid-life stage has been identified as a period of turbulence where people often consider making career changes (Feldman, 2007). In addition, studies have shown that older employees tend to expect special recognition for their work experience or begin to expect seniority privileges for long-term service (Hall & Mansfield, 1975; Saba, 1995). As they approach retirement, they may look for ways to engage in closure by seeking out special projects or tasks that enable them to leave their mark (Adams & Beehr, 2003; DeLong, 2004; Doering, Rhodes, & Schuster, 1983a; Ekerdt, Kosloski, & Deviney, 2000; Karp, 1987). These age-relevant changes are not necessarily motivated by an erosion of the employment relationship. Rather, they may be based on recognizing that the work relationship is changing or that it is coming to a close.

Rousseau's items reflect conditions of organizational change leading to a breakdown in the employment relationship. Since age-relevant reflections about the employment relationship are not necessarily the result of impending breakdown, but rather, of changing and impending closure, the wording of the uncertainty and erosion items were modified to improve content validity for the purposes of the present study.

The process of adapting the TCI involved several revisions and refinements following pilot testing with 37 employed adults of different ages. The erosion items were reworded, as shown in Table 1. Since the uncertainty and mistrust items were more general in nature, they were left intact and were only adapted to include the organization's name. The final items are shown in Table 1.

Principal components analysis was utilized to investigate the structure of the adapted TCI. Inter-item correlations are shown in Table 2. Two of the mistrust items (T14 and T15) were highly correlated ( $r = .865$ ,  $p < .001$ ), which might indicate a multicollinearity problem. However, the determinants in all analyses were over .00001, which indicates that multicollinearity is not an issue for these data. Item T9 (*I expect to receive more from Anvil in the future than I receive today*) also stood out in the correlation matrix. Although all other items were significantly correlated with each other, the results show that most of the correlations between item T9 (*I expect to receive more from Anvil in the future than I receive today*) and other items were non-significant.

The results of the Principal Components Analysis are shown in Table 3. This analysis yielded a two factor solution. However, only item T9 (*I expect to receive more from Anvil in the future than I receive today*) had factor loadings greater than 0.4 on the second factor. Following the procedure used by Rousseau (2000), a Principal Axis Factor Analysis with Varimax rotation was conducted (Table 4). This also yielded a two-factor solution ( $\chi^2 = 192.61$ ,  $p = .000$ ), as well as the two highly correlated items (T14: A gap exists between what Anvil promises and what it delivers, and T15: Inconsistency exists between what Anvil promises and what it delivers).

The high KMO statistic (.939) indicates that patterns of correlations are relatively compact and therefore, factor analysis should yield distinct and reliable factors (Hutcheson & Sofroniou, 1999). In addition, the KMO values for individual variables were generally close to or above 0.9. Although the KMO statistic for item T9 was above the acceptable lower limit of 0.5 (Kaiser, 1974), it was comparatively lower at 0.698 than the KMO for any other item. Based on the correlation results and on the results of the PCA, item T9 (*I expect to receive more from Anvil in the future than I receive today*) was eliminated from subsequent analyses. After removing T9 and again following the procedure used by Rousseau (2000), a Principal Axis Factor Analysis with Varimax rotation was conducted (Table 5) and a one-factor solution was found ( $\chi^2 = 634.13$ ,  $p = .000$ ). Based on this, the scale was determined to be unidimensional with this data. The internal consistency of this 14-item scale was  $\alpha = .94$ .

The wording of the items on the *assessments of the employment relationship* measure and the wording of items on the *affective commitment* scale suggested convergence. However, the sample size ( $N = 148$ ) of the first phase of data collection did not make possible a factor analysis which included both the “assessments” items and the commitment items. Therefore, bivariate correlations were examined after the first phase of data collection to assess the covariation among the measure of *assessments about the employment relationship* and both affective and continuance commitment. “Assessments” (reverse coded) was weakly related to continuance commitment ( $r = -.264$ ,  $p < .01$ ) and moderately related to affective commitment ( $r = .501$ ,  $p < .01$ ). The strength of these relationships was comparable to that of overall job satisfaction with continuance

( $r = -.233, p < .01$ ) and affective commitment ( $r = .413, p < .01$ ). This suggested that the scales measured related, but different constructs.

*b) Recognitions about one's work experience and retirement reminders*

In Chapter 2, *recognitions about one's work experience and retirement reminders* were proposed as relevant explanations of the age-commitment and age-job satisfaction relationships. These were measured using an events inventory specifically developed for this study, which includes several other events. This *Work and Life Events Inventory* (WLEI) consists of a list of events based on themes that emerged from a review of the literature on age and work attitudes. For example, past research found that older workers were most focused on having their experience recognized (Saba, 1995) and on mentoring less experienced employees (Armstrong-Stassen & Templer, 2004; Noonan, 2005). In developing the WLEI, a number of events inspired or adapted from the Life Events Inventory (Holmes & Rahe, 1967) were included because of their relevance to age-related work attitudes (Hughes, Blazer, & George, 1988). Experience of age-relevant events was inventoried by asking respondents to report how often they experienced given events of occurrence during the past year (none = 0, once = 1, more than once = 2). Occurrences were summed to create an index for each type of recognition.

After pre-testing the inventory with a varied sample of 37 respondents and obtaining insight from 17 working adults of various ages, 49 events were selected and associated to eight themes. These denoted accomplishment, change at work, pertinence/evaluation of one's capacity to do the work, being passed over (for promotion,

training or tasks), recognition of work experience, awareness of the approach of retirement, health, and personal life cycle events. The questionnaire for the present study included six events that pertained to *recognition of one's work experience*. Three of these signaled *recognition of one's experience by others*: "A less experienced colleague came to me for advice," "Someone appreciated my work experience," and "Someone mentioned that I had substantial work experience in my field." The other three represented *self-recognition of one's work experience*: "My work required me to rely on knowledge that less experienced people do not have," "I showed a less experienced colleague a "trick of the trade"," and "I was able to work at my own pace or in my own way because of my experience."

The questionnaire included three sources of *retirement reminders*. The items read: "I was reminded of the time left before retirement," "I received information about retirement," and "My spouse or significant other talked about retiring." As age people get older, they are more likely to be asked about their retirement, engaged in conversations about the topic, or be the object of assumptions about retiring. Moreover, they are more likely to receive information about retiring, either from their employer, their financial institution, or others. Furthermore spousal influence has been documented as a significant predictor of retirement decisions (Sterns & Kaplan, 2003).

It is important to note that "recognitions" and "retirement reminders" were not measured with scales, but rather, with inventories for which an index was determined by summing the number of occurrences. Consequently, internal consistency could not be determined and inter-rater reliability was used to determine whether the inventories were reliable.

Two raters independently coded all the events in the inventory according to themes. Generally, inter-rater agreement was high (97.9%). Moreover, raters were completely in agreement (100%) that the events used in the present study reflected either retirement reminders or recognitions about one's experience. The events were also independently coded by three raters as "most likely to be experienced by an older person," "most likely to be experienced by a younger person," and "most likely to be experienced by both." The three raters completely agreed that all of the events reflecting either retirement reminders or recognitions about one's experience were more likely to be experienced by older workers. Overall, excellent inter-rater reliability was obtained for the events used in the present study.

### 3.3.4 Control variables

#### *a) Perceived relative age*

*Perceived relative age* (comparison of one's age with the average age of one's work group) has been a construct of interest in studies that focus specifically on perceptual biases and age discrimination. Since the present study focuses on explaining more general attitudinal outcomes, and since age discrimination is not a major investigative variable in this study, perceived relative age is not expected to be of interest in the present study. To rule out any possibility that it might be of interest, this construct was measured as a control variable. For consistency, the Perceived Relative Age scale

developed by Cleveland and Shore (1997) was used. *Comparative age* is a three-item measure that asks “compared to the average age of members of my work group, I feel (look, act)” with response choices of “younger,” “older” and “about the same age.” Cleveland *et al.* (1997) reported a coefficient alpha of 0.73 for this scale. An additional item was added to the questionnaire to investigate whether people perceived themselves to actually *be* older, younger or the same age as members of their work group.

#### *b) Tenure*

Organizational tenure and job tenure have commonly been found to be associated with age and job attitudes. Researchers reported evidence that job satisfaction increased with age across tenure levels in samples of blue-collar workers (Gibson & Klein, 1970; Siasi, Crocetti, & Spiro, 1975) and that satisfaction decreased with tenure across all age levels. This evidence supports a positive, linear relationship between age and job satisfaction after taking tenure into account. Moreover, results indicated a decreasing, linear relationship between tenure and job satisfaction, after controlling for age. Gibson and Klein (1970) suggested that previous findings of a U-shaped relationship may have been due to samples consisting predominantly of younger employees with short tenure and older employees with long tenure. More recently, Bedeian *et al.* (1992) demonstrated that although age and tenure were covariates, they had distinct effects on job satisfaction. Both organizational and job tenure were measured by asking respondents to indicate their tenure in years. In addition, total work experience was requested, in years.

*c) Gender*

Demographic studies document gender differences in retirement income (Brown, 2003; Hansson, DeKoekkoek, Neece, & Patterson, 1997; Marshall & Walker, 1999; Moen et al., 2000) and this may affect employees' attention to retirement signals and perceptions about the employment relationship.

The effect of gender on the age-job satisfaction relationship has been mixed and seems related to social changes over time. For example, Kalleberg and Loscocco (1983) (1983) reported that women's job satisfaction differed from that of men in 1969 but progressively became more similar to that of men in surveys conducted in 1973 and 1977. In other surveys conducted during roughly the same time periods, Lorence found gender differences in work involvement. The age-work involvement relationship was positive and linear for women, and remained significant when rewards were controlled. For men, this relationship was curvilinear and became non significant after controlling for rewards. Gender differences for relationships between age and job satisfaction and age and work involvement were attributed to the socio-economic context of the 1970's, where men were the predominant bread-winners. Consequently, women were more likely to work because they wanted to, whereas men were more likely to work out of financial necessity. Today, the proportion of older women who work because they have to has increased since many women have interrupted their careers to raise families and do not have the pension benefits of men of the same age, who are more likely to have had

uninterrupted career paths (Barnum, Liden, & DiTomaso, 1995; Smart & Peterson, 1994).

Respondents indicated their gender by making the appropriate choice on the online questionnaire. Gender was then dummy-coded on data entry (1 = male, 2 = female).

### **3.3.5 Other measures**

To address specific issues raised by management at the focal company, the pilot study included a global measure of work satisfaction: the *Satisfaction With Work Scale* (Bérubé, Donia, Gagné, Houlfort, & Koestner, 2007). Additionally, a short measure of self-rated employee performance (Beehr et al, 2001) was included on the questionnaire used for the main study at the company's request.

## **3.4 Questionnaire layout**

Since the predictor and criterion variables are drawn from the same survey instrument, it could be argued that the results could be vulnerable to common method bias. However, chronological age is a commonly asked demographic variable in survey research, along with gender, education, etc. Twelve demographic questions were included in the survey, along with chronological age. Therefore, there is no reason to believe that respondents' answers on the criterion measures were influenced by providing their age in

the demographics section of the survey. Subjective age and perceived relative age were the last measures in the survey, thus effectively eliminating common method bias associated with the perceptual age measures. Turning to the mediators, only a few (36%) of the events on the events inventory were likely mediators of the predictor-criterion relationship in this study and rating the remaining (64%) events most likely would distract the respondent and reduce the effect of common method bias.

## CHAPTER 4

### Results

#### 4.1 How this chapter is organized

The presentation of the results begins with demographics and a comparison of the samples from the first and second phases of data collection. Following this, I present the rationale for merging the data sets for the two phases of data collection. Subsequently, the results for the direct relationships shown in Figure 3 are presented, followed by the mediation tests.

#### 4.2 Demographics

The demographic characteristics of the respondents are shown in Table 6. Results show that respondents in both data collection phases were highly similar on most demographic characteristics. Respondents in phase 1 consisted of 56.1% women, ranged in age from 21 to 64 years (mean = 42.08, mode = 44) had an average organization tenure of 9.52 years and an average position tenure of 4.7 years. Respondents in the second phase of data collection consisted of 54.5% women, ranged in age from 23 to 64 years (mean = 43.09, mode = 46), had an average organizational tenure of 5.4 years, and an average position tenure of 4.6 years. As shown in Table 6, respondents for both phases of data collection had comparable levels of education, with most having completed either

college or university. Furthermore, the distribution of managerial levels was also comparable for both phases of data collection. Moreover, t-tests of differences in means for the two samples confirmed no significant differences between respondents in the two phases of data collection for age ( $p = .305$ ), organizational tenure ( $p = .653$ ), and job tenure ( $p = .679$ ). 4-1 also shows that although the distribution of managerial levels of respondents differed slightly (e.g., middle management = 78.8% in phase 1, 61.5% in phase 2) respondents in each phase of sampling were very highly similar in terms of their gender distribution (phase 1 = 54.8%; phase 2 = 54.1%) and completed educational level (e.g., completed college: phase 1 = 43.4%; phase 2 = 43.5%). Because the company wanted to target Quebec employees in Phase 1 of data collection, a greater proportion of respondents answered the French version of the questionnaire in Phase 1 (18.5%), compared to Phase 2 (4.2%). Since most of the respondents who answered the French version of the survey resided in Quebec, the proportion of Quebec residents was also higher in Phase 1 (21.9%), compared to Phase 2 (4.2%). Since most managers in Quebec had been invited to respond to the first phase of data collection, there were very few left to invite to the second phase. It is important to note that managers who chose to answer the questionnaire in French were at least functionally bilingual (English and French) as this is a hiring requirement for management positions at Anvil. Therefore, the choice of language should not represent significant differences among the respondents to both phases of the survey. In both phases of data collection, a small proportion of Quebec residents (1.6%) answered the survey in English. In the second phase of data collection, a very small proportion of Ontario residents (0.2%) answered the survey in French.

Overall, the language distribution was no different than might be expected from any Canadian company with employees in every province.

In sum, respondents to the two phases of data collection were demographically very similar, with demographic differences between the samples of respondents from the two data collection phases essentially limited to language and province of residence, due to the way the company chose to distribute the invitations to participate in the survey. Therefore, a general demographic profile, including respondents to both phases of data collection, can be presented. Overall, participants in this study ranged in age from 21 to 64 years (mean = 42.37). Their average organization tenure was 9.74 years and their average position tenure was 4.90 years. Both genders were adequately represented (55.7% women). Respondents were located in various offices across Canada. Respondents working in Ontario, where the company has its head office, were the most represented (55%). The majority (77.3%) had either college or university diplomas. Most respondents (N = 307; 66%) were middle managers, 58 (11.7%) were upper level managers and 93 (21.3%) occupied entry-level managerial positions.

### **4.3 Merging of data sets**

Although data collection occurred in two phases, it targeted managers in the same organization, using the same procedure, and using questionnaires which were identical for most of the variables inventoried. As explained in the previous section, the samples in both phases were highly comparable demographically. T-tests on the major demographic variables were not significant (see Table 6). Moreover, the response rates were very

similar; 52.67% for the first phase and 59.18% for the second phase. All data collection was conducted over a period of seven weeks in the fall of 2007, including a two-week delay between the first and second phase of data collection.

When collecting data in two phases, there is always the concern that major organizational changes might occur between each phase. To reduce the probability that this would be a problem, I approached an organization characterized by a high degree of stability – it had not undergone any significant changes in the past three years, was not undergoing any major organizational changes while data was collected, and no major organizational changes were expected closely following data collection. It also turned out that the company experienced no major changes during the seven weeks during which data collection took place.

A comparison of the inter-item correlations for both data sets (Tables 7 & 8) revealed that the magnitude and direction of the relationships for both phases of data collection were generally comparable, although levels of significance tended to be better for the second phase of data collection. This is most likely due to differences in sample size - the number of respondents in the second phase was more than twice the number in the first phase. In addition, a one-way analysis of variance of the outcome and mediator variables revealed that with the exception of affective commitment, there were no significant differences between responses of survey participants in both phases of the survey (Table 9).

Respondents during the first phase of data collection reported a higher level of affective commitment than respondents in the second phase. In addition, affective commitment results were less dispersed in the first phase ( $SD = .086$ ) than in the second

phase of data collection ( $SD = 1.28$ ). Since respondents in both samples were highly comparable except with regards to language and geographic location, I conducted two-way analyses of variance for affective commitment on the preferred language and province of residence of respondents. The results showed no significant differences in affective commitment based on either language ( $F = .090, p = .765$ ) or province of residence ( $F = .712, p = .681$ ) across the two phases of data collection. The results thus appear to be due to individual differences and not to differences in the characteristics of respondents during the two phases of data collection.

Based on the foregoing considerations, the data could be merged for the majority of the variables. Exceptions were the two facets of the JDI, which were not available for the first phase of data collection. Consequently, analyses for these variables include only respondents from the second phase of data collection.

#### **4.4 Frequency distributions**

Frequency distributions were examined visually through the normality plots for each variable. In addition, skewness and kurtosis statistics were obtained using the “descriptives” function in SPSS. This procedure showed that respondents tended to score high on *affective commitment, overall job satisfaction, satisfaction with the work on the present job, and assessments about the employment relationship*, resulting in slight negative skewness. However, all of the skewness statistics were less than 1 except for the distribution of satisfaction with the work on present job (skewness =  $-1.252$ ). The distribution for *continuance commitment* and *perceived relative age* were just very

slightly positively skewed, whereas the distribution of *chronological age*, *subjective age*, and *satisfaction with promotion opportunities* were close to normal.

Examination of the normality plots and kurtosis statistics revealed that the distribution of the data for *satisfaction with promotion opportunities* was slightly flattened (kurtosis = -1.194). For all other variables, the shape of the distribution deviated only slightly from normal and kurtosis statistics ranged from -.189 to .833. The distributions for overall job satisfaction, satisfaction with work on the present job, and affective commitment were slightly peaked, whereas the distributions for the remainder of the variables were slightly flattened.

Various transformations were tried in an effort to normalize the distributions of the two variables for which the skewness or kurtosis statistics exceeded 1: *satisfaction with the work on the present job* and *satisfaction with promotion opportunities*. Although cubic transformations slightly improved the distributions, the results were comparatively the same as those obtained when using the untransformed data.

Tabachnick and Fidell (2001) argued that kurtosis and skewness statistics tended to be overly sensitive in samples exceeding 200 cases. Moreover, they discussed that in samples exceeding 200 cases, skewness does not make a “substantive difference in the analysis” and that “underestimation of variance due to kurtosis disappears” (Tabachnick & Fidell, 2001, pp. 74-75). In the data used for this study, the sample size for all variables exceeds 300 cases. In spite of the relatively large sample size, skewness and kurtosis statistics are generally low for most variables, and transformations for the variables for which statistics were significant did not affect the results. In light of all this, no transformed data were used in hypotheses tests.

#### 4.5 Descriptive statistics and bivariate correlations

Table 10 presents the descriptive statistics and correlation matrix for all variables in the study. All zero-order correlations above .10 were significant at least at the  $p < .05$  (2-tailed) except for the association between gender and satisfaction with the work itself ( $\beta = .105, p = .063$ ).

The means and dispersion for *subjective age* ( $M = 2.72, SD = .066$ ) indicated that respondents generally perceived themselves to be in their early thirties, although their mean chronological age was 42.4, and the modal age was 46. The means and dispersion for *perceived relative age* ( $M = 1.85, SD = 0.50$ ) revealed that respondents in this study generally felt that they looked, felt, acted and thought they were about the same age as their work colleagues, or slightly younger.

The zero-order correlations between *chronological age* and *job satisfaction*, *satisfaction with the nature of the work*, *affective commitment* and *continuance commitment*, were positive and ranged from .122 to .217 ( $p < .01$ ). The small magnitude of these associations corresponds to that reported by others in the literature (e.g., Cleveland et al., 1997; Meyer et al., 2002b).

The relatively strong bivariate association between *chronological age* and *subjective age* ( $\beta = .760, p < .01$ ), and the moderate associations between *chronological age* and *perceived relative age* ( $\beta = .471, p < .01$ ), and between *subjective age* and *perceive relative age* ( $\beta = .496, p < .01$ ) correspond to those found by Cleveland and colleagues (1997).

## 4.6 Hypothesis tests

This section presents the results of hypothesis tests, beginning with direct relationships between the age variables and outcome variables included in the study. Next, hypotheses relating to the proposed mediators are presented. For each mediator in turn, I present the results for the tests of the direct relationships between mediators and the predictor and outcome variables. Following this, I present the results for the tests of mediation. These begin with regression analyses testing the main effects of the predictor and mediator variables on the outcome variables, controlling for organizational tenure, perceived relative age, and gender. Results of the mediation tests follow.

### 4.6.1 Relationships between the age variables and the outcome variables

As hypothesized, significant, positive associations were found between *chronological age* and *overall job satisfaction* ( $r = .148, p < .01$ ), *satisfaction with the nature of the work* ( $r = .192, p < .01$ ), *affective commitment* ( $r = .198, p < .01$ ), and *continuance commitment* ( $r = .142, p < .01$ ), thus fully supporting Hypotheses 1, 3 and 7.

Also as predicted, *subjective age* was a significant positive correlate of *overall job satisfaction* ( $r = .179, p < .01$ ), *satisfaction with the nature of the work* ( $r = .217, p < .01$ ), *affective commitment* ( $r = .215, p < .01$ ), and *continuance commitment* ( $r = .122, p < .01$ ), fully supporting Hypotheses 2, 4, and 8.

Hypothesis 5 predicted a negative relationship between *chronological age* and *satisfaction with promotion opportunities*. Results indicated a very weak negative relationship, which was not significant ( $r = -.069$ ,  $p = .225$ ). Similarly, Hypothesis 6 predicted a negative relationship between *subjective age* and *satisfaction with promotion opportunities*. The strength of this relationship was very weak and not significant ( $r = -.039$ ,  $p = .493$ ), although it was in the predicted direction.

#### **4.6.2 Verification of the relationships between the mediator variables, the age variables and the focal outcome variables in the study**

##### *a) Relationships between the age variables and the mediator variables*

Hypotheses 9 to 11 and 13 through 19 predicted mediated relationships between the independent and dependent variables investigated in this study. This implies that the relationship between the proposed mediators, the age variables, and the focal outcome variables must be in the same direction. If the direction of the relationship between the mediator and either the independent variable or the focal outcome variables is in the opposite direction than the direct link between the age variable and the outcome variable, the proposed mediator cannot explain the relationships between age and the outcome variable (Baron & Kenny, 1986; MacKinnon, 2008).

The association between *chronological age* and *assessments about the employment relationship* was significant and positive ( $r = .122$ ,  $p < .01$ ). Furthermore,

*subjective age* was a significant, positive correlate of *assessments about the employment relationship* ( $r = .134, p < .01$ ).

*Chronological age* was a significant, positive correlate of *self-recognitions of work experience* ( $r = .126, p < .01$ ). However, the relationship between *chronological age* and *recognitions of experience by others* was positive but not significant ( $r = .087, p = 0.62$ ). *Subjective age* was a significant, positive correlate of recognitions by self ( $r = .104, p < .05$ ) and others ( $r = .128, p < .01$ ).

Retirement reminders was a significant, positive correlate of both *chronological age* ( $r = .396, p < .01$ ) and *subjective age* ( $r = .360, p < .01$ ).

*b) Relationships between the mediator variables and the focal outcome variables*

As mentioned in the previous section, a condition of mediation is that the relationship between the proposed mediators, the age variables, and the focal outcome variables must be logically related. All of the mediation hypotheses involved positive relationships between the age variables and the independent variables (job satisfaction and commitment). Furthermore, for all of the mediation hypotheses, the relationship between all the proposed mediators and the age variables were positive, and the proposed mediators were all positively related to the outcome variables. Following this, the links between the proposed mediators and the focal outcome variables were confirmed to verify whether conditions for the mediations predicted in Hypotheses 9 to 11 and 13 through 19.

*Assessments about the employment relationship* was a significant, positive correlate of *overall job satisfaction* ( $r = .640, p < .01$ ), *satisfaction with the nature of the work* ( $r = .646, p < .01$ ), and *affective commitment* ( $r = .664, p < .01$ ). Therefore, mediation tests for Hypotheses 10 and 11 could be pursued. Principal Components Analysis (PCA) on the assessments items and the continuance items showed that that these were related, but distinct constructs (Tables 11 & 12).

*Self-recognitions of experience* was a significant, positive correlate of *overall job satisfaction* ( $r = .121, p < .01$ ), *satisfaction with the nature of the work* ( $r = .306, p < .01$ ), and *affective commitment* ( $r = .134, p < .01$ ). *Recognitions of one's experience from others* was a significant, positive correlate of *overall job satisfaction* ( $r = .172, p < .01$ ), *satisfaction with the nature of the work* ( $r = .353, p < .01$ ), and *affective commitment* ( $r = .232, p < .01$ ). Therefore, mediation tests for Hypotheses 13 to 17 could be pursued.

*Retirement reminders* was a significant, positive correlate of *continuance commitment* ( $r = .137, p < .01$ ), and tests of mediation for Hypothesis 19 could be pursued.

We now turn to the results of the tests for the mediation hypotheses. I began by conducting multiple regression analyses to verify whether the direct relationships remained significant when control variables were taken into account. These results are presented in section 4.7. Where the conditions for mediation were met, I followed by conducting mediation tests. These are described in section 4.8

#### **4.7 Regression analyses**

The zero-order correlation between the age variables and satisfaction with promotion opportunities was not significant. Therefore this outcome variable was not in the regression analyses. Multiple regression analyses were conducted to determine the main effects of the age variables on the remaining outcome variables. A total of 8 different regression models with different variables were tested by entering the control variables (perceived relative age, organizational tenure and gender) on the first step of the equation, followed by the either chronological age or subjective age. Significant main effects were found for all predictor and outcome variables with the exception of continuance commitment, for which the main effects for both chronological age and subjective age were not significant in the regression equations, which included the control variables. The results are shown in Tables 13 and 14.

#### **4.8 Mediation analyses**

In the next stage of the analysis, I examined whether the four proposed explanatory variables mediated the link between age (chronological and subjective) and the outcome variables. For these analyses, I followed the procedures described by Baron and Kenny (1986) and Sobel (1982). Calculations for the Sobel test were conducted using the macros and procedures described by Preacher and Hayes (2004).

#### 4.8.1 Mediation tests for “assessments about the employment relationship”

The analysis began by testing Hypothesis 9a, which hypothesized that *assessments about the employment relationship* would mediate the relationship between *chronological age* and *job satisfaction*. Chronological age was regressed on overall job satisfaction and found to be a significant predictor ( $\beta = .174, p = .003$ ). At step 2, *assessments of the employment relationship* was introduced. The beta weight for chronological age associated with job satisfaction decreased but remained significant ( $\beta = .116, p = .010$ ). These results suggest partial mediation (Figure 8), which was confirmed by a Sobel test of mediation (Sobel's  $z = 2.594, p = .009$ ).

I repeated this analysis to test Hypothesis 9b, which hypothesized that *assessments about the employment relationship* would mediate the relationship between *chronological age* and *satisfaction with the nature of the job*. After entering the three control variables, chronological age was regressed on satisfaction with the work on the present job and found to be a significant predictor ( $\beta = .155, p = .027$ ). At step 2, *assessments of the employment relationship* was introduced. The beta weight for chronological age associated with satisfaction with the nature of the job decreased but remained significant ( $\beta = .140, p = .038$ ). These results suggest partial mediation (Figure 9), which was confirmed by a Sobel test of mediation (Sobel's  $z = 2.579, p = .01$ ), thus supporting Hypothesis 9b.

Following this, I tested Hypothesis 10, which predicted that *assessments about the employment relationship* would mediate the relationship between *subjective age* and *satisfaction with the work in the present job*. The analysis began by testing Hypothesis

10a, which hypothesized that *assessments about the employment relationship* would mediate the relationship between *subjective age* and *overall job satisfaction*. Subjective age was regressed on overall job satisfaction and found to be a significant predictor ( $\beta = .196, p = .001$ ). At step 2, *assessments of the employment relationship* was introduced. The beta weight for subjective age associated with overall job satisfaction decreased but remained significant ( $\beta = .119, p = .006$ ). These results suggest partial mediation (Figure 10), which was confirmed by a Sobel test of mediation (Sobel's  $z = 2.859, p = .004$ ).

I repeated this analysis to test Hypothesis 10b, which hypothesized that *assessments about the employment relationship* would mediate the relationship between *subjective age* and *satisfaction with the work in the present job*. After entering the three control variables, subjective age was regressed on satisfaction with the work on the present job and found to be a significant predictor ( $\beta = .220, p = .001$ ). At step 2, *assessments of the employment relationship* was introduced. The beta weight for subjective age associated with satisfaction with the work in the present job decreased but remained significant ( $\beta = .116, p = .027$ ). These results suggest partial mediation (Figure 11), which was confirmed by a Sobel test of mediation (Sobel's  $z = 2.837, p = .004$ ). Hypothesis 10 is thus supported for partial mediation.

Following this, I tested Hypothesis 11, which predicted that *assessments about the employment relationship* would mediate the relationship between *chronological and subjective age* and *affective commitment*. First, *chronological age* was regressed on *affective commitment* and found to be a significant predictor ( $\beta = .114, p = .048$ ). At step 2, *assessments about the employment relationship* was introduced. The beta weight for chronological age associated with affective commitment decreased and was no longer

significant ( $\beta = .056$ ,  $p = .199$ ). These results suggest full mediation (Figure 12), which was confirmed by a Sobel test of mediation (Sobel's  $z = 2.596$ ,  $p = .009$ ). Hypothesis 11a was thus supported.

Next, *subjective age* was regressed on *affective commitment* and found to be a significant predictor ( $\beta = .159$ ,  $p = .004$ ). At step 2, *assessments about the employment relationship* was introduced. The beta weight for subjective age associated with affective commitment decreased and was no longer significant ( $\beta = .082$ ,  $p = .051$ ). These results suggest full mediation (Figure 13), which was confirmed by a Sobel test of mediation (Sobel's  $z = 2.862$ ,  $p = .004$ ). Hypothesis 11b was thus supported.

#### **4.8.2 Mediation tests for “recognitions of one’s experience by others”**

Hypothesis 12 predicted that *recognitions of one’s experience by others* would mediate the relationships between age (chronological and subjective), and job satisfaction (overall, with the nature of the work, and with promotion opportunities). However, *chronological age* was not a significant correlate of *recognitions of one’s experience by others* ( $r = .087$ ,  $p = 0.62$ ). Consequently, the conditions of mediation were not met in this case (Baron & Kenny, 1986; Sobel, 1982). Where there is no significant direct relationship, it cannot be argued that *recognitions of one’s experience by others* had a mediating role, thus the analysis for Hypotheses 12a, b and c could not be pursued and these hypotheses were not supported.

Next, I conducted a regression analysis to test Hypothesis 13a, which predicted that *recognitions of experience by others* would mediate the relationship between *subjective age* and *overall job satisfaction*. Subjective age was regressed on overall job satisfaction and found to be a significant predictor ( $\beta = .196, p = .001$ ). At step 2, *recognitions of one's experience by others* was introduced. The beta weight for subjective age associated with job satisfaction decreased slightly and remained significant ( $\beta = .181, p = .001$ ). These results do not support mediation, which was confirmed by the Sobel test of mediation (Sobel's  $z = 1.908, p = .056$ ). Therefore Hypothesis 13a was not supported.

Following this, I tested Hypothesis 13b, which predicted that *recognitions of experience by others* would mediate the relationship between *subjective age* and *satisfaction with the nature of the work*. Subjective age was regressed on satisfaction with the work on the present job and found to be a significant predictor ( $\beta = .220, p = .001$ ). *Recognitions of one's experience by others* was then introduced at step 2. The beta weight for subjective age associated with satisfaction with the nature of the work decreased, but remained significant ( $\beta = .173, p = .007$ ). These results suggest partial mediation (Figure 14), which was confirmed by the Sobel's test of mediation (Sobel's  $z = 2.088, p = .037$ ). Therefore Hypothesis 13b was supported for partial mediation.

The next mediation hypothesis on *recognitions of experience by others*, Hypothesis 16, predicted that it would mediate the relationship between age (chronological and subjective) and *affective commitment*. This part of the analysis began by testing Hypothesis 17a, which predicted that *recognitions of experience by others* would mediate the relationship between *chronological age* and *affective commitment*. Chronological age was regressed on affective commitment and found to be a significant

predictor ( $\beta = .114, p = .048$ ). At step 2, recognitions of one's experience by others was introduced. The beta weight for chronological age associated with affective commitment decreased but remained marginally significant ( $\beta = .107, p = .057$ ). These results may suggest mediation, but the Sobel's test of mediation was not significant (Sobel's  $z = 1.734, p = .083$ ). Therefore Hypothesis 16a was not supported.

Following this, I tested Hypothesis 16b, which predicted that *recognitions of experience by others* would mediate the relationship between *subjective age* and *affective commitment*. Subjective age was regressed on affective commitment and found to be a significant predictor ( $\beta = .159, p = .004$ ). At step 2, recognitions of one's experience by others was introduced. The beta weight for subjective age associated with affective commitment decreased very slightly and remained significant ( $\beta = .141, p = .009$ ). These results suggest partial mediation (Figure 15), which was confirmed by the Sobel's test of mediation (Sobel's  $z = 2.003, p = .045$ ). Therefore, Hypothesis 16b was supported for partial mediation.

#### 4.8.3 *Mediation tests for self-recognitions about one's work experience*

Hypothesis 14 predicted that *self-recognitions about one's work experience* would mediate the relationship between age (chronological and subjective) and job satisfaction (overall and with the nature of the work). This part of the analysis began by testing Hypothesis 14a, which predicted that *self-recognitions of experience* would mediate the relationship between *chronological age* and *overall job satisfaction*. Chronological age was regressed on overall job satisfaction and found to be a significant predictor ( $\beta = .174,$

$p = .003$ ). At step 2, *self-recognitions of one's experience* was introduced. The beta weight for chronological age associated with job satisfaction decreased slightly and remained significant ( $\beta = .166$ ,  $p = .005$ ). These results suggest partial mediation. However, the Sobel's test of mediation was not significant (Sobel's  $z = 1.845$ ,  $p = .065$ ). Aorian and Goodman tests of mediation, which are able to capture smaller mediation effects (MacKinnon, 2008), were also not significant. Therefore Hypothesis 14a was not supported.

The analysis continued to test Hypothesis 14b, which predicted that *self-recognitions of experience* would mediate the relationship between *chronological age* and *satisfaction with the work in the present job*. Chronological age was regressed on satisfaction with the work on the present job and found to be a significant predictor ( $\beta = .155$ ,  $p = .027$ ). *Self-recognitions of one's experience* was introduced at step 2. The beta weight for chronological age associated with satisfaction with the nature of the work decreased, but remained significant ( $\beta = .140$ ,  $p = .038$ ). These results suggest partial mediation (Figure 16), which was confirmed by the Sobel's test of mediation (Sobel's  $z = 2.393$ ,  $p = .017$ ). Therefore, Hypothesis 14b was supported for partial mediation.

Next, I conducted a regression analysis to test Hypothesis 15a, which predicted that *self-recognitions of experience* would mediate the relationship between *subjective age* and *overall job satisfaction*. Subjective age was regressed on overall job satisfaction and found to be a significant predictor ( $\beta = .196$ ,  $p = .001$ ). At step 2, *self-recognitions of one's experience* was introduced. The beta weight for subjective age associated with job satisfaction decreased slightly and remained significant ( $\beta = .185$ ,  $p = .001$ ). These results

suggest weak, partial mediation, but the Sobel's test of mediation was not significant (Sobel's  $z = 1.808$ ,  $p = .070$ ). Therefore, Hypothesis 15a was not supported.

Following this, I tested Hypothesis 15b, which predicted that *self-recognitions of experience* would mediate the relationship between *subjective age* and *satisfaction with the nature of the work*. Subjective age was regressed on satisfaction with the work on the present job and found to be a significant predictor ( $\beta = .220$ ,  $p = .001$ ). Self-recognitions of one's experience was then introduced at step 2. The beta weight for subjective age associated with satisfaction with the nature of the work decreased, but remained significant ( $\beta = .190$ ,  $p = .003$ ). These results suggest partial mediation (Figure 17), which was confirmed by the Sobel's test of mediation (Sobel's  $z = 2.399$ ,  $p = .016$ ). Therefore Hypothesis 15b was supported for partial mediation.

The next mediation hypothesis on *self-recognitions of experience* predicted that it would mediate the relationship between age (chronological and subjective) and affective commitment. This part of the analysis began by testing Hypothesis 17a, which predicted that *self-recognitions of experience* would mediate the relationship between *chronological age* and *affective commitment*. Chronological age was regressed on affective commitment and found to be a significant predictor ( $\beta = .114$ ,  $p = .048$ ). At step 2, *self-recognitions of experience* was introduced. The beta weight for chronological age associated with affective commitment decreased and was no longer significant ( $\beta = .107$ ,  $p = .062$ ). These results suggest full mediation, but the Sobel's test of mediation was not significant (Sobel's  $z = 1.703$ ,  $p = .088$ ). Aorian and Goodman tests of mediation, which are able to capture smaller mediation effects (MacKinnon, 2008), were also not significant. Therefore Hypothesis 17a was not supported.

Following this, I tested Hypothesis 17b, which predicted that *self-recognitions of experience* would mediate the relationship between *subjective age* and *affective commitment*. Subjective age was regressed on affective commitment and found to be a significant predictor ( $\beta = .159, p = .004$ ). At step 2, *self-recognitions of experience* was introduced. The beta weight for subjective age associated with affective commitment decreased very slightly and remained significant ( $\beta = .149, p = .007$ ). These results suggest partial mediation. However, the Sobel's test of mediation was not significant (Sobel's  $z = 1.655, p = .098$ ). Aorian and Goodman tests of mediation, which are able to capture smaller mediation effects (MacKinnon, 2008), were also not significant. Therefore, Hypothesis 17b was not supported.

#### **4.8.4 Mediation tests for "retirement reminders"**

Hypothesis 18 predicted that retirement reminders would mediate the relationship between age (chronological and subjective) and continuance commitment. This part of the analysis began by testing Hypothesis 18a, which predicted that *retirement reminders* would mediate the relationship between *chronological age* and *continuance commitment*. *Chronological age* was regressed on continuance commitment, but was not a significant predictor ( $\beta = .041, p = .471$ ). Following this, *subjective age* was regressed on *continuance commitment* and was also not found to be a significant predictor ( $\beta = .014, p = .801$ ). Since the conditions of mediation were not met (Baron & Kenny, 1986; Sobel, 1982). Hypotheses 18a and 18b were thus not supported. It is interesting to note that the

zero-order correlation between continuance commitment and both chronological age ( $r = .142, p < .01$ ) and subjective age ( $r = .122, p < .01$ ) was significant, although both were non-significant predictors in the regression analysis, where organizational tenure ( $\beta = .233, p < .001$ ) and gender ( $\beta = .119, p = .009$ ) were significant predictors. Together, they were responsible for most of the variance in each model ( $R^2 = .069, p < .001$ ).

#### 4.9 Other findings

One of the premises of this study, based on the findings of Cleveland and colleagues (1997), was that subjective age explains additional variance in work attitudes, beyond chronological age. In section 4.6.1, I reported that in the present study, both chronological and subjective age were significant correlates of overall job satisfaction, satisfaction with the work in the present job, affective commitment and continuance commitment. Neither age measures were significantly related to satisfaction with promotion opportunities. Furthermore, neither were significant predictors of continuance commitment, beyond the effects of tenure and gender. The incremental predictive value of subjective age was determined by conducting hierarchical regression analyses for all other outcome variables. After entering the control variables, chronological age was entered into the model, followed by subjective age. The results are presented in Table 15. It shows that subjective age contributed uniquely to the prediction of overall job satisfaction ( $\Delta R^2 = .009, p < .05$ ) satisfaction with work in the present job ( $\Delta R^2 = .019, p < .05$ ), and affective commitment ( $\Delta R^2 = .009, p < .05$ ). Although the magnitude of these differences is small, it is significant. Moreover, chronological age explained a very small

proportion of the variance in these outcomes. As explained in the previous section, neither chronological age nor subjective age were significant predictors of continuance commitment, beyond the effect of organizational tenure and gender.

The hypotheses tested in this study presumed a linear relationship between the age variables and the outcome variables. To verify this assumption, curvilinear multiple regression analysis was used to test for curvilinearity. In this test, each predictor was entered before its squared term. The incremental contribution of the latter term tests for curvilinearity. Table 16 presents results obtained from these analyses, which generally supported a linear relationship. A visual examination of the curve estimations confirmed this. The exception was for the relationship between subjective age and affective commitment, which seemed to be curvilinear in nature. The curve estimation plot (Figure 18) indicated an inverted U shape, with affective commitment increasing with subjective age up to approximately age 45 to 50. At this point, affective commitment decreased as subjective age increased.

The instrument used to measure these assessments included three different themes: uncertainty, closure and mistrust. Although these are conceptually different themes, the scale was unidimensional with the data collected in this study. The instrument was intended to measure the degree to which assessments about the employment relationship were favourable and consequently, the unidimensional instrument was considered adequate for this purpose. However, the different themes which compose the scale are interesting to consider on their own. While I made no specific predictions about these, I wanted to investigate further whether one or more of

the proposed factors would help explain more clearly the relationship between age and the mediators for which results supported partial mediation.

Findings reported previously in section 4.8.1 showed that assessments about the employment relationship partially mediated the relationship between chronological age and satisfaction with the work in the present job. A finer grained analysis separating groups of items in the *assessments* measure revealed that *uncertainty* items (see Table 1) alone fully mediated the relationship between chronological age and satisfaction with work on the present job. These items focused on the extent to which people felt certain about their obligations towards the company, how they felt about the predictability of their future relationship with the company, and how certain they felt about their commitment to the company. Chronological age was regressed on satisfaction with work on the present job and found to be a significant predictor ( $\beta = .155, p = .027$ ). As shown in Figure 19, when *closure* was entered into the analysis at step 2, the beta weight for subjective age associated with satisfaction with the work in the present job decreased substantially and became non-significant ( $\beta = .096, p = .099$ ). The Sobel test confirmed the full mediation (Sobel's  $z = 3.504, p < .001$ ).

Next, I looked more closely at the items within the *assessments* measure that could better explain the relationship between subjective age and intrinsic job satisfaction. A finer grained analysis separating groups of items in the *assessments* measure revealed that *closure* items alone fully mediated the relationship between subjective age and satisfaction with work on the present job. These items (Table 1, items 6 to 8 and 10) reflected meaningfulness of the work and interest in the work over time, the degree to which the manager focused on just earning a paycheck, and the degree to which people

felt devoting themselves to the company would provide them with future returns. Subjective age was regressed on overall job satisfaction and found to be a significant predictor ( $\beta = .220, p = .001$ ). As shown in Figure 20, when *closure* was entered into the regression analysis at step 2, the beta weight for subjective age associated with satisfaction with the work in the present job decreased substantially and became non-significant ( $\beta = .093, p = .069$ ). The Sobel test confirmed the full mediation (Sobel's  $z = 2.561, p = .010$ ).

#### 4.10 Summary of results

Figure 21 shows all the significant direct and mediated relationships between chronological age and the job satisfaction variables used in the study. The direct and mediated relationships between subjective age and the job satisfaction outcomes are summarized in Figure 22. Of these, the data supported the hypothesized positive relationships between the age variables and both overall job satisfaction and satisfaction with the nature of the work. The relationship between the age variables and satisfaction with promotion opportunities was not significant. Therefore, the results supported 4 of the 6 direct links hypothesized about age and job satisfaction.

Figure 21 also shows the three mediated relationships between chronological age and job satisfaction which were supported by the data. In sum, *assessments about the employment relationship* partially mediated the link between chronological age and overall job satisfaction (H9a), and between chronological and subjective age and satisfaction with the work in the present job (H9b). *Self-recognitions of work experience*

partially mediated the link between chronological age and satisfaction with the work in the present job (H14b). *Recognitions by others about one's work experience* was not a significant mediator of the relationship between chronological age and satisfaction with the work in the present job (H13a).

In Figure 22, we see that the three mediated relationships between subjective age and job satisfaction which were supported by the data. *Assessments about the employment relationship* partially mediated the relationship between subjective age and overall job satisfaction (H10a), and satisfaction with the work itself (H10b). *Self-recognitions about one's work experience* also partially mediated the relationship between subjective age and satisfaction with the work in the present job (H14b). In contrast to results obtained for the relationship between chronological age and satisfaction with the work in the present job, *recognitions by others about one's work experience* partially mediated the relationship between subjective age and satisfaction with the work in the present job (H13b). However, it did not mediate the relationship between chronological age and this satisfaction facet.

Figure 23 shows all the significant direct relationships between chronological age and the commitment outcomes used in the study. The direct relationships between subjective age and the commitment variables are summarized in Figure 24. Of these, the results supported the hypothesized positive relationships between the age variables and both affective and continuance commitment.

Regarding the mediated relationships, Figure 23 shows that the results supported only one of the hypothesized mediators of the relationship between chronological age and the commitment variables. *Favourable assessments about the employment relationship*

mediated the link between chronological age and affective commitment (H11a). Figure 24 also shows that *favourable assessments about the employment relationship* mediated the link between subjective age and affective commitment (H11b). In addition, *recognitions about one's work experience by others* mediated the link between subjective age and affective commitment (H16b).

In sum, the results confirm 8 of the 10 direct relationships which were hypothesized, and of the 20 mediation hypotheses tested in this study, there was good support for 8 partial mediations and 2 full mediations.

## CHAPTER 5

### Discussion

#### 5.1 Introduction to the chapter

This chapter presents the general discussion for this study. Major findings are summarized, followed by a general discussion of the results, limitations, implications for research and practitioners, and the concluding statement.

#### 5.2 Major findings

##### 5.2.1 Overview

This thesis investigated the relationships between age (chronological and subjective) and important organizational attitudes: overall job satisfaction, satisfaction with the nature of the work, affective commitment and continuance commitment. The main goal of the study was to investigate four alternative explanations for these relationships: *assessments about the employment relationship, recognitions of one's work experience by self and others, and retirement reminders.*

The results are summarized in Table 17. In sum, the results confirmed 8 of the 10 direct relationships which were hypothesized, and supported 10 of the 20 mediation hypotheses tested in this study – 7 partial and 3 full mediations.

### **5.2.2 Age and job satisfaction**

All of the hypotheses linking both chronological and subjective age with overall job satisfaction and satisfaction with the work in the present job were supported and the relationships were positive and linear. Thus, older employees in this sample and those who reported looking, feeling and acting older were more satisfied than chronologically, or subjectively younger employees. The utility of measuring subjective age will be discussed later in section 5.2.4. At this point, it is important to point out that compared to chronological age, subjective age was the stronger correlate of both overall job satisfaction and satisfaction with the work in the present job. This is congruent with the findings reported in previous studies (e.g., Cleveland & Shore, 1992; e.g., Cleveland et al., 1997). In addition, subjective age contributed uniquely to predicting overall job satisfaction, satisfaction with work in the present job, and affective commitment, beyond chronological age. This supports and extends the work of Cleveland and Shore (1997), who established the incremental worth of perceptual age measures for different work outcomes than those investigated in the present study. The findings of this study also supports the notion that by broadening the meaning of age and its measurement, we might better understand its effects, and be better able to manage them.

I argued here that people of different ages will feel differently about their relationship with their employer, and that this will help explain age differences in satisfaction. *Assessments about the employment relationship* emerged as a full mediator of the relationship between chronological age and overall job satisfaction, and as a partial mediator of the relationship between subjective age and overall job satisfaction. This suggests that as the age of Anvil employees increased, their satisfaction increased because they assessed their relationship with Anvil more favourably. In sum, as chronological and subjective age increased, people were less uncertain about their obligations to the company, trusted the organization more, and found that their job at Anvil was more meaningful and worth investing themselves in it.

Furthermore, *assessments about the employment relationship* emerged as a partial explanation for why satisfaction with the work in the present job increased with chronological and subjective age. A more fine-grained analysis revealed that the relationship between middle managers' *chronological* age, and their satisfaction with the work in their present job at Anvil was fully mediated by the uncertainty items. In sum, managers' satisfaction with the nature of their work at Anvil increased with their *chronological* age because their level of uncertainty about their future at Anvil and about their obligations to the company was low. Interestingly, this finer-grained analysis revealed that closure items fully mediated the relationship between *subjective* age and satisfaction with the work in the present job. In essence, as subjective age increased, managers' satisfaction with the work in their present job increased because they found

that their work at Anvil was meaningful, they felt they were more interested in working at Anvil over time, had reasonable expectations for the future, and felt that devoting themselves to the company was worthwhile.

These results support the *changing expectations* argument, which had not been tested previously in empirical research. It holds that people reduce their expectations over time and therefore, over the course of their lives, adjust their expectations so that they are easier to satisfy (Campbell et al., 1976). The results indicate that as people age, they tend to assess their relationship with their employer more favourably. Moreover, people whose interests are more similar to those in older age groups, and thus subjectively older, also make more favourable assessments about their employment relationship than subjectively younger employees.

The hypotheses linking the age variables to satisfaction with promotion opportunities were not supported. In earlier studies, age was generally found to be a negative correlate of satisfaction with promotion opportunities (e.g., Doering et al., 1983b; Hunt & Saul, 1975; Rhodes, 1983). However, this finding was congruent with a time when the prevalent career orientation was based on promotion from within and long loyalty to the same organization. Therefore, age was likely to be highly correlated with organizational experience. Later studies found that the relationship between age and satisfaction with promotions tended to vary across organizations and types of jobs (Warr, 1992). Today, the trend towards flatter hierarchies has drastically reduced access to promotion from within and there has been a shift towards lateral career moves, weakening the link between age and organizational tenure. Whereas in the past, older employees may have been the ones with the most experience within an organization, and

thus the ones more likely to be dissatisfied with access to promotion opportunities over time, the situation today may be attenuated by decreasing organizational tenure relative to age.

The sample for the present study consisted of middle managers in a single, large organization. Consequently, the results reflect conditions pertaining to access to managerial positions at Anvil. The demographic data in Table 6 shows that respondents averaged 42 years of age, had 24.2 years in total work experience, but had only worked at Anvil for an average of 9.7 years, and had occupied their present position an average of 4.9 years. These results suggest that on average, managers at Anvil had not built their career at this organization. This is congruent with the higher organizational mobility that modern managers have, relative to employees sampled in earlier studies. Given the average age of Anvil managers and their relatively short average organizational tenure, this might explain why age may not be as highly suggestive of dissatisfaction with promotions as it might have been in the past.

It is also possible that for many employees, promotions do not matter as much today as they might have in the past. Given the trend towards flatter hierarchies, expectations about promotions may be quite low, irrespective of age or experience. Investigating this situation more closely, I discovered that more than half of the job titles provided by respondents did not match Anvil's list of official job titles, which had been provided by the company's human resources department. Investigating further, I discovered that it is common practice for Anvil managers to engage in what one Anvil human resource manager called "virtual promotion." This is a practice by which employees give themselves a title that they feel reflects their expertise or duties.

Although they remain at the same managerial level, this practice may in effect resolve the frustrations which might arise from low access to promotions, and rendering the relationship between age and satisfaction with promotion opportunities insignificant.

### 5.2.3 Age and commitment

All of the hypotheses linking the age variables with both affective and continuance commitment predicted they would be positively associated. All were supported and tests of curvilinearity indicated that the relationships were linear. Correlations between both age measures were stronger with affective commitment than with continuance commitment. This is congruent with findings about the links between chronological age and both forms of commitment which were reported in previous studies (Meyer et al., 2002b). I found only one previous study by Lynn Shore and her colleagues (2003), which investigated the relationship between subjective age, measured with a reliable, multi-item scale, and organizational commitment. They found that subjective age was a positive correlate of employee's *organizational* commitment (Mowday et al., 1979) and supervisor' ratings of their employees' affective commitment. The findings of the present study thus corroborate previous findings regarding the relationship between subjective age and affective commitment. However, Shore and colleagues (2003) did not specifically investigate continuance commitment. The present study thus makes a distinct contribution by providing evidence of a positive, linear relationship between subjective age (using a multi-item measure) and continuance commitment.

Furthermore, the present study found that *assessments about the employment relationship* emerged as a full mediator of the relationship between both chronological and subjective age, and affective commitment (Figures 23 & 24). This means that in this sample, affective commitment increased with both chronological and subjective age because people assessed their relationship with Anvil favourably. The full mediation results indicate that as people age, and as they perceive themselves to feel, look and act older, favourable assessments about their employment relationship is very important to the degree to which they are affectively committed. In sum, meaningful work, trust in the organization and confidence in one's future and commitments to the organization explains why older employees like the organization and thus want to remain with the organization. These results further support the *changing expectation* argument (Campbell et al., 1976), which had not been tested previously in empirical research. Moreover, these results are congruent with the substantial body of literature that has shown that people who have a good relationship with their employer are likely to find their work more meaningful, personally involving, and important (Locke, 1976; Mount, 1984; Rice et al., 1991).

I discussed that in line with the *job change* hypothesis (Wright & Hamilton, 1978), workers should, over time, develop expertise that facilitates their work in some manner and that self-recognitions, and recognitions from others about work-related experience would explain why satisfaction and affective commitment increased with age. Results of this study revealed that *recognitions from others* did not explain the relationship between *chronological age* and *intrinsic job satisfaction*, or *chronological*

*age* and *affective commitment*. This is understandable, given that the bivariate correlation between chronological age and recognitions from others was not significant in this sample ( $r = .087, p = 0.62$ ). In the previous section, I noted that the tenure – age ratios in this sample were relatively small, which indicates that on average, managers at Anvil had not built their career at this organization. Since the average position tenure was only 4.5 years, these employees may not have had the chance to develop enough expertise in their present job to convey this to others. Another possibility is that chronological age does not capture how people feel about their age. Recognitions from others may be something that people become aware of and value as they *feel* older, rather than simply because they *are* older. The veracity of this point requires looking at the relationship between *subjective age* and *recognitions by others*.

*Subjective age* was a significant, positive correlate of *recognitions of one's experience by others*. This finding shows that as people perceived themselves to feel, look, and act older, and to have interests in common with older people, they reported that their work experience was more frequently recognized by others. Given that being chronologically older was not associated with recognitions by others, this finding is important. It is possible that subjectively older people behave in ways that invite recognitions from others, something that does not occur simply by being older. Had this study only considered chronological age, as most management studies have done, the relationship between age and recognitions by others would have been overlooked.

*Recognitions by others* helped explain why *subjectively* older people felt more intrinsically satisfied with their work, and more affectively committed to the organization. *Satisfaction with work in the present job* denotes a personal evaluation

about whether people find their work interesting, challenging, and worthwhile. *Affective commitment* denotes relational ties to the organization. Affectively committed people feel a strong sense of belongingness and emotional attachment to the organization. We know from previous research that people identify with their jobs for various reasons, including satisfying their sense of self-worth (Lemme, 1999), accessing socially satisfying relationships (Nuttman-Schwartz, 2004; Williams Walsh, 2001) and maintaining a recognized sense of place, usefulness and purpose in society (Shaw & Grubbs, 1981). Receiving validation from others about one's experience is a strong social signal that validates one's sense of worth and belongingness at work, which would increase affective commitment. Although it is possible that people who perceived themselves as subjectively older actually received more recognitions from others, it is more likely, given the perceptual nature of the subjective age construct, that subjectively older people were more aware of these recognitions.

Looking now to *self-recognitions of one's experience*, the results of this study show that as people became older (chronologically and subjectively), their awareness of the worth of their own work experience increased. For example, they may notice that their experience helped them handle a challenging work situation or that it generally helped facilitate their work. It is not surprising that work experience would be likely to help facilitate a person's work over their life span. Indeed, the results of the present study show that both chronological and subjective age were significant, positive correlates of organizational tenure. This concurs with results of previous studies (e.g., Rhodes, 1983). The amount of time spent within an organization is likely to increase a person's expertise at dealing with work situations within that organization.

Although *recognitions by others* was unrelated to chronological age, *self-recognitions* was a significant, positive correlate of *chronological age*. The difference here is that self-recognitions are initiated by the individual, whereas recognitions from others are external in origin, although they are perceived by the individual. Earlier, I suggested the possibility that subjectively older people may behave in ways that invite recognitions from others. However, self-recognitions require no behaviours which need to be noticeable by others. Since they originate from within, individuals control the degree to which they perceive these recognitions. Consequently, becoming older may incite individuals to engage in self-recognitions to validate their self-worth. Since chronological age and subjective age are strongly related, it is not surprising that the frequency of self-recognitions also increases with subjective age.

The mediation results for *self-recognitions of one's experience* paralleled the results obtained for *recognitions by others*. Once again, *self-recognitions* helped explain why *subjectively* older people were more satisfied with the work in their present job. Compared to those who perceive themselves to be subjectively younger, those who perceive themselves to look, feel and act older are more likely to value their already acquired experience.

The mediation results also show that *self-recognitions of one's experience* helped explain why *chronologically* older people were more satisfied with the work in their present job. These results are congruent with the notion that aging increases the probability that individuals will encounter situations that provide opportunities to recognize their own work experience, such as encountering a work situation where past

experience comes in handy. Furthermore, the findings support the *job change* hypothesis (Wright & Hamilton, 1978), which contends that as they age, people develop expertise that facilitates their work in some manner.

Sobel tests of mediation showed that self-recognitions of one's own work experience did not help explain the relationship between age (chronological or subjective) and affective commitment, although self-assessments and affective commitment were significant, positive correlates, and the Baron and Kenny (1986) procedure suggested the likelihood of mediation. Although adding the mediator in the regression analyses decreased the significance of the predictor on affective commitment, the change in magnitude was very small and may not have been sufficient to be captured by the Sobel test. Aorian and Goodman tests of mediation, which are able to capture smaller mediation effects (MacKinnon, 2008), were also not significant.

Lastly, *retirement reminders* did not explain the relationship between either *chronological* or *subjective age* and *continuance commitment*, although both age variables were significant, positive correlates of *retirement reminders*. The regression analysis revealed that organizational tenure and gender captured most of the variance in the model and thus, neither chronological nor subjective age were significant predictors of continuance commitment when controlling for organizational tenure and gender. These findings indicate that in this sample, tenure and gender were better predictors of continuance commitment than age.

#### 5.2.4 Usefulness of investigating subjective age

Compared to chronological age, subjective age was a stronger correlate of overall job satisfaction, satisfaction with the work in the present job, and affective commitment, but a weaker correlate of continuance commitment. This is interesting since the outcomes with which subjective age had a stronger association than chronological are the more desirable ones. High levels of job satisfaction have been found to predict important work consequences, such as lower levels of absenteeism (Farrell & Stamm, 1988), turnover (Judge, 1993) and counterproductive behaviours (Dormann & Zapf, 2001). Affectively committed employees are less absent and more loyal to the organization (Cooper-Hakin & Viwesvaran, 2005; Farrell & Stamm, 1988; Mathieu & Zajac, 1990); are more motivated, have morale (DeCotiis & Summers, 1987), higher levels of altruism and compliance (Shappe, 1998), engage in more organizational citizenship behaviors, and report higher levels of well-being (Mowday et al., 1982). On the other hand, high levels of continuance commitment are associated with less desirable attitudes and behaviours, such as lower job satisfaction, poorer performance, increased absenteeism and higher stress (Meyer et al., 2002).

Furthermore, subjective age contributed uniquely to predicting overall job satisfaction, satisfaction with work in the present job, and affective commitment, beyond chronological age. This supports and extends the work of Cleveland and Shore (1997), who established the incremental worth of perceptual age measures for different work outcomes than those investigated in the present study. The findings of this study also

support the notion that by broadening the meaning of age and its measurement, we might better understand its effects, and be better able to manage them.

There were also important differences in chronological and subjective age with regards to the recognitions explanations. *Recognitions from others about one's experience* emerged as a partial explanation of the relationship between *subjective age* and *satisfaction with the work in the present job*, but not of the relationship between *chronological age* and this facet of job satisfaction. Moreover, *self-recognitions about one's work experience* partially mediated the link between *subjective age* and *affective commitment*, but did not explain the relationship between chronological age and affective commitment. The importance of these two sources of recognitions would have been overlooked if the study had only measured chronological age. In sum, the findings of this study support the value of the subjective age construct, which in turn give rise to important implications for research and for management. These will be discussed later in sections 5.4 and 5.5.

### 5.3 Limitations

The nature of the sample and methods places some clear limits on the generalizability of the findings. First, since the predictor and criterion variables are drawn from the same survey instrument, it could be argued that the results are vulnerable to common method bias. However, chronological age is a commonly asked demographic variable in survey research, along with gender, education, etc. Twelve demographic questions were asked, along with chronological age. Therefore, there is no reason to

believe that respondents' answers on the criterion measures were influenced by providing their age in the demographics section of the survey. Subjective age and perceived relative age were the last measures in the survey, thus effectively controlling for the common method bias associated with the perceptual age measures. Turning to the mediators, only a few (36%) of the events on the events inventory were likely mediators of the predictor-criterion relationship in this study and rating the remaining (64%) events most likely would distract the respondent and reduce the effect of common method bias. However, the possibility of common method bias between assessments about the employment relationship and the criterion variables is likely.

Understanding age at work involves disentangling age from the related constructs of life stage, career stage and cohort effects. Each cohort is born at a particular point in time and lives through a unique segment of history. Consequently, individuals are influenced by the social and environmental effects of their time and people born in different cohorts age in different ways (Riley, 1987). Rhodes (1986) explained a way to tease apart age and cohort effects in cross-sectional studies by investigating the relationship between age, the dependent variable, and correlates of both. Correlates commonly found to be associated with age and job attitudes include educational level, organizational tenure, job tenure, and seniority. In much of the past research, educational level was generally inversely related to age – thus younger respondents had generally attained a higher level of education. Under this condition, Rhodes (1983) pointed out: “Common variance among education, age, and a dependent variable is indicative of a cohort effect because of the greater educational level of more recent birth cohorts” (page 331). Tenure and seniority reflect employees' experience level in either a job or an

organization. Consequently, Rhodes (1983) explained that shared variance among variables indicating gains in experience (such as tenure or seniority), age, and a dependent variable would indicate an aging effect.

However, this is a problem when the intent is to generalize findings about age. If we think about findings as predictive of the behaviour of those that will be a certain age in the future, cohort effects are concerns. But this should not keep us from trying to understand age in the present. While it is useful to know how to manage workers as they age in the future, it is nonetheless useful to know how to manage workers of various ages today. Cohort effects are thus a limitation based on the presumed utility of the findings sought in any given study.

This study is cross-sectional, thus comports limitations regarding causality and developmental inferences. Cohort differences may attenuate the effect of different age measures on the dependent variables. Nevertheless, cross-sectional data is useful to identify areas and variables that may require longitudinal research. Moreover, Glenn (1981) pointed out that for theoretical purposes, cross-sectional studies can provide as much useful information as cohort or panel data.

The small size of the mediator effects calls for caution in the interpretation of the findings. However, these results are consistent with most social science studies, which have found it difficult to detect moderator or mediator effects in field research. For example, in his review of field studies, Chaplin (1991) concluded that these typically account for only 1-3 percent of the variance.

Since the instrument used to measure *assessments about the employment relationship* was unidimensional with this sample, I could not distinguish the different conditions denoted in the measure (uncertainty, closure, trust). Improving the psychometric properties of this instrument would help clarify which aspect of these assessments is most important for an aging workforce.

It is also important to consider the effect of self-selection as a limitation of this study. For example, there is ample evidence that job satisfaction is negatively related to turnover (e.g., Mowday et al., 1982; Tett & Meyer, 1993). Consequently, dissatisfied employees are likely to leave while satisfied ones are likely to stay, making it impossible to separate the effect of self-selection from the effects of age on satisfaction. However, it can also be argued that since it is easier for younger employees to leave (Finegold et al., 2002), the ones who would stay would be more likely to be more satisfied, on average. Similarly, they would also be likely to have a high level of affective commitment, which would tend to reduce the positive correlation which would be expected to occur with self-selection. Consequently, this strengthens confidence in the notion that in this sample, the positive relationship between age and these outcomes is not be due to self-selection.

An additional concern might be the limited amount of variance the age variables explained, which indicates that other variables may be much stronger predictors of either job satisfaction or organizational commitment. However, a major objective of the present research was to investigate the form and magnitude of the relationships between age and both job satisfaction and organizational commitment. It is common practice in behavioural science research to over-emphasize the proportion of variance explained to the exclusion of other issues in order to explain or understand the relationships (O'Grady,

1982). Furthermore, the practical value of results obtained in organizational behaviour research should not be based exclusively on the magnitude of the effects investigated.

#### **5.4 Implications for research**

Management scholars have generally measured age chronologically. How people perceive their age has received little attention in management research. In addition, researchers who investigated subjective age and work attitudes utilized various single-item measures, which are not reliable. Cleveland and her colleagues (1997) demonstrated the additional usefulness of measuring subjective age using a multi-item scale. However, management researchers have continued to measure age chronologically. The findings of the present study showed that differences in the meaning and perception of one's age could be associated with differences in work outcomes. Therefore, relying only on chronological age may lead investigators to underestimate the effects of age on work outcomes. The findings of this study thus support Cleveland and Shore's (1992) contention that self-perceptions about age may be more important than chronological age in predicting work outcomes. Future research is needed to further investigate the relative importance of perceptual age for investigating differences in work attitudes, and to improve the psychometric properties of the multi-item instruments.

The inverted U-shaped relationship which was found between subjective age and affective commitment suggests that age 45-50 may be the age at which people begin to feel less affectively committed. Investigating the reasons for this phenomenon is an interesting path for future research. Qualitative research would provide rich information

on the possible causes and thus provide a basis to conduct more enlightened quantitative investigations.

The present research investigated explanations for the relationship between age and two commonly investigated work attitudes: job satisfaction and organizational commitment. Prior to this study, scholars had discussed contextual and dispositional explanations for the relationships between age and these important work attitudes. However, explanations had not been tested directly. Explaining the mechanisms by which these differences operate thus constitutes a major shortcoming in our knowledge about age-related attitudinal differences at work. The present research makes a significant contribution to research on age and work attitudes by providing evidence that assessments employees make about their employment relationship, and the degree to which they experience recognitions about their work experience, help explain why older employees are more satisfied and more affectively committed than younger employees. Furthermore, the findings of the present research put in question the common assumption that as employees become older, the approach of retirement explains why continuance commitment increases.

These findings suggest interesting paths for future research. The first would be to obtain, through qualitative investigations, richer information on what forms of recognition are important for people of various ages, and what these forms of recognition entail. The findings of these investigations could then be used to develop measures which would help determine the types of recognitions people of various ages are most likely to respond positively to. Furthermore, the results of the present study indicate that retirement reminders do not help explain why continuance commitment tends to increase

with age. However, other factors, such as financial preparation, may be highly relevant. Again, qualitative investigations would help determine in which ways the approach of retirement in modern work contexts may affect people's work attitudes as they age.

This thesis examined some explanations for chronological and subjective age differences in job satisfaction and two forms of organizational commitment. Undoubtedly, other explanations could help us understand age-related attitudinal differences. For example, feelings of accomplishment and higher autonomy may help explain why older people employees report a higher level of satisfaction and affective commitment. Organizational stability may help explain the relationship between age and continuance commitment. It would also be interesting to investigate whether age differences in organizational citizenship behaviour might help explain differences in normative commitment. In sum, the present study provides a starting point for a multitude of avenues of research into the ways age is related to attitudinal differences at work.

Clearly, the most important findings of this study concern *assessments about the employment relationship*, which emerged as a partial mediator of the relationship between both chronological and subjective age and job satisfaction. This finding provides some support for the previously untested notion that as they age, people reduce their expectations and thus, are easier to satisfy. However, *assessments about the employment relationship* fully mediated the relationship between both age measures and affective commitment. Since affective commitment denotes relational ties with the organization, this finding suggests that as they age, people may not actually be *reducing* their expectations, but rather, enjoying a better relationship with their employer. Qualitative

investigations are required to help identify the mechanisms which underlie differences in assessments about the employment relationship.

### **5.5 Implications for practitioners**

The finding that differences in the meaning and perception of one's age could be associated with differences in work outcomes gives rise to important implications for managers. Over the past decade, the interest in age at work has generated a great deal of practitioner literature on generational differences and particularly, on managing conflicts between younger and older generations. This literature relies on cohort characteristics which may reflect one's chronological age but not one's subjective age. Therefore, they may encourage age stereotypes. For example, I might be a Baby boomer but might have more interests in common with Millennials or with Generation X. Knowing more about how people perceive their age would help inform managers on various inter-generational aspects of work, such as matching newcomers with mentors and composing work teams.

The results showed that conditions denoted in the *assessments* measure (trust in the organization, meaningful work relationship, stability and confidence in one's obligations towards the organization) explained why job satisfaction and affective commitment increased with age. These findings show that as employees age their affective commitment is explained by the degree to which they trust the organization, understand their role in the organization and the nature of their employment relationship, and know that their work is meaningful for the organization. To promote these important aspects of the job, managers can ensure that they establish open and honest relationships

with their employees, deliver on promises made, and communicate to their employees that they are valued members of the organization.

Substantial previous research has found that this feeling of forced loyalty, which is denoted by the continuance commitment construct, tends to lead to negative consequences such as higher turnover and absenteeism (Meyer et al., 2002b). Consequently, practitioners want to avoid, or at least limit the frequency of practices which increase continuance commitment over time. The findings of this study indicate that reminders about retirement are not a concern for the continuance commitment of employees of any age. Therefore, practitioners need not worry that disseminating information about retirement may incite people to feel they have no choice but to remain with the organization.

## **5.6 Conclusion**

Everyone gets older. In modern societies, organizational success is built upon the efforts, skills, dedication and persistence of human beings who spend the largest proportion of their waking hours during their adult years at work. Past research, and the findings of the present study show that older employees are more satisfied and more affectively committed to their employer. We know that these attitudes are associated with positive work outcomes which contribute to organizational success. Perhaps more importantly, positive work attitudes also promote people's overall sense of well-being. However, our understanding about why work attitudes change with age has largely been guided by speculation and assumptions about long-term employment relationships which

no longer represent most modern work contexts. The findings of the present study emphasize the importance, in a contemporary work context, of cultivating positive employer-employee relationships and recognizing work experience to help facilitate the development of positive work attitudes as employees grow older.

In the present demographic context, organizational success depends on the work experience employees have acquired during their career. However, this is often taken for granted. As the large wave of Baby Boomers near retirement age, they will take with them knowledge they acquired over the course of decades of employment. Recognizing the importance of their work experience may not only help cultivate their positive attitudes at work, but may also help encourage them to share their knowledge with generations which follow.

The findings of the present study emphasize the importance of the employment relationship and recognition about work experience. It is a starting point for understanding how to manage work attitudes over the course of people's careers. These findings are highly relevant today, since increasing longevity, the elimination of mandatory retirement age, the increase in the age for pension eligibility, as well as increasing cost of living, is all expected to contribute to continued increases in the proportion of older workers in the next few decades. Although the present demographic context stimulates interest in age at work, this is a topic of perpetual importance. Today, most people work during most of their adult years. In the future, most people are also expected to work for much of their lives. We will all get older while we work. We owe it to ourselves to help make this journey as pleasant as possible.

Table 1

**Rousseau's (2000) TCI items and the items adapted to measure assessments about the employment relationship in the present study.**

Subscale	TCI, Rousseau (2000)	Items adapted items for present study
<i>Uncertainty</i>	1. I am uncertain what my obligations are to this employer.	1. I am uncertain what my obligations are to Anvil.
	2. It's difficult to predict the future of this relationship	2. It's difficult to predict the future of the relationship I have with Anvil.
	3. I cannot anticipate what my future relationship with this employer will be.	3. I cannot anticipate what my future relationship with Anvil will be.
	4. It's difficult to anticipate my future commitments.	4. It's difficult to anticipate my future commitments to Anvil.
	5. My commitments to this employer are uncertain.	5. My commitments to Anvil are uncertain.
<i>Erosion/closure</i>	6. My job security is diminishing over time.	6. The meaningfulness of my work at Anvil is diminishing over time.
	7. I'm getting less pay for more work.	7. As time goes on, I feel I am less interested in working for Anvil.
	8. I'm doing more for less.	8. The longer I work at Anvil, the more I focus on just earning a paycheck.
	9. I expect less from this employer tomorrow than I receive today.	9. I expect to receive more from Anvil in the future than I receive today.
	10. I expect increasing demands from this employer for little return.	10. Devoting myself more to Anvil in the future will give me little in return.
<i>Mistrust</i>	11. I cannot believe what this employer tells me	11. I cannot believe what Anvil tells me.
	12. I expect little from this employer	12. I expect little from Anvil.
	13. I have no trust in this employer	13. I have no trust in Anvil.
	14. A gap exists between my employer's promises and what it delivers	14. A gap exists between what Anvil promises and what it delivers.
	15. Inconsistency exists between what this employer says and does.	15. Inconsistency exists between what Anvil says and does.

**Table 2**  
**Inter-item correlations for the TCI (assessments about the employment relationship) items**

	T1	T2	T3	T4	T5	T6	T7	T8	T9	T10	T11	T12	T13	T14	T15
T1	1														
T2	.364	1													
T3	.328	.703	1												
T4	.315	.679	.713	1											
T5	.309	.560	.584	.655	1										
T6	.226	.552	.530	.543	.545	1									
T7	.285	.545	.596	.628	.604	.694	1								
T8	.367	.545	.555	.611	.628	.593	.674	1							
T9	.092	.042	.062	.079	.072	-.001	-.025	.062	1						
T10	.305	.546	.619	.589	.649	.559	.643	.680	.079	1					
T11											1				
T12	.339	.440	.326	.354	.451	.436	.461	.465	.081	.413		1			
T13	.301	.467	.538	.498	.516	.528	.530	.536	.052	.582	.403		1		
T14	.318	.529	.538	.566	.570	.553	.647	.626	.044	.608	.586	.529		1	
T15	.315	.510	.554	.590	.587	.587	.582	.584	.115	.614	.538	.537	.627		1
	.305	.506	.525	.555	.594	.579	.544	.562	.146	.608	.533	.509	.614	.865	

**Note:**

Correlations above 0.115 are significant at  $p < .001$

Correlations between 0.09 and 0.115 are significant at  $p < .05$

Correlations below 0.09 are not significant

Table 3

Principal Component Analysis, unrotated, on the adapted TCI used to measure assessments about the employment relationship in the present study

Items*	Factor loadings
T1 I am uncertain what my obligations are to Anvil.	.450
T2 It's difficult to predict the future of the relationship I have with Anvil.	.754
T3 I cannot anticipate what my future relationship with Anvil will be.	.775
T4 It's difficult to anticipate my future commitments to Anvil.	.795
T5 My commitments to Anvil are uncertain.	.790
T6 The meaningfulness of my work at Anvil is diminishing over time.	.759
T7 As time goes on, I feel that I'm less interested in working for Anvil.	.807
T8 The longer I work at Anvil, the more I focus on just earning a paycheck.	.805
T9 I expect to receive more from Anvil in the future than I receive today.	.869
T10 Devoting myself more to Anvil in the future will give me little in return.	.807
T11 I cannot believe what Anvil communicates to me.	.627
T12 I expect little from Anvil.	.709
T13 I have no trust in Anvil.	.791
T14 A gap exists between what Anvil promises and what it delivers.	.813
T15 Inconsistency exists between what Anvil promises and what it delivers.	.795

Note:

\*Only factor loadings greater than .30 are shown.

N = 458

$\alpha$  reliability = .928

The highest loadings appear in bold text.

Determinant = .0000544

Based on Rousseau (2000), a three-factor solution was expected, with T1-T5 expected to load on the "uncertainty" factor; T6-T10 expected to load on the "closure" factor, and T11-T15 expected to be lead on the "mistrust" factor. The two components accounted for 60.5% of the variance.

Table 4

**Principal Axis Analysis using Varimax rotation with Kaiser normalization on the adapted TCI used to measure *assessments about the employment relationship* in the present study**

Items	Factor loadings
T1 I am uncertain what my obligations are to Anvil.	.350 .221
T2 It's difficult to predict the future of the relationship I have with Anvil.	<b>.744</b> .194
T3 I cannot anticipate what my future relationship with Anvil will be.	<b>.802</b> .158
T4 It's difficult to anticipate my future commitments to Anvil.	<b>.792</b> .210
T5 My commitments to Anvil are uncertain.	<b>.685</b> .356
T6 The meaningfulness of my work at Anvil is diminishing over time.	<b>.631</b> .373
T7 As time goes on, I feel that I'm less interested in working for Anvil.	<b>.726</b> .329
T8 The longer I work at Anvil, the more I focus on just earning a paycheck.	<b>.696</b> .370
T9 I expect to receive more from Anvil in the future than I receive today.	.011 .142
T10 Devoting myself more to Anvil in the future will give me little in return.	<b>.694</b> .379
T11 I cannot believe what Anvil communicates to me.	.378 <b>.515</b>
T12 I expect little from Anvil.	<b>.583</b> .345
T13 I have no trust in Anvil.	<b>.602</b> .489
T14 A gap exists between what Anvil promises and what it delivers.	.491 <b>.744</b>
T15 Inconsistency exists between what Anvil promises and what it delivers.	.456 <b>.767</b>

Note:

N = 458

$\alpha$  reliability = .928

The highest loadings appear in bold text.

Determinant = .0000568

Bartlett's test of sphericity = 4341.61,  $p = .000$

The two components accounted for 54.6% of the variance.

Table 5

**Principal Axis Analysis using Varimax rotation with Kaiser normalization on the adapted TCI used to measure *assessments about the employment relationship* in the present study after removing T9**

	<b>Items</b>	<b>Factor loadings</b>
T1	I am uncertain what my obligations are to Anvil	.414
T2	It's difficult to predict the future of the relationship I have with Anvil	.730
T3	I cannot anticipate what my future relationship with Anvil will be.	.755
T4	It's difficult to anticipate my future commitments to Anvil	.777
T5	My commitments to Anvil are uncertain.	.771
T6	The meaningfulness of my work at Anvil is diminishing over time.	.736
T7	As time goes on, I feel that I'm less interested in working for Anvil.	.793
T8	The longer I work at Anvil, the more I focus on just earning a paycheck.	.789
T10	Devoting myself more to Anvil in the future will give me little in return.	.792
T11	I cannot believe what Anvil communicates to me.	.592
T12	I expect little from Anvil	.680
T13	I have no trust in Anvil.	.772
T14	A gap exists between what Anvil promises and what it delivers.	.797
T15	Inconsistency exists between what Anvil promises and what it delivers.	.776

Note:

N = 458

$\alpha$  reliability = .940

Determinant = .0000599

Bartlett's test of sphericity = 4362.02,  $p = .000$

The extraction method was a Principal Axis Analysis using Varimax rotation with Kaiser normalization.

The single factor accounted for 53.8% of the variance.

Table 6

## Demographic characteristics of survey respondents

	Phase 1	Phase 2	Total
<b>Gender</b>			
Men	66 (45.2%)	137 (43.9%)	203 (44.3%)
Women	80 (54.8%)	175 (56.1%)	255 (55.7%)
Total	146	312	458
<b>Age (years)</b>			
Average	43.0	42.1	42.4
Range	21-64	21-64	21-64
Mode	46	44	46
<b>Education level</b>			
High school diploma	30 (20.7%)	58 (18.7%)	88 (19.3%)
College degree	63 (43.4%)	135 (43.5%)	198 (43.5%)
University degree	47 (32.4%)	109 (35.2%)	156 (34.3%)
Other	5 (3.4%)	8 (2.6%)	13 (2.9%)
Total	145	310	455
<b>Work experience</b> (sample means in years)			
Total work experience	25.0	23.8	24.2
Organizational tenure	10.2	9.5	9.7
Job tenure	5.4	4.6	4.9
<b>Managerial levels</b>			
Upper middle	9 (6.2%)	49 (15.7%)	58 (11.7%)
Middle	115 (78.8%)	192 (61.5%)	307 (66.0%)
Lower middle	22 (15%)	71 (22.8%)	93 (21.3%)
Total	146	312	458
<b>Language</b>			
English	119 (81.5%)	299 (95.8%)	418 (91.3%)
French	27 (18.5%)	13 (4.2%)	40 (8.7%)
Total	146	312	458
<b>Province of residence</b>			
Maritimes	10 (6.9%)	26 (8.4%)	36 (7.9%)
Quebec	32 (21.9%)	13 (4.2%)	45 (9.9%)
Ontario	51 (34.9%)	200 (64.1%)	251 (55.3%)
Prairies and BC	51 (34.9%)	71 (22.9%)	122 (26.9%)
Total	144	310	454

Table 7

Means, standard deviations, and inter-item correlations for phase I of data collection

	Mea	SD	1	2	3	4	5	6	7	8	9	10	11
1 Chronological age	43.00	9.09											
2 Subjective age	2.77	0.60	.722**	(.812)									
3 Assessm. employ. relat.	3.80	0.87	.089	.020	(.936)								
4 Recog. experience others	4.51	1.59	.038	-.002	.138†								
5 Self-recog. experience	3.95	1.72	.096	.059	.077	.578**							
6 Retirement reminders	1.42	1.58	.350**	.375**	-.056	.182*	.163*						
7 Overall job satisfaction	5.47	1.06	.083	.057	.597**	.072	-.044	-.119	(.821)				
8 Affective commitment	5.30	0.86	.136†	.141†	.501**	.186**	-.015	.052	.413**	(.703)			
9 Continuance commitment	3.42	1.37	.148†	.202*	-.264**	-.075	-.130	.272**	-.233**	.049	(.799)		
10 Perceived relative age	1.84	0.48	.518**	.570**	.004	.070	.030	-.191	.012	.110	.074	(.589)	
11 Organizational tenure	10.18	8.72	.412**	.318**	-.011	.050	.020	.224**	-.049	.174*	.313**	.157†	
12 Gender	1.55	0.49	-.135	-.014	.009	-.040	-.146†	.084	.120	.042	.088	-.114	.045

Note:

N = 146

For items measured with scales, Cronbach's alpha reliabilities are on the diagonal in parentheses.

For gender, 1 = male, 2 = female

\*\* p < .01 (2-tailed)

\* p < .05 (2-tailed)

† p < .10 (2-tailed)

Table 8

Means, standard deviations, and inter-item correlations for Phase II of data collection

	Mean	SD	1	2	3	4	5	6	7	8	9	10	11	12	13
1 Chronological age	42.08	8.91													
2 Subjective age	2.70	0.68	.778**												
3 Assessm. employ. relationship	3.76	0.94	-.136*	(.846)											
4 Recog. experience by others	4.62	1.528	.088	.103†	(.942)										
5 Self-recognition experience	4.06	1.76	.139*	.158**	.142**										
6 Retirement reminders	1.38	1.44	.413**	.346**	.116*	.623**									
7 Overall job satisfaction	5.44	1.15	.176**	.225**	.657**	.186**	.118**								
8 Affective commitment	4.80	1.28	.215**	.231**	.731**	.193**	.115*	.126*							
9 Continuance commitment	3.26	1.29	.136*	.084	-.220**	-.130*	.041	.059	(.784)						
10 Satisfaction w/ work present job	41.66	12.65	.192**	.217**	.646**	.372**	.305**	.097†	.626**	(.743)					
11 Sat. w/ promotion opportunities	28.38	16.36	-.069	-.039	-.589**	.235**	.124*	.031	.390**	.540**	(.905)				
12 Perceived relative age	1.865	0.50	.462**	.469**	.075	-.104†	.094†	.237**	-.085	.407**	.477**				
13 Organizational tenure	9.53	8.32	.499**	.397**	.172**	.144*	.159**	.336**	.120*	.131*	-.081	(.690)			
14 Gender	1.56	0.49	-.134*	.019	-.037	-.178**	-.087	-.036	-.013	-.083	.141*	-.105†	-.089	-.153**	-.023

Notes:

N = 312

For items measured with scales, Cronbach's alpha reliabilities are on the diagonal in parentheses.

For gender, 1 = male, 2 = female

\*\* p < .01 (2-tailed)

\* p < .05 (2-tailed)

† p < .10 (2-tailed)

Table 9

## One-way analysis of variance for dependent variables and proposed mediators across sampling phases

Dependent Variable	Sum of Squares	df	Mean Square	F	Sig.
Overall job satisfaction	Between groups	1	.058	.046	.830
	Within groups	456	1.266		
	Total	457			
Affective commitment	Between groups	1	24.905	18.557	.000
	Within groups	456	1.342		
	Total	457			
Continuance commitment	Between groups	1	2.454	1.416	.235
	Within groups	456	1.739		
	Total	457			
Assessments about the employment relationship	Between groups	1	1.57	.189	.664
	Within groups	456	.835		
	Total	457			
Self-recognitions of experience	Between groups	1	1.252	.409	.523
	Within groups	456	3.058		
	Total	457			
Recognitions of experience by others	Between groups	1	.193	.077	.782
	Within groups	456	2.513		
	Total	457			
Retirement reminders	Between groups	1	.162	.073	.786
	Within groups	456	2.203		
	Total	457			

**Table 10**  
**Means, standard deviations, and zero-order inter-item correlations for the full data set**

	Mean	SD	1	2	3	4	5	6	7	8	9	10	11	12	13
1 Chronological age	42.37	8.97													
2 Subjective age	2.72	0.66	.760**												
3 Assessm. employ. relationship	3.77	0.92	.122**	.134**											
4 Recog. experience by others	4.54	1.58	.087†	.104*	.235**										
5 Self-recognitions experience	4.03	1.75	.126**	.128**	.124**	.453**									
6 Retirement reminders	1.39	1.48	.396**	.360**	.063	.211**	.135**								
7 Overall job satisfaction	5.45	1.12	.148**	.179**	.640**	.172**	.121**	.049							
8 Affective commitment	4.96	1.18	.198**	.215**	.664**	.232**	.134**	.091†	.561**						
9 Continuance commitment	3.31	1.31	.142**	.122**	-.232**	-.061	-.016	.137**	-.236**	.039					
10 Satisfaction w/ work present job	41.66	12.65	.192**	.217**	.646**	.353**	.306**	.098†	.626**	.540**	-.164**				
11 Sat. w/ promotion opportunities	28.38	16.36	-.039	.589**	.220**	.220**	.126*	.029	.390**	.407**	-.226**	.477**			
12 Perceived relative age	1.85	0.50	.477**	.496**	.053	.049	.079	-.219*	.118*	.098	.098	.081	.021		
13 Organizational tenure	9.74	8.46	.471**	.373**	.115*	.110*	.120*	.294**	.216**	.233**	.145*	.145*	-.003		
14 Gender	1.56	0.49	-.135**	.009	.023	-.082†	-.103*	.008	-.027	-.053	.123**	-.105†	-.089	-.142*	-.001

Notes:

1. The "full" data set is the result of the merging of the data collected in both phases of data collection.

For *satisfaction with work on present job* and *satisfaction with promotion opportunities*, N = 312. For all other measures, N = 458.

For items measured with scales, Cronbach's alpha reliabilities are on the diagonal in parentheses.

For gender, 1 = male, 2 = female

\*\* p < .01 (2-tailed)

\* p < .05 (2-tailed)

† p < .10 (2-tailed)

Table 11

**Principal Components Analysis on the *affective commitment* items and adapted TCI items used to measure *assessments about the employment relationship***

Measures and items	Factor loadings	
<b>Affective Commitment</b>		
I would be very happy to spend the rest of my career with Anvil.	-.523	<b>.569</b>
I really feel as if Anvil's problems are my own.		<b>.681</b>
I do not feel a strong sense of "belonging" to Anvil.	-.585	.517
I do not feel "emotionally attached" to Anvil.	-.402	<b>.659</b>
I do not feel like "part of the family" at Anvil.	-.756	
Anvil has a great deal of personal meaning to me.		<b>.712</b>
<b>Assessments about the employment relationship</b>		
I am uncertain what my obligations are to Anvil.		<b>.404</b>
It's difficult to predict the future of my relationship with Anvil.		<b>.765</b>
I cannot anticipate what my future relationship with Anvil will be.		<b>.793</b>
It's difficult to anticipate my future commitments to Anvil.		<b>.804</b>
My commitments to Anvil are uncertain.		<b>.668</b>
The meaningfulness of my work at Anvil is diminishing over time.		<b>.666</b>
As time goes on, I feel that I am less interested in working for Anvil.		<b>.717</b>
The longer I work at Anvil, the more I focus on just earning a paycheck.		<b>.717</b>
Devoting myself more to Anvil in the future will give me little in return.		<b>.696</b>
I cannot believe what Anvil communicates to me.	.416	<b>.577</b>
I expect little from Anvil.		<b>.570</b>
I have no trust in Anvil.		<b>.601</b>
A gap exists between what Anvil promises and what it delivers.		<b>.636</b>
Inconsistency exists between what Anvil promises and what it delivers.		<b>.598</b>

Note:

N = 458

Rotation: Varimax with Kaiser normalization

All negatively-worded items were reverse-coded.

The highest loadings appear in bold text.

Only factor loadings < .40 are shown.

Table 12

**Principal Components Analysis on the *continuance commitment* items and adapted TCI items used to measure *assessments about the employment relationship***

Measures and items	Factor loadings
<b>Continuance Commitment</b>	
Right now, staying with Anvil is a matter of necessity as much as desire.	<b>.620</b>
It would be very hard for me to leave Anvil right now, even if I wanted to.	<b>.681</b>
Too much of my life would be disrupted if I decided I wanted to leave Anvil right now.	<b>.712</b>
I feel that I have too few options to consider leaving Anvil.	<b>.731</b>
If I had not already put so much of myself into Anvil, I might consider working elsewhere.	<b>.490</b>
Anvil has a great deal of personal meaning to me.	<b>.768</b>
<b>Assessments about the employment relationship</b>	
I am uncertain what my obligations are to Anvil.	<b>.441</b>
It's difficult to predict the future of my relationship with Anvil.	<b>.746</b>
I cannot anticipate what my future relationship with Anvil will be.	<b>.764</b>
It's difficult to anticipate my future commitments to Anvil.	<b>.792</b>
My commitments to Anvil are uncertain.	<b>.783</b>
The meaningfulness of my work at Anvil is diminishing over time.	<b>.751</b>
As time goes on, I feel that I am less interested in working for Anvil.	<b>.814</b>
The longer I work at Anvil, the more I focus on just earning a paycheck.	<b>.801</b>
Devoting myself more to Anvil in the future will give me little in return.	<b>.797</b>
I cannot believe what Anvil communicates to me.	<b>.620</b>
I expect little from Anvil.	<b>.693</b>
I have no trust in Anvil.	<b>.791</b>
A gap exists between what Anvil promises and what it delivers.	<b>.813</b>
Inconsistency exists between what Anvil promises and what it delivers.	<b>.796</b>

Note:

N = 458

Rotation: Varimax with Kaiser normalization

All negatively-worded items were reverse-coded.

The highest loadings appear in bold text.

Only factor loadings < .40 are shown.

Table 13

Regression analysis for the main effects of chronological age on the outcome variables in the study

Outcome variable	$\beta$	$R^2$	$\Delta R^2$
Overall job satisfaction			
Step 1:			
Control variables		.005	
Step 2:			
Chronological age	.164**	.025	.020
Satisfaction with work on present job			
Step 1:			
Control variables		.021	
Step 2:			
Chronological age	.181*	.033	.011
Affective commitment			
Step 1:			
Control variables		.05	
Step 2:			
Chronological age	.244	.06	.009
Continuance commitment			
Step 1:			
Control variables		.074	
Step 2:			
Chronological age	.275	.076	.002

Notes:

N = 458 except for satisfaction with work in present job where N = 312

Control variables are perceived relative age, organizational tenure, and gender

\*\* p < .01

\* p < .05

Table 14

Regression analysis for the main effects of subjective age on the outcome variables in the study

Outcome variable	$\beta$	$R^2$	$\Delta R^2$
Overall job satisfaction			
Step 1:			
Control variables		.005	
Step 2:			
Subjective age	.190**	.036	.031
Satisfaction with work on present job			
Step 1:			
Control variables		.021	
Step 2:			
Subjective age	.221**	.049	.028
Affective commitment			
Step 1:			
Control variables		.050	
Step 2:			
Subjective age	.265**	.070	.020
Continuance commitment			
Step 1:			
Control variables		.074	
Step 2:			
Subjective age	.272	.074	.000

Notes:  
N = 458 except for

satisfaction with work on present job where N = 312

Control variables are perceived relative age, organizational tenure, and gender

\*\* p &lt; .01

\* p &lt; .05

Table 15

**Hierarchical regression analysis of chronological and subjective age on outcome variables in the study**

Outcome variable	Model	Variables in the model	$\beta$	$R^2$	$\Delta R^2$	Sig. F change
Overall job satisfaction	1	Control variables	.088	.006	.006	.286
	2	Add Chronological age	.164**	.027	.021	.002
	3	Add Subjective age	.189*	.034	.009	.045
Satisfaction with work in present job	1	Control variables	.180*	.032	.032	.018
	2	Chronological age	.219*	.048	.015	.027
	3	Subjective age	.258*	.066	.019	.014
Affective commitment	1	Control variables	.229**	.052	.050	.000
	2	Chronological age	.246*	.060	.008	.048
	3	Subjective age	.264*	.069	.009	.038
Continuance commitment	1	Control variables	.269**	.072	.072	.000
	2	Chronological age	.271*	.073	.003	.471
	3	Subjective age	.271*	.073	.000	.763

## Notes:

Analysis excludes satisfaction with promotion opportunities because the zero-order correlations between the age variables and this outcome were not significant.

N = 458 except for satisfaction with work in present job where N = 312

Control variables are organizational tenure and gender

\*\*  $p < .01$

\*  $p < .05$

Table 16

Results of the regression analysis of curvilinear relationships between the age variables and the outcome variables in the study

Dependent variables	Independent variables	$\beta$	$R^2$	$\Delta R^2$	sig. $\Delta R^2$
<i>Overall job satisfaction</i>	<b>Model 1</b>				
	Chronological age	.148*	.022		
	Chronological age squared	.163	.026	.005	.143
	<b>Model 2</b>				
	Subjective age	.179**	.032		
	Subjective age squared	.189	.036	.003	.208
<i>Satisfaction with work on the present job</i>	<b>Model 1</b>				
	Chronological age	.192*	.037		
	Chronological age squared	.213	.045	.008	.096
	<b>Model 2</b>				
	Subjective age	.217**	.047		
	Subjective age squared	.236	.056	.009	.091
<i>Satisfaction with promotion opportunities</i>	<b>Model 1</b>				
	Chronological age	-.069	.005		.225
	Chronological age squared				
	<b>Model 2</b>				
	Subjective age	-.039	.002		.493
	Subjective age squared				
<i>Affective commitment</i>	<b>Model 1</b>				
	Chronological age	.198*	.039		
	Chronological age squared	.203	.041	.002	.309
	<b>Model 2</b>				
	Subjective age	.215*	.046		
	Subjective age squared	.236	.056	.010*	.031
<i>Continuance commitment</i>	<b>Model 1</b>				
	Chronological age	.142*	.020		
	Chronological age squared	.059	.020	.000	.866
	<b>Model 2</b>				
	Subjective age	.122*	.015		
	Subjective age squared	-.400	.019	.004	.179

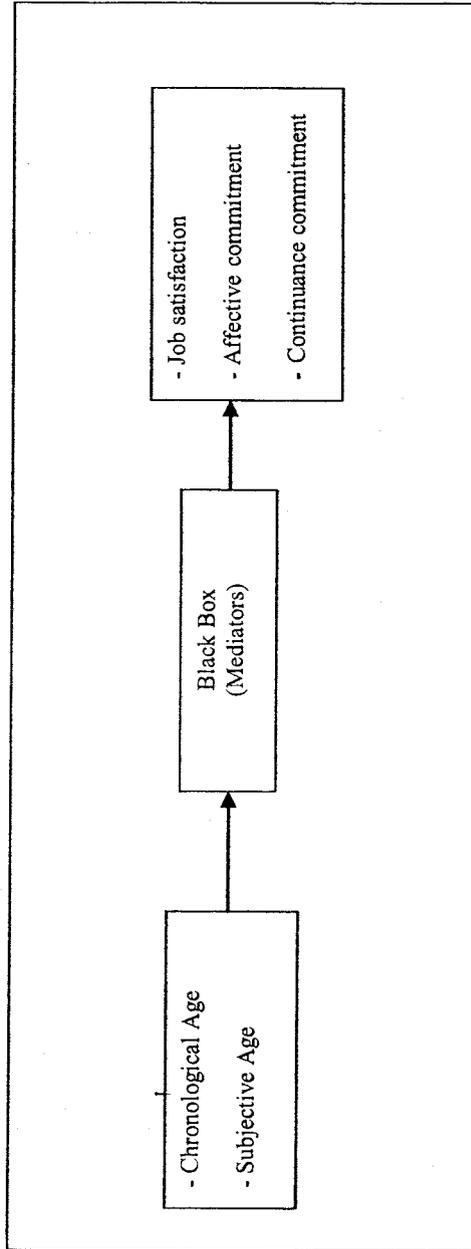
\*\*  $p < .01$

\*  $p < .05$

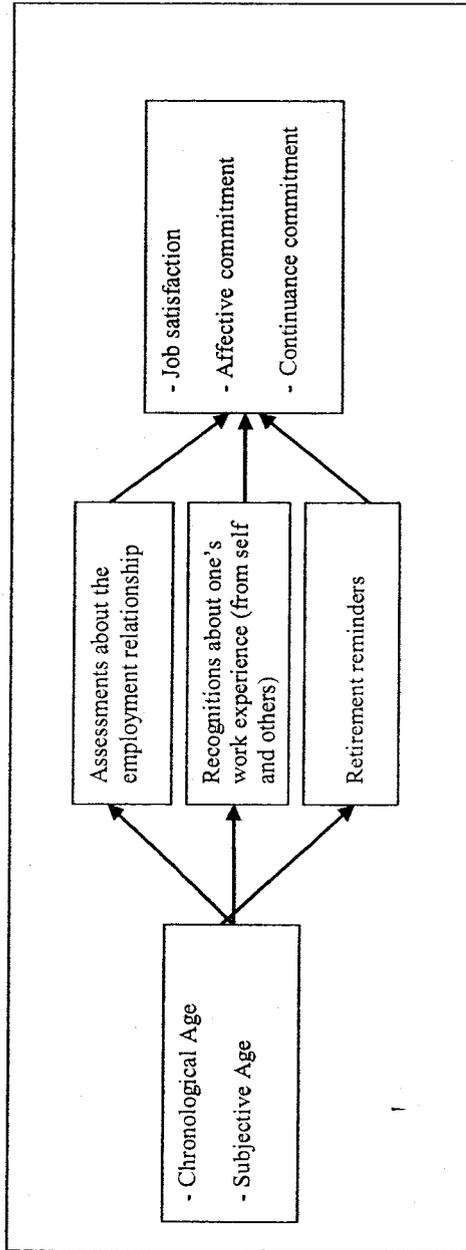
**Table 17**  
**Summary of findings pertaining to the proposed hypotheses**

<b>Hypotheses</b>		<b>Results</b>
Hypothesis 1	Chronological age will be positively related to overall job satisfaction.	Confirmed
Hypothesis 2	Subjective age will be positively associated with overall job satisfaction.	Confirmed
Hypothesis 3	Chronological age will be positively related to satisfaction with the nature of the work.	Confirmed
Hypothesis 4	Subjective age will be positively related to satisfaction with the nature of the work.	Confirmed
Hypothesis 5	Chronological age will be negatively related to satisfaction with promotion opportunities.	Not supported
Hypothesis 6	Subjective age will be negatively related to satisfaction with promotion opportunities.	Not supported
Hypothesis 7	Chronological age will be positively related to: a) affective commitment; b) continuance commitment.	Confirmed Confirmed
Hypothesis 8	Subjective age will be a positively related to: a) affective commitment; b) continuance commitment.	Confirmed Confirmed
Hypothesis 9	Assessments about the employment relationship will mediate the relationship between chronological age and: a) overall job satisfaction; b) satisfaction with the work in the present job.	Partial mediation Partial mediation
Hypothesis 10	Assessments about the employment relationship will mediate the relationship between subjective age and: a) overall job satisfaction; b) satisfaction with the work in the present job.	Partial mediation Partial mediation
Hypothesis 11	Assessments about the employment relationship will mediate the relationship between: a) chronological age and affective commitment; b) subjective age and affective commitment.	Full mediation Full mediation
Hypothesis 12	Recognitions from others about one's work experience will mediate the relationship between chronological age and: a) overall job satisfaction; b) satisfaction with the work in the present job.	Not supported Not supported
Hypothesis 13	Recognitions from others about one's work experience will mediate the relationship between subjective age and: a) overall job satisfaction; b) satisfaction with the nature of the work in the present job.	Not supported Partial mediation
Hypothesis 14	Self-recognitions about one's own work experience will mediate the relationship between chronological age and: a) overall job satisfaction; b) satisfaction with the work in the present job.	Not supported Partial mediation
Hypothesis 15	Self-recognitions about one's own work experience will mediate the relationship between subjective age and: a) overall job satisfaction; b) satisfaction with the work in the present job.	Not supported Partial mediation
Hypothesis 16	Recognitions from others about one's work experience will mediate the relationship between: a) chronological age and affective commitment; b) subjective age and affective commitment.	Not supported Partial mediation
Hypothesis 17	Self-recognitions about one's own work experience will mediate the relationship between: a) chronological age and affective commitment; b) subjective age and affective commitment.	Not supported Not supported
Hypothesis 18	Retirement reminders will mediate the relationship between: a) chronological age and continuance commitment; b) subjective age and continuance commitment.	Not supported Not supported

**Figure 1**  
**Conceptual Framework**



**Figure 2**  
**Conceptual framework with mediators tested in the study**



**Figure 3**  
**Theoretical Framework**

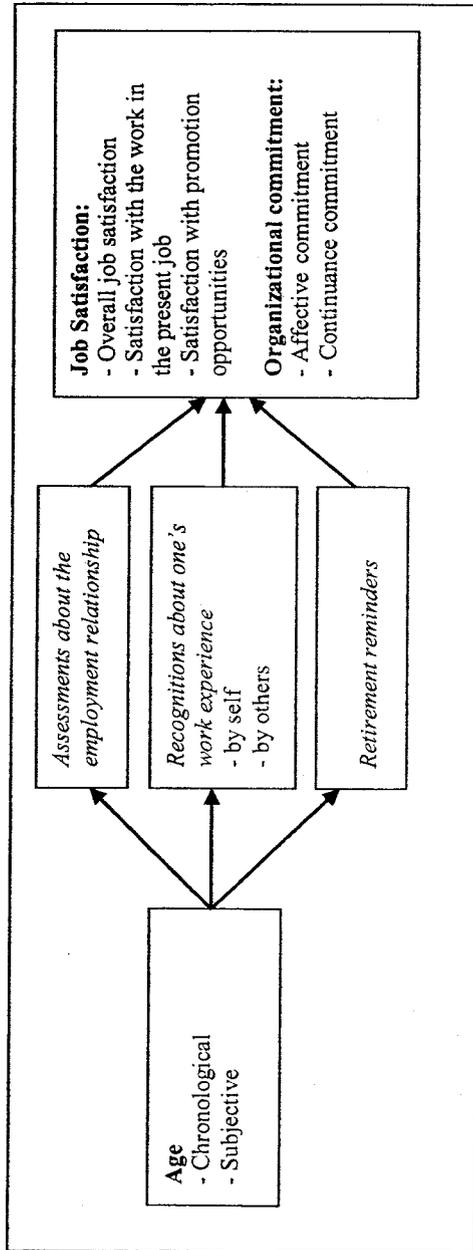


Figure 4

Hypotheses for the direct and mediated relationships between chronological age and the job satisfaction variables in the study.

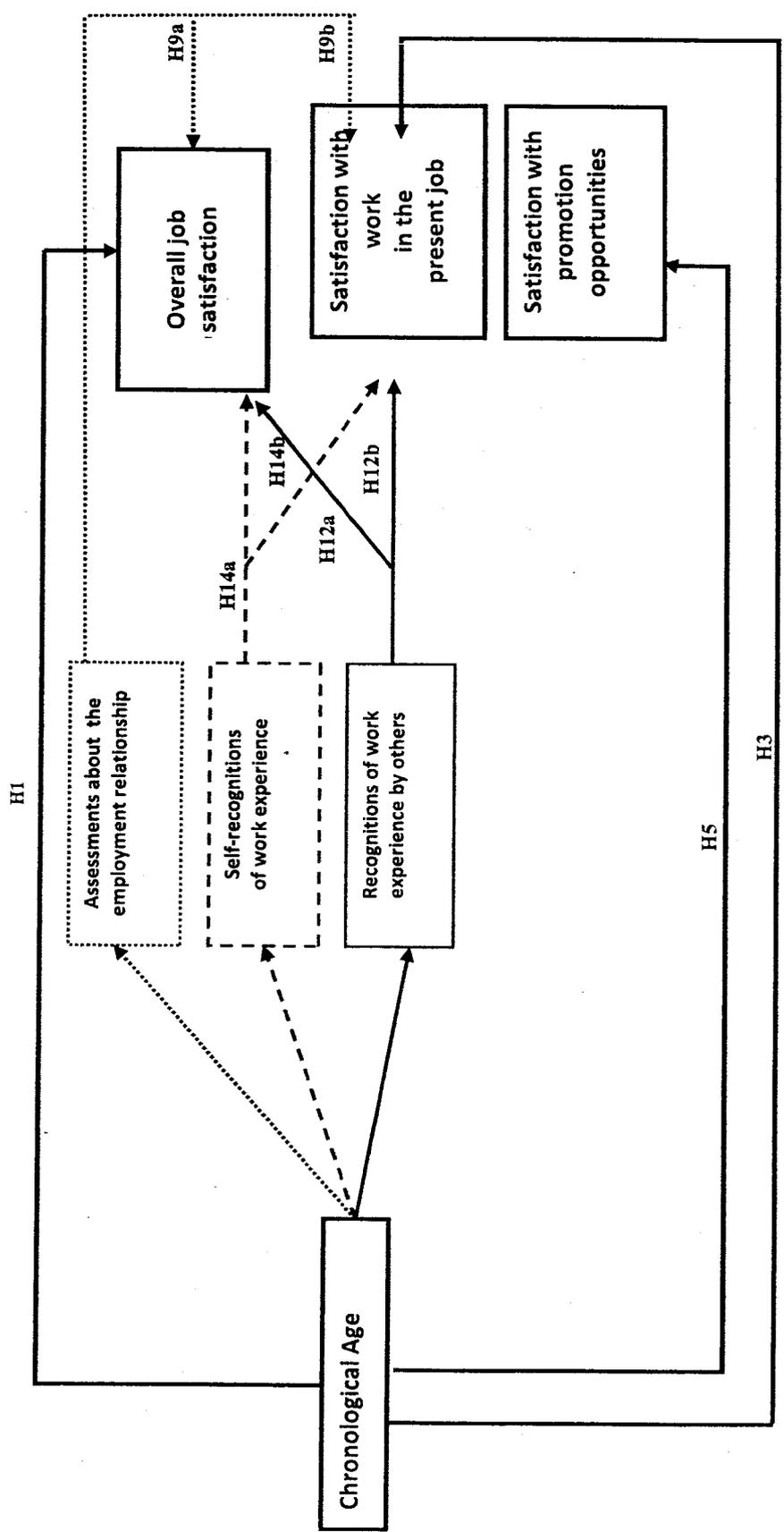


Figure 5

Hypotheses for the direct and mediated relationships between subjective age and the job satisfaction variables in the study.

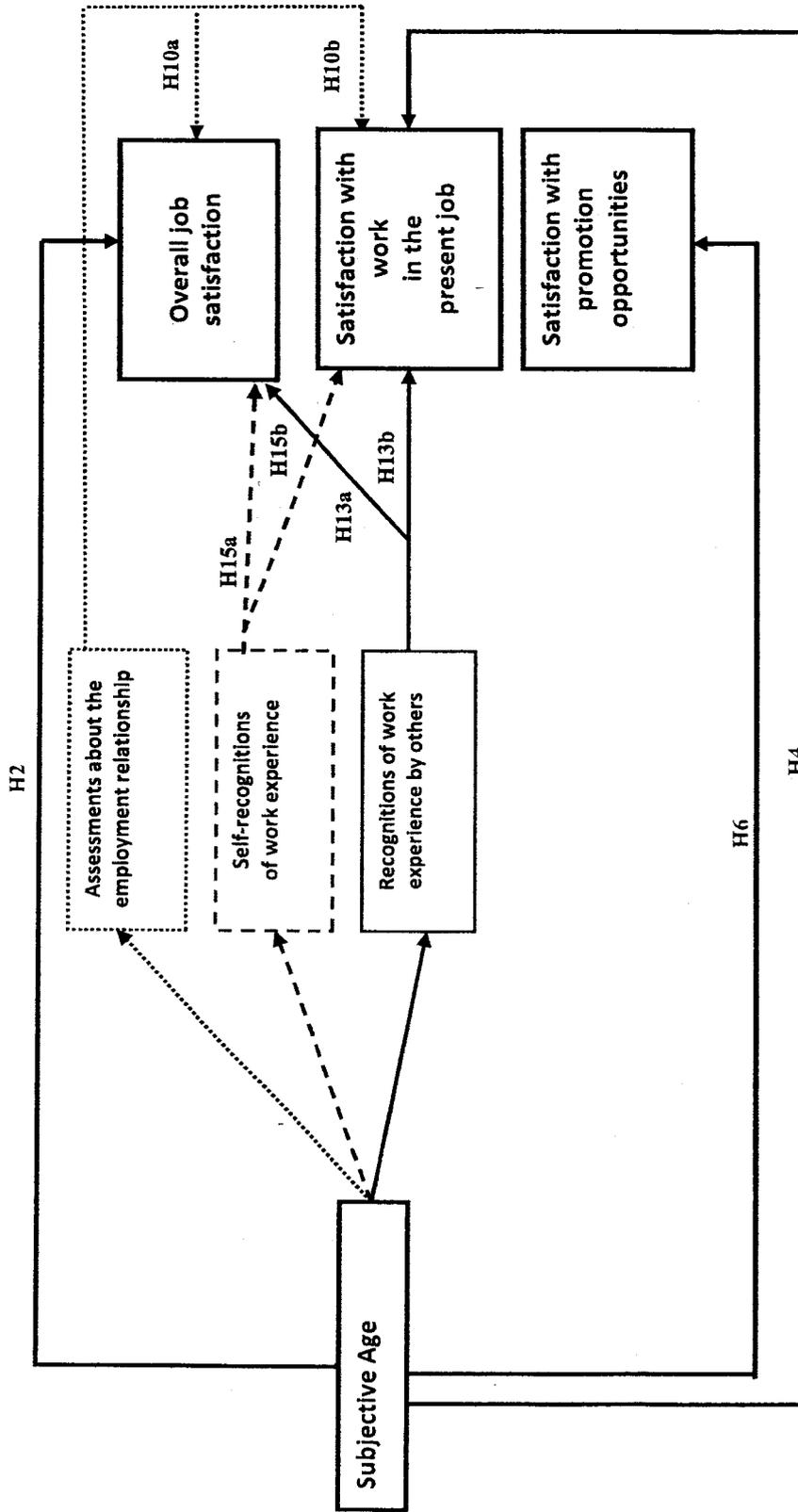


Figure 6

Hypotheses for the direct and mediated relationships between chronological age and the commitment variables in the study

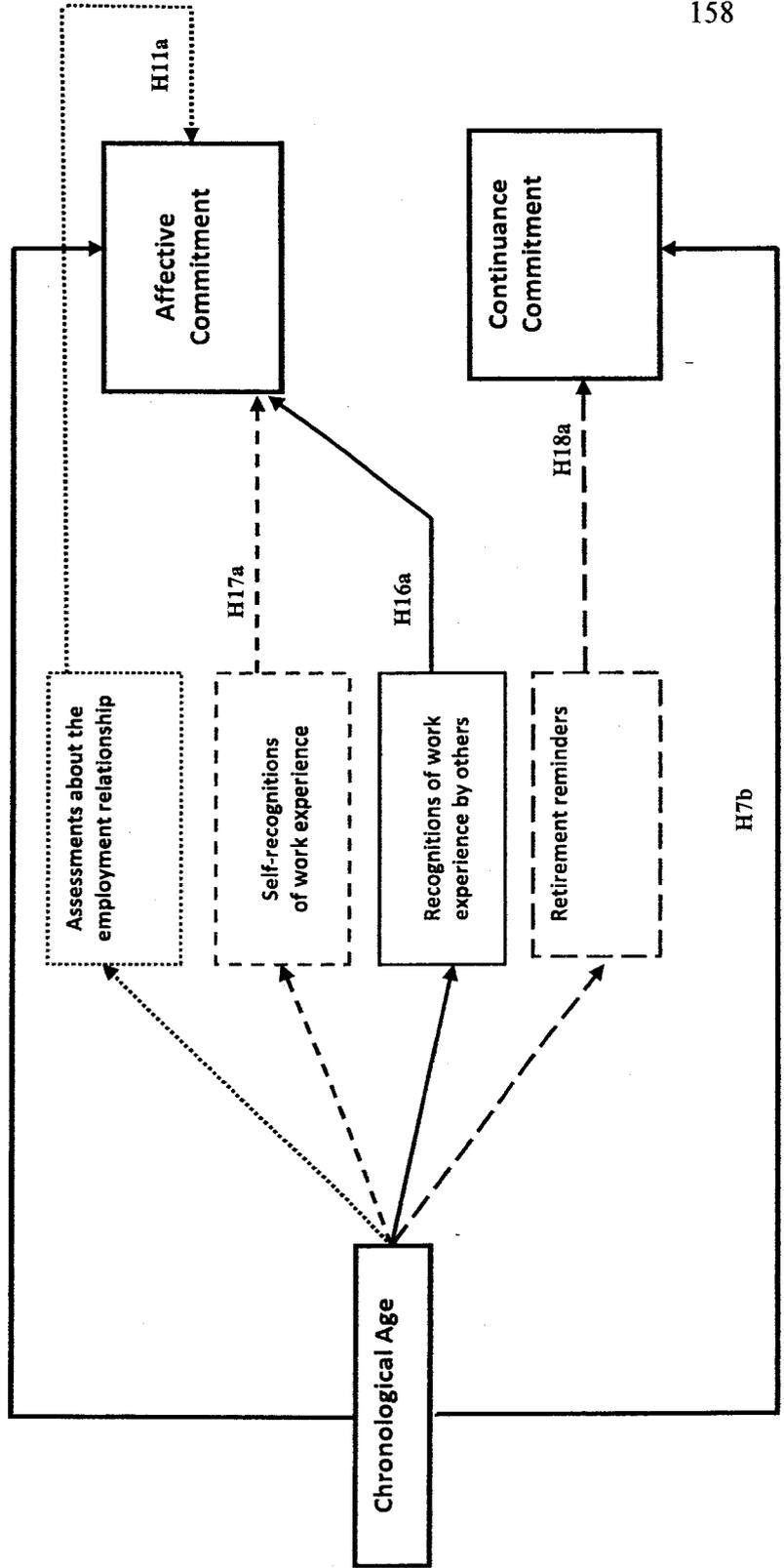


Figure 7

Hypotheses for the direct and mediated relationships between subjective age and the commitment variables in the study

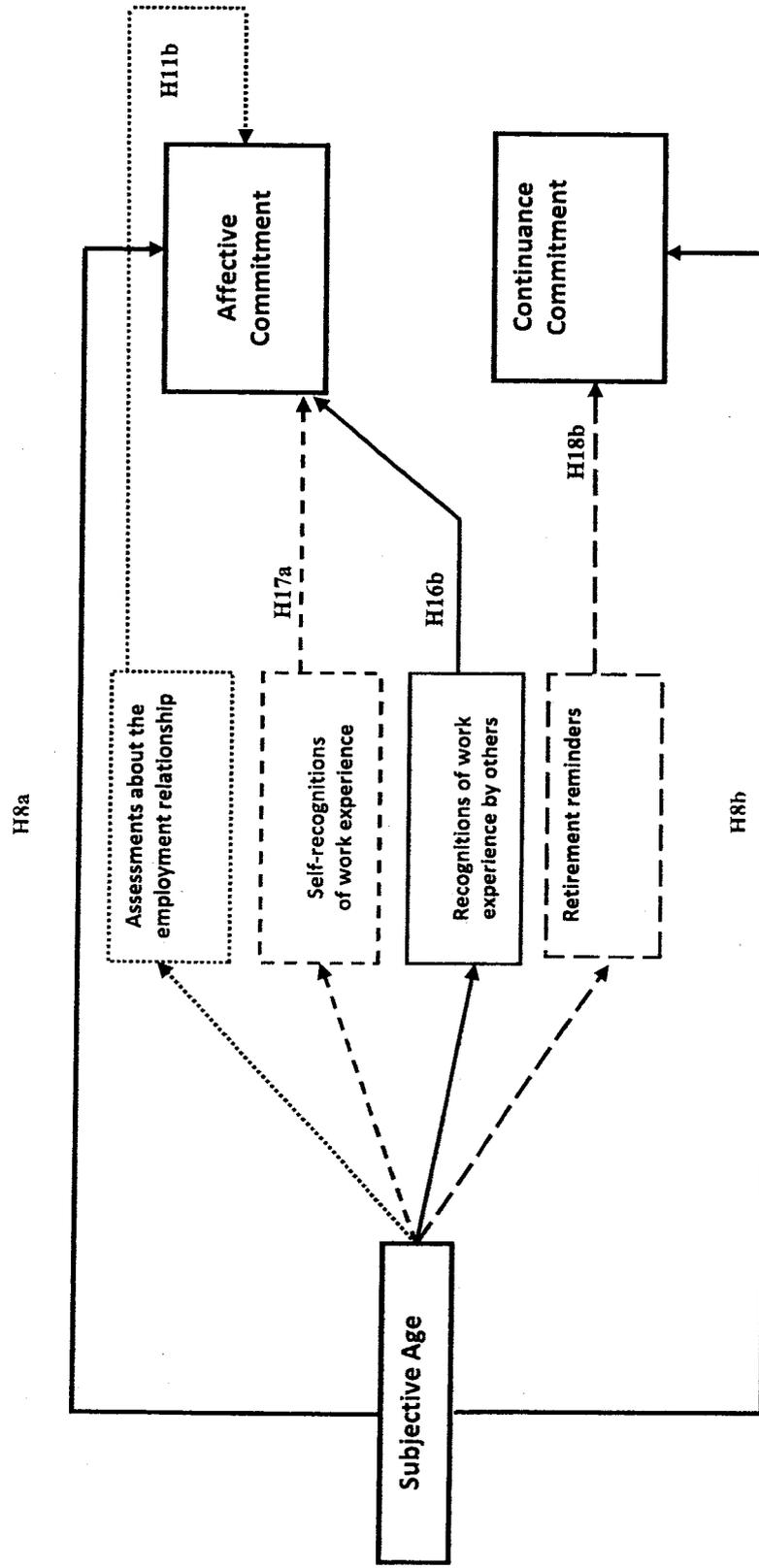
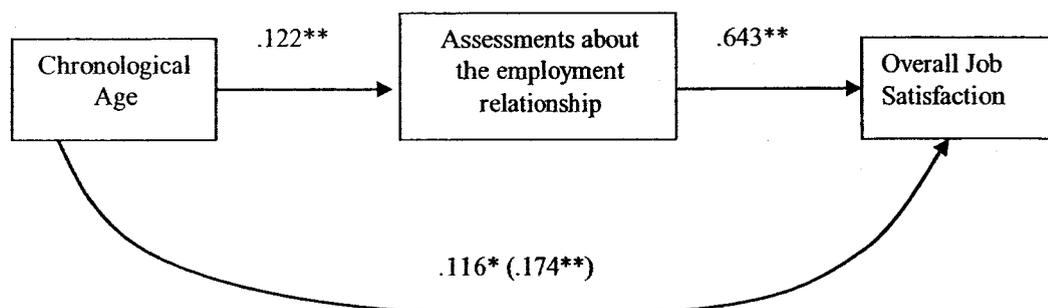


Figure 8

**Mediation analysis for Hypothesis 9a: Assessments about the employment relationship mediating the link between chronological age and overall job satisfaction**



Note:

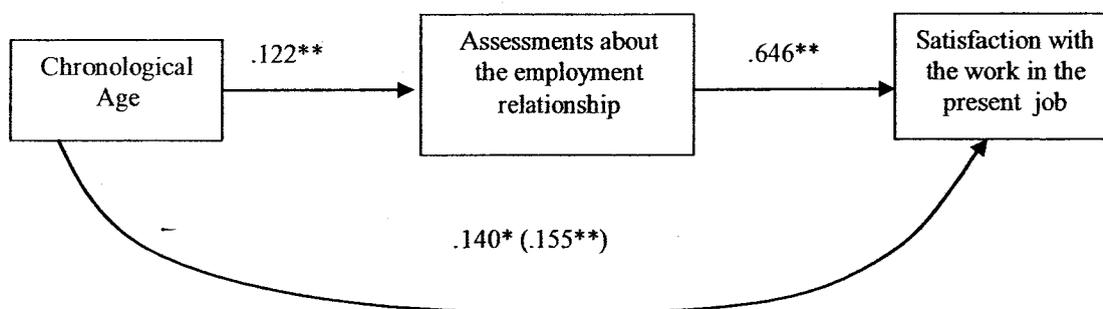
N = 458

Sobel's  $z = 2.594$  ( $p = .009$ )

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

Figure 9

**Mediation analysis for Hypothesis 9b: Assessments about the employment relationship mediating the link between chronological age and satisfaction with the work in the present job**



Note:

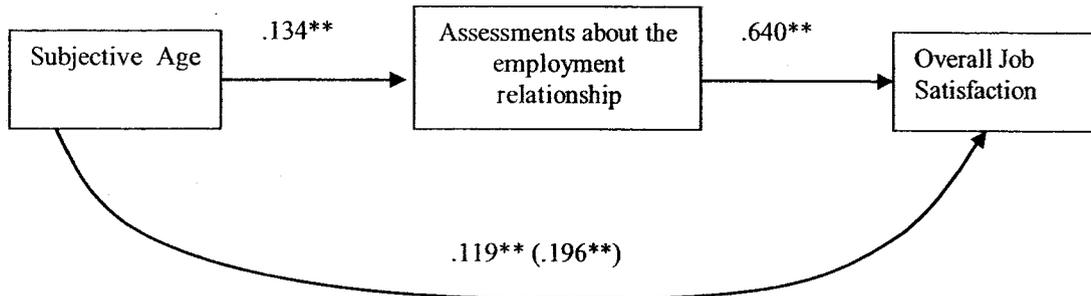
N = 312

Sobel's  $z = 2.579$  ( $p = .010$ )

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

Figure 10

**Mediation analysis for Hypothesis 10a: Assessments about the employment relationship mediating the link between subjective age and overall job satisfaction**



Note:

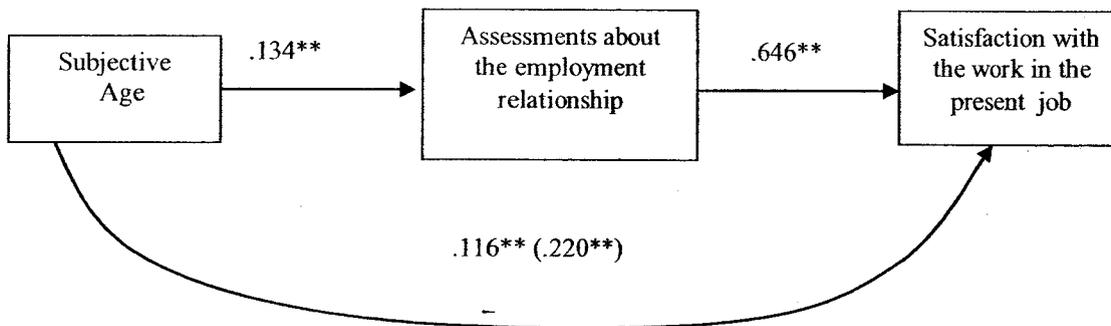
N = 458

Sobel's  $z = 2.5859$  ( $p = .004$ )

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

Figure 11

**Mediation analysis for Hypothesis 10b: Assessments about the employment relationship mediating the link between subjective age and satisfaction with the work in the present job**



Note:

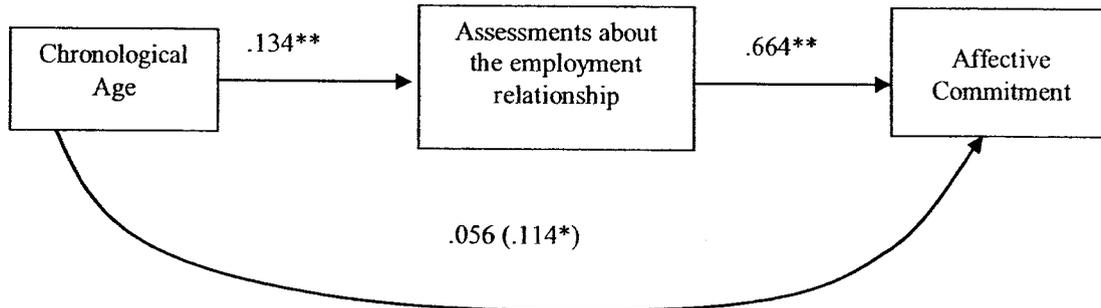
N = 312

Sobel's  $z = 2.837$  ( $p = .004$ )

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

Figure 12

**Mediation analysis for Hypothesis 11a: Assessments about the employment relationship mediating the link between chronological age and affective commitment**



Note:

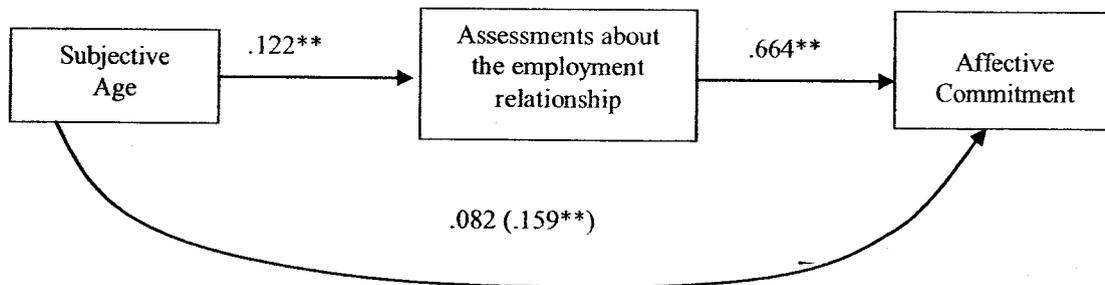
N = 458

Sobel's  $z = 2.596$  ( $p = .009$ )

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

Figure 13

**Mediation analysis for Hypothesis 11b: Assessments about the employment relationship mediating the link between subjective age and affective commitment**



Note:

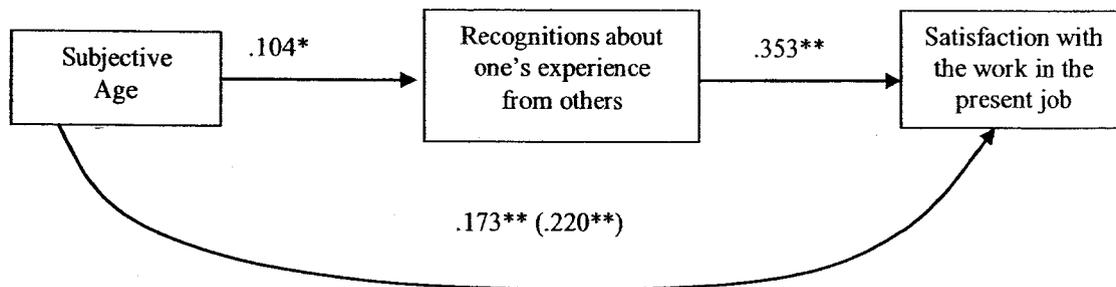
N = 458

Sobel's  $z = 2.862$  ( $p = .004$ )

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

Figure 14

**Mediation analysis for Hypothesis 13b: Recognitions from others about one's work experience mediating the link between subjective age and satisfaction with the work in the present job**



Note:

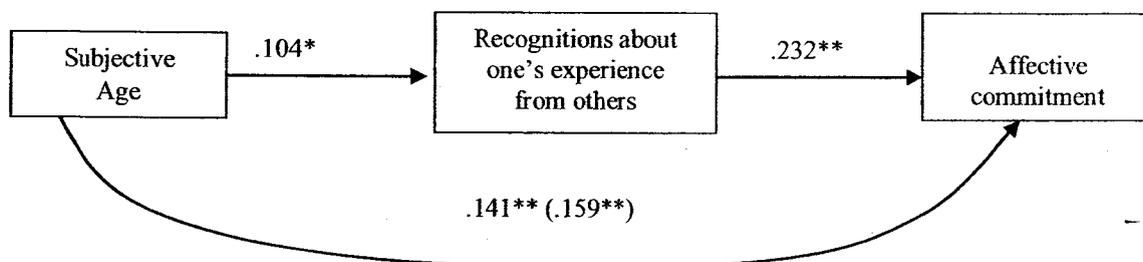
N = 312

Sobel's  $z = 2.088$  ( $p = .037$ )

$^{**} p < .01$   $^* p < .05$

Figure 15

**Mediation analysis for Hypothesis 16b: Recognitions from others about one's work experience mediating the link between subjective age and affective commitment**



Note:

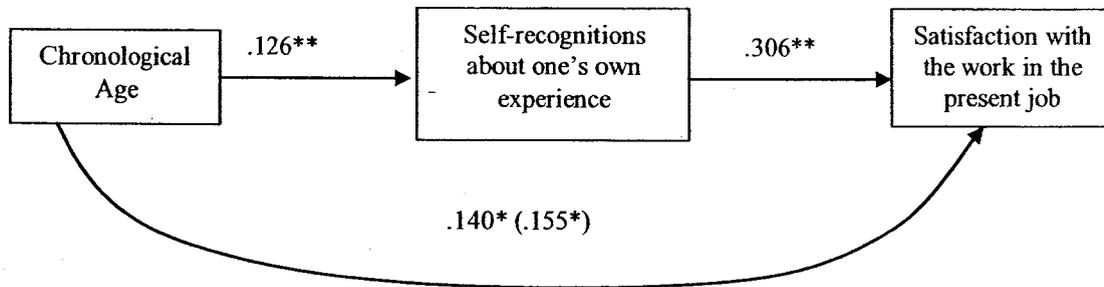
N = 458

Sobel's  $z = 2.003$  ( $p = .045$ )

$^{**} p < .01$   $^* p < .05$

Figure 16

**Mediation analysis for Hypothesis 14b: Self-recognitions about one's work experience mediating the link between chronological age and satisfaction with the work in the present job**



Note:

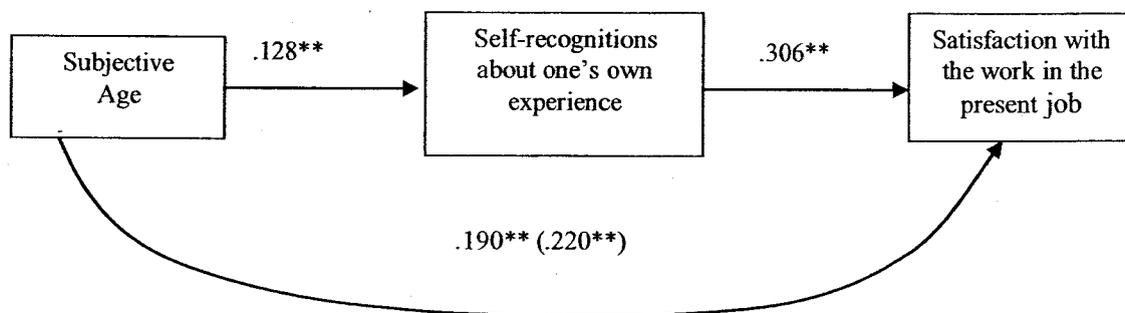
N = 312

Sobel's  $z = 2.393$  ( $p = .017$ )

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

Figure 17

**Mediation analysis for Hypothesis 15b: Self-recognitions about one's work experience mediating the link between subjective age and satisfaction with the work in the present job**



Note:

N = 312

Sobel's  $z = 2.399$  ( $p = .016$ )

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

Figure 18

Curve estimation plot for subjective age and affective commitment

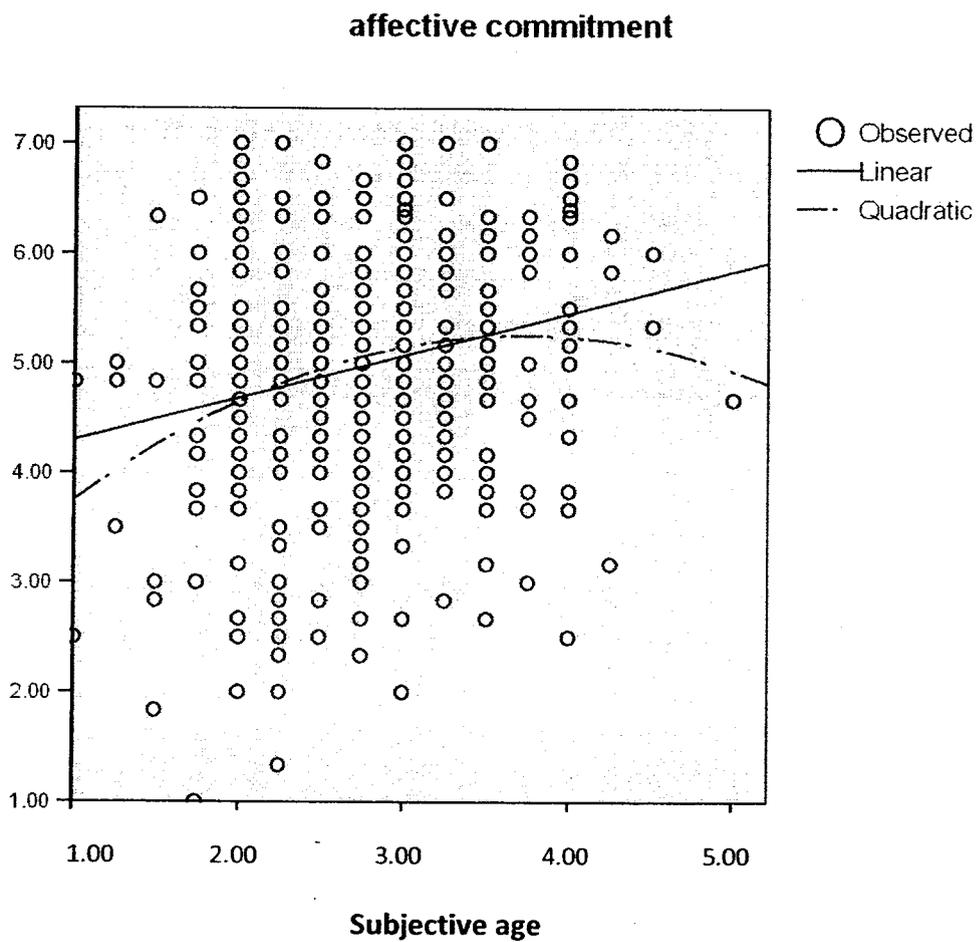
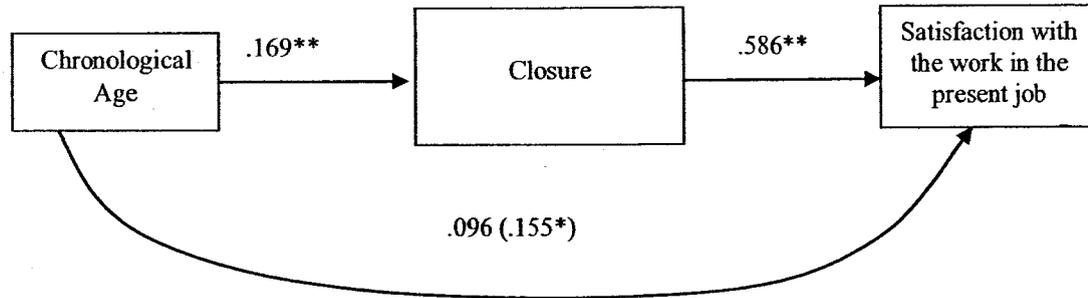


Figure 19

Mediation analysis for closure mediating the link between chronological age and satisfaction with the work in the present job



Note:

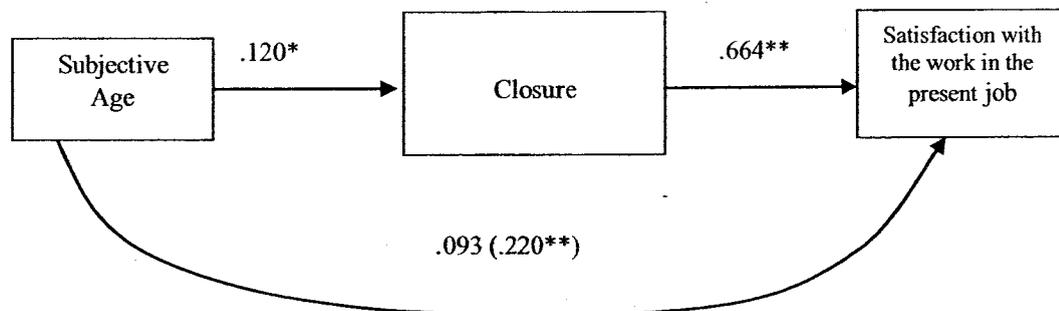
N = 312

Sobel's  $z = 3.504$  ( $p < .001$ )

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

Figure 20

Mediation analysis for closure mediating the link between subjective age and satisfaction with the nature of the work in the present job



Note:

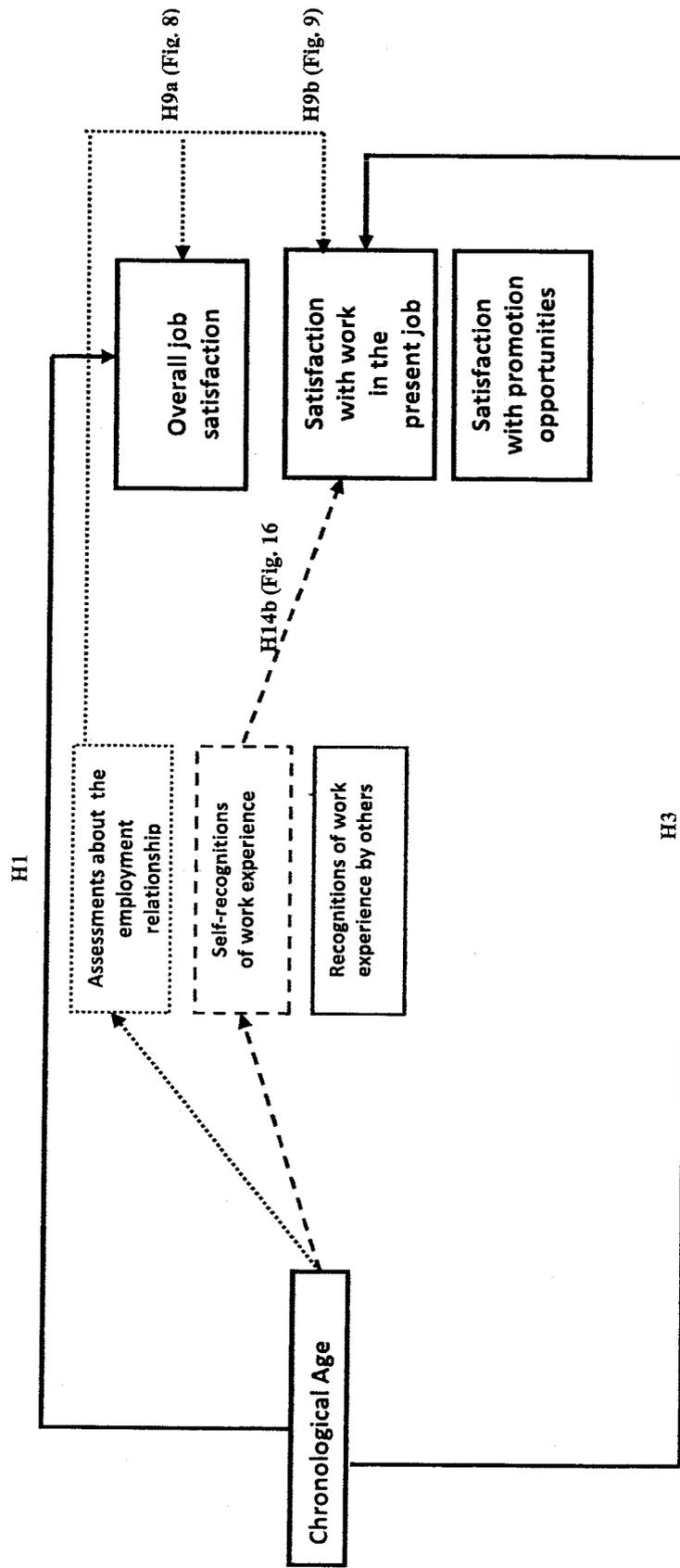
N = 312

Sobel's  $z = 2.561$  ( $p = .010$ )

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

Figure 21

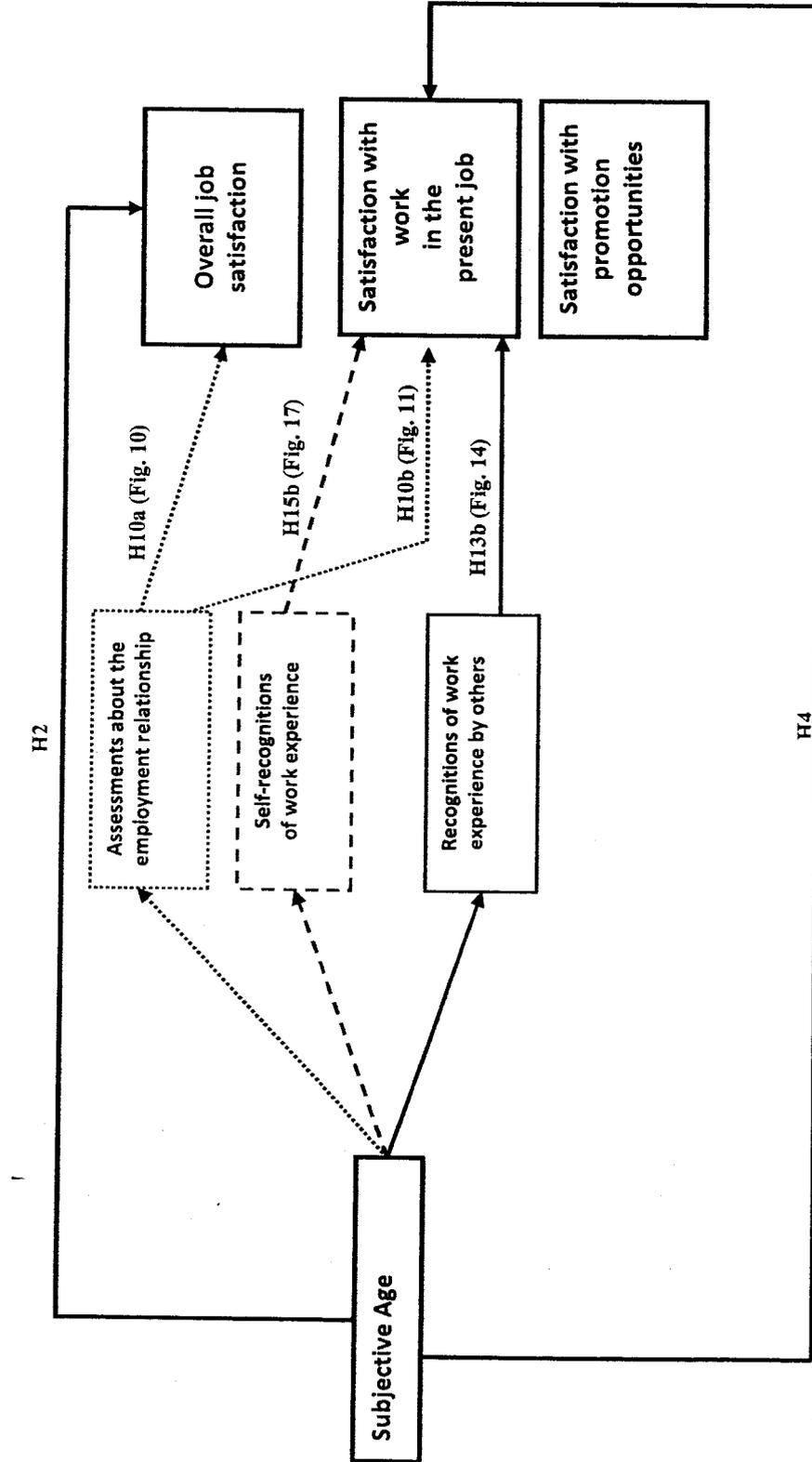
Supported hypotheses for direct and mediated relationships between chronological age and the job satisfaction variables in the study



Note:  
Chronological age was not a significant correlate of satisfaction with promotion opportunities.

Figure 22

Supported hypotheses for direct and mediated relationships between subjective age and the job satisfaction variables in the study



Note:  
Subjective age was not a significant correlate of satisfaction with promotion opportunities.

Figure 23

Supported hypotheses for direct and mediated relationships between chronological age and the commitment variables in the study

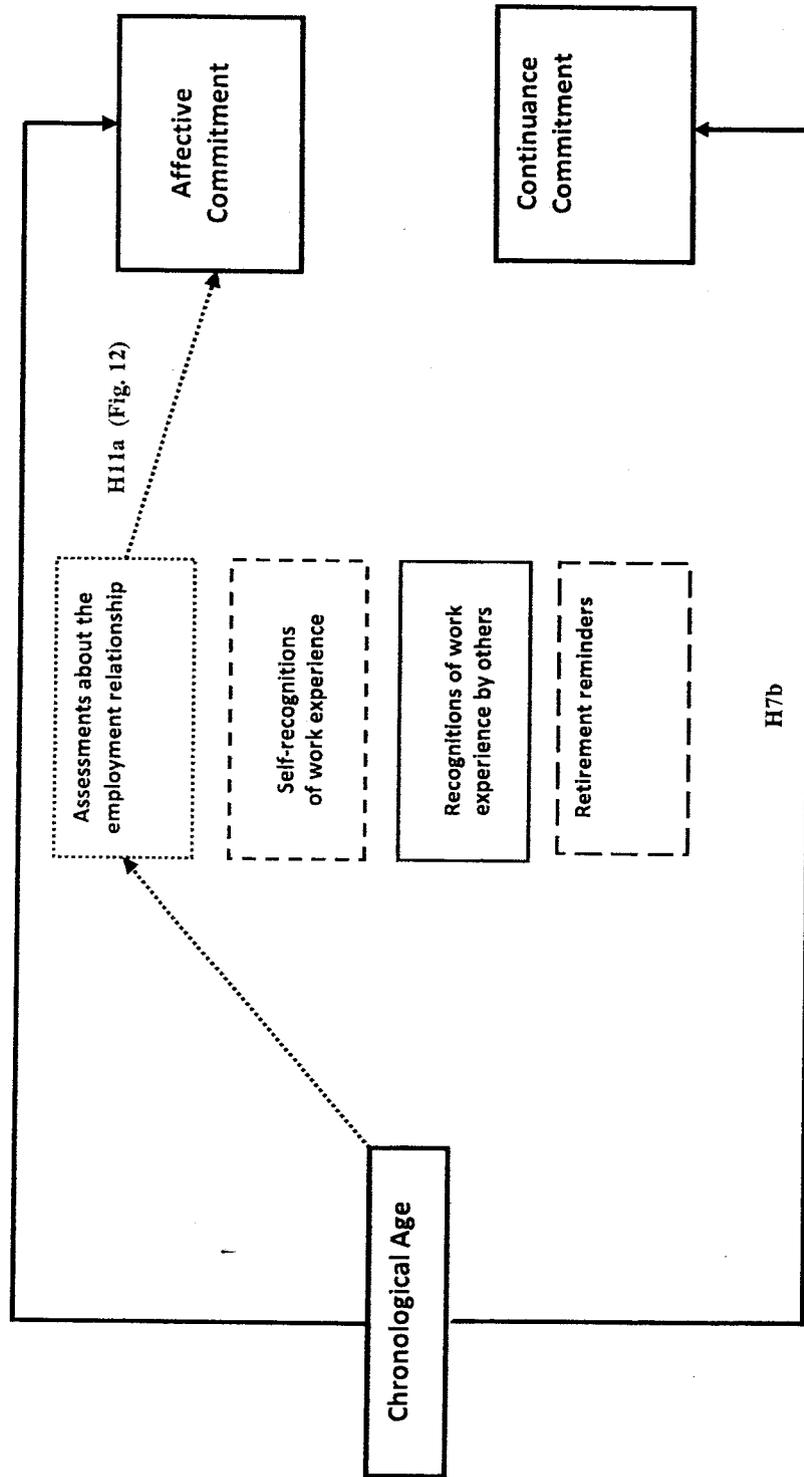
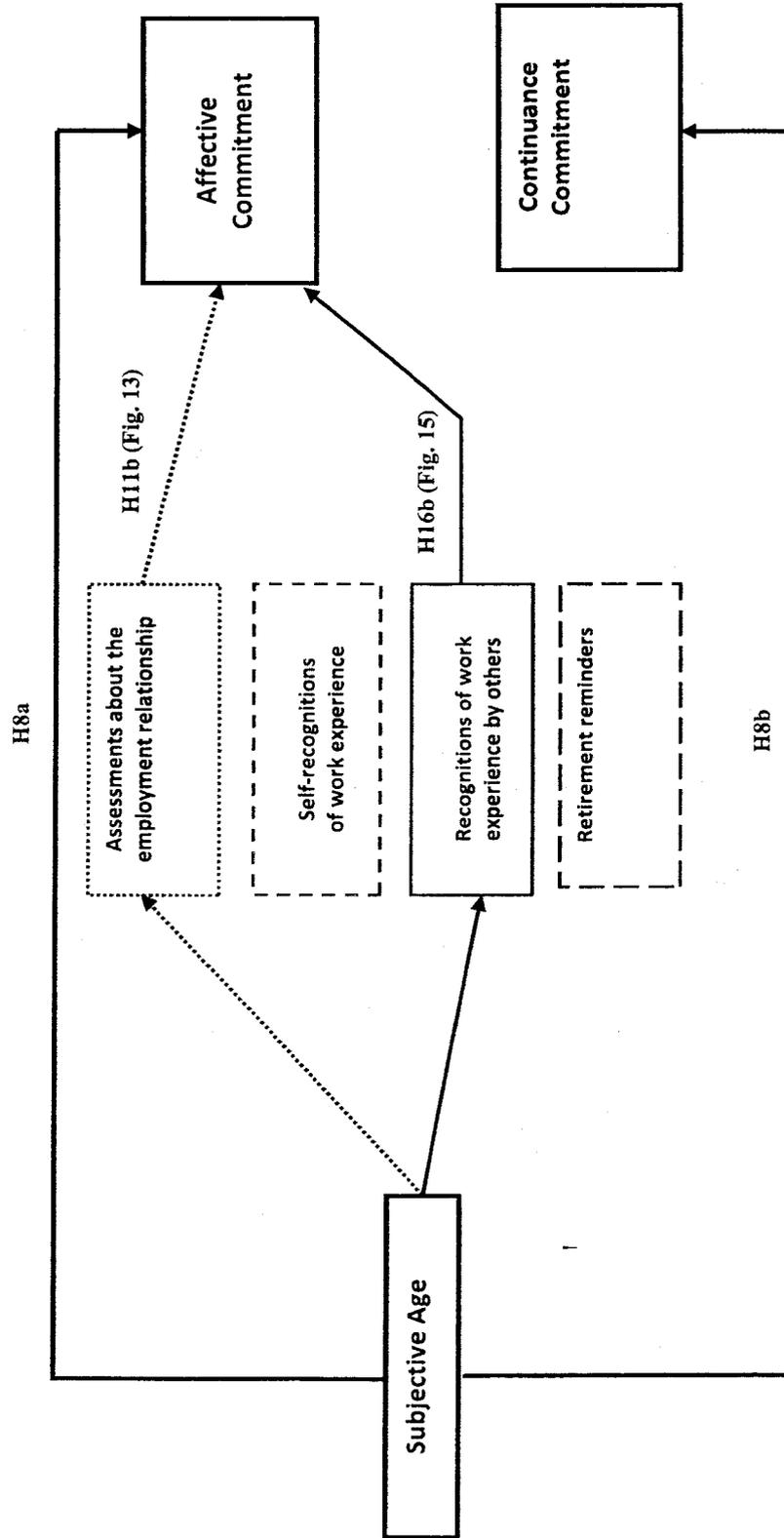


Figure 24

Supported hypotheses for direct and mediated relationships between subjective age and the commitment variables in the study



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**Appendix 1**  
**English and French versions of the company's letter of support**

Dear [name of employee]

In our ongoing communication with employees we are in the process of gaining from you opinions of your needs and expectations from your career with us at [company's name].

Your input will allow us to ensure we identify, and where possible create or utilize programs, benefits, and an environment that fits with your needs. It also emphasizes the importance for us to be able to attract the best candidates who will ensure our success into the future.

To these ends, we have joined forces with a Ph.D. candidate, Nicole Bérubé, at the John Molson School of Business at Concordia University. She will be surveying you, our managers (FLM and above) and salaried employees, beginning the week of September 4 . The survey will be conducted in two parts, with different groups of employees being surveyed in either the first session in September or second session in October.

The survey will be voluntary, confidential and anonymous, collecting data on work experiences at different life stages. Nicole will be running the survey, and collecting the data, which will form part of her doctoral thesis. We will distribute the survey link in both official languages. Nicole will be writing a report for us summarizing the data collected.

The survey will be available on-line and will take about 15 minutes to complete. You can complete it from home or work. No employee-specific data will be used or published. The Company will receive summary data to enable us to understand what matters most to our current group of managers and salaried employees, and where we should focus our efforts in the future.

In order to be successful, we need a majority of our managers and salaried employees to participate. Please support this worthy initiative as your participation will be instrumental in helping us to understand how to plan for the future.

If you have any questions about this, please contact me and thank you for your participation.

[Signed by the vice-president, human resources]  
[Salutation suivi du nom de l'employé]

Cher employé,

Dans le cadre de nos communications continues avec nos employés, nous désirons obtenir votre opinion sur vos besoins et attentes en fonction de votre carrière chez ANVIL.

Votre point de vue est important pour nous aider à identifier, et si possible créer et utiliser des programmes, des avantages, et un environnement de travail qui répond bien à vos besoins. Votre opinion nous aidera aussi à mettre en valeur les conditions qui pourront attirer les meilleurs candidats pour assurer notre succès dans le futur.

À ces fins, nous collaborons avec M<sup>me</sup> Nicole Bérubé, candidate au doctorat de l'École de gestion John-Molson de l'Université Concordia. Dans le cadre de sa thèse de doctorat, qui porte sur l'expérience et le travail à différents stades de la vie, Nicole effectuera un sondage afin de recueillir des données sur les opinions de nos cadres (depuis les questionnaires de première ligne) et salariés. La participation au sondage, qui a débuté au cours de la semaine du 4 septembre, est volontaire, confidentielle et anonyme.

Veillez noter que le sondage se fera en deux sessions, une en septembre et une en octobre. Différents groupes d'employés seront sondés au cours de la première ou de la seconde session. Le sondage, qui prendra environ 15 minutes, sera disponible en ligne. Nous distribuerons les hyperliens pour accéder au sondage. Vous pourrez y répondre au bureau ou à la maison. Nicole sera responsable de la collecte de données et rédigera ensuite un rapport résumant les résultats obtenus. Aucune donnée particulière à un employé ne sera utilisée ni publiée. L'entreprise recevra des données récapitulatives pour lui permettre de comprendre les priorités de son groupe actuel de cadres et où concentrer ses efforts futurs.

Le succès du sondage nécessite une forte participation de la part de nos cadres et salariés. Je vous encourage à participer à cette initiative constructive. Vos réponses nous aideront à planifier pour l'avenir.

Je vous remercie de votre participation et je vous invite à communiquer avec moi pour toute question.

[Nom du vice-président, ressources humaines]

**Appendix 2**  
**English invitation, survey 1**

Dear ANVIL employee,

I would like to provide you with an opportunity to share your experiences and views on various aspects of your work and your life. To understand employees' needs, we need to know them better. Each person's experiences are unique and important, and I hope that you will tell me about yours by completing an online questionnaire, which should take you about 15 – 20 minutes.

The information sought through this survey is part of a study I am conducting for my doctoral thesis, which focuses on the importance of events in peoples' lives and stage of life at work. The results of this study will help improve our knowledge about what matters most to employees of different generations.

Your participation in this study is voluntary, anonymous and completely confidential. Your individual responses are strictly confidential. Results will only be reported in aggregate form (totals, averages, etc.). You will have access to a report of the results when the analyses are completed.

You have until [date] to complete the survey. To access the survey, please click on the following web link, or cut and paste it into the address bar of your web browser.

English version: [url]

French version: [url]

After you have completed the survey, we would like to show our appreciation by inviting you to participate in a draw for one of [number] [name of merchant] gift certificates, worth \$50 each. To enter, simply follow the instructions at the end of the survey.

If you have any questions about this study, please feel free to contact me or my thesis supervisor, Dr. Linda Dyer, at either of the addresses indicated below. If you have questions about your rights as a research participant, please contact Adela Reid, Research Ethics and Compliance Officer, Concordia University, at 514-848-2424 ext. 7481 (email: [adela.reid@concordia.ca](mailto:adela.reid@concordia.ca)).

Thank you for your contribution to this study.

Sincerely,

Nicole Bérubé  
PhD Candidate  
John Molson School of Business  
Concordia University  
[nberube@jmsb.concordia.ca](mailto:nberube@jmsb.concordia.ca)  
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Thesis supervisor:  
Dr. Linda Dyer,  
Professor of Management  
John Molson School of Business

**Appendix 3**  
**French invitation, survey 1**

Cher employé de ANVIL,

Voici une occasion de nous faire part de vos expériences et de vos opinions sur diverses perspectives reliées à votre vie au travail. Afin de comprendre les besoins de divers employés, nous devons mieux les connaître. Vos expériences sont uniques et importantes. Je vous invite à m'en faire part en répondant à un questionnaire électronique. Ceci devrait prendre environ 15 minutes.

Les informations visées par ce sondage font partie de l'étude que je mène pour compléter ma thèse de doctorat. Celle-ci porte sur les liens entre les événements dans la vie des personnes, les stades de vie, les attitudes et les comportements au travail. Les résultats de cette étude nous aideront à mieux comprendre ce qui est important au travail pour les employés de différentes générations.

Votre participation à cette étude est volontaire, anonyme et complètement confidentielle. Vous avez jusqu'au [date] pour compléter le questionnaire. Pour y accéder, cliquez sur l'hyperlien suivant ou copiez-le dans la barre d'adresse de votre navigateur.

Version en français : [hyperlien]

Version en anglais : [hyperlien]

Lorsque vous aurez complété le questionnaire, vous serez invité(e) à participer à un tirage pour gagner l'un de [nombre] certificats cadeaux d'une valeur de 50\$ chez [nom du marchand]. Suivez les instructions à la fin du questionnaire pour participer au tirage.

Si vous avez des questions concernant cette étude, n'hésitez pas à communiquer avec moi ou avec ma directrice de thèse, madame Linda Dyer, aux adresses indiquées ci-dessous. Si vous avez des questions concernant vos droits en tant que participant(e) à cette étude, contactez Adela Reid, agente préposée à l'éthique et aux normes de la recherche à l'Université Concordia au 514-848-2424, poste 7481 ([adela.reid@concordia.ca](mailto:adela.reid@concordia.ca)).

Je vous remercie de votre précieuse collaboration à la réalisation de cette étude.

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**Appendix 4**  
**Invitation to participate, group 2**

[date]

Dear ANVIL employee,

I would like to provide you with an opportunity to share your experiences and views on various aspects of your work and your life. To understand employees' needs, we need to know them better. Each person's experiences are unique and important, and I hope that you will tell me about yours by completing an online questionnaire, which should take you about 15 minutes.

The information sought through this survey is part of a study I am conducting for my doctoral thesis, which focuses on the importance of events in peoples' lives and stage of life at work. The results of this study will help improve our knowledge about what matters most to employees of different generations.

Your participation in this study is voluntary, anonymous and completely confidential. Your individual responses are strictly confidential. Results will only be reported in aggregate form (totals, averages, etc.). You will have access to a report of the results when the analyses are completed.

You have until [date] to complete the survey. To access the survey, please go type either of the addresses which follow in the address bar of your web browser. You can also contact me directly if you would like to obtain the link via email.

**To access the English version:**

[URL]

**To access the French version:**

[URL]

After you have completed the survey, I would like to show my appreciation by inviting you to participate in a draw for [number] gift certificates worth \$50 each. To enter, simply follow the instructions at the end of the survey.

If you have any questions about this study, please feel free to contact me or my thesis supervisor, Dr. Linda Dyer, at either of the addresses indicated below. If you have questions about your rights as a research participant, please contact Adela Reid, Research Ethics and Compliance Officer, Concordia University, at 514-848-2424 ext. 7481 (email: [adela.reid@concordia.ca](mailto:adela.reid@concordia.ca)).

Thank you for your contribution to this study.

Sincerely,

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**Appendix 5**  
**French invitation, Phase II of data collection**

[Date]

Cher employé de ANVIL,

Voici une occasion de nous faire part de vos expériences et de vos opinions sur diverses perspectives reliées à votre vie au travail. Afin de comprendre les besoins de divers employés, nous devons mieux les connaître. Vos expériences sont uniques et importantes. Je vous invite à m'en faire part en répondant à un questionnaire électronique. Ceci devrait prendre environ 20 minutes.

Les informations visées par ce sondage font partie de l'étude que je mène pour compléter ma thèse de doctorat. Celle-ci porte sur l'importance des événements dans la vie des personnes et les stades de vie au travail. Les résultats de cette étude nous aideront à mieux comprendre ce qui est important au travail pour les employés de différentes générations.

Votre participation à cette étude est volontaire et anonyme. Vos réponses individuelles sont strictement confidentielles. Les comptes-rendus et rapports des résultats ne contiendront que des résumés des résultats (totaux, moyennes, etc.). Vous pourrez obtenir un rapport des résultats lorsque les analyses seront complétées.

Vous avez jusqu'au [DATE] pour compléter le questionnaire. Pour y accéder, copiez l'une des adresses suivantes dans la barre d'adresse de votre navigateur. Vous pouvez aussi me contacter directement pour obtenir l'hyperlien par courriel.

**Version du sondage en français :**

[hyperlien]

**Version du sondage en anglais :**

[hyperlien]

Lorsque vous aurez complété le questionnaire, j'aimerais vous remercier en vous invitant à participer à un tirage pour un certificat cadeau d'une valeur de 50\$. Suivez les instructions à la fin du questionnaire pour participer au tirage.

Si vous avez des questions concernant cette étude, n'hésitez pas à communiquer avec moi ou avec ma directrice de thèse, madame Linda Dyer, aux adresses indiquées ci-dessous. Si vous avez des questions concernant vos droits en tant que participant(e) à cette étude, contactez Adela Reid, agente préposée à l'éthique et aux normes de la recherche à l'Université Concordia au 514-848-2424, poste 7481 (adela.reid@concordia.ca).

Je vous remercie de votre précieuse collaboration à la réalisation de cette étude.

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**Appendix 6**  
**English version of the questionnaire, Phase I of data collection**

Dear ANVIL employee,

I would like to provide you with an opportunity to share your views on aspects important to your work and your life. To understand employees' needs, we need information from employees. I believe that each person's experiences are unique and important, and I hope that you will take the time to tell me about yours by completing an online questionnaire, which should take you about 15 minutes.

This survey is part of a study I am conducting for my doctoral thesis, which focuses on how events in peoples' lives and stage of life affect their work attitudes and behaviors. The results of this study will help improve our knowledge about what matters most to employees of different generations.

Your participation in this study is voluntary, anonymous and completely confidential. You have until September 21<sup>st</sup> to complete the survey. To access the survey, please click on the following web link, or cut and paste it into the address bar of your web browser.

[URL]

After you have completed the survey, we would like to show our appreciation by inviting you to participate in a draw for one of [number] \$50 gift certificates redeemable at [merchant's name]. To enter, simply follow the instructions at the end of the survey.

If you have any questions about this study, please feel free to contact me or my thesis supervisor, Dr. Linda Dyer, at either of the addresses indicated below. If you have questions about your rights as a research participant, please contact Adela Reid, Research Ethics and Compliance Officer, Concordia University, at 514-848-2424 ext. 7481 (email: [adela.reid@concordia.ca](mailto:adela.reid@concordia.ca)).

Thank you for your contribution to this study.

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## Conditions of participation

---

- Your participation involves answering an online questionnaire. Completing the questionnaire should take approximately 15-20 minutes.
- Your participation is provided anonymously.
- Your individual responses and will be treated confidentially. No one other than the researchers at Concordia University will have access to your responses. Results will only be reported in aggregate form (totals, averages, etc.).
- The data will be maintained on a password-protected computer and will be destroyed no longer than five years after any article is published for the research.
- Your participation is voluntary. You may decline to answer any question and are free to withhold your participation at any point with no consequence.
- No aspect of the questionnaire, in whole or in part, may be copied or reproduced.
- After you complete the survey, you will be invited to participate in a draw for prizes. If you choose to participate in this draw, you will have a chance to win one of [number] \$50 gift certificates at [store name].
- By clicking on the “agree” button” below, you indicate that you agree to participate in the survey as per the conditions explained above.

[“agree” button]

## General instructions

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Although it might appear that some of the items in the questionnaire are similar to one another, each item is important and contributes to the validity of the research results.

### Demographic information

---

1. How long have you worked for ANVIL? \_\_\_\_\_ years
2. What is your current job title? \_\_\_\_\_
3. How long have you worked in your current job? \_\_\_\_\_ years
4. Total work experience: \_\_\_\_\_ years
5. Sex:  Male  Female
6. Your Age: \_\_\_\_\_
7. Education (check the highest level you have completed):
- High school  University degree (specify)
- Community college/CEGEP  \_\_\_\_\_
- Other (specify) \_\_\_\_\_
8. Work status (check all that apply):  Part Time  Contract or temporary  Unionized
- Full Time  Permanent  Non-unionized
9. I hope to retire in: \_\_\_\_\_ years
- 10: Which province do you live in? \_\_\_\_\_

## **Work as a part of your life**

**Your job at ANVIL is an important part of all the work tasks you accomplish every day. We will ask you specifically about it later in this questionnaire. The following 5 statements are about how you feel about work as a general aspect of your life. Here, work includes all the work tasks you accomplish, such as home maintenance work, volunteer work, schoolwork, and paid work. Circle the number that best expresses the degree to which you agree with each statement.**

Completely disagree      1      2      3      4      5      6      7      Completely agree

<b>1</b>	In general, the types of work tasks I accomplish correspond to what I want in life.	1	2	3	4	5	6	7
<b>2</b>	The conditions under which I accomplish my various work tasks are excellent.	1	2	3	4	5	6	7
<b>3</b>	In general, I am satisfied with the types of work I accomplish in my life.	1	2	3	4	5	6	7
<b>4</b>	Until now, I have obtained the important things I wanted to get from work in my life.	1	2	3	4	5	6	7
<b>5</b>	If I could change anything about work in my life, I would change almost nothing.	1	2	3	4	5	6	7

### Events in the past year

Indicate the extent to which the following events have taken place in your life during the past year. Circle the number that corresponds to your answer.

Never	Once	More than once
0	1	2

	Event			
1	Work provided an opportunity to leave my mark.	0	1	2
2	I experienced a major business readjustment (merger, reorganization, growth)	0	1	2
3	I experienced difficulties with a supervisor.	0	1	2
4	I enjoyed a personal privilege because of my years of service.	0	1	2
5	Due to company policy, I received a reward or an advantage based on my years of service.	0	1	2
6	A long-term project was assigned to a less experienced colleague.	0	1	2
7	Something happened that made me feel that I needed to update or increase my skill level.	0	1	2
8	I experienced a major change in working hours or conditions.	0	1	2
9	Someone mentioned that I had substantial work experience in my field.	0	1	2
10	I experienced an outstanding personal achievement at work.	0	1	2
11	A less experienced worker came to me for advice.	0	1	2
12	I was passed over for a job assignment because company policy determined my skills were inadequate.	0	1	2
13	I obtained a work-related change I am entitled to.	0	1	2
14	I began or finished a formal training program (continuous education, college, university, professional designation qualification, etc.)	0	1	2
15	My son or daughter (step-son, step-daughter) left home.	0	1	2
16	I took on a large personal loan.	0	1	2
17	My work required me to rely on knowledge that less experienced people do not have.	0	1	2
18	I experienced a major change in social or leisure activities.	0	1	2
19	A company policy reminded me of the amount of time I have left before retirement.	0	1	2
20	Something happened that made me feel less enthusiastic about working.	0	1	2
21	A colleague with less work experience than I have was promoted to a supervisory or managerial position.	0	1	2

**Events in the past year (continued)**

Indicate the extent to which the following events have taken place in your life during the past year. Circle the number that corresponds to your answer.

Never	Once	More than once
0	1	2

	Event			
22	I experienced a major personal injury or illness.	0	1	2
23	I was passed over when participants were selected for a new job training activity.	0	1	2
24	Something happened that made me worry about my health.	0	1	2
25	I became responsible for a new family member (birth, adoption, older adult requiring care)	0	1	2
26	Company policy determined that I was not entitled to participate in a training activity.	0	1	2
27	My spouse, significant other or close friend talked about retiring.	0	1	2
28	Something happened that made me think about the relationship between my job and my health.	0	1	2
29	The tasks I accomplish in my job changed substantially.	0	1	2
30	I was reminded of the amount of time I have left before retirement.	0	1	2
31	A company policy required me to have a medical exam (hearing test, general exam).	0	1	2
32	Someone appreciated my work experience.	0	1	2
33	I took on or renewed a mortgage	0	1	2
34	I received information about retirement.	0	1	2
35	A change in health made work more difficult.	0	1	2
36	I got married or established a long-term personal partnership.	0	1	2
37	A company policy required me to update my skills in order to accomplish my job.	0	1	2
38	I was able to work at my own pace or work in my own way because of my experience.	0	1	2
39	A change in company policy required me to adapt to new work conditions.	0	1	2
40	Something happened that made me feel professionally out of touch.	0	1	2
41	I was not able to keep up with the pace of work.	0	1	2
42	I experienced a major change of responsibilities at work (promotion, demotion, coaching, supervising, etc.)	0	1	2

### Events in the past year (continued)

Indicate the extent to which the following events have taken place in your life during the past year. Circle the number that corresponds to your answer.

Never	Once	More than once
0	1	2

	Event			
43	A work colleague became seriously ill.	0	1	2
44	I experienced a divorce or dissolution of a long-term personal partnership.	0	1	2
45	A company policy changed the way I do my job.	0	1	2
46	I showed a less experienced colleague a "trick of the trade."	0	1	2
47	A work colleague retired.	0	1	2
48	I was invited to a meeting or discussion about retirement planning.	0	1	2
49	I was invited to join a club or engage in an activity popular with retirees.	0	1	2

## How you feel about your job at ANVIL

Tell us how you feel about your job at ANVIL. Please circle the number from 1 to 7 that best expresses your thoughts and feelings about each statement.

Completely disagree	1	2	3	4	5	6	7	Completely agree
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1	I would be very happy to spend the rest of my career with ANVIL.	1	2	3	4	5	6	7
2	ANVIL has a great deal of personal meaning to me.	1	2	3	4	5	6	7
3	I consider my job rather unpleasant.	1	2	3	4	5	6	7
4	I feel that I have too few options to consider leaving ANVIL.	1	2	3	4	5	6	7
5	I do not feel like "part of the family" at ANVIL.	1	2	3	4	5	6	7
6	I find real enjoyment in my job.	1	2	3	4	5	6	7
7	It would be very hard for me to leave ANVIL right now, even if I wanted to.	1	2	3	4	5	6	7
8	I really feel as if ANVIL's problems are my own.	1	2	3	4	5	6	7
9	Most days I am enthusiastic about my job.	1	2	3	4	5	6	7
10	One of the few negative consequences of leaving ANVIL would be the scarcity of available alternatives.	1	2	3	4	5	6	7
11	I do not feel "emotionally attached" to ANVIL.	1	2	3	4	5	6	7
12	I feel fairly well satisfied with my present job.	1	2	3	4	5	6	7
13	If I had not already put so much of myself into ANVIL, I might consider working elsewhere.	1	2	3	4	5	6	7
14	I do not feel a strong sense of "belonging" to ANVIL.	1	2	3	4	5	6	7
15	Each day at work seems like it will never end.	1	2	3	4	5	6	7
16	Too much of my life would be disrupted if I decided I wanted to leave ANVIL right now.	1	2	3	4	5	6	7
17	Right now, staying with ANVIL is a matter of necessity as much as desire.	1	2	3	4	5	6	7

## Your relationship with ANVIL

To what extent do the statements below describe your relationship with ANVIL? Please circle the number that best expresses your thoughts and feelings about each statement.

Not at all	Slightly	Somewhat	Moderately	To a great extent
1	2	3	4	5

1	I am uncertain what my obligations are to ANVIL.	1	2	3	4	5
2	I cannot believe what ANVIL communicates to me.	1	2	3	4	5
3	It's difficult to predict the future of the relationship I have with ANVIL.	1	2	3	4	5
4	The meaningfulness of my work at ANVIL is diminishing over time.	1	2	3	4	5
5	I expect little from ANVIL.	1	2	3	4	5
6	As time goes on, I feel that I'm less interested in working for ANVIL.	1	2	3	4	5
7	I cannot anticipate what my future relationship with ANVIL will be.	1	2	3	4	5
8	I have no trust in ANVIL.	1	2	3	4	5
9	The longer I work at ANVIL, the more I focus on just earning a paycheck.	1	2	3	4	5
10	It's difficult to anticipate my future commitments to ANVIL.	1	2	3	4	5
11	A gap exists between what ANVIL promises and what it delivers.	1	2	3	4	5
12	I expect to receive more from ANVIL in the future than I receive today.	1	2	3	4	5
13	My commitments to ANVIL are uncertain.	1	2	3	4	5
14	Inconsistency exists between what ANVIL promises and what it delivers.	1	2	3	4	5
15	Devoting myself more to ANVIL in the future will give me little in return.	1	2	3	4	5

## Your opinion about your age

Tell us how you feel, look and act compared with the age of people you work with. Check the box that corresponds to your choice in each case.

	Older	Younger	About the same age
Compared to the average age of members of my work group, I AM:			
Compared to the average age of members of my work group, I FEEL:			
Compared to the average age of members of my work group, I LOOK:			
Compared to the average age of members of my work group, I ACT:			

In each of the following situations, which age do you best identify with? Check the box that corresponds to your choice in each case.

	16-25 years	26-35 years	36-45 years	46-55 years	56-75 years
The way you generally feel					
The way you look or your appearance					
The age of people whose interests and activities are most like yours					
The age that you would like to be if you could choose your age right now					

Comments or suggestions:

**Follow-up**

You will be notified by email when a summary of the results of this study becomes available. Please remember that your individual responses will always remain confidential and will only be accessible to the researchers responsible for this study at Concordia University.

To complement the findings of this study, we might conduct other surveys at ANVIL in the future. We hope that you will be interested in participating in our future studies.

**Personal identification number**

In order to maintain your anonymity for this study and any follow-up studies you might participate in, we ask that you create a personal identification number consisting of your mother's initials (at birth) and the last four digits of your home phone number.

**Example:**

Mother's name at birth: Mary Elizabeth Lee  
Last four digits of home phone number: 0000  
PIN: MEL0000

**Mother's initials** \_\_\_\_\_

**Last four digits of your home phone number** \_\_\_\_\_

**Thank you for your participation!**

## Prize Draw

**[This section appears as a separate link after respondents have completed the online survey. Respondents may simply continue to finish or opt to enter the draw by clicking an “agree” button.]**

We thank you for your participation in this study and offer you the chance to participate in our draw for prizes. If you would like to be entered in our draw for prizes, please provide an e-mail address where we will be able to contact you if you win. Please note that this information is managed completely separately from your survey responses. Providing your email address to enter the draw for prizes does not compromise the anonymity of your responses.

E-mail address: \_\_\_\_\_

**Appendix 7****French version of the questionnaire, Phase I of data collection**

Cher [nom du participant],

L'équipe de gestion chez ANVIL m'a permis de vous inviter à participer à une étude de gestion dans l'entreprise. Mon expérience personnelle en tant qu'employée, gestionnaire et consultante m'a appris l'importance de sonder les employés sur leurs attitudes au travail. Je crois fermement que vos expériences sont uniques et importantes. J'espère donc que vous voudrez m'en faire part.

Je conduis cette étude pour ma thèse de doctorat, qui se penche sur les liens entre les événements dans la vie des personnes et les attitudes et comportements au travail. En plus, j'espère concevoir comment le stade de vie influence les attitudes et les comportements au travail. Les résultats de cette étude nous aideront à mieux comprendre ce qui importe à différentes générations d'employés.

Votre participation à cette étude est volontaire, anonyme et complètement confidentielle. Elle n'implique que de compléter un questionnaire par Internet, ce qui demande environ 15 minutes. Pour accéder au questionnaire, vous pouvez cliquer sur l'hyperlien suivant ou alternativement, le copier et le placer dans la barre d'adresse de votre navigateur.

[ hyperlien ]

Lorsque vous aurez complété le questionnaire, vous serez invité(e) à participer à un tirage pour gagner l'un de [nombre] certificats cadeaux d'une valeur de \$50 chez [nom du marchand].

Si vous avez des questions concernant cette étude, n'hésitez pas à communiquer avec moi ou avec ma directrice de thèse, madame Linda Dyer, aux adresses indiquées ci-dessous. Si vous avez des questions concernant vos droits en tant que participant(e) à cette étude, contactez Adela Reid, agente préposée à l'éthique et aux normes de la recherche à l'Université Concordia au 514-848-2424, poste 7481 ([adela.reid@concordia.ca](mailto:adela.reid@concordia.ca)).

Je vous remercie de votre précieuse collaboration à la réalisation de cette étude.

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## **Conditions de participation**

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- Votre participation implique de compléter un questionnaire, ce qui devrait prendre environ 15-20 minutes.
- Vos réponses sont anonymes.
- Vos réponses individuelles sont confidentielles. Seuls les chercheurs à l'Université Concordia auront accès à vos réponses individuelles. Les comptes-rendus des résultats seront présentés exclusivement sous forme agrégative (totaux, moyennes, etc.).
- Les données seront conservées électroniquement et protégées par mot de passe pendant une période n'excédant pas cinq années après la publication de tout article sur cette recherche, après quoi elles seront détruites.
- Votre participation est volontaire. Vous pouvez décider de ne pas répondre à certaines questions ou de terminer votre participation à tout moment sans conséquence.
- Aucun aspect du questionnaire, en partie ou en entier, ne peut être reproduit.
- Lorsque vous aurez complété le questionnaire, vous serez invité(e) à participer à un tirage pour gagner un prix. Si vous choisissez de participer, vous courrez la chance de gagner l'un de [nombre] certificats cadeaux d'une valeur de \$50 chez [nom du marchand].
- En cliquant sur le bouton « j'accepte », vous indiquez que vous consentez à participer au sondage selon les conditions mentionnées ci-dessus.

[bouton « j'accepte »]

## **Informations importantes**

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Même si certains items dans le questionnaire se ressemblent, chacun de ces items est important pour valider les résultats.

Le nom de votre employeur apparaît dans le questionnaire uniquement pour clarifier la relation d'emploi que nous étudions.

*Pour alléger le texte dans ce questionnaire, le genre masculin est parfois employé pour désigner à la fois les personnes de sexe masculin et féminin.*

## Informations démographiques

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1. Combien de temps avez-vous travaillé pour ANVIL? \_\_\_\_\_ années

2. Quel poste occupez-vous présentement?  
\_\_\_\_\_

3. Depuis combien de temps occupez-vous ce poste?  
\_\_\_\_\_ années

4. Expérience de travail totale (tous les emplois que vous avez occupés)  
\_\_\_\_\_ années

5. Sexe :     \_\_\_ Homme     \_\_\_ Femme

6. Votre âge: \_\_\_\_\_

7. Éducation (indiquez le plus haut niveau obtenu):

\_\_\_ Études secondaires complétées                    \_\_\_ Diplôme universitaire (spécifiez) \_\_\_\_\_  
\_\_\_ Études collégiales (CEGEP) complétées        \_\_\_ Autre (spécifiez) \_\_\_\_\_

8. Conditions de travail    \_\_\_ Temps partiel                    \_\_\_ Contractuel ou                    \_\_\_ Syndiqué  
(cochez toutes les            \_\_\_ Temps plein                    temporaire                    \_\_\_ Non-syndiqué  
catégories qui                    \_\_\_ Permanent

9. Dans combien de temps espérez-vous prendre votre retraite? \_\_\_\_\_ années

10. Dans quelle province résidez-vous? \_\_\_\_\_

## La place du travail dans votre vie

Votre emploi chez ANVIL est un aspect important de l'ensemble du travail que vous accomplissez à tous les jours. Nous allons vous poser des questions spécifiques sur votre emploi plu loin dans ce questionnaire. Les 5 énoncés suivants concernent la place du travail en tant qu'un aspect de votre vie. Ici, le travail inclus toutes les formes de travail – votre travail à la maison, le travail bénévole, ainsi que votre emploi. Encerchez le chiffre de 1 à 7 qui correspond le mieux à votre réponse.

<b>Complètement en désaccord</b>	1	2	3	4	5	6	7	<b>Complètement en accord</b>
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<b>1</b>	En général, le type de travail que je fais correspond de près à ce que je veux dans la vie.	1	2	3	4	5	6	7
<b>2</b>	Les conditions dans lesquelles je fais mon travail sont excellentes.	1	2	3	4	5	6	7
<b>3</b>	Je suis satisfait(e) du genre de travail (travaux) que je fais.	1	2	3	4	5	6	7
<b>4</b>	Jusqu'à maintenant, j'ai obtenu les choses importantes que je voulais obtenir par le travail.	1	2	3	4	5	6	7
<b>5</b>	Si je pouvais changer quoi que ce soit concernant le travail, je n'y changerais presque rien.	1	2	3	4	5	6	7

## Événements vécus depuis un an

Identifiez votre expérience des événements suivants *depuis un an*. Dans chaque cas, encerclez le chiffre qui correspond à votre réponse.

	Ceci ne m'est pas arrivé 0	Ceci est arrivé une fois 2	Ceci est arrivé plus d'une fois 3	
1	J'ai eu l'occasion de me démarquer au travail.	1	2	3
2	J'ai vécu un ajustement majeur dans mon entreprise (acquisition, réorganisation, croissance).	1	2	3
3	J'ai vécu des difficultés avec un superviseur.	1	2	3
4	J'ai bénéficié d'un privilège personnel à cause de mon ancienneté.	1	2	3
5	Suivant les politiques de l'entreprise, j'ai reçu une récompense ou un avantage basé sur l'ancienneté.	1	2	3
6	Un projet à longue échéance a été assigné à un collègue qui avait moins d'expérience que moi.	1	2	3
7	Quelque chose m'a fait sentir que je devrais mettre à jour ou augmenter mes compétences.	1	2	3
8	J'ai vécu un changement majeur dans mon horaire ou mes conditions de travail.	1	2	3
9	Quelqu'un a mentionné que j'ai beaucoup d'expérience dans mon domaine de travail.	1	2	3
10	J'ai réalisé une grande réussite personnelle au travail.	1	2	3
11	Un collègue moins expérimenté m'a demandé des conseils.	1	2	3
12	Je n'ai pas pu faire une tâche au travail puisque mes compétences étaient inadéquates selon les politiques de l'entreprise.	1	2	3
13	J'ai obtenu un changement au travail que je crois avoir mérité.	1	2	3
14	J'ai commencé ou complété un programme de formation (formation continue, études collégiales, université, désignation professionnelle, etc.)	1	2	3
15	Un de mes enfants a quitté la maison.	1	2	3
16	J'ai contracté un prêt personnel substantiel.	1	2	3
17	Mon travail m'a requis d'utiliser des connaissances que des personnes moins expérimentées ne possèdent pas.	1	2	3
18	J'ai vécu un changement majeur dans mes activités sociales ou de loisirs.	1	2	3
19	Une politique de l'entreprise m'a rappelé le montant de temps qu'il me reste avant la retraite.	1	2	3

## Événements vécus depuis un an (suite)

Identifiez votre expérience des événements suivants *depuis un an*. Dans chaque cas, encerclez le chiffre qui correspond à votre réponse.

Ceci ne m'est pas arrivé	Ceci est arrivé une fois	Ceci est arrivé plus d'une fois
0	2	3

	Événement			
20	Quelque chose est arrivé qui m'a fait ressentir une perte d'enthousiasme pour le travail.	1	2	3
21	Une personne avec moins d'expérience de travail que moi a été promu(e) à un poste de supervision ou de gestion.	1	2	3
22	J'ai été victime d'une blessure ou maladie grave.	1	2	3
23	J'ai été ignoré lorsqu'on a choisi des participants pour une activité de perfectionnement au travail.	1	2	3
24	Quelque chose est arrivé qui a augmenté mes préoccupations de santé.	1	2	3
25	Je n'ai pas pu participer à une activité de formation à cause d'une politique de l'entreprise.	1	2	3
26	Mes responsabilités familiales ont augmenté (naissance, adoption, adulte ayant besoin de soins, etc.)	1	2	3
27	Mon conjoint (ma conjointe) ou ami(e) de cœur a parlé de la retraite.	1	2	3
28	Quelque chose est arrivé qui m'a fait réfléchir à la relation entre mon travail et ma santé.	1	2	3
29	Les tâches que j'accomplis dans mon travail ont changé substantiellement.	1	2	3
30	On m'a rappelé le montant de temps qu'il me reste avant de prendre ma retraite.	1	2	3
31	Une politique de l'entreprise m'a requis de subir un examen médical (test d'ouïe, examen général).	1	2	3
32	Quelqu'un a apprécié mon expérience de travail.	1	2	3
33	J'ai contracté ou renouvelé une hypothèque.	1	2	3
34	J'ai reçu de l'information sur la retraite.	1	2	3
35	Un changement dans mon état de santé a rendu mon travail plus difficile.	1	2	3
36	Je me suis marié ou j'ai établi une relation à long terme.	1	2	3
37	Une politique de l'entreprise m'a requise de mettre à jour mes compétences afin d'accomplir mon travail.	1	2	3

## Événements vécus depuis un an (suite)

Identifiez votre expérience des événements suivants *depuis un an*. Dans chaque cas, encerclez le chiffre qui correspond à votre réponse.

Ceci ne m'est pas arrivé	Ceci est arrivé une fois	Ceci est arrivé plus d'une fois
0	2	3

	Événement			
38	J'ai pu travailler à mon rythme ou à ma manière à cause de mon expérience.	1	2	3
39	Un changement dans les politiques de l'entreprise m'a requis de m'adapter à de nouvelles conditions de travail.	1	2	3
40	Quelque chose m'a fait ressentir que j'étais déconnecté au niveau professionnel.	1	2	3
41	Le rythme du travail a été trop rapide pour moi.	1	2	3
42	J'ai vécu un changement majeur dans mes responsabilités au travail (promotion, rétrogradation, supervision, coaching, etc.).	1	2	3
43	Un collègue de travail a été gravement malade.	1	2	3
44	Une relation personnelle à long terme s'est terminée (exemple: séparation, divorce, etc..)	1	2	3
45	Une nouvelle politique de l'entreprise a changé la manière que je fais mon travail.	1	2	3
46	J'ai montré à un employé moins expérimenté un « truc du métier. »	1	2	3
47	Un collègue de travail a pris sa retraite.	1	2	3
48	J'ai été invité à devenir membre d'un groupe populaire avec les retraités ou à participer à une activité populaire avec les retraités.	1	2	3
49	J'ai été invité à une discussion concernant la retraite.	1	2	3

## Vos sentiments envers votre emploi chez ANVIL

Évaluez l'emploi que vous occupez chez ANVIL. Encerclez le chiffre de 1 à 7 qui correspond le mieux à vos sentiments concernant chaque énoncé.

Complètement en désaccord	1	2	3	4	5	6	7	Complètement en accord
---------------------------	---	---	---	---	---	---	---	------------------------

1	Je serais très heureux de passer le reste de ma carrière chez ANVIL.	1	2	3	4	5	6	7
2	ANVIL a beaucoup d'importance personnelle pour moi.	1	2	3	4	5	6	7
3	Je trouve mon emploi plutôt désagréable.	1	2	3	4	5	6	7
4	Je crois avoir trop peu d'alternatives pour pouvoir considérer quitter ANVIL.	1	2	3	4	5	6	7
5	Je ne sens pas que je suis « un membre de la famille » chez ANVIL.	1	2	3	4	5	6	7
6	Je trouve mon emploi vraiment agréable.	1	2	3	4	5	6	7
7	Même si je voulais partir, il serait difficile pour moi de quitter ANVIL présentement.	1	2	3	4	5	6	7
8	Je ressens vraiment comme si les problèmes d'ANVIL étaient les miens.	1	2	3	4	5	6	7
9	La plupart du temps je suis enthousiaste envers mon emploi.	1	2	3	4	5	6	7
10	La rareté des alternatives disponibles serait une des seules conséquences négatives de quitter ANVIL.	1	2	3	4	5	6	7
11	Je ne ressens pas d'attachement émotionnel à ANVIL.	1	2	3	4	5	6	7
12	Je suis assez bien satisfait avec mon emploi actuel.	1	2	3	4	5	6	7
13	Si je n'avais pas déjà mis autant de moi-même dans ANVIL, je penserais peut-être à travailler ailleurs.	1	2	3	4	5	6	7
14	Je ne ressens pas un grand sentiment d'appartenance à ANVIL.	1	2	3	4	5	6	7
15	Chaque jour au travail semble ne jamais finir.	1	2	3	4	5	6	7
16	Une trop grande partie de ma vie serait perturbée si je décidais de quitter ANVIL.	1	2	3	4	5	6	7
17	Présentement, demeurer à l'emploi d'ANVIL est autant une question de nécessité que de désir.	1	2	3	4	5	6	7

## Votre relation avec ANVIL

Les énoncés suivants décrivent-ils la relation que vous avez avec ANVIL? Dans chaque cas, choisissez le chiffre qui correspond le mieux à votre réponse.

	Pas du tout 1	Un peu 2	Quelque peu 3	Modérément 4	Grandement 5
1	Mes obligations envers ANVIL sont incertaines.				
2	Je ne peux pas me fier aux communications transmises par ANVIL.				
3	Il est difficile de prédire le futur de la relation que j'ai avec ANVIL.				
4	L'importance de mon travail chez ANVIL diminue au fil du temps.				
5	Je m'attends à recevoir peu d'ANVIL.				
6	Au fil du temps, je suis de moins en moins intéressé à travailler pour ANVIL.				
7	Je ne peux pas prédire quelle sera ma relation future avec ANVIL.				
8	Je ne peux pas faire confiance à ANVIL.				
9	Plus longtemps je travaille chez ANVIL, plus je me concentre exclusivement à gagner mon salaire.				
10	Il est difficile pour moi d'anticiper mes engagements futurs envers ANVIL.				
11	Il existe une différence entre ce qu'ANVIL promet et ce qu'ANVIL livre.				
12	Je m'attends à recevoir plus d'ANVIL dans le futur comparativement à ce que je reçois aujourd'hui.				
13	Mon engagement envers ANVIL est incertain.				
14	ANVIL promet une chose et livre autre chose.				
15	Ma dévotion future à ANVIL me donnera peu en retour.				

### **Votre opinion sur votre âge**

**Comparativement aux personnes avec qui vous travaillez, dites-nous comment vous êtes. Cochez la case qui correspond à votre choix dans chaque cas.**

	Plus vieux	Plus jeune	Environ le même âge
Comparativement à l'âge moyen des membres de mon groupe de travail, JE SUIS :			
Comparativement à l'âge moyen des membres de mon groupe de travail, JE ME SENS :			
Comparativement à l'âge moyen des membres de mon groupe de travail, JE PARAIS :			
Comparativement à l'âge moyen des membres de mon groupe de travail, J'AGIS :			

**En général, identifiez le groupe d'âge auquel vous vous identifiez le mieux dans chacune des situations suivantes. Cochez la case qui correspond à votre choix dans chaque cas.**

	16-25 ans	26-35 ans	36-45 ans	46-55 ans	56-75 ans
Comment vous vous sentez :					
Votre apparence physique :					
L'âge des personnes qui ont des intérêts et des activités les plus semblables aux vôtres :					
L'âge que vous aimeriez être si vous pouvez choisir votre âge aujourd'hui :					

**Commentaires ou suggestions :**

## Suivi

Vous recevrez un message par courrier électronique lorsque les résultats de cette étude seront disponibles. Veuillez noter que vos réponses individuelles sont strictement confidentielles et ne seront accessibles qu'aux chercheurs responsables de cette étude à l'Université Concordia.

Dans le futur, d'autres études chez ANVIL pourraient être organisées afin de connaître plus à fond certaines perspectives. Nous espérons que vous serez intéressés à participer à ces études futures.

## Numéro d'identification personnel

Afin de maintenir votre anonymat pour cette étude et toute autre étude à laquelle vous aimeriez participer, nous vous demandons de créer un numéro d'identification personnel à partir des initiales de votre mère (à sa naissance) et des quatre derniers chiffres de votre numéro de téléphone au domicile.

### Exemple :

Nom de la mère à sa naissance : Marie Élisabeth Landry  
 Quatre derniers chiffres du numéro de téléphone au domicile : 0000  
 NIP : MEL0000

Les initiales de votre mère : \_\_\_\_\_

Les quatre derniers chiffres de votre numéro de téléphone au domicile : \_\_\_\_\_

## Merci de votre participation!

Pour vous remercier de votre participation, nous vous invitons à participer à un tirage. Si vous participez, vous courrez la chance de gagner l'un de XX prix, incluant X certificats cadeaux d'une valeur de \$50 chez [nom du marchand], X certificats cadeaux d'une valeur de \$20 chez [nom du marchand] et X certificats cadeaux d'une valeur de \$10 chez [nom du marchand]. Si vous désirez participer au tirage, choisissez le bouton « participer ». Sinon, choisissez le bouton « terminer » pour finir sans participer au tirage.

[bouton « participer »]

[bouton « terminer »]

**Tirage**

Nous vous remercions de votre participation à cette étude et nous vous offrons de participer à notre tirage. Nous vous demandons de nous indiquer une adresse électronique afin que nous puissions vous contacter si vous gagnez. Veuillez noter que cette information est traitée complètement séparément de vos réponses au questionnaire. Vos réponses demeurent donc anonymes.

Adresse électronique : \_\_\_\_\_

**Appendix 8**  
**English version of the questionnaire, Phase II of data collection**

Dear ANVIL employee,

I would like to provide you with an opportunity to share your views on aspects important to your work and your life. To understand employees' needs, we need information from employees. I believe that each person's experiences are unique and important, and I hope that you will take the time to tell me about yours by completing an online questionnaire, which should take approximately 15 minutes.

This survey is part of a study I am conducting for my doctoral thesis, which focuses on the importance of events in peoples' lives and stage of life at work. The results of this study will help improve our knowledge about what matters most to employees of different generations.

Your participation in this study is voluntary, anonymous and completely confidential. Your individual responses are strictly confidential. Results will only be reported in aggregate form (totals, averages, etc.). You will have access to a report of the results when the analyses are completed.

You have until [DATE] to complete the survey. To access the survey, please click on the following web link, or cut and paste it into the address bar of your web browser.

[URL]

After you have completed the survey, we would like to show our appreciation by inviting you to participate in a draw for one of [number] \$50 gift certificates redeemable at [merchant's name]. To enter, simply follow the instructions at the end of the survey.

If you have any questions about this study, please feel free to contact me or my thesis supervisor, Dr. Linda Dyer, at either of the addresses indicated below. If you have questions about your rights as a research participant, please contact Adela Reid, Research Ethics and Compliance Officer, Concordia University, at 514-848-2424 ext. 7481 (email: [adela.reid@concordia.ca](mailto:adela.reid@concordia.ca)).

Thank you for your contribution to this study.

Sincerely,

Nicole Bérubé  
PhD Candidate  
John Molson School of Business  
Concordia University  
[nberube@jmsb.concordia.ca](mailto:nberube@jmsb.concordia.ca)  
514-848-2424 ext. 2967

Thesis supervisor:  
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Professor of Management  
John Molson School of Business  
Concordia University  
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514-848-2424 ext. 2936

## **Conditions of participation**

---

- Your participation involves answering an online questionnaire.
- Completing the questionnaire should take approximately 15-20 minutes.
- Your answers are anonymous.
- Your individual responses are strictly confidential. No one other than the researchers at Concordia University will have access to your responses.
- The researcher will not report individual responses. Only summary results (totals, averages, etc.) will appear in any report based on the data collected in this survey.
- You will have access to a report of the results when the data analysis is completed.
- The data will be maintained on a password-protected computer and will be destroyed no longer than five years after any article is published for the research.
- Your participation is voluntary. You may decline to answer any question and are free to withhold your participation at any point with no consequence.
- No aspect of the questionnaire, in whole or in part, may be copied or reproduced.
- After you complete the survey, you will be invited to participate in a draw for prizes. If you choose to participate in this draw, you will have a chance to win one of [number] gift certificates, each worth \$50 at [merchant's name].
- By clicking on the "agree" button" below, you indicate that you agree to participate in the survey as per the conditions explained above.

["agree" button]

## **General instructions**

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Although it might appear that some of the items in the questionnaire are similar to one another, each item is important and contributes to the validity of the research results.

The name of your employer appears in this survey only to clarify the employment relationship we are investigating.



### Events in the past year

Indicate the extent to which the following events have taken place in your life during the past year. Circle the number that corresponds to your answer.

Never	Once	More than once
0	1	2

	Event			
1	I had an opportunity to leave my mark at work.	0	1	2
2	I experienced a major business readjustment (merger, reorganization, growth) -	0	1	2
3	I experienced difficulties with a supervisor.	0	1	2
4	I enjoyed a personal privilege because of my years of service.	0	1	2
5	Due to company policy, I received a reward or an advantage based on my years of service.	0	1	2
6	A long-term project was assigned to a less experienced colleague.	0	1	2
7	Something happened that made me feel that I needed to update or increase my skill level.	0	1	2
8	I experienced a major change in working hours or conditions.	0	1	2
9	Someone mentioned that I had substantial work experience in my field.	0	1	2
10	I experienced an outstanding personal achievement at work.	0	1	2
11	A less experienced colleague came to me for advice.	0	1	2
12	I was passed over for a job assignment because company policy determined my skills were inadequate.	0	1	2
13	I obtained a work-related change I am entitled to.	0	1	2
14	I began or finished a formal training program (continuous education, college, university, professional designation qualification, etc.)	0	1	2
15	My son or daughter (step-son, step-daughter) left home.	0	1	2
16	I took on a large personal loan.	0	1	2
17	My work required me to rely on knowledge that less experienced people do not have.	0	1	2
18	I experienced a major change in social or leisure activities.	0	1	2
19	A company policy reminded me of the amount of time I have left before retirement.	0	1	2
20	Something happened that made me feel less enthusiastic about working.	0	1	2
21	A colleague with less work experience than I have was promoted to a supervisory or managerial position.	0	1	2

### Events in the past year (continued)

Indicate the extent to which the following events have taken place in your life during the past year. Circle the number that corresponds to your answer.

Never	Once	More than once
0	1	2

	Event			
22	I experienced a major personal injury or illness.	0	1	2
23	I was passed over when participants were selected for a new job training activity.	0	1	2
24	Something happened that made me worry about my health.	0	1	2
25	I became responsible for a new family member (birth, adoption, older adult requiring care)	0	1	2
26	Company policy determined that I was not entitled to participate in a training activity.	0	1	2
27	My spouse, significant other or close friend talked about retiring.	0	1	2
28	Something happened that made me think about the relationship between my job and my health.	0	1	2
29	The tasks I accomplish in my job changed substantially.	0	1	2
30	I was reminded of the amount of time I have left before retirement.	0	1	2
31	A company policy required me to have a medical exam (hearing test, general exam).	0	1	2
32	Someone appreciated my work experience.	0	1	2
33	I took on or renewed a mortgage	0	1	2
34	I received information about retirement.	0	1	2
35	A change in health made work more difficult.	0	1	2
36	I got married or established a long-term personal partnership.	0	1	2
37	A company policy required me to update my skills in order to accomplish my job.	0	1	2
38	I was able to work at my own pace or work in my own way because of my experience.	0	1	2
39	A change in company policy required me to adapt to new work conditions.	0	1	2
40	Something happened that made me feel professionally out of touch.	0	1	2
41	I was not able to keep up with the pace of work.	0	1	2
42	I experienced a major change of responsibilities at work (promotion, demotion, coaching, supervising, etc.)	0	1	2

**Events in the past year (continued)**


---

Indicate the extent to which the following events have taken place in your life during the past year. Circle the number that corresponds to your answer.

Never	Once	More than once
0	1	2

	Event			
43	A work colleague became seriously ill.	0	1	2
44	I experienced a divorce or dissolution of a long-term personal partnership.	0	1	2
45	A company policy changed the way I do my job.	0	1	2
46	I showed a less experienced colleague a "trick of the trade."	0	1	2
47	A work colleague retired.	0	1	2
48	I was invited to a meeting or discussion about retirement planning.	0	1	2
49	I was invited to join a club or engage in an activity popular with retirees.	0	1	2

## About your job at ANVIL

The following statements are about how you feel about your job at ANVIL. Please choose the number from 1 to 7 that best expresses your thoughts and feelings about each statement.

Completely disagree	1	2	3	4	5	6	7	Completely agree
---------------------	---	---	---	---	---	---	---	------------------

1	I would be very happy to spend the rest of my career with ANVIL.	1	2	3	4	5	6	7
2	ANVIL has a great deal of personal meaning to me.	1	2	3	4	5	6	7
3	I consider my job rather unpleasant.	1	2	3	4	5	6	7
4	I feel that I have too few options to consider leaving ANVIL.	1	2	3	4	5	6	7
5	I do not feel like "part of the family" at ANVIL.	1	2	3	4	5	6	7
6	I find real enjoyment in my job.	1	2	3	4	5	6	7
7	It would be very hard for me to leave ANVIL right now, even if I wanted to.	1	2	3	4	5	6	7
8	I really feel as if ANVIL's problems are my own.	1	2	3	4	5	6	7
9	Most days I am enthusiastic about my job.	1	2	3	4	5	6	7
10	One of the few negative consequences of leaving ANVIL would be the scarcity of available alternatives.	1	2	3	4	5	6	7
11	I do not feel "emotionally attached" to ANVIL.	1	2	3	4	5	6	7
12	I feel fairly well satisfied with my present job.	1	2	3	4	5	6	7
13	If I had not already put so much of myself into ANVIL, I might consider working elsewhere.	1	2	3	4	5	6	7
14	I do not feel a strong sense of "belonging" to ANVIL.	1	2	3	4	5	6	7
15	Each day at work seems like it will never end.	1	2	3	4	5	6	7
16	Too much of my life would be disrupted if I decided I wanted to leave ANVIL right now.	1	2	3	4	5	6	7
17	Right now, staying with ANVIL is a matter of necessity as much as desire.	1	2	3	4	5	6	7

## About your job at ANVIL

---

Think of the work you accomplish in your present job. How well does each of the following words or phrases describe your work? Choose "yes" if it describes your work, "no" if it does not, and "uncertain" if you are uncertain or cannot decide.

The following words or phrases describe my work in my present job:

	Yes	No	Uncertain
Fascinating			
Routine			
Satisfying			
Boring			
Good			
Gives a sense of accomplishment			
Respected			
Uncomfortable			
Pleasant			
Useful			
Challenging			
Simple			
Repetitive			
Creative			
Dull			
Uninteresting			
Can see results			
Uses my abilities			

**Think of the opportunities for promotion that you have now. How well does each of the following words or phrases describe your opportunities for promotion? Choose "yes" if it describes your opportunities for promotion, "no" if it does not, and "uncertain" if you are uncertain or cannot decide.**

**The following words or phrases describe my opportunities for promotion:**

	<b>Yes</b>	<b>No</b>	<b>Uncertain</b>
<b>Good opportunities for promotion</b>			
<b>Opportunities somewhat limited</b>			
<b>Promotion on ability</b>			
<b>Dead-end job</b>			
<b>Good chance for promotion</b>			
<b>Unfair promotion policy</b>			
<b>Infrequent promotions</b>			
<b>Regular promotions</b>			
<b>Fairly good chance for promotion</b>			

## Your relationship with ANVIL

To what extent do the statements below describe your relationship with ANVIL? Please choose the number that best expresses your thoughts and feelings about each statement.

Not at all	Slightly	Somewhat	Moderately	To a great extent
1	2	3	4	5

1	I am uncertain what my obligations are to ANVIL.	1	2	3	4	5
2	I cannot believe what ANVIL communicates to me.	1	2	3	4	5
3	It's difficult to predict the future of the relationship I have with ANVIL.	1	2	3	4	5
4	The meaningfulness of my work at ANVIL is diminishing over time.	1	2	3	4	5
5	I expect little from ANVIL.	1	2	3	4	5
6	As time goes on, I feel that I'm less interested in working for ANVIL.	1	2	3	4	5
7	I cannot anticipate what my future relationship with ANVIL will be.	1	2	3	4	5
8	I have no trust in ANVIL.	1	2	3	4	5
9	The longer I work at ANVIL, the more I focus on just earning a paycheck.	1	2	3	4	5
10	It's difficult to anticipate my future commitments to ANVIL.	1	2	3	4	5
11	A gap exists between what ANVIL promises and what it delivers.	1	2	3	4	5
12	I expect to receive more from ANVIL in the future than I receive today.	1	2	3	4	5
13	My commitments to ANVIL are uncertain.	1	2	3	4	5
14	Inconsistency exists between what ANVIL promises and what it delivers.	1	2	3	4	5
15	Devoting myself more to ANVIL in the future will give me little in return.	1	2	3	4	5

### Which age group do you most identify with?

Tell us how you feel, look and act compared with the age of people you work with. Check the box that corresponds to your choice in each case.

	Older	Younger	About the same age
Compared to the average age of members of my work group, I AM:			
Compared to the average age of members of my work group, I FEEL:			
Compared to the average age of members of my work group, I LOOK:			
Compared to the average age of members of my work group, I ACT:			

In each of the following situations, which age do you best identify with? Check the box that corresponds to your choice in each case.

	16-25 years	26-35 years	36-45 years	46-55 years	56-65 years	66-75
The way you generally feel						
The way you look or your appearance						
The age of people whose interests and activities are most like yours						
The age that you would like to be if you could choose your age right now						

I hope to retire in: \_\_\_\_\_ years

## What others would say about you

Choose the number from 1 to 7 that best expresses the degree to which you think most of the people you work with would agree with each statement.

Completely disagree	1	2	3	4	5	6	7	Completely agree
---------------------	---	---	---	---	---	---	---	------------------

**Most of the people who work with me (colleagues, supervisors, subordinates) would say that:**

1	I can be counted on to deliver results in a timely manner.	1	2	3	4	5	6	7
2	I prioritize tasks and activities to ensure that team/business goals are accomplished.	1	2	3	4	5	6	7
3	I do my share of the work.	1	2	3	4	5	6	7
4	I follow through on commitments to others.	1	2	3	4	5	6	7
5	I overcome work obstacles rather than "making excuses."	1	2	3	4	5	6	7
6	I know where to go and whom to talk to get things done.	1	2	3	4	5	6	7
7	I solve problems on my own when appropriate.	1	2	3	4	5	6	7
8	I learn from my mistakes.	1	2	3	4	5	6	7
9	I identify the key issues in a situation before taking action.	1	2	3	4	5	6	7
10	I earn the confidence and trust of others at work (team members, supervisors, customers).	1	2	3	4	5	6	7
11	I go out of my way to put the customer first.	1	2	3	4	5	6	7
12	I take action to ensure my team's success.	1	2	3	4	5	6	7
13	I effectively handle new situations.	1	2	3	4	5	6	7

**Comments or suggestions:****Follow-up**

You will be notified by email when a summary of the results of this study becomes available. Please remember that your individual responses will always remain confidential and will only be accessible to the researchers responsible for this study at Concordia University.

To complement the findings of this study, we might conduct other surveys at ANVIL in the future. We hope that you will be interested in participating in our future studies.

**Personal identification number**

In order to maintain your anonymity for this study and any follow-up studies you might participate in, we ask that you create a personal identification number consisting of your mother's initials (at birth) and the last four digits of your home phone number.

**Example:**

Mother's name at birth: Mary Elizabeth Lee  
Last four digits of home phone number: 0000  
PIN: MEL0000

**Mother's initials** \_\_\_\_\_

**Last four digits of your home phone number** \_\_\_\_\_

**Thank you for your participation!**

**NOTE TO REVIEWERS:**

*The following section appears as a separate link after respondents have completed the online survey. Respondents may simply continue to finish or opt to enter the draw by clicking an "agree" button. If respondents choose to enter the draw, their email address is sent to the researcher separately from their responses to the questionnaire.*

**Prize Draw**

We thank you for the time and effort you have spent to complete this survey. In appreciation, we invite you to enter a draw for one of three \$50 gift certificates redeemable at Canadian Tire. If you wish to be entered in this draw, please click on the "continue" button below. You will be redirected to a separate web page. This procedure is to protect the anonymity of your responses.

If you do not want to enter the draw, please click on the "close" button below to exit.

## Appendix 9

### French version of the questionnaire, Phase II of data collection

Cher employé de ANVIL,

Voici une occasion de nous faire part de vos expériences et de vos opinions sur diverses perspectives reliées à votre vie au travail. Afin de comprendre les besoins de divers employés, nous devons mieux les connaître. Vos expériences sont uniques et importantes. Je vous invite à m'en faire part en répondant à un questionnaire électronique. Ceci devrait prendre environ 15 minutes.

Les informations visées par ce sondage font partie de l'étude que je mène pour compléter ma thèse de doctorat. Celle-ci porte sur l'importance des événements dans la vie des personnes et les stades de vie en rapport avec le travail. Les résultats de cette étude nous aideront à mieux comprendre ce qui est important au travail pour les employés de différentes générations.

Votre participation à cette étude est volontaire et anonyme. Vos réponses individuelles sont strictement confidentielles. Les comptes-rendus et rapports ne contiendront que des résumés des résultats (totaux, moyennes, etc.). Vous pourrez obtenir un rapport des résultats lorsque les analyses seront complétées.

Vous avez jusqu'au [date] pour compléter le questionnaire. Pour y accéder, cliquez sur l'hyperlien suivant ou copiez-le dans la barre d'adresse de votre fureteur.

Version en français : [hyperlien]

Version en anglais : [hyperlien]

Lorsque vous aurez complété le questionnaire, vous serez invité(e) à participer à un tirage pour gagner l'un de [nombre] certificats cadeaux d'une valeur de 50\$ chez [nom du marchand]. Suivez les instructions à la fin du questionnaire pour participer au triage.

Si vous avez des questions concernant cette étude, n'hésitez pas à communiquer avec moi ou avec ma directrice de thèse, madame Linda Dyer, aux adresses indiquées ci-dessous. Si vous avez des questions concernant vos droits en tant que participant(e) à cette étude, contactez Adela Reid, agente préposée à l'éthique et aux normes de la recherche à l'Université Concordia au 514-848-2424, poste 7481 ([adela.reid@concordia.ca](mailto:adela.reid@concordia.ca)).

Je vous remercie de votre précieuse collaboration à la réalisation de cette étude.

Nicole Bérubé  
Candidat au doctorat  
École de gestion John-Molson  
Université Concordia  
[nberube@jmsb.concordia.ca](mailto:nberube@jmsb.concordia.ca)  
514-848-2424 poste2967

Directrice de thèse :  
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Professeure titulaire en gestion  
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514-848-2424 poste 2936

## Conditions de participation

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- Votre participation consiste à compléter un questionnaire, ce qui devrait prendre environ 15 à 20 minutes.
- Vos réponses sont anonymes.
- Vos réponses individuelles sont confidentielles. Seuls les chercheurs à l'Université Concordia auront accès à vos réponses individuelles.
- Les comptes-rendus et rapports ne contiendront que des résumés des résultats (totaux, moyennes, etc.).
- Vous pourrez obtenir un rapport des résultats lorsque les analyses seront complétées.
- Les données seront conservées électroniquement et protégées par mot de passe pendant une période n'excédant pas cinq années après la publication de tout article sur cette recherche, après quoi elles seront détruites.
- Votre participation est volontaire. Vous pouvez décider de ne pas répondre à certaines questions ou de terminer votre participation à tout moment sans conséquence.
- Aucun aspect du questionnaire, en partie ou en entier, ne peut être reproduit.
- Lorsque vous aurez complété le questionnaire, vous serez invité(e) à participer à un tirage pour gagner des prix. Si vous choisissez de participer au tirage, vous aurez la chance de gagner un de [nombre] certificats cadeaux d'une valeur de \$50 chez [nom du marchand].
- En cliquant sur le bouton « j'accepte », vous indiquez que vous consentez à participer au sondage selon les conditions mentionnées ci-dessus.

[bouton « j'accepte »]

## Informations importantes

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Même si certains items dans le questionnaire se ressemblent, chacun de ces items est important pour valider les résultats.

Le nom de votre employeur apparaît dans le questionnaire uniquement pour clarifier la relation d'emploi que nous étudions.

*Pour alléger le texte dans ce questionnaire, le genre masculin est parfois employé pour désigner à la fois les personnes de sexe masculin et féminin.*



## Événements vécus depuis un an

Identifiez votre expérience des événements suivants *depuis un an*. Dans chaque cas, encerclez le chiffre qui correspond à votre réponse.

Ceci ne m'est pas arrivé	Ceci est arrivé une fois	Ceci est arrivé plus d'une fois
0	2	3

	Événement	1	2	3
1	J'ai eu l'occasion de me démarquer au travail.	1	2	3
2	J'ai vécu un ajustement majeur dans mon entreprise (acquisition, réorganisation, croissance).	1	2	3
3	J'ai vécu des difficultés avec un superviseur.	1	2	3
4	J'ai bénéficié d'un privilège personnel à cause de mon ancienneté.	1	2	3
5	Suivant les politiques de l'entreprise, j'ai reçu une récompense ou un avantage basé sur l'ancienneté.	1	2	3
6	Un projet à longue échéance a été assigné à un collègue qui avait moins d'expérience que moi.	1	2	3
7	Quelque chose m'a fait sentir que je devrais mettre à jour ou augmenter mes compétences.	1	2	3
8	J'ai vécu un changement majeur dans mon horaire ou mes conditions de travail.	1	2	3
9	Quelqu'un a mentionné que j'ai beaucoup d'expérience dans mon domaine de travail.	1	2	3
10	J'ai réalisé une grande réussite personnelle au travail.	1	2	3
11	Un collègue moins expérimenté m'a demandé des conseils.	1	2	3
12	Je n'ai pas pu faire une tâche au travail puisque mes compétences étaient inadéquates selon les politiques de l'entreprise.	1	2	3
13	J'ai obtenu un changement au travail que je crois avoir mérité.	1	2	3
14	J'ai commencé ou complété un programme de formation (formation continue, études collégiales, université, désignation professionnelle, etc.)	1	2	3
15	Un de mes enfants a quitté la maison.	1	2	3
16	J'ai contracté un prêt personnel substantiel.	1	2	3
17	Mon travail m'a requis d'utiliser des connaissances que des personnes moins expérimentées ne possèdent pas.	1	2	3
18	J'ai vécu un changement majeur dans mes activités sociales ou de loisirs.	1	2	3
19	Une politique de l'entreprise m'a rappelé le montant de temps qu'il me reste avant la retraite.	1	2	3

## Événements vécus depuis un an (suite)

Identifiez votre expérience des événements suivants *depuis un an*. Dans chaque cas, encerclez le chiffre qui correspond à votre réponse.

Ceci ne m'est pas arrivé	Ceci est arrivé une fois	Ceci est arrivé plus d'une fois
0	2	3

	Événement			
20	Quelque chose est arrivé qui m'a fait ressentir une perte d'enthousiasme pour le travail.	1	2	3
21	Une personne avec moins d'expérience de travail que moi a été promu(e) à un poste de supervision ou de gestion.	1	2	3
22	J'ai été victime d'une blessure ou maladie grave.	1	2	3
23	J'ai été ignoré lorsqu'on a choisi des participants pour une activité de perfectionnement au travail.	1	2	3
24	Quelque chose est arrivé qui a augmenté mes préoccupations de santé.	1	2	3
25	Je n'ai pas pu participer à une activité de formation à cause d'une politique de l'entreprise.	1	2	3
26	Mes responsabilités familiales ont augmenté (naissance, adoption, adulte ayant besoin de soins, etc.)	1	2	3
27	Mon conjoint (ma conjointe) ou ami(e) de cœur a parlé de la retraite.	1	2	3
28	Quelque chose est arrivé qui m'a fait réfléchir à la relation entre mon travail et ma santé.	1	2	3
29	Les tâches que j'accomplis dans mon travail ont changé substantiellement.	1	2	3
30	On m'a rappelé le montant de temps qu'il me reste avant de prendre ma retraite.	1	2	3
31	Une politique de l'entreprise m'a requis de subir un examen médical (test d'ouïe, examen général).	1	2	3
32	Quelqu'un a apprécié mon expérience de travail.	1	2	3
33	J'ai contracté ou renouvelé une hypothèque.	1	2	3
34	J'ai reçu de l'information sur la retraite.	1	2	3
35	Un changement dans mon état de santé a rendu mon travail plus difficile.	1	2	3
36	Je me suis marié ou j'ai établi une relation à long terme.	1	2	3
37	Une politique de l'entreprise m'a requise de mettre à jour mes compétences afin d'accomplir mon travail.	1	2	3

## Événements vécus depuis un an (suite)

Identifiez votre expérience des événements suivants *depuis un an*. Dans chaque cas, encerclez le chiffre qui correspond à votre réponse.

Ceci ne m'est pas arrivé	Ceci est arrivé une fois	Ceci est arrivé plus d'une fois
0	2	3

	Événement			
38	J'ai pu travailler à mon rythme ou à ma manière à cause de mon expérience.	1	2	3
39	Un changement dans les politiques de l'entreprise m'a requis de m'adapter à de nouvelles conditions de travail.	1	2	3
40	Quelque chose m'a fait ressentir que j'étais déconnecté au niveau professionnel.	1	2	3
41	Le rythme du travail a été trop rapide pour moi.	1	2	3
42	J'ai vécu un changement majeur dans mes responsabilités au travail (promotion, rétrogradation, supervision, coaching, etc.).	1	2	3
43	Un collègue de travail a été gravement malade.	1	2	3
44	Une relation personnelle à long terme s'est terminée (exemple: séparation, divorce, etc.).	1	2	3
45	Une nouvelle politique de l'entreprise a changé la manière que je fais mon travail.	1	2	3
46	J'ai montré à un employé moins expérimenté un « truc du métier. »	1	2	3
47	Un collègue de travail a pris sa retraite.	1	2	3
48	J'ai été invité à devenir membre d'un groupe populaire avec les retraités ou à participer à une activité populaire avec les retraités.	1	2	3
49	J'ai été invité à une discussion concernant la retraite.	1	2	3

## À propos de votre travail chez ANVIL

Évaluez l'emploi que vous occupez chez ANVIL. Choisissez le chiffre de 1 à 7 qui correspond le mieux à vos sentiments concernant chaque énoncé.

Complètement en désaccord	1	2	3	4	5	6	7	Complètement en accord
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1	Je serais très heureux de passer le reste de ma carrière chez ANVIL.	1	2	3	4	5	6	7
2	ANVIL a beaucoup d'importance personnelle pour moi.	1	2	3	4	5	6	7
3	Je trouve mon emploi plutôt désagréable.	1	2	3	4	5	6	7
4	Je crois avoir trop peu d'alternatives pour pouvoir considérer quitter ANVIL.	1	2	3	4	5	6	7
5	Je ne sens pas que je suis « un membre de la famille » chez ANVIL.	1	2	3	4	5	6	7
6	Je trouve mon emploi vraiment agréable.	1	2	3	4	5	6	7
7	Même si je voulais partir, il serait difficile pour moi de quitter ANVIL présentement.	1	2	3	4	5	6	7
8	Je ressens vraiment comme si les problèmes d'ANVIL étaient les miens.	1	2	3	4	5	6	7
9	La plupart du temps je suis enthousiaste envers mon emploi.	1	2	3	4	5	6	7
10	La rareté des alternatives disponibles serait une des seules conséquences négatives de quitter ANVIL.	1	2	3	4	5	6	7
11	Je ne ressens pas d'attachement émotionnel à ANVIL.	1	2	3	4	5	6	7
12	Je suis assez bien satisfait avec mon emploi actuel.	1	2	3	4	5	6	7
13	Si je n'avais pas déjà mis autant de moi-même dans ANVIL, je penserais peut-être à travailler ailleurs.	1	2	3	4	5	6	7
14	Je ne ressens pas un grand sentiment d'appartenance à ANVIL.	1	2	3	4	5	6	7
15	Chaque jour au travail semble ne jamais finir.	1	2	3	4	5	6	7
16	Une trop grande partie de ma vie serait perturbée si je décidais de quitter ANVIL.	1	2	3	4	5	6	7
17	Présentement, demeurer à l'emploi d'ANVIL est autant une question de nécessité que de désir.	1	2	3	4	5	6	7

## À propos de votre travail chez ANVIL

Pensez au travail que vous accomplissez dans votre poste actuel. Évaluez votre travail en fonction des mots ou énoncés suivants. Pour chacun des choix suivants, choisissez « oui » si celui-ci décrit votre travail, « non » s'il ne le décrit pas ou « indéterminé » si vous êtes incertain(e) de la réponse ou si vous n'arrivez pas à décider.

Les mots ou énoncés suivants décrivent bien mon travail dans mon poste actuel :

	Oui	Non	Indéterminé
Fascinant			
Routine			
Satisfaisant			
Ennuyeux			
Bon			
Donne un sens d'accomplissement			
Respecté			
Inconfortable			
Plaisant			
Utile			
Stimulant			
Simple			
Répétitif			
Créatif			
Monotone			
Pas intéressant			
Résultats visibles			
Utilise mes aptitudes			

Pensez à vos opportunités de promotion actuelles. Évaluez vos opportunités de promotion en fonction des mots ou énoncés suivants. Pour chacun des choix suivants, sélectionnez «oui » si celui-ci décrit vos opportunités de promotion, « non » s'il ne les décrit pas ou « indéterminé » si vous êtes incertain(e) de la réponse ou si vous n'arrivez pas à décider.

Les mots ou énoncés suivants décrivent bien mes opportunités de promotion :

	Oui	Non	Indéterminé
Bonnes opportunités de promotion			
Opportunités quelque peu limitées			
Promotion basée sur les aptitudes			
Poste sans issue			
Bonne chance d'être promu(e)			
Politique promotionnelle injuste			
Promotions peu fréquentes			
Promotions régulières			
Assez bonne chance d'être promu(e)			

## Votre relation avec ANVIL

Les énoncés suivants décrivent-ils la relation que vous avez avec ANVIL? Dans chaque cas, choisissez le chiffre qui correspond le mieux à votre réponse.

	Pas du tout	Un peu	Quelque peu	Modérément	Grandement
	1	2	3	4	5
1	Mes obligations envers ANVIL sont incertaines.				5
2	Je ne peux pas me fier aux communications transmises par ANVIL.				5
3	Il est difficile de prédire le futur de la relation que j'ai avec ANVIL.				5
4	L'importance de mon travail chez ANVIL diminue au fil du temps.				5
5	Je m'attends à recevoir peu d'ANVIL.				5
6	Au fil du temps, je suis de moins en moins intéressé à travailler pour ANVIL.				5
7	Je ne peux pas prédire quelle sera ma relation future avec ANVIL.				5
8	Je ne peux pas faire confiance à ANVIL.				5
9	Plus longtemps je travaille chez ANVIL, plus je me concentre exclusivement à gagner mon salaire.				5
10	Il est difficile pour moi d'anticiper mes engagements futurs envers ANVIL.				5
11	Il existe une différence entre ce qu'ANVIL promet et ce qu'ANVIL livre.				5
12	Je m'attends à recevoir plus d'ANVIL dans le futur comparativement à ce que je reçois aujourd'hui.				5
13	Mon engagement envers ANVIL est incertain.				5
14	ANVIL promet une chose et livre autre chose.				5
15	Ma dévotion future à ANVIL me donnera peu en retour.				5

### **Votre opinion sur votre âge**

**Comparativement aux personnes avec qui vous travaillez, dites-nous comment vous êtes. Cochez la case qui correspond à votre choix dans chaque cas.**

	Plus vieux	Plus jeune	Environ le même âge
Comparativement à l'âge moyen des membres de mon groupe de travail, JE SUIS :			
Comparativement à l'âge moyen des membres de mon groupe de travail, JE ME SENS :			
Comparativement à l'âge moyen des membres de mon groupe de travail, JE PARAIS :			
Comparativement à l'âge moyen des membres de mon groupe de travail, J'AGIS :			

**En général, identifiez le groupe d'âge auquel vous vous identifiez le mieux dans chacune des situations suivantes. Cochez la case qui correspond à votre choix dans chaque cas.**

	16-25 ans	26-35 ans	36-45 ans	46-55 ans	56-75 ans
Comment vous vous sentez :					
Votre apparence physique :					
L'âge des personnes qui ont des intérêts et des activités les plus semblables aux vôtres :					
L'âge que vous aimeriez être si vous pouvez choisir votre âge aujourd'hui :					

## Ce que les autres diraient de vous

Choisissez le chiffre de 1 à 7 qui exprime le mieux le niveau auquel les personnes de votre entourage au travail seraient d'accord chacun des énoncés à votre sujet.

Complètement en désaccord	1	2	3	4	5	6	7	Complètement en accord
---------------------------	---	---	---	---	---	---	---	------------------------

**La majorité des personnes qui travaillent avec moi (collègues, superviseurs, subordonnés) diraient que :**

1	Je suis une personne sur qui on peut compter pour livrer des résultats selon un délai raisonnable.	1	2	3	4	5	6	7
2	Je mets en priorité les tâches et activités qui favorisent l'accomplissement des objectifs d'affaires de l'équipe.	1	2	3	4	5	6	7
3	Je fais ma part du travail.	1	2	3	4	5	6	7
4	Je mène à terme mes engagements envers les autres.	1	2	3	4	5	6	7
5	Je surmonte les obstacles au travail plutôt que de "faire des excuses."	1	2	3	4	5	6	7
6	Je sais où aller et à qui parler pour faire avancer les affaires.	1	2	3	4	5	6	7
7	Je résous les problèmes de manière autonome quand la situation est appropriée.	1	2	3	4	5	6	7
8	J'apprends de mes erreurs.	1	2	3	4	5	6	7
9	J'identifie les aspects significatifs dans les situations avant d'agir.	1	2	3	4	5	6	7
10	Je gagne la confiance des autres au travail (membres de mon équipe, superviseurs, clients).	1	2	3	4	5	6	7
11	Je vais au-delà des exigences pour placer le client au premier rang.	1	2	3	4	5	6	7
12	J'agis pour assurer le succès de mon équipe.	1	2	3	4	5	6	7
13	Je gère les nouvelles situations de manière efficace.	1	2	3	4	5	6	7

**Commentaires ou suggestions :****Suivi**

Vous recevrez un message par courrier électronique lorsque les résultats de cette étude seront disponibles. Veuillez noter que vos réponses individuelles sont strictement confidentielles et ne seront accessibles qu'aux chercheurs responsables de cette étude à l'Université Concordia.

Dans le futur, d'autres études chez ANVIL pourraient être organisées afin de connaître plus à fond certaines perspectives. Nous espérons que vous serez intéressés à participer à ces études futures.

**Numéro d'identification personnel**

Afin de maintenir votre anonymat pour cette étude et toute autre étude à laquelle vous aimeriez participer, nous vous demandons de créer un numéro d'identification personnel à partir des initiales de votre mère (à sa naissance) et des quatre derniers chiffres de votre numéro de téléphone au domicile.

**Exemple :**

Nom de la mère à sa naissance : Marie Élisabeth Landry  
Quatre derniers chiffres du numéro de téléphone au domicile : 0000  
NIP : MEL0000

Les initiales de votre mère : \_\_\_\_\_

Les quatre derniers chiffres de votre numéro de téléphone au domicile : \_\_\_\_\_

## **Merci de votre participation!**

### ***NOTE AUX RÉVISEURS:***

*Pour le sondage par internet, la section suivante apparaît à la fin du sondage et donne accès à une page web séparée. Les répondants peuvent alors choisir d'accéder à cette page web pour participer au tirage, ou de terminer sans participer au tirage. Les informations récoltées pour la participation au tirage sont envoyées au chercheur séparément des réponses au questionnaire..*

Nous vous remercions de votre précieuse collaboration à la réalisation de cette étude.

Pour montrer notre appréciation, nous vous invitons à participer à un tirage pour l'un de [nombre] certificats cadeaux chez [nom du marchand]. Chaque certificat cadeau a une valeur de 50\$.

Pour participer, veuillez indiquer ci-dessous une adresse courriel où nous pourrions vous contacter si vous gagnez. Cliquez ensuite sur le bouton "fin du sondage" pour nous transmettre l'information. Votre adresse courriel sera maintenue séparée de vos réponses au questionnaire et que votre participation au tirage n'affectera nullement votre anonymat en ce qui concerne vos réponses au questionnaire.

Si vous ne voulez pas participer au tirage, cliquez sur le bouton "fermer" pour terminer sans vous inscrire au tirage.

**Appendix 10**  
**First reminder in English**

Dear ANVIL employee,

Your experiences and opinions are important. A few days ago, you were invited to participate in an online survey to share your experiences and views on various aspects of your work and your life. If you have already participated, thank you. Your answers will help us better understand your needs.

If you have not yet had the opportunity to participate, you will be able to do so until [date]. Completing the survey should take approximately 15-20 minutes. I hope that you will take this opportunity to help us understand your experiences and opinions.

Your participation in this study is voluntary, anonymous and completely confidential. You will have access to a summary of the results later this fall after all the data is collected and the analyses are completed. To access the survey, please click on the following web link or cut and paste it into the address bar of your web browser.

English version: [URL]

French version: [URL]

The information sought through this survey is part of a study I am conducting for my doctoral thesis, which focuses on how events in peoples' lives and stage of life affect their work attitudes and behaviors. The results of this study will help improve our knowledge about what matters most to employees of different generations.

After you have completed the survey, we would like to show our appreciation by inviting you to participate in a draw for one of three \$50 gift certificates redeemable at [merchant's name]. To enter, simply follow the instructions at the end of the survey.

If you have any questions about this study, please feel free to contact me or my thesis supervisor, Dr. Linda Dyer, at either of the addresses indicated below. If you have questions about your rights as a research participant, please contact Adela Reid, Research Ethics and Compliance Officer, Concordia University, at 514-848-2424 ext. 7481 (email: [adela.reid@concordia.ca](mailto:adela.reid@concordia.ca)).

Thank you for your contribution to this study.

Sincerely,

Nicole Bérubé  
PhD Candidate  
John Molson School of Business  
Concordia University  
[nberube@jmsb.concordia.ca](mailto:nberube@jmsb.concordia.ca)  
514-848-2424 ext. 2967

Thesis supervisor:  
Dr. Linda Dyer,  
Professor of Management  
John Molson School of Business  
Concordia University  
[dyer@jmsb.concordia.ca](mailto:dyer@jmsb.concordia.ca)  
514-848-2424 ext. 2936

## Appendix 11

### First reminder, French version

Cher employé de ANVIL,

Vos expériences et vos opinions sont importantes. Si vous m'en avez déjà fait part en participant au sondage auquel je vous ai invité(e) il y a quelques jours, je vous remercie. Vos réponses nous aideront à mieux comprendre vos besoins.

Si vous n'avez pas encore eu l'opportunité de participer au sondage, vous pourrez y accéder jusqu'au [date]. Ceci devrait prendre environ 15-20 minutes. J'espère que vous saisissez cette occasion de nous faire part de vos expériences et de vos opinions.

Je tiens à vous rappeler que votre participation à cette étude est volontaire, anonyme et complètement confidentielle. Vous aurez accès aux résultats plus tard cet automne, lorsque toute la collecte de données et les analyses auront été complétées. Pour accéder au sondage, cliquez sur l'un des hyperliens suivants ou copiez-le dans la barre d'adresse de votre navigateur.

Version en français : [hyperlien]

Version en anglais : [hyperlien]

Les informations visées par ce sondage font partie de l'étude que je mène pour compléter ma thèse de doctorat. Celle-ci porte sur les liens entre les événements dans la vie des personnes, les stades de vie, les attitudes et les comportements au travail. Les résultats de cette étude nous aideront à mieux comprendre ce qui est important au travail pour les employés de différentes générations.

Lorsque vous aurez complété le questionnaire, vous serez invité(e) à participer à un tirage pour gagner l'un de trois certificats cadeaux d'une valeur de 50\$ chez [nom du marchand]. Suivez les instructions à la fin du questionnaire pour participer au tirage.

Si vous avez des questions concernant cette étude, n'hésitez pas à communiquer avec moi ou avec ma directrice de thèse, madame Linda Dyer, aux adresses indiquées ci-dessous. Si vous avez des questions concernant vos droits en tant que participant(e) à cette étude, contactez Adela Reid, agente préposée à l'éthique et aux normes de la recherche à l'Université Concordia au 514-848-2424, poste 7481 (adela.reid@concordia.ca).

Je vous remercie de votre précieuse collaboration à la réalisation de cette étude.

Nicole Bérubé  
Candidate au doctorat  
École de gestion John Molson  
Université Concordia  
nberube@jmsb.concordia.ca

514-848-2424 poste2967

Directrice de thèse :  
Dr Linda Dyer,  
Professeure titulaire en gestion  
École de gestion John Molson  
Université Concordia  
dyer@jmsb.concordia.ca  
514-848-2424 poste 2936

**Appendix 12**  
**Second and final reminder, English version**

Dear ANVIL employee,

Your time is a precious resource. Communicating your opinions, experiences, and needs to your company will help select activities and programs that will take into account this important information. If you have already completed the online survey on this subject, THANK YOU! I sincerely appreciate your assistance in this crucial part of my doctoral research. I hope that you will find the results interesting.

If you have not yet had the opportunity to participate, or to complete the survey, you will be able to do so until [date]. Your individual responses are anonymous and confidential.

Should you have any questions about the study or how it is conducted, please do not hesitate to email or call me (nberube@jmsb.concordia.ca 514-848-2424 ext. 2967) or my thesis supervisor, Dr. Linda Dyer (dyer@jmsb.concordia.ca 514-848-2424 ext. 2936).

To access the survey, please click on the following web link or cut and paste it into the address bar of your web browser.

English version:

URL

French version:

URL

After you have completed the survey, I would like to show my appreciation by inviting you to participate in a draw for one of [number] \$50 gift certificates at [merchant's name]. To enter, simply follow the instructions at the end of the survey.

Thank you for your time and contribution to this study.

Sincerely,

Nicole Bérubé  
PhD Candidate  
John Molson School of Business  
Concordia University  
nberube@jmsb.concordia.ca  
514-848-2424 ext. 2967

Dr. Linda Dyer (thesis supervisor)  
Professor of Management  
John Molson School of Business  
Concordia University  
dyer@jmsb.concordia.ca  
514-848-2424 ext. 2936

**Appendix 13**  
**Second and final reminder, French version**

Cher employé de ANVIL

Votre temps est une ressource précieuse. En communiquant à votre entreprise vos besoins, opinions et expériences, celle-ci pourra mieux choisir les activités et programmes qui tiendront compte de ces informations importantes. Si vous avez complété le sondage à ce sujet, MERCI! J'apprécie sincèrement votre implication dans cette phase cruciale de mes études de doctorat. J'espère que les résultats vous intéresseront.

Si vous n'avez pas encore eu l'occasion de participer au sondage, ou de le compléter, vous pourrez le faire d'ici au [date]. Vos réponses individuelles sont anonymes et confidentielles.

Si vous avez des questions concernant le contenu ou l'administration de ce sondage, n'hésitez pas à communiquer avec moi ([nberube@jmsb.concordia.ca](mailto:nberube@jmsb.concordia.ca) 514-848-2424 poste 2967) ou avec ma directrice de thèse, Linda Dyer ([dyer@jmsb.concordia.ca](mailto:dyer@jmsb.concordia.ca) 514-848-2424 poste 2936).

Pour accéder au sondage, cliquez sur l'un des hyperliens suivants ou copiez-le dans la barre d'adresse de votre fureteur.

Version en français : [[hyperlien](#)]

Version en anglais : [[hyperlien](#)]

Pour vous remercier de compléter le sondage, je vous invite à participer à un tirage pour gagner l'un de [nombre] certificats cadeaux d'une valeur de 50\$ chez [nom du marchand]. Suivez les instructions à la fin du sondage pour participer.

Je vous remercie de votre précieuse collaboration à la réalisation de cette étude.

Nicole Bérubé  
Candidate au doctorat  
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Professeure titulaire en gestion  
École de gestion John-Molson  
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[dyer@jmsb.concordia.ca](mailto:dyer@jmsb.concordia.ca)  
514-848-2424 poste 2936

**Appendix 14**  
**English and French versions of thank you letters**

Dear [company name] employee,

Thank you for taking part in the survey on work and life experiences. I greatly appreciate the time and effort you contributed to complete this survey. I could not complete my doctoral research study without your collaboration.

In total, 506 employees responded to the survey, for a response rate of 57%. This is an excellent response rate, and I thank you for your interest and collaboration. The results of this study will be available to you later this year, after I complete the data analysis.

We are immediately proceeding with the prize draw. Winners will be selected as a result of a computer-generated random draw. These prizes are offered to convey my appreciation to those who participated in my research and are funded from my doctoral studies budget. With their permission, I will announce the winners after they accept their prize.

Please feel free to contact me if you have any questions or comments about my research or the prize draw.

Nicole Bérubé  
PhD Candidate  
John Molson School of Business  
Concordia University  
[nberube@jmsb.concordia.ca](mailto:nberube@jmsb.concordia.ca)  
514-848-2424 ext. 2967

Cher employé ANVIL,

Je vous remercie d'avoir participé à mon sondage sur les expériences et le travail. J'apprécie grandement le temps et les efforts que vous avez accordés pour compléter ce sondage. Sans votre collaboration, je ne pourrais réussir mon projet de recherche.

Le taux de réponse pour ce sondage s'élève à 57% (506 participants). Ceci est un excellent taux de réponse et je vous remercie de votre intérêt et de votre collaboration. Les résultats seront disponibles plus tard cette année lorsque les analyses seront complétées.

Nous procédons immédiatement au tirage pour les prix. Les gagnants seront sélectionnés par un tirage au hasard effectué par ordinateur. Ces prix sont offerts pour remercier ceux qui ont participé à mon projet de recherche. Les fonds pour les prix sont payés par mon budget d'études de doctorat. J'annoncerai les gagnants avec leur permission lorsque chacun aura accepté son prix.

Je vous prie de communiquer avec moi si vous avez des questions ou si vous désirez me faire part de tout commentaire à propos de mon étude ou du tirage.

Nicole Bérubé  
Candidate au doctorat  
École de gestion John-Molson  
Université Concordia  
[nberube@jmsb.concordia.ca](mailto:nberube@jmsb.concordia.ca)  
514-848-2424 poste2967

**Appendix 15****English and Fench versions of the letter of appreciation from the company**

Dear [company name] employee,

I would like to thank you as a recipient of the employee survey recently circulated by Nicole Bérubé, PHD candidate at Concordia University for assisting us in understanding how events in our lives and stage of life affect work attitudes and behaviours.

This information will allow us to design compensation, benefit and other plans most important to you, our employees.

The survey results will be available online within the next three months and we look forward to engaging you further in this important discussion.

Once again, thank you and enjoy the autumn season.

[Name]  
Vice President, Human Resources  
ANVIL

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Cher employé de ANVIL,

Je tiens à vous remercier de votre collaboration suite à la distribution du sondage que vous avez reçu récemment de Nicole Bérubé, candidate au doctorat à l'Université Concordia. Par l'entremise de son étude, Nicole nous aide à mieux comprendre les liens entre les événements dans nos vies et nos stades de vie, nos attitudes et nos comportements au travail.

Les résultats de cette étude nous aideront à planifier nos programmes de compensation, de bénéfices, et d'autres programmes importants pour vous, nos employés.

Les résultats seront disponibles en ligne d'ici trois mois et nous comptons alors vous inclure davantage dans cette importante discussion.

Je vous remercie encore une fois et je vous souhaite de passer une belle saison automniale.

[nom]  
Vice-présidente, Ressources humaines  
ANVIL

**Appendix 16**  
**Announcement – winners of the draw**

Dear [company name] employee,

I greatly appreciate the time and efforts of all who participated in my survey. I am now pleased to announce the winners of the draw for the five gift certificates worth \$50 each at [merchant name]. Congratulations to:

Names of winners

These winners have given me permission to announce their names to those who participated in the survey.

Winners were selected as a result of a computer-generated random draw conducted on November 14th, 2007. These prizes were offered to convey my appreciation to those who participated in my research and were funded from my doctoral studies budget.

Please feel free to contact me if you have any questions or comments about my research or the prize draw.

Many thanks for your contribution to my doctoral research study.

Best regards,

Nicole Bérubé  
 PhD Candidate  
 John Molson School of Business  
 Concordia University  
[nberube@jmsb.concordia.ca](mailto:nberube@jmsb.concordia.ca)

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 Cher employé de ANVIL,

J'apprécie grandement les efforts de tous ceux et celles qui ont participé à mon sondage. J'ai le plaisir d'annoncer les gagnants des cinq certificats cadeaux d'une valeur de 50\$ (chacun) chez [nom du marchand]. Félicitations à :

Noms des gagnants

Ces gagnants m'ont permis d'annoncer leurs noms à ceux qui ont participé à mon étude.

Les gagnants ont été sélectionnés le 14 novembre 2007, par un tirage au hasard effectué par ordinateur. Ces prix ont été offerts dans le but de remercier ceux qui ont participé à mon projet de recherche et les fonds pour les prix ont été payés par mon budget d'études de doctorat.

Je vous prie de communiquer avec moi si vous avez des questions ou si vous désirez me faire part de tout-commentaire à propos de mon étude ou du tirage.

Je vous remercie encore une fois d'avoir contribué à mon projet d'études.

Meilleures salutations,

Nicole Bérubé  
 Candidate au doctorat  
 École de gestion John-Molson  
 Université Concordia  
[nberube@jmsb.concordia.ca](mailto:nberube@jmsb.concordia.ca)