Unattainable Goals Across Adulthood and Old Age: Benefits of Goal Adjustment Capacities on Well-Being

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Abstract

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Having goals is important for successful development across the lifespan. However, goals may become risk factors for reduced well-being when they become unattainable. Individuals can successfully regulate the occurrence of unattainable goals by relying on two processes: goal disengagement and goal reengagement. Disengagement may reduce the negative emotional consequences associated with failure. Reengagement may foster purpose in life by keeping the individual engaged in meaningful activities.

The objective of the present study was to collect descriptive information about the types and the number of goals that become unattainable across age. It was hypothesized that having many unattainable goals represents a risk factor for reduced well-being. It was also expected that disengagement and reengagement moderate the relationship between the number of unattainable goals and well-being. Finally, this study intended to replicate a three-way interaction between disengagement, reengagement, and age. Specifically, among older adults, disengagement was expected to be adaptive only if individuals are able to reengage in new goals.

150 participants between the ages of 18 to 85 completed a questionnaire about unattainable goals, goal management tendencies, and subjective well-being. The results demonstrated that unattainable goals were most frequently classified into the work/education domain. Older adults reported fewer unattainable goals in comparison to

younger adults, and they confronted more unattainable health goals, and fewer unattainable work/education goals. Having many unattainable goals was related to reduced well-being, and this relationship was moderated by disengagement. A significant three-way interaction replicated different interaction effects of disengagement and reengagement on well-being in different age groups.

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Introduction

For most individuals, the life course is characterized by strivings to find meaning, derive satisfaction and reach self-actualization before arriving at the last phase of life. This developmental pathway is paved by the goals that people pursue, the challenges they overcome, and the resulting successes and failures (Erikson, 1963; Havighurst, 1973). In most cases, goals which are defined by individuals' personal strivings contribute to propelling individuals further along a specific path, and further away from the possibility of undertaking an alternative route (Schulz & Heckhausen, 1996). Given the importance of goals in determining the course of individual development, the goals, projects and plans that people undertake are likely to affect quality of life in adulthood and old age.

In the pursuit of their goals, as individuals strive to bridge the gap between what they intend to accomplish and what they have achieved, they may become confronted by the experience of falling short of the expected outcome, and a resulting sense of failure and loss of personal agency (Carver & Scheier, 1981). Given the universal need to exert control over the environment (White, 1959), the literature on adaptive self-regulation has consistently demonstrated that when active efforts are insufficient to surmount uncontrollable threats, a shift from primary to secondary mechanisms of control such as goal accommodation (Brandtstädter & Greve, 1994), emotion-focused coping (Folkman, Lazarus, Pimley, & Novacek, 1987), and secondary control strategies (Heckhausen & Schulz, 1995) may mitigate the negative consequences of perceived failure by restoring one's sense of control through internal adjustment. This is consistent with theoretical models of adaptive self-regulation (e.g. Carver & Scheier, 1998; Heckhausen & Schulz,

1995), suggesting that goal adjustment might become an adaptive process if individuals confront unattainable goals.

Based on a recently proposed theoretical model of goal adjustment (Wrosch, Scheier, Carver, & Schulz, 2003), two adaptive processes are involved in the self-regulation of unattainable goals. Goal disengagement requires a person to withdraw effort and commitment from the constrained goal. In addition, goal reengagement requires that individuals engage in the pursuit of new meaningful activities. These processes have been shown to protect against declines in well-being among individuals confronted by the experience of having important goals become unattainable. Disengagement may reduce the negative emotional consequences associated with unattainable goals (Wrosch & Heckhausen, 1999; Heckhausen, Wrosch, & Fleeson, 2001). In addition, goal reengagement may provide purpose for living by keeping the person involved in the pursuit of meaningful activities (Wrosch, Scheier, Miller, Schulz & Carver, 2003). Lifespan developmental theories of self-regulation suggest that these strategies may become especially beneficial as people advance in age and opportunities to successfully accomplish goals become compromised due to age-normative constraints (Heckhausen, 1999). More recently, a study has demonstrated that these goal adjustment strategies interact differentially to produce positive effects on well-being for young and older adults (Wrosch & al., 2003).

Although research has shown that goal disengagement and goal reengagement may play an adaptive role when individuals become confronted with the experience of having important goals become unattainable, little is known about the nature of unattainable goals that individuals are usually confronted by across the lifespan. The

present study set out to describe the number and the types of goals that become unattainable, and examine how these change across age. Given the central role of having goals and making progress towards their successful achievement, it was expected that the experience of having many goals become unattainable may represent a risk factor for quality of life in adulthood and old age. The moderating role of goal adjustment capacities in the relationship between the number of unattainable goals and quality of life was also examined. Finally, consistent with previous research, different optimal patterns of goal disengagement and reengagement which are adaptive for young versus older adults were expected to be identified.

Review of the Literature

Goal Attainment

Life goals are important for quality of life. They provide purpose by focusing people's energies, providing structure to one's life, and acting as a motivating force that propels individuals forward. Goals have been described as important building blocks of human development because they direct individuals' lives into specific pathways (Brandtstädter, 1984). Brandtstädter and Renner (1990, p.59) suggested that one way "to achieve consistency between actual and intended courses of personal development" is to set developmental goals and strive for their attainment. A gap between actual and desired developmental states is an important motivator across the life course. Research has also established the beneficial effects of goal pursuit to an individual's quality of life (Locke, Shaw, Saari, & Latham, 1981). Studies have demonstrated that goal directedness and perceptions of successful goal attainment are associated with health and psychological well-being (Holahan, 1988), life satisfaction (Emmons, 1986), perceptions of self-efficacy (Bandura, 1982), and personal control (Brandtstädter, 1989). Research on personal projects as a measure of meaning and purpose in life has also established that these are associated with psychological well-being in old age (Little, 1983; Reker, Peacock, & Wong, 1987). Thus, the association between personal projects and measures of well-being further supports the contribution of goals to a person's quality of life.

Having goals is important across the lifespan, as these continue to provide meaning and purpose in life, even after the loss of important roles characteristic of late adulthood. Lifespan theorists deem goal attainment to be an important criterion for successful lifespan development (Marsiske, Lang, Baltes, & Baltes, 1995), and as a

result, for subjective well-being (see e.g. Little, 1989). Havighurst argues (1973) that the successful pursuit of developmental goals characterizes adaptive development and contributes to life satisfaction. Goals are also important when individuals encounter significant life events and transitions, and when they are confronted by failure. In those instances, individuals may redirect their energy into the pursuit of constructive activities. Research suggests that low levels of goal directedness may be an important predictor of adjustment difficulties, particularly among older adults engaging in various life transitions. The ability to select and pursue goals, and maintain commitment to meaningful projects is essential to adult development (Lazarus & Delongis, 1983).

Much research has been devoted to examining the types of goals that people pursue throughout life, and the changes in the pattern of activities undertaken by individuals across age. Based on Carstensen's theory of socioemotional selectivity, the perception of future time as open-ended versus limited plays an important role in the selection and pursuit of different types of social goals (Carstensen, Isaacowitz & Charles, 1999; Lang & Carstensen, 2002). In particular, the central tenet of this theory is that as individuals approach the end of their life, they shift their emphasis from goals related to the acquisition of knowledge to those related to the regulation of emotion, affecting the types of relationships individuals seek out. Similarly, based on Erikson's (1963) psychosocial model of personality development, as people progress through distinct stages of life, they pursue different goals, supporting the resolution of the conflict characteristic of each phase of life. In addition, the goals that individuals pursue contribute to their own self-definition and identity formation. The accomplishment of self-defining goals consistent with personal values and beliefs contributes to validating

individuals' identity and promotes self-actualization. The importance of goals in defining the self and the course of personal development suggests that being unable to attain these goals may threaten one's self-concept, and lead to a reduced quality of life. Although research has begun to trace the developmental trajectory of goals, establishing when specific goals come into play while others fade out, research has yet to determine the types and the number of goals that become unattainable in different groups of individuals.

Constraints on Goal Attainment

While having goals generally contributes to a good quality of life, goals may also play an ambivalent role in an individual's overall well-being. Goals may become problematic when a person does not make adequate progress towards reaching a desired objective and becomes exposed to failure and loss (Carver & Scheier, 1990). Research has found that goals and aspirations provide sense and direction, and contribute to quality of life as long as individuals avoid important barriers towards their attainment. When individuals become unable to follow an important goal through to completion, this failure experience may lead to dissatisfaction (Havighurst, 1973), and may generate feelings of psychological distress. Goals may also become an important source of depressive symptoms when they become unattainable, especially when an individual remains committed to them. Additionally, the experience of unattainable goals may engender regrets about not having successfully completed specific plans and projects. Research has consistently demonstrated that the experience of regret is associated with a reduced quality of life, especially among older adults who have fewer opportunities to undo their regrets (Wrosch, Bauer, & Scheier, 2004).

Many factors may affect one's potential for successful goal attainment across the lifespan. Throughout life, individuals must select to pursue some goals and abandon others. Individuals may have to stop pursuing some of their goals as a result of reduced opportunities to realize their goal, or because they must focus their resources on the most relevant things in their lives. Both external and internal, age-normative and non-normative factors may be involved in people's inability to reach a desired goal. A combination of these factors may contribute to fewer opportunities to accomplish some projects, increasing the likelihood of becoming confronted by failure or loss experiences.

External factors such as time constraints may impose a limit on the number of different goals people can pursue simultaneously. For example, an individual intending to study for a career in medicine must abandon, early on, the pursuit of alternative career paths. A person may also have to select to pursue one goal at the expense of another competing or incompatible goal. Further, individuals may be pressured to abandon their goals as a result of adverse life events. For example, a professional figure skater may have to abandon her dream of going to the Olympics following an irreparable injury. Finally, goals may become constrained when the individual's internal personal resources are insufficient to pursue many goals simultaneously.

There are additional age-specific factors that may thwart goal attainment as people advance in age. Older adults may experience more restrictions on their goal pursuits, as their future time-perspective becomes increasingly limited, and they must select a small number of important goals to pursue (Baltes & Baltes, 1990). Additionally, developmental deadlines represent an age-normative constraint for attaining developmentally-timed goals. These are associated with a dramatic shift from high to

low opportunities for achieving specific goals as people advance in age (Wrosch & Heckhausen, 1999). The classic example of such a shift in opportunities is childbearing, as women are no longer capable of bearing children after menopause.

Beyond the limits imposed by biology, there are also societal norms regulating the appropriate time-course for important life events and transitions. As a result of these, individuals may be pressured to accomplish their goals within a limited window of opportunity. Past a certain point, it may be difficult for individuals to pursue their goal, as societal constraints make it more difficult for the individual to successfully accomplish it. For example, individuals attempting to begin a career in their 50s may encounter some adversity, as this is not the typical path sanctioned by our society. Biological limitations may become another deciding factor for the successful attainment of goals. Lawton, Moss, Winter and Hoffman (2002) have suggested that personal projects may be affected by physical health because poor health imposes restrictions on the types of projects in which older adults may engage. Similarly, declining physical and cognitive abilities in older adults may limit their potential to accomplish certain activities. Given the beneficial role of having goals to an individual's quality of life, constraints on goal pursuits may represent a significant threat to one's sense of purpose, and this may lead to reduced well-being. However, despite the greater number of constraints that arise with age, research has yet to determine whether older adults are confronted with a greater number of goals that they may be forced to abandon.

From Goal Engagement to Disengagement: An Adaptive Shift

Encountering barriers to the successful pursuit of goals is a universal experience that may be encountered by individuals of all age groups. For example, a high-achieving

student may feel dissatisfied if they receive a low grade on an exam. Similarly, an older adult may feel disappointed if they are no longer able to remain active when their health begins to suffer. The negative feelings associated with these outcomes likely result from the experience of falling short of one's standards and expectations. In fact, in the pursuit of their goals, individuals are motivated to reduce the discrepancy between actual states and desired outcomes. Individuals compare the current outcome to its reference value, and evaluate the degree of discrepancy. Through this process of feedback control, individuals receive information about whether adjustments must be implemented to one's current behavior in order to reduce this discrepancy and move towards the desired state. This feedback system allows individuals to control the output that is generated in order to maximize the likelihood that the outcome will approximate the standard against which it is compared. While individuals strive for discrepancy reduction, the rate of discrepancy reduction represents an important determinant of positive and negative emotions (Carver & Scheier, 1990).

When individuals fall short of attaining their standard, they must interrupt their efforts and assess expectancies of success, as well as the subsequent course of action. If expectancies are evaluated favorably, the individual will invest further efforts toward the goal. As a result, the individual may modify the behavioral output to increase the likelihood of approximating the standard. For example, the student may study harder for the next exam in order to increase their grade for the class. Conversely, if expectancies for success are unfavorable, and the individual is unable to sufficiently adjust the behavioral output to match the reference value, changing the reference value itself may protect the individual from failure and the resulting distress. An individual may alter the

reference value by disengaging from the pursuit of the goal and ceasing efforts toward its attainment. For example, the older adult may redefine staying healthy as walking every day rather than playing tennis regularly. Given the importance of fulfilling one's expectations, the inability to exert control over one's behaviors in order the effect the intended outcome may be associated with adverse consequences for one's quality of life. When effecting changes at the level of behaviors is no longer a viable strategy, the individual may make internal adjustments by redefining the reference value, thereby avoiding failure and increasing one's likelihood of future success.

Throughout life, individuals are motivated by the need to control their environment (e.g. White, 1959; Schulz & Heckhausen, 1996). In doing so, they attempt to be proactive in choosing to perform behaviors maximizing the likelihood of attaining a standard of performance in a goal domain commensurate with the standard of reference. Unattainable goals frequently represent a threat to one's perception of control, as individuals' efforts are insufficient to adjust behaviors in order to produce an intended outcome. According to theories of control, a situation in which goals to which an individual is strongly committed become unfeasible precipitates hopelessness and depression (Abramson, Alloy, & Metalsky, 1990). Theories emphasize primarily the perceived loss of control over valued goals as a risk factor for depression (e.g. Seligman, 1975). Beyond the loss of control engendered by the unattainability of personal goals, the inability to dissolve barren commitments appears to be a key component that affects the strength and duration of depressive episodes.

Despite the uncontrollable nature of unattainable goals, goal adjustment capacities may allow individuals to maintain a degree of perceived control over the outcome of their

behavior. Goal adjustment targets change at the level of one's goal standard, thereby increasing the likelihood that behaviors will be sufficient to approximate the standard. In fact, feelings of helplessness and depression may appear as symptoms of persisting commitment to blocked goals, and reflect people's inability to shift from active attempts at overcoming unmanageable constraints to an internal re-adjustment of perceptions and constructive reappraisals of the situation. Depression may also facilitate disengagement of one's commitment to the pursuit of an unreachable goal by inhibiting the organism, thereby serving an adaptive function (Nesse, 2000; Klinger, 1975). Consistent with this account, clinical evidence supports the central role of the inability to let go of blocked goals in the depressive reaction (Brandtstädter & Rothermund, 2002). In the face of an obstacle preventing the individual from adjusting their actions to achieve the desired outcome, individuals may use various self-regulation strategies to actively overcome this experience or to minimize its negative consequences.

Until recently, research has underscored the importance of goal pursuit, and of perseverance and persistence in the face of adversity, while dismissing the value of secondary strategies, which encourage a passive approach to problem resolution. These have become equated with a general loss of motivation, and have been treated as inferior modes of coping by being connoted with resignation and depression (Wortman & Brehm, 1975). In recent years, there has been a renewed interest in secondary control mechanisms as viable strategies for effective self-regulation. This line of research has demonstrated the adaptive value of adjusting constrained goals, but only so long as these constraints are insurmountable despite the deployment of added efforts. On the other hand, when constraints are potentially manageable, it may be more effective for

individuals to assume a proactive stance in overcoming barriers. When individuals prematurely resort to secondary strategies, they may forfeit the chance of successfully accomplishing a manageable task, and run the risk of experiencing a generalized sense of de-motivation. This strategy may inadvertently inhibit active problem-solving efforts and would represent a maladaptive strategy so long as there are available opportunities to actively overcome constraints.

Research has addressed the complementary function of primary and secondary control strategies involved in the effective regulation of negative life events, such as the occurrence of unattainable goals (e.g. Schulz & Heckhausen, 1996). This line of work postulates that when efforts to directly adjust behavior fail, individuals may nevertheless preserve well-being and a sense of control by adjusting their internal standards through secondary control mechanisms. Brandtstädter and Rothermund (2002) invoke two processes for conceptualizing how individuals negotiate the discrepancies between actual circumstances and desired outcomes. The assimilative mode requires a direct intervention on the part of the individual by actively investing efforts directed at modifying the situation to make it favorable for goal attainment. The accommodative mode requires the individual to adjust goals to the available resources by downgrading blocked goals or rescaling ambitions.

Therefore, while this system must be sufficiently stable to selectively focus attention and resources on specific goals and resist distracting alternatives (assimilation), it must allow flexibility in adjusting goals when unexpected circumstances arise (accommodation). When assimilative efforts are in vain such as when the attainability of a goal becomes compromised, they are replaced by accommodative processes that reduce

the salience of the goal. Accommodation facilitates the dissolution of barren commitments, withdrawal of attention from the blocked goal, and supports the formation of alternative goals. In the face of irreversible losses, a delayed shift towards accommodation may increase the intensity and duration of depressive reactions.

Research based on this model has examined the value of accommodative processes when individuals are confronted with specific stressors rendering some goals unattainable. For example, given the extremely challenging life circumstances facing families of handicapped children, and the resulting restrictions on the goals they pursue, redefining what constitutes the fulfillment of needs and finding more manageable ways to achieve them predicted positive psychological adjustment (Tunali and Power, 1993). Similarly, the adaptive value of a shift from assimilative to accommodative processes has been documented among individuals undergoing major life changes such as the birth of a child with Down Syndrome. Research supports the conclusion that accommodation, as manifested by the ability to adjust one's existing frame of reference and develop an alternative structure within which to conceptualize experiences, is associated with stress-related growth and ego development (King, Scollon, Ramsey, & Williams, 2000).

Goal Disengagement and Goal Reengagement

A theoretical model of goal adjustment supports the beneficial role of two independent processes in the successful regulation to unattainable goals - goal disengagement and goal reengagement (Wrosch, Scheier, Miller, & al., 2003). Research suggests that these mechanisms of adjustment may facilitate discrepancy reduction between one's actual progress towards a goal and the expected outcome. Goal disengagement has been operationalized as the withdrawal of both effort and

commitment from the pursuit of unattainable goals. This distinction is critical given that individuals who inhibit effort towards an unattainable goal may nevertheless experience psychological distress if they are unable to disengage, on an emotional level, from their commitment to this goal. Disengagement is hypothesized to be an important element of effective self-regulation given that continued investment of effort and commitment into constrained goals is associated with negative emotional consequences, and adverse repercussions on the pursuit of future plans and activities. A study has demonstrated that individuals who reported investing many resources in terms of time and energy in an unattained goal reported lower life satisfaction (Lecci, Okun, & Karoly, 1994).

The adaptive value of disengagement from a constrained goal stems from its potential for allowing individuals to avoid negative emotional consequences such as helplessness that may become associated with the continued pursuit of an unattainable goal. Abandoning the pursuit of unattainable goals may also help the individual avoid the cognitive concomitants of failed disengagement such as rumination and the persistence of unrealistic intentions, which have been shown to be related to distress and depression (Kuhl & Helle, 1986; Nolen-Hoeksema, Parker, & Larson, 1994). Furthermore, disengaging from an unsolvable task would allow individuals to avoid the discouragement provoked by failure, and from exhausting their resources which could be invested towards the pursuit of other tasks (Aspinwall & Richter, 1999). Finally, Little (1983) suggested that being locked into ongoing projects may inadvertently render the individual less receptive to the initiation of new ones. Therefore, decommitment from unattained goals may make resources available to be reinvested in the pursuit of

alternative projects as a way to compensate for constrained goals, thereby maximizing the chances of future success (Wrosch, Scheier, Carver, & al., 2003).

An important strength of this model rests on the premise that giving up may become an adaptive strategy so long as it leads to the taking up of new goals (Carver & Scheier, 2000). The pursuit of new goals is important for several reasons. Given that there are many pathways to achieving goals that are central to the individual's self-concept, undertaking alternative routes when other pathways become thwarted may be especially critical for preserving well-being. In addition to maintaining purpose in life after important goals have been abandoned (Ryff, 1989; Scheier & Carver, 2001), reengagement may also contribute to well-being by reducing thoughts about failure. In fact, research has demonstrated that undertaking new goals is associated with a shift in information processing and thought content (e.g., Gollwitzer, Heckhausen, & Steller, 1990). New goals may serve to mobilize attention and resources to ensure future successful goal attainment, making fewer resources available for entertaining negative or ruminative thoughts related to failure. Reengagement may also facilitate disengagement from unattainable goals. For example, evidence suggests that the availability of alternative goals facilitates disengagement from unsolvable tasks in individuals high in optimism and self-mastery. Importantly, this may reinforce perceptions of control by helping individuals avoid failure (Aspinwall & Richter, 1999). Finally, Klinger (1975) intimated the importance of alternative incentives for overcoming the depression resulting from disengagement from blocked goals. He claimed that if the individual's environment offers accessible alternative incentives, this may provoke the remission of depressive symptoms and the individual will be capable of readjusting (Klinger, 1975).

Much research supports the adaptive value of goal adjustment through disengagement and reengagement. Some research has examined these processes specifically in the context of an important developmental transition at which opportunities to accomplish goals undergo a sharp decline. A study examined the benefits of adjusting goals related to childbearing before and after women had passed a critical life-span transition, the "biological clock" for childbearing (Heckhausen, & al., 2001). They found that among the women who had passed the deadline for having their own children, those who failed to disengage from this goal experienced particularly elevated levels of depressive symptoms.

Personality theorists have explored the role of individual differences in broad personality constructs related to general adjustment tendencies, and consequently quality of life. In particular, some research has evaluated the adaptive nature of goal disengagement, operationalized specifically in terms of withdrawal of both effort and commitment from the pursuit of an unattainable goal. In addition, this research has supported the important role that reengagement plays in adaptation to constraints. The process of reengagement is defined by one's ability to identify, commit to, and pursue alternative courses of action upon encountering unattainable goals.

A study examined the readjustment of goals that accompanies the difficult transition to college that many students undergo. Given the loss associated with leaving friends and family behind, the demands on time and resources that school-life requires, and the experience of failure associated with academic pursuits, many goals may no longer be attainable, and students may fall short of satisfying their high standards in the academic domain. Consistent with previous findings, a good capacity to withdraw effort

and commitment from unattainable goals was related to low levels of perceived stress and intrusive thoughts, and high levels of self-mastery. In addition, students who were able to reengage in alternative goals also reported lower levels of perceived stress and intrusive thoughts. They also evidenced higher levels of purpose in life in addition to self-mastery (Wrosch, Scheier, Carver, & al., 2003).

Goal adjustment capacities of disengagement and reengagement may become increasingly important when individuals are exposed to non-normative circumstances (Wrosch & Freund, 2001), such as when children become diagnosed with cancer. Given the important stressors associated with this experience, parents may be forced to abandon some plans in order to mobilize their resources to cope with this challenge. The findings confirmed that goal disengagement and goal reengagement capacities lead to fewer depressive symptoms and lower levels of perceived stress only among parents of children with cancer. This relationship was not supported among parents of medically healthy children (Wrosch, Scheier, Miller, & al., 2003). A final set of results supports the conclusion about the adaptive value of disengagement in college students managing the experience of regrets. When individuals perceived few opportunities to undo the negative consequences of their regrets, their ability to disengage from their regretted behavior predicted low levels of intrusive thoughts and negative affect (Wrosch & Scheier, 2003).

The convergence of findings across studies strongly supports the conclusion that compensatory forms of control, in particular goal disengagement and goal reengagement, represent indispensable components of effective self-regulation. The shift from primary to secondary mechanisms of control becomes adaptive when important goals become

constrained. Secondary strategies adjust one's standard of reference by promoting positive reappraisals of the situation, downgrading the importance of unattained goals by modifying cognitions, supporting the formation of favorable attributions, and facilitating the deactivation of the goal. This line of research has established the adaptive nature of goal disengagement and reengagement for managing specific life circumstances in which one's perception of control is undermined.

Adaptive Self-Regulation in Late Adulthood

Although individuals encounter goal constraints throughout the course of adulthood, the key distinguishing characteristic of an older population is the reduced opportunities they possess for successfully overcoming these constraints (Heckhausen, 1999). As people advance in age, additional age-related constraints become superimposed onto normative limitations. This may be associated with reduced opportunities to actively overcome constraints when they arise, and consequently to successfully attain certain goals. Research suggests that older adults recognize their objectively reduced opportunities to resolve these constraints, leading them to appraise these events as unlikely to change. They evaluate their regret-related goals as being less likely to change compared to younger adults (Jokisaari, 2003), and they perceive fewer opportunities to undo their regretted behaviors (Wrosch, & al., 2004).

Given these reduced opportunities, active efforts to accomplish goals may become insufficient, and older adults may become confronted with the failure to complete their goals. Consequently, older adults' ability to exert primary control over the environment, which is a central need across the lifespan, may become especially compromised. Moreover, the accumulation of uncontrollable events and irreversible losses in later life

may further contribute to a deficit in perceived control. Findings indicate that compared to younger people, older adults experience fewer life events overall, although they experience more loss events, including those associated with declining health, loss of the work role, and loss of friends and loved ones (Lazarus & DeLongis, 1983).

This unique challenge facing older adults may put them at a greater risk for experiencing decreased well-being in the face of multiple goal constraints. However, despite the fact that older adults experience an increasing amount of uncontrollable changes such as health problems, functional losses and problems of isolation, it is all the more intriguing that there is no evidence for an age-related decline in indicators of subjective well-being, such as self-esteem, life satisfaction, personal control, and depression (Blazer, 1993). Studies have attempted to reconcile the findings that older adults are exposed to an accumulation of failure and loss experiences, yet fail to evidence a lower level of perceived control. In fact, perception of personal control remains relatively stable across the lifespan.

Several theoretical models have been advanced in the past few decades that address successful lifespan development, and that have attempted to account for the finding that older adults are resilient in the face accumulating life stressors and constraints on goal attainment. Baltes and Baltes (1990) originally proposed the model of selective optimization with compensation as a theoretical framework within which to conceptualize the process of successful aging, which accounts for the dynamics between growth and decline characterizing lifespan progression (Baltes, 1987). In this approach, maximization of desired outcomes and minimization of negative outcomes defines successful development. This model proposes that the constraints on opportunities

characterizing lifespan progression can be effectively mastered by the processes of selection, optimization and compensation. Selection allows individuals to select specific goals they intend to pursue. Optimization is defined as the allocation of resources such as time and energy towards the attainment of these goals. Compensation refers to a process by which individuals mobilize additional internal or external resources such as time and energy to maximize the chances of successful goal attainment despite arising constraints. Based on this model, older adults may remain resilient despite the challenges arising with age by focusing their resources on a select number of important projects that are still within reach. This may require that individuals abandon less important goals in order to avoid depleting valuable resources that could be invested in facilitating progress towards their most important goals, and maximizing their chances of successfully attaining these goals. Research supports the contention that older individuals relying on these strategies, in particular on optimization and compensation, obtained higher scores on indicators of subjective well-being (Freund & Baltes, 1998).

Schulz and Heckhausen (1996; Heckhausen & Schulz, 1995) have proposed a life-span theory of control based on the distinction between primary and secondary control originally advanced by Rothbaumm, Weisz, and Snyder (1982). Primary control refers to active attempts at affecting changes in the external environment to suit the needs of the individual. Secondary control strivings, by contrast, are directed within the organism and involve changes in motivational and emotional processes. Both selection and compensation processes are integral to developmental regulation, and are motivated by individuals' desires to maintain primary control. Individuals actively select personal goals which direct them in specific developmental paths. Individuals must also adapt to

and compensate for failure experiences, and adjust to constraints. As primary control holds functional primacy across the lifespan, secondary control processes are important so far as they are directed at mobilizing the individual's motivational resources with the goal of maintaining and restoring a sense of primary control over the environment. Secondary strategies become adaptive only when active efforts are no longer sufficient for directly altering the existing situation.

An increased capacity to use goal disengagement and self-protection strategies effectively may account for older adults' resilience in the face of negative life events and may also be a reflection of their reduced opportunities to successfully achieve their goals. Research supports the existence of age differences in the ways in which individuals cope with stressors. Research suggests that the distinct pattern of coping among young and older adults reflects inherent changes in the ways people cope as they age (Folkman & al., 1987) which are adapted to existing opportunities for action (Folkman, 1984, Lazarus & Folkman, 1984). Consistent with this notion, the action-phase model of developmental regulation postulates contrasting control orientations in individuals before and after reaching a critical juncture at which opportunities for goal attainment are sharply reduced (Heckhausen, 2000). Throughout life, primary and secondary control strategies operate in concert to optimize development through selection processes and compensation of failure. While early development is characterized by a steady increase in the use of primary control strategies, the availability and use of these strategies declines with age, following an inverted U-shaped progression. By contrast, the availability and use of secondary control strategies continue to ascend throughout life, reaching their highest peak in late adulthood (Schulz & Heckhausen, 1996). Increasing age has been associated

with a greater tendency for compensatory secondary control as evidenced in greater goal flexibility (Heckhausen, 1997).

Folkman et al. (1987) also reported differences in primary and secondary appraisals young and older adults engaged in to cope with stressors. They found that whereas young adults engage in problem-focused forms of coping, older individuals increasingly rely on emotion-focused strategies for managing hassles. Similarly, research suggests that older adult's increasing reliance on accommodative modes of coping may be an important source of resilience in later life by allowing individuals to maintain a sense of control. When assimilative efforts are insufficient to reach the desired goals, individuals must rely on accommodative processes to downgrade the value of the unattainable goal, minimize losses and maintain a sense of control over the outcome. Research suggests that there is evidence of a gradual shift from assimilative to accommodative modes of coping as people advance in age (Brandtstädter and Renner, 1990). In a sample of older adults, the relationship between problems such as chronic pain, impairment, or illness, and depression and low life satisfaction was mitigated by the ability to adjust goals flexibly. Finally, the impact of a smaller residual life-time on well-being was dampened among individuals scoring high on accommodative flexibility (Brandtstädter & Rothermund, 1994).

Even among older adults, secondary strategies may only be adaptive so long as the individual lacks objective opportunities to rise above specific constraints. Studies have demonstrated that the positive relationship between compensatory mechanisms of adjustment and well-being in older adults is mediated by the opportunities to overcome goal constraints. In a study examining health stresses and depressive symptomatology in

the elderly, health engagement control strategies as measured by behavioral and cognitive investments towards attaining health goals were related to low levels of depressive symptoms among people experiencing acute as compared to chronic physical symptoms (Wrosch, Schulz, & Heckhausen, 2002). This suggests that primary control strategies may be adaptive in the elderly as long as individuals possess opportunities to overcome existing constraints. Given this finding, we may speculate that secondary control strategies may protect against decreased well-being among individuals suffering from chronic disabilities that have little opportunity for control as opposed to individuals with potentially manageable symptoms (Wrosch, Schulz, & Heckhausen, 2004).

Models of adult development and adaptation have consistently supported the role of individual differences in personality variables of disengagement and self-protection in predicting later-life adjustment. In particular, research has consistently demonstrated that goal disengagement is especially adaptive for older adults given their reduced opportunities for successfully overcoming constraints. Research focusing on regrets arising due to goals which have not been successfully pursued in the past has demonstrated that disengagement and the availability of future goals moderate the relationship between regret intensity and quality of life among older adults who perceived reduced opportunities to overcome their regretted behaviors (Wrosch & al., 2004). Payne, Robbins, and Dougherty (1991) also demonstrated that the continued pursuit of life goals providing purpose and direction to one's life allows individuals to successfully negotiate significant life transitions such as retirement.

Adaptive and Maladaptive Functions of Disengagement: When and for Whom?

Recent research suggests that neither disengagement nor reengagement alone may be sufficient to ensure a good quality of life in the face of challenges, especially in late adulthood. Despite the importance of these two processes to effective self-regulation, research by Wrosch, Scheier, Miller and colleagues (2003) has demonstrated that an optimal combination of these strategies may be most adaptive. Disengagement appears to be an adaptive strategy when it leads older adults to adopt new meaningful goals, or when it makes resources available for investing in the successful pursuit of other goals.

This line of research emphasizes the importance of "purpose in life" as an additional factor which is important for preserving well-being, especially in late adulthood. Purpose in life is related to people's strivings and the goals that give meaning to their existence. The notion that individuals must remain engaged with goals is congruent with the conclusions from other research, stating that in old age, measures of meaning and purpose in life are associated with psychological well-being. A conscious effort to engage in new pursuits may be especially relevant in late adulthood given that unattainable goals may further deplete older adults' already limited repertoire of potential meaningful activities. By focusing on attainable alternatives, this strategy allows the individual to participate in activities that imbue life with meaning, and give purpose and direction to their existence. Individuals who fail to replace their abandoned goals may experience an intense feeling of emptiness (Wrosch, Scheier, Miller, & al., 2003).

Recent research has demonstrated that a differential interplay between goal disengagement and reengagement may lead to better adaptation for different age groups (Wrosch, Scheier, Miller, & al., 2003). The findings of a study conducted among a

sample of college students and community-dwelling older adults have shown that disengagement may lead to worse outcomes for older adults if they are unable to simultaneously reengage in alternative goals. This pattern was not observed among young adults who were better psychologically adjusted if they had adequate capacities for reengaging, especially in the absence of disengagement. This pattern of results suggests that different age groups require a different balance of these self-regulation strategies in order to successfully adapt to the experience of having important goals become unattainable.

A similar relationship in young adults has been reported in previous research conducted among college students. A significant relationship was reported between young adults' ability to reengage in alternative goals and self-mastery, and perceived stress. In addition, young adults who were unable to disengage from unattainable goals reported lower levels of self-mastery and higher levels of perceived stress only if they were unable to reengage in new activities. The study demonstrated that goal reengagement can compensate for the psychological costs associated with the continued pursuit of unattainable goals.

The implications of these findings are important given that encouraging disengagement among older adults may leave them without goals to pursue in the future. Therefore, older adults' reengagement tendencies may become particularly important when unattainable goals are abandoned. In the event that alternative goals are unavailable, older adults may best adjust to this situation by persevering in pursuing the constrained goal. Abandoning a goal without establishing other goals to pursue may leave an individual without purpose and motivation to engage their environment.

The Present Study

In this study, the association between self-regulation of unattainable goals and indicators of quality of life across adulthood and old age was examined. Although much research has been devoted to examining the beneficial role of having goals throughout the course of life, little research has directly examined the other side of the coin, pertaining to the number and the types of goals that become unattainable across age. To date, most research has focused on studying the positive features related to goals, describing goals that people undertake rather than those they abandon. Goals have also mostly been studied in the context of the beneficial impact they have on well-being, rather than in light of the negative consequences they may engender as they become unattainable. Research has yet to determine whether experiencing a greater number of unattainable goals represents an important risk factor for quality of life across the adult lifespan.

The existing research on the relationship between unattainable goals and quality of life has produced convergent findings supporting the adaptive role of goal management processes of disengagement and reengagement when individuals are confronted by the experience of having important goals become unattainable. However, to date, most research has examined the effectiveness of these strategies in specific contexts giving rise to the experience of unattainable goals: difficult life transitions, normative and non-normative threats, extremely challenging life circumstances. Research has yet to determine whether these strategies are equally suited to minimize the negative repercussions of varying numbers of unattainable goals that people encounter across different areas of life, and that may exert a cumulative effect on one's level of psychological distress. Given that many blocked goals may exert considerable strain on

individuals' psychological resources if they are unable to adjust these goals, research must examine the processes that may circumvent the negative consequences associated with multiple failure experiences.

Finally, recent research has pointed to unique interactive effects of goal disengagement and goal reengagement on quality of life for different age groups. However, given the preliminary nature of these results, firm interpretations about the nature of these interactions may not be advanced pending replication of these findings. Additionally, given the unique characteristics of the population sampled in these studies (college students and a community sample of older adults who previously participated in psychology studies), these results should be replicated among a heterogeneous sample of young, middle-aged, and older adults.

Given the important shortcomings of the available literature on the relationship between unattainable goals and quality of life, the present study intended to bridge some of the existing gaps in our knowledge. The central goal of this study was to examine the relationship between unattainable goals and well-being in an age-heterogeneous sample, and to examine how individuals adaptively manage the experience of multiple unattainable goals across the lifespan.

Objective #1

The first goal was to collect descriptive information about the number and the types of goals that become constrained for individuals of different age groups.

Hypothesis #1

The experience of having multiple unattainable goals was expected to represent a risk factor for reduced quality of life in young and older adults. Based on theories of

adaptive self-regulation, it was also expected that the relationship between the number of unattainable goals and quality of life would be moderated by goal adjustment capacities. Specifically, a high number of unattainable goals would exert an adverse effect on well-being, but only among those individuals with poor capacities for goal disengagement and goal reengagement. Conversely, the number of unattainable goals would remain unrelated to quality of life among individuals who are able to disengage from unattainable goals and reengage in alternative projects.

Hypothesis #2

Specific predictions for the relationship between goal adjustment capacities and quality of life across different age groups were also formulated. Based on theories of successful aging, it was hypothesized that goal adjustment capacities of disengagement and reengagement increase with age. However, contrary to previous research pointing to the beneficial role of goal disengagement in older adults, it was hypothesized that goal disengagement may represent a risk factor for older adults' quality of life in the absence of adequate capacities to reengage in new goals. In support of this argument, this study intended to replicate a three-way interaction between goal disengagement, goal reengagement and age. It was expected that older adults who possess a good capacity to disengage from unattainable goals will experience greater well-being, but only if they can simultaneously reengage in alternate goals. On the other hand, it was hypothesized that goal reengagement would predict greater well-being, but only among young adults experiencing difficulty letting go of goals once these become out of reach.

Method

Participants

The entire sample included a total of 150 participants. This sample was recruited from a heterogeneous population of the large metropolitan area of Montreal. Forty-nine participants were younger adults (Range = 18-39), forty-eight participants were middle-aged adults (Range = 40-59), and fifty-three participants were older adults (Range = 60-85). Forty-seven percent of the sample was male and fifty-one percent of the sample had attained a higher education (undergraduate university degree or more). Fifty-seven percent of the sample reported not being in an intimate partnership. This refers to individuals who were either single, divorced or widowed. Age, sex, and educational level were statistically unrelated in this sample. However, age was significantly correlated with partnership status, $r = -.23$, $p < .01$, indicating that older adults were more likely to be married or cohabitating than younger adults.

Procedure

A total of 150 English-speaking study participants were recruited through advertisements in English newspapers throughout the Montreal region. Interested participants contacted the laboratory by telephone to request that a questionnaire be mailed to them. Because this procedure resulted in the recruitment of a smaller number of older adults, some older adults from a list of participants that had previously participated in other unrelated studies in the Department of Psychology, and had expressed interest in participating in future research were also contacted. All participants were mailed a questionnaire. Participants filled out the questionnaire at home and send it back in a pre-stamped envelope. Upon receipt of the completed questionnaire and the

signed consent form (see Appendix A), a check for ten dollars was sent to each participant. Interested participants were also given the possibility to be informed of the results of the study when these would be available.

Materials

The questionnaire included measures of sociodemographic variables (see Appendix B), unattainable goals, self-regulation capacities, and subjective well-being. Zero-order correlations reported in Table 1 illustrate the bivariate relationships between the main study variables. Table 2 informs about the means and standard deviations of the main study variables.

Unattainable goals. Participants were first introduced to the notion of unattainable goals. They were given specific examples of unattainable goals and of possible reasons for which goals may become constrained. Participants were then asked to think about the goals, plans, or projects that they had to stop pursuing during the past five years. They were further instructed to write down all the goals that were important to them but that they had to stop pursuing. They could list up to ten unattainable goals (see Appendix C). The total number of unattainable goals was computed for each individual based on the number of unattainable goals reported. Participants were also asked to identify their most important unattainable goal, and to categorize this goal into one of ten possible life domains (e.g. work/education, family, intimate partnership, etc.). Of the 150 participants, 142 participants reported having at least one unattainable goal. All subjects were included into subsequent analyses, given that not having unattainable goals was meaningful to our hypotheses.

Table 1

Zero-Order Correlations and Descriptive Statistics of the Main Study Variables

Variables	1	2	3	4	5	6	7	8	9	10
1. Goal Disengagement										
2. Goal Reengagement	.21**									
3. Number of Unattainable Goals	-.18*	.13								
4. Negative Affect	-.28**	-.17*	.24**							
5. Positive Affect	.02	.33**	-.03	-.23**						
6. Perceived Stress	-.29**	-.32**	.23**	.72**	-.48**					
7. Depressive Symptoms	-.30**	-.15^{t}	.28**	.71**	-.40**	.74**				
8. Age	.19*	.07	-.34**	-.38**	.01	-.32**	-.28**			
9. Gender[a]	.13	-.02	-.04	.13	-.13	.09	.06	.05		
10. Education[b]	.04	.06	-.03	-.15^{t}	.05	-.05	-.10	.13	-.11	
11. Marital Status[c]	-.06	.12	.17*	.16^{t}	-.04	.07	.21**	-.23**	.03	-.08

Note. ** $p \leq .01$; * $p \leq .05$; ^{t} $p \leq .10$; [a] 0, male; 1, female; [b] 1, ≤ Cegep, 2, ≥ University undergraduate; [c] 1, intimate partnership; 2, single.

Table 2

Means and Standard Deviations of Main Continuous Study Variables

Variables	Mean	Standard Deviation	Range
Number of Unattainable Goals	4.57	3.00	0-10
Goal Disengagement	2.89	.83	1-5
Goal Reengagement	3.63	.84	1-5
Negative Affect	2.26	.93	1-5
Positive Affect	3.48	.74	1-5
Perceived Stress	2.63	.73	1-4
Depressive Symptoms	8.53	6.28	0-26

Goal Adjustment Tendencies. The goal adjustment scales contained two subscales, measuring participants' tendencies to disengage from unattainable goals, and reengage in new goals (Wrosch, Scheier, Miller, & al., 2003) (see Appendix D). To obtain a measure of individual differences in people's tendencies to disengage from unattainable goals, participants were asked to rate statements based on the extent to which it applied to each participant. These ratings were performed on a 5-point Likert-type scale (endpoints: 1 = almost never true; 5 = almost always true). These items referred to how people generally react if they have to stop pursuing an important goal because they no longer have the opportunity to realize it. This scale included two items measuring individuals' capacity to withdraw effort from attaining the goal which has become constrained and two items assessing one's ability to relinquish commitment from the pursuit of this goal. Sample statements included "It's easy for me to stop thinking about the goal and let it go", and "I stay committed to the goal for a long time, I can't let it go". A mean score of the four items was computed. Negatively formulated items were reverse coded prior to computing each scale. A high score on the scale indicated that participants had less difficulty disengaging from unattainable goals if they no longer had the opportunity to realize it. The four items combined showed a Cronbach's alpha of .69 ($M = 2.89$, $SD = .88$).

To obtain an indicator of individual differences in one's capacity to re-engage in new goals when certain goals have become constrained, subjects were asked to state their agreement with six statements. These statements reflected their ability to identify (2 items), commit to (2 items), and pursue (2 items) new goals if they have to stop pursuing an important goal because they no longer have the opportunity to realize it. Subjects

rated their agreement on a 5-point Likert-type scale ranging from almost never true to almost always true. A high score on this scale represented a good ability to find and pursue new goals after certain goals have become unattainable. The six items were aggregated by computing a mean score. The goal reengagement scale showed a Cronbach's alpha of .89 (M = 3.63, SD = .89).

Subjective Well-Being. Four separate scales measuring depressive symptomatology, perceived stress, negative affect and positive affect were also included as indicators of subjective well-being. Depressive symptomatology was assessed with a 10-item version of the Center for Epidemiological Studies Depression Scale (CES-D, Radloff, 1977; for use of the 10-item version in the elderly, see also Schulz, Beach, Lind, Martire, Zdaniuk, Hirsch, Jackson, & Burton, 2001) (see Appendix E). Participants were asked to indicate how often each statement applied to them during the past week on a 4-point scale ranging from 1 = rarely or none of the time (less than 1 day) to 4 = most or all of the time (5-7 days). Sample items included "I was bothered by things that usually don't bother me", "I felt depressed", or "I felt hopeful about the future". The sum score of the ten items was computed for each participant in order to obtain an indicator of depressive symptomatology. Analyses revealed good scale characteristics for this measure of depressive symptomatology (M = 8.53, SD = 6.37, α = .85).

Perceived stress was measured with a 10-item questionnaire (Cohen, Kamarck, & Mermelstein, 1983) (see Appendix F). Individuals were instructed to rate these items based on how often they have experienced each of the items in the last month on a 5-point Likert type scale ranging from 1= Never to 5 = Very Often. Sample items included "You felt nervous and 'stressed'", "You felt difficulties piling up so high that you could

not overcome them", and "You felt that you were on top of things". Four items were reverse coded. To derive a score for each individual, the sum score of the ten items was computed for each participant. In order to obtain a score on this scale, participants were required to provide a rating for at least five items. This scale achieved adequate psychometric properties with respect to its mean, variance and reliability (M = 2.63, SD = .73, α = .88).

Emotional well-being was measured with the 20-item Positive and Negative Affect Schedule (PANAS) (Watson, Clark, & Tellegen, 1988) (see Appendix G). Participants were instructed to indicate to what extent they experienced each of ten negative and ten positive emotions during the past year on a five-point scale ranging from 1 = Very slightly or Not at all to 5 = Extremely. Two indicators of emotional well-being were computed for negative and positive emotions separately. A mean score was computed for each participant on both indicators of emotional well-being. Both scales had satisfactory characteristics: positive affect (M = 3.48, SD = .74, α = .89) and negative affect (M = 2.26, SD = .93, α = .93).

Results

The results section is divided into three parts, each discussing the results as they relate to the three main objectives of the study. The first section consists of a description of the type and the number of unattainable goals across age, gender and educational level. The second section considers the predictive value of the number of unattainable goals on quality of life, and the moderating role of goal adjustment capacities. The last section considers the implications of these findings for lifespan development by discussing the differential use and adaptive value of self-regulation strategies across age.

Descriptive Statistics

Number of Unattainable Goals. Preliminary analyses were conducted with the purpose of describing how the number of unattainable goals differs across various sociodemographic groups. Participants reported on average 4.57 goals that have become unattainable during the past five years ($SD = 3.0$). No differences were obtained for gender, marital status, and educational level in the number of unattainable goals reported. Table 3 presents the results of the analysis of variance (ANOVA) testing the main effect of age group on the number of unattainable goals, controlling for gender, educational level and marital status. The covariates were unrelated to the dependent variable. The results suggest a significant main effect of age group, $F(2,149) = 9.69$, $p < 01$. To further qualify this difference, three independent samples t-tests were computed in order to determine the nature of this difference. In separate analyses, each age group was compared with the other two. These analyses revealed that older adults reported fewer unattainable goals in comparison to young adults, $t(100) = 4.37$, $p < .01$, and middle-aged

Table 3

Analysis of Variance (ANOVA) Predicting the Number of Unattainable Goals by Age Group

	Unattainable Goals			
	F	*df*	*p*	η^2
Age Group[a]	9.69	2, 149	.00	.12

Note. [a] Effects were controlled for sex, educational level, and marital status.

adults, $t(99) = 3.74$, $p < .01$. However, there was no difference between the group of young and middle-aged adults in the number of unattainable goals, $t(95) = .61$, $p > .10$.

Type of Unattainable Goals. The results describe the distribution of the most important unattainable goals across different life domains and provide insight into whether the domains of individuals' unattainable goals are affected by demographic characteristics of the sample. The distribution of unattainable goals across life domains as well as examples for each life domain are provided in Table 4. The life domains most frequently noted were work/education (31%), self-development/personal growth (12%) and finances/wealth (11%), respectively. Unattainable goals were least categorized into the domains of religious/spiritual (1%), friendship (2%) and leisure (4%), respectively.

Table 5 provides information about differences in the distribution of unattainable goals across life domains among different sociodemographic groups. As shown in the table, there were no significant gender differences in the number of unattainable goals reported across life domains. Similarly, individuals from different educational backgrounds did not differ in the number of goals they reported in each life domain. With respect to age differences in constrained goals reported across domains, there was a significant correlation between age and the number of unattainable goals in the work/education domain, $r = -.19$, $p < .05$. Older adults reported fewer unattainable goals in this life domain compared to younger adults. In addition, older adults reported significantly more unattainable health goals than young adults, $r = .26$, $p < .01$.

Self-Regulation of Unattainable Goals

It was hypothesized that having many unattainable goals may represent a risk factor for quality of life if people are unable to adaptively manage their goals. In

Table 4

Examples of Unattainable Goals According to Life-Domain and Percentage of Participants who Reported Unattainable Goals in the Main Content Categories

Life Domain	Examples of Unattainable Goals	Frequency (n)	% of Participants
Work/Education	"Finishing university"	47	31.3
Self-Development/Personal Growth	"Traveling"	18	12.0
Finances/Wealth	"A more lucrative position"	17	11.3
Health	"Improving physical health and fitness"	12	8.0
Family	"Having a child"	10	6.7
Intimate Partnership	"Get Married"	8	5.3
Leisure	"Recreational sports"	6	4.0
Friendship	"Considering husband as a companion, soul-mate"	3	2.0
Religious/Spiritual	"Going to church on Sundays"	2	1.3
Other	"Directing a play"	8	5.3

Table 5

Association Between Unattainable Goals Reported in Different Life Domains with Sex, Age, and Educational Level

Life Domain	Correlation with Age	Correlation with Gender	Correlation with Education
Work/Education	-.19*	.04	-.08
Family	.10	.10	-.01
Intimate Partnership	-.10	.11	.07
Friendship	-.03	-.06	-.02
Finances/Wealth	.10	.00	-.05
Health	.26**	-.07	.06
Leisure	.01	-.09	.15
Self-Development/Personal Growth	-.16[t]	-.11	-.01
Religious/Spiritual	-.08	-.01	-.06
Other	.19*	.05	.13

Note. ** $p \leq .01$; * $p \leq .05$; [t] $p \leq .10$.

particular, it was expected that goal adjustment capacities of disengagement and reengagement serve as protective personality factors when individuals encounter unattainable goals. Given these considerations, it was hypothesized that one's capacities for goal disengagement and reengagement would be adaptive with respect to preserving well-being in the face of many unattainable goals. To test the main hypothesis about the moderating role of goal adjustment capacities on well-being, four separate hierarchical regression analyses predicting four indicators of quality of life were conducted separately: perceived stress, depressive symptoms, negative affect and positive affect. Three different steps were included in each regression analysis. In the first step, sociodemographic variables including age, sex, educational level and marital status were entered as control variables into the analyses. Previous research has shown that these variables may have an association with well-being. In a second step, the main effects of number of unattainable goals, and goal reengagement and disengagement capacities were tested for significance. All main effects were controlled for each other. In the third step, the two-way interaction terms between the number of unattainable goals and the level of disengagement, and the number of unattainable goals and reengagement were entered separately into the regression equation. All variables were centered prior to the analyses. Missing values were replaced by the mean of the sample. The pattern of results remained unchanged when missing values were not replaced.

With respect to the control variables, only marital status accounted for a significant proportion of the variance in depressive symptomatology, $F(1,149) = 6.33$, $\beta = .20$, $p < .05$. Individuals who were not involved in a relationship reported experiencing more depressive symptoms compared to individuals who were married or living with a

partner. Sociodemographic variables did not explain a significant proportion of the variance in perceived stress, negative affect and positive affect.

Table 6 describes the main effects related to my first hypothesis about the moderating role of goal adjustment capacities. Consistent with a preliminary analysis of correlations (see Table 1), the number of unattainable goals predicted two indicators of quality of life. Individuals who reported encountering many unattainable goals reported higher levels of perceived stress, $F(1,149) = 4.08$, $\beta = .16$, $p < .05$, and depressive symptoms, $F(1,149) = 5.34$, $\beta = .19$, $p < .05$. The main effect of number of unattainable goals did not predict negative affect, $F(1,149) = 2.35$, $\beta = .12$, $p > .05$, and positive affect, $F(1,149) = 1.31$, $\beta = -.10$, $p > .05$. In addition, consistent with theories of adaptive self-regulation, individuals' goal disengagement capacities predicted quality of life. As shown in Table 6, individuals who were better able to disengage from unattainable goals reported less negative affect, $F(1,149) = 6.02$, $\beta = -.19$, $p < .05$, and lower levels of perceived stress $F(1,149) = 5.53$, $\beta = -.18$, $p < .05$, and depressive symptoms, $F(1,149) = 7.58$, $\beta = -.22$, $p < .01$, than individuals who had more difficulty letting go of unattainable goals. However, goal disengagement remained unrelated to positive affect, $F(1,149) = .44$, $\beta = -.06$, $p > .05$. Similarly, the findings demonstrated that one's ability to reengage in alternative goals is significantly associated with some of the indicators of quality of life. One's ability to reengage in alternate goals contributed to lower levels of perceived stress, $F(1,149) = 5.77$, $\beta = -.28$, $p < .01$, and higher levels of positive affect, $F(1,149) = 19.77$, $\beta = .37$, $p < .01$. There was also a moderately significant association between reengagement and negative affect, $F(1,149) = 2.71$, $\beta = -.13$, $p = .10$, and depressive symptoms, $F(1,149) = 3.08$, $\beta = -.14$, $p < .10$.

Table 6

Hierarchical Regression Analyses Predicting Negative Affect, Perceived Stress, and Depressive Symptoms by Age, Goal Disengagement, Goal Reengagement and Number of Unattainable Goals

	Negative affect		Positive affect		Perceived stress		Depressive symptoms	
Predictors [a]	R^2	β [b]	R^2	β	R^2	β	R^2	β
Main effects								
Age	.06**	-.27**	.00	-.06	.04**	-.21**	.01	-.12
Goal Disengagement (GD)	.03*	-.19*	.00	-.06	.03*	-.18*	.04**	-.22**
Goal Reengagement (GR)	.01^t	-.13^t	.12**	.37**	.07**	-.28**	.02^t	-.14^t
Number of Unattainable Goals (NUG)	.01	.12	.01	-.10	.02*	.16*	.03*	.19*
Two-way interactions								
NUG X GD	.06**	-.25**	.01	.09	.03**	-.20**	.04**	-.20**
NUG X GR	.01	.03	.01	-.10	.00	-.03	.00	-.04

Note. ** $p \leq .01$; * $p \leq .05$; ^{t} $p \leq .10$; [a] Effects were controlled for sex, educational level, and marital status; [b] Betas represent unique effects in each step of analyses.

Table 6 also presents the results of the analyses testing the hypothesis that self-regulation capacities become particularly adaptive when individuals are confronted with the experience of having many important goals become unattainable. The results showed significant interaction effects between the number of unattainable goals and goal disengagement in predicting negative affect, $F(1,149) = 12.6$, $\beta = -.25$, $p < .01$, perceived stress, $F(1,149) = 6.73$, $\beta = -.20$, $p < .01$, and depressive symptoms, $F(1,149) = 7.63$, $\beta = -.20$, $p < .01$. The interaction effect failed to attain significance in predicting positive affect, $F(1,149) = 1.05$, $\beta = .09$, $p > .10$. No significant interaction effects were obtained for goal reengagement in predicting well-being, all Fs > 19.77, all ps = >.10.

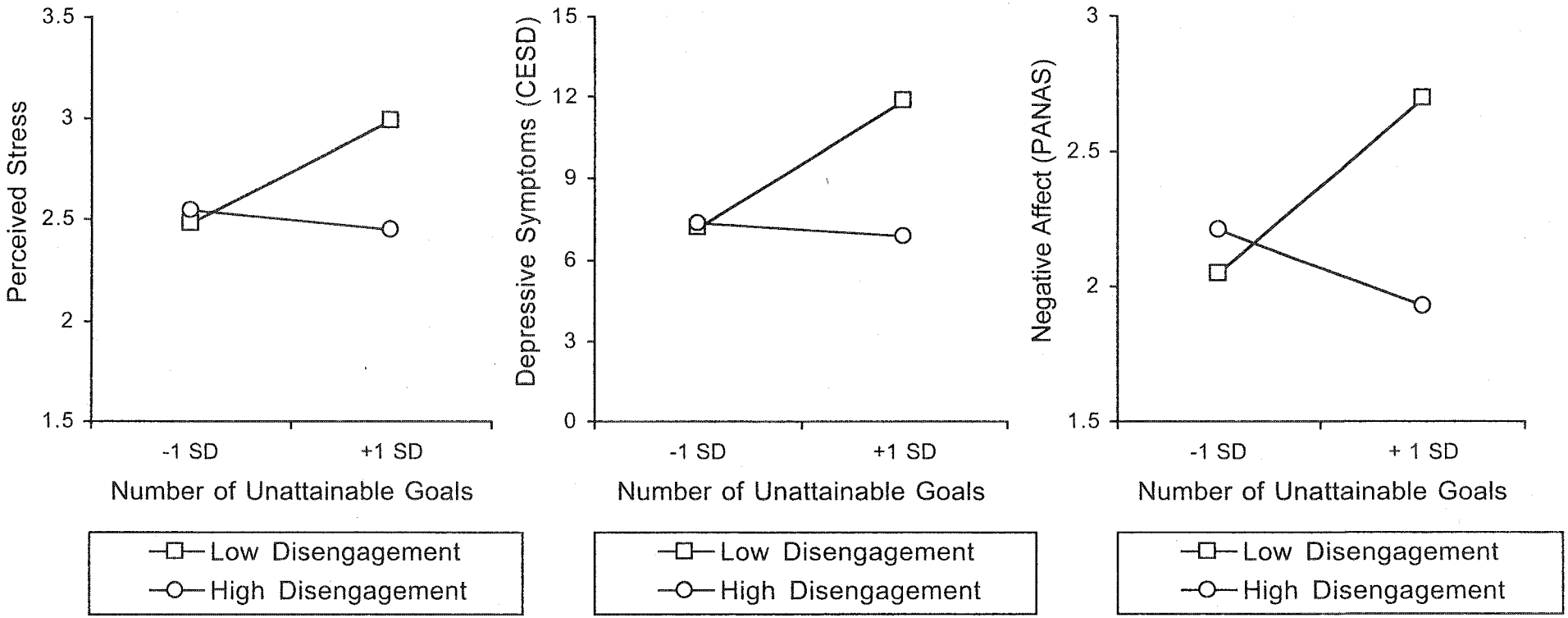
To further examine the obtained interaction effects, the relations between the number of unattainable goals and depressive symptoms, perceived stress and negative affect were plotted one standard deviation above and below the mean level of disengagement, employing commonly used regression techniques (Aiken & West, 1991). Consistent with the calculations of simple slopes, Figure 1 suggests that having many unattainable goals is associated with higher levels of perceived stress (left panel), $\beta = .34$, $p < .01$, depressive symptom (middle panel), $\beta = .37$, $p < .01$, and negative affect (right panel), $\beta = .35$, $p < .01$, but only for those individuals who are unable to disengage from unattainable goals. By contrast, confronting many unattainable goals does not seem to influence well-being if people are able to abandon unattainable goals.

Self-Regulation of Unattainable Goals Across Age

Two hypotheses concerning age differences in the use and adaptive value of self-regulation strategies were also examined. More specifically, age differences in the ease of disengagement and reengagement were examined. Based on the literature on

Figure 1

Two-Way Interactions between Number of Unattainable Goals and Goal Disengagement Predicting Perceived Stress (left panel), Depressive Symptoms (middle panel), and Negative Affect (right panel)



successful aging, it was hypothesized that older adults would display increased capacities for goal disengagement and goal reengagement than younger adults. It was also expected that a three-way interaction between goal disengagement, goal reengagement and age would be replicated in this heterogeneous sample of young and older adults, which has been reported in previous research conducted among university students and a community sample of older adults (Wrosch, Scheier, Miller, & al., 2003).

To test the hypothesis about age differences in the levels of goal disengagement and reengagement, two separate analyses of variance (ANOVA) were performed in which goal disengagement and goal reengagement were included as dependent variables. Age group was entered as a between-subjects factor. Marital status, educational level and gender were entered as covariates into these analyses. As reported in Table 7, these analyses revealed a significant effect of age group on both types of goal adjustment capacities, including goal disengagement, $F(2,149) = 4.47$, $p < .05$, and goal reengagement, $F(2.149) = 3.30$, $p < .05$. In support of this hypothesis, follow-up t-tests demonstrated that, as a group, older adults had significantly greater capacities for goal disengagement in comparison to young adults, $t(100) = -2.82$, $p < .01$, and middle-aged adults, $t(99) = -2.66$, $p < .01$. Further t-tests also confirmed a significant difference in the ease of reengagement for older adults in comparison to the group of middle-aged adults, $t(99) = -2.62$, $p = .01$, but not relative to the young group, $t(100) = -1.14$, $p > .10$. Young and middle-aged adults did not differ significantly in their goal disengagement, $t(95) = = -.13$, $p > .10$, and goal reengagement, $t(95) = 1.58$, $p > .10$, capacities.

The second age-related prediction was tested in the hierarchical regression model that was an elaboration of the previously repeated analyses. For the purpose of testing

Table 7

Analyses of Variance (ANOVAs) Predicting Goal Disengagement and Goal Reengagement by Age Group

	Goal Disengagement				Goal Reengagement			
	F	*df*	*p*	η^2	*F*	*df*	*p*	η^2
Age Group[a]	4.47	2, 149	.01	.06	3.30	2, 149	.04	.04

Note. [a] Effects were controlled for sex, educational level, and marital status.

this prediction, two-way interaction terms between age and goal disengagement; age and goal reengagement; goal disengagement and goal reengagement were additionally inserted into the regression. In the fourth step of the analysis, the three-way interaction between age, goal disengagement and goal reengagement was included in predicting perceived stress, depressive symptoms, negative affect and positive affect. The analyses of the two-way interaction terms did not reveal significant findings. There was no interaction among the variables age and goal disengagement, and goal reengagement in predicting any of the outcome measures, all Fs < 1.7, all ps > .10.

However, consistent with the above stated hypothesis, the three-way interaction between goal disengagement, goal reengagement and age was significant for predicting perceived stress, $F(1,149) = 9.33$, $= -.24$, $p < .01$. This effect was not observed for depressive symptoms, negative affect and positive affect. To further examine the nature of the significant three-way interaction, the two-way interactions of goal disengagement and reengagement were tested for significance separately for young (age 18-39) and older adults (age 60 and older). In each analysis of the two-way interaction for each age group, the variables were centered for the specific age group being considered in the regression. These analyses revealed significant interaction effects of goal disengagement and reengagement for predicting perceived stress in young adults, $F(1,48) = 5.2$, $= .35$, $p <$ .05), and older adults, $F(1,52) = 6.73$, $= -.33$, $p < .05$.

The relationship between goal disengagement and reengagement for predicting perceived stress was plotted one standard deviation above and below the mean level of disengagement for young and older adults. Figure 2 illustrates the interaction effects between goal disengagement and goal reengagement in young adults (left panel) and

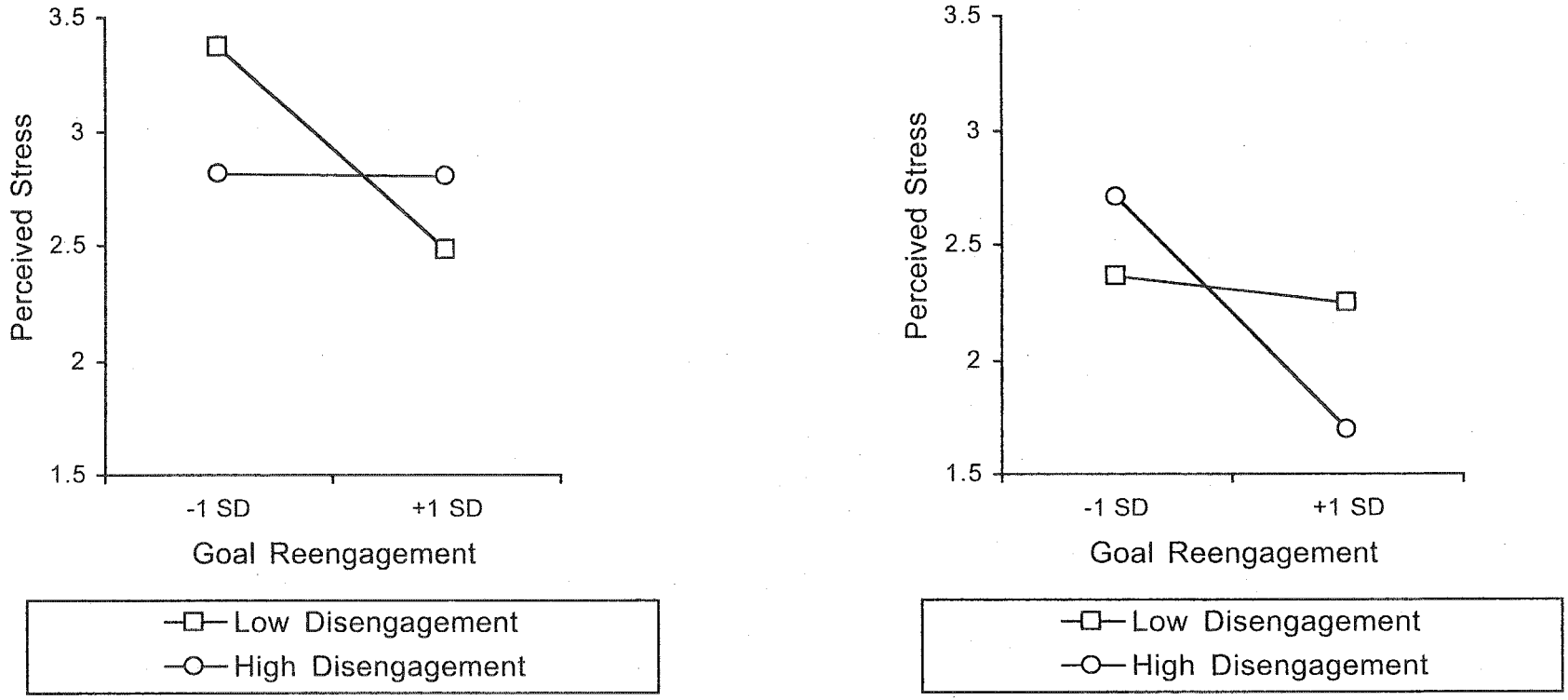
older adults (right panel) separately. Consistent with the results of previous studies, a follow-up analysis calculating the simple slopes revealed that low levels of reengagement resulted in higher levels of perceived stress, but only for young adults who were unsuccessful at disengaging from unattainable goals, $\beta = -.68$, $p < .01$. Conversely, there was no relationship between levels of reengagement and perceived stress among young adults who reported high capacities for disengagement, $\beta = -.01$, $p > .10$.

In line with the predictions, a different pattern emerged among older adults. As illustrated in the right panel of Figure 2, an analysis of the simple slopes indicated that low levels of goal reengagement resulted in increased levels of perceived stress, but only among older adults who were successful at abandoning unattainable goals, $\beta = .76$, $p < .01$. In contrast, the results failed to demonstrate an association between levels of reengagement and perceived stress among older adults with fewer capacities to let go of goals once these have become constrained, $\beta = -.10$, $p > .10$. These results suggest that among young adults, reengagement capacities are important when individuals are unable to disengage from unattainable goals, while for older adults, capacities for reengagement become increasingly important when individuals succeed at letting go of their unattainable goals.

Although the three-way interaction between age, goal reengagement and disengagement was only significant for predicting perceived levels of stress, a closer inspection of the data revealed a more consistent picture. The previously described regression analyses were repeated separately for young (age 18-39) and older (age 60 and older) age groups. Therefore, age was excluded as a predictor variable, as well as the two-way interactions involving age. The two-way interaction between goal

Figure 2

Two-Way Interactions between Goal Disengagement and Goal Reengagement Predicting Perceived Stress in Young Adults (left panel) and Older Adults (right panel)



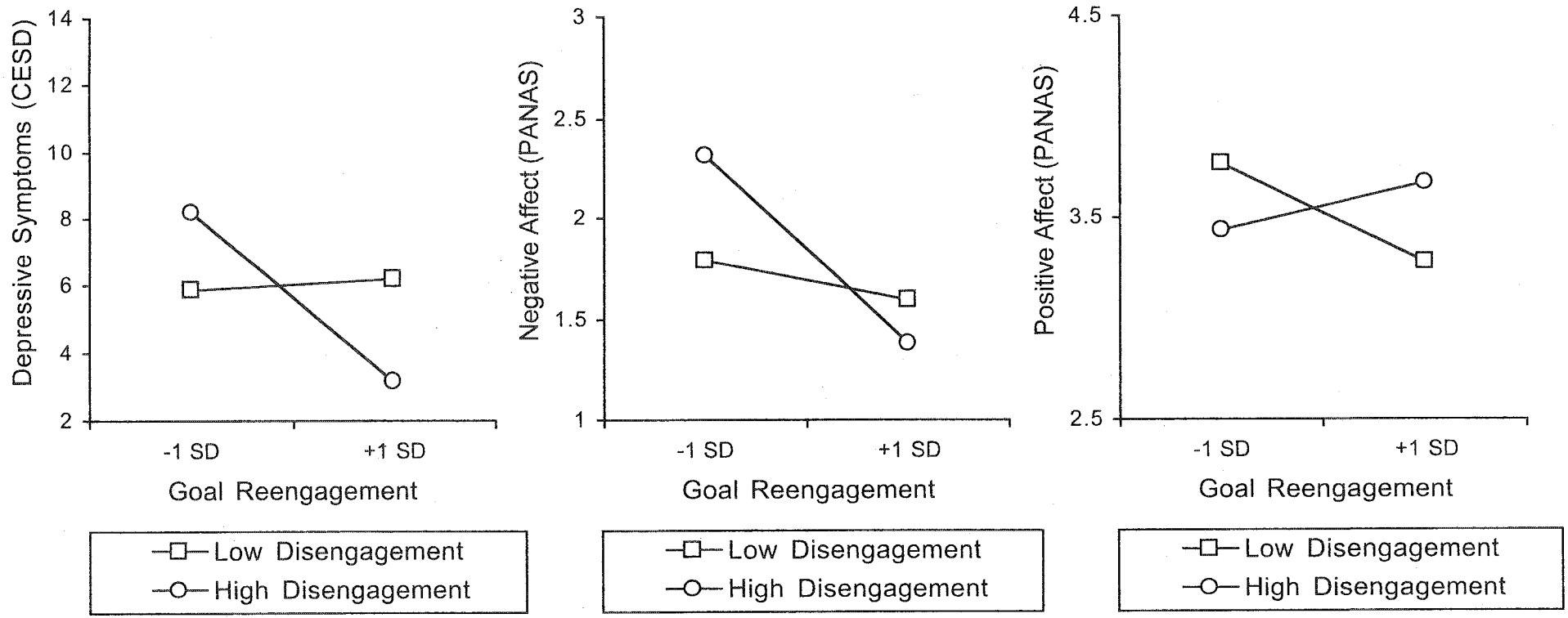
disengagement and goal reengagement was tested separately for each age group. In each analysis, all variables were centered based on the mean of the age group for which the interaction was computed.

Among younger adults, the interaction effects between goal disengagement and goal reengagement failed to reach significance in predicting depressive symptomatology, $F(1,48) = .54$, $\beta = .12$, $p > .05$, negative affect, $F(1,48) = .28$, $\beta = .08$, $p > .05$, and positive affect, $F(1,48) = .24$, $\beta = .08$, $p > .05$. However, the interaction was significant for the group of older adults, in predicting depressive symptoms, $F(1,52) = 4.46$, $\beta = -.28$, $p < .05$, negative affect, $F(1,52) = 4.24$, $\beta = -.27$, $p < .05$, and positive affect, $F(1,52) = 4.61$, $\beta = .26$, $p < .05$.

To further quality these effects, the significant interactions between goal disengagement and reengagement in predicting depressive symptoms, negative affect and positive affect were plotted for older adults. As illustrated in Figure 3, an analysis of the simple slopes confirmed that, among older adults who were unable to abandon their unattainable goals, there was no relationship between reengagement and depressive symptoms (left panel), $F(1,52) = .03$, $\beta = .04$, $p > .10$, negative affect (middle panel), $F(1,52) = .46$, $\beta = -.15$, $p > .10$, and positive affect (right panel), $F(1,52) = 1.78$, $\beta = .26$, $p > .10$. Conversely, among older adults who were able to disengage from their goals which had become unattainable, failure to reengage was associated with more depressive symptoms $F(1,52) = 10.58$, $\beta = .54$, $p < .01$, as well as higher levels of negative affect, $F(1,52) = 18.41$, $\beta = .69$, $p < .01$, and lower levels of positive affect, $F(1,52) = 28.16$, $\beta = -.78$, $p < .01$.

Figure 3

Two-Way Interactions between Goal Disengagement and Goal Reengagement Predicting Depressive Symptomatology (left panel), Negative Affect (middle panel), and Positive Affect (right panel), in Older Adults



The results demonstrated a consistent relationship between one's capacities for reengagement and better psychological adjustment among older adults who were successful at disengaging from their goals once these have become constrained. Older adults evidenced higher levels of perceived stress, depressive symptoms and negative affect, and lower levels of positive affect if they were able to disengage from their unattainable goals, but unable to reengage in alternative ones. Conversely, a different pattern appeared in younger adults for predicting perceived stress. Reengagement alone was sufficient for predicting low levels of perceived stress, despite the absence of capacities for disengagement. Although this trend was also apparent for predicting depressive symptoms and negative affect, this relationship failed to attain significance.

Discussion

The present study set out to examine research questions that have been left unanswered by the available body of literature on life goals and their relationship to quality of life across adulthood and old age. The objective of this study was to describe the goals that become unattainable for different individuals and across time. In addition, this study was designed to evaluate the contribution of goal disengagement and goal reengagement tendencies to quality of life among individuals reporting different numbers of unattainable goals. Finally, based on previous research, this study attempted to replicate different patterns of interaction effects between goal disengagement and goal reengagement for young and older adults.

Description of Unattainable Goals

A primary goal of this research was to collect descriptive information about the number and types of goals that become unattainable across different sociodemographic groups, in particular across age, gender and educational level. The findings of the present study revealed that in comparison to younger adults, older adults reported having fewer unattainable goals. This finding may appear counterintuitive in light of evidence suggesting that a greater number of constraints on goal attainment arise with advancing age, thereby restricting one's capacity to accomplish certain goals. However, the present results do not support this conclusion. Several explanations may be offered to account for this finding. Given that participants were asked to identify the goals that had become unattainable within the last five years, older adults may have had fewer goals to report as most of their goals may have become unattainable prior to this period. Alternatively, the fewer number of unattainable goals may be a function of the smaller number of goals that

older adults pursue overall. Lawton and al. reported that greater age is associated with fewer projects of all types (Lawton et al., 2002). Previous research has also demonstrated that, with age, individuals develop more sophisticated goal adjustment capacities which may explain the finding that older adults have fewer unattainable goals in comparison to young adults. This result was also found in the present study. Effective goal adjustment capacities may have contributed to the perception that fewer goals are unattainable by allowing older adults to redefine successful goal attainment, to focus on manageable goals, or to willingly abandon constrained goals, thereby no longer considering them as unattainable. Greater self-regulation capacities may also have led older adults to underestimate their objective constraints on goal attainment, while less developed goal adjustment capacities may have led younger adults to overestimate their objective constraints, thereby contributing to their perception that a greater number of goals are unattainable. Finally, the greater number of unattainable goals reported by young adults in comparison to older adults may reflect the diversity in younger adults' opportunity to sample multiple goal domains. By this process, individuals may sample a variety of goals before selectively committing themselves to specialized goal domains and abandoning others (Schulz & Heckhausen, 1996).

This study also provides important insights into the types of goals that are likely to be associated with greater constraints, making them unrealizable. Individuals most frequently classified their most important unattainable goal into the domain of work/education, suggesting that pursuing goals in this domain may be associated with important challenges. This may also reflect the fact that the work/education domain is central to the lives of most individuals. Therefore, by pursuing a high number of goals

related to this domain, the potential to encounter failure also increases. It is interesting to note that the most important unattainable goals were mostly related to a domain in which appropriate standards of success are regulated by external criteria. Therefore, it may be more difficult for individuals to overcome these constraints as these are beyond their control, thereby making this domain more susceptible to failure experiences. Many individuals also classified their most important unattainable goal into the domain of self-development/personal growth and finances/wealth.

This study examined whether the life domains in which individuals' most important unattainable goals were classified differed by age, gender and educational level. With increasing age, individuals' most important unattainable goals were related to the domain of work/education. This finding is not surprising given that work may no longer be a central goal in the lives of many older adults, especially if individuals have retired more than five years ago. The most important unattainable goals identified by older adults were most frequently classified into domain of health, which may reflect their increasing health concerns given declining cognitive and physical abilities among older adults. These findings are consistent with the results of a previous study which has demonstrated that compared to the older group, younger adults reported more hassles in the domain of work. Conversely, the older group reported relatively more health hassles (Folkman & al., 1987). There were no differences in the domains of classification of the most important unattainable goals reported across gender and educational level. This may be due to the low number of goals classified in each domain and may reflect the fact that this study had insufficient power to detect significant gender or educational differences in separate goal domains.

These findings offer important insights into the domains most vulnerable to failure for different segments of the population. This information increases our ability to determine where to target specific coping strategies. These findings also inform us about the domains of life that are largely left unaffected by arising constraints that are unmanageable. Thus, by selecting to pursue a goal related to these domains, individuals may increase their likelihood of future successful goal pursuits. This is especially important in light of research suggesting that goal reengagement is an adaptive process when individuals are confronted by failure in specific goal domains. Reengagement may be adaptive if it increases individuals' chances of success in pursuing other goals rather than if it contributes to exposing individuals to further failure experiences.

Self-Regulation of Unattainable Goals

The main goal of this study was to examine the adaptive self-regulation of unattainable goals in groups of young and older adults. It was suggested that having many unattainable goals is a risk factor for quality of life. Although failure is an inevitable component of goal pursuits, as these failure experiences accumulate, they may tax individuals' internal resources, and compromise well-being. In addition, it was hypothesized that goal adjustment capacities of disengagement and reengagement would play a moderating role in the relationship between the number of unattainable goals and indicators of well-being. As predicted, the experience of having many goals become unattainable represents a threat to one's well-being, in particular to one's perceived level of stress and depressive symptoms. This suggests that a greater number of constrained goals represents a more severe stressor, thereby exerting a substantial effect on well-being. This finding extends those of previous research demonstrating that specific types

of unattainable goals engender stress and may have an adverse impact on individuals' quality of life (e.g. Tunali & Power, 1993; Wrosch & Heckhausen, 1999). These findings take us one step further, suggesting that multiple failure experiences may have a cumulative effect on well-being. The cumulative effect of multiple stressful experiences on well-being is consistent with preliminary findings demonstrating a relationship between the frequency and intensity of negative life events and psychological health (Beasley, Thompson, & Davidson, 2002).

When confronted by important challenges, previous research has demonstrated that goal adjustment capacities, specifically strategies of goal disengagement and goal reengagement, may protect against declines in quality of life (Wrosch & al., 2003). The findings of the present study also confirmed that individual differences in goal disengagement predicted most indicators of quality of life, namely negative affect, perceived stress and depressive symptoms. Goal reengagement predicted perceived stress and positive affect, and the relationship with negative affect and depressive symptoms was moderately significant. Thus, one's ability to withdraw effort and commitment from the pursuit of an unattainable goal, and one's capacity to compensate for these goals by pursuing alternative ones serve a protective function with respect to maintaining quality of life across all age groups.

Importantly, significant interactions emerged between goal disengagement and the number of unattainable goals in predicting indicators of quality of life. Having many unattainable goals was associated with higher levels of perceived stress, depressive symptoms, and negative affect if individuals were unable to disengage from unattainable goals. By contrast, the number of unattainable goals remained unrelated to indicators of

well-being among individuals who were able to withdraw effort and commitment from the pursuit of unattainable goals. Therefore, when confronted with repeated failure experiences, being unable to minimize the effect of failure by relieving the negative emotional consequences through disengagement may become especially problematic. This interaction was not confirmed for goal reengagement. This suggests that while goal disengagement may serve a protective function only when individuals are confronted by many unattainable goals, goal reengagement is adaptive for all, irrespective of the number of unattainable goals individuals confront. Pursuing new goals may be generally adaptive by increasing the potential for success, and improving well-being through the engagement in pleasurable pursuits.

Self-Regulation of Unattainable Goals Across Age

An interaction between age and goal disengagement did not emerge in the present study, thereby providing contradictory support to two sets of findings reported in previous research. The current finding challenges previous findings suggesting that goal disengagement may be maladaptive for younger adults, given that they possess favorable opportunities to overcome constrained goals (Wrosch & Heckhausen 1999). When barriers to goal attainment are manageable, individuals may maintain well-being by investing additional efforts into overcoming barriers and ensuring the successful pursuit of goals. The present results suggest that disengagement is equally well-suited for young and older adults, as well as for those individuals experiencing many unattainable goals [1]. Given the greater number of goals available to young individuals, disengagement from

[1] I tested whether the adaptive value of disengagement among individuals who reported having many unattainable goals must be qualified by age. The findings did not reveal a significant three-way interaction between goal disengagement, number of unattainable goals, and age.

unattainable goals may direct them towards goals better suited to their skills, with a greater potential for success. In addition, there may be something unique about the life circumstances of young adults encountering many unattainable goals, making disengagement adaptive. Given that many goals are affected by arising constraints, these adults may suffer from objectively reduced opportunities to overcome constraints, affecting a greater number of goals. Alternatively, when individuals are confronted by multiple failure experiences, it may be more adaptive to cut their losses, rather than to compound them.

Although this strategy may be adaptive for young adults as a way to minimize short-term negative emotional consequences, goal disengagement may be detrimental in the long run (Heckhausen 1999). A general tendency to prematurely disengage from constrained goals may prevent individuals from accomplishing important objectives, and may contribute to the experience of regret in the future (Wrosch & Heckhausen, 2002). Importantly, this tendency may also erode individuals' confidence in their ability to effectively manage similar challenges in the future, and may reinforce a passive approach to problem resolution. In addition, by abandoning goals as soon as they become associated with constraints, individuals may never develop the skills to overcome them.

Consistent with the previously stated hypothesis, it is interesting to note that goal disengagement was not particularly adaptive for older adults in comparison to younger adults. Several explanations may account for the failure to replicate this effect. First, this may be explained by the fact that individuals were asked to identify goals that were unattainable. Therefore, regardless of age, opportunities to overcome the constraints rendering these goals unattainable were equally unavailable for all age groups.

Alternatively, the failure to confirm this finding may be due to the fact that ratings of objective opportunities to overcome constraints were unavailable, therefore these could not be controlled for in our analyses. Despite these possibilities, the importance of maintaining purpose in life through the continued pursuit of new activities suggests a more plausible account of the failure to replicate this interaction.

The importance of maintaining purpose in life following the experience of having important goals become unattainable in older adults is highlighted by the final set of results which replicated the interaction between age, goal disengagement and goal reengagement reported in a previous study (Wrosch, Scheier, Miller & al., 2003). This suggests that this finding may be generalized to a heterogeneous sample of young, middle-aged, and older adults. There emerged a significant three-way interaction between goal disengagement, goal reengagement and age on perceived stress. The findings confirmed that failure to reengage predicted higher levels of perceived stress among young adults reporting difficulties with giving up unattainable goals. Goal reengagement was unrelated to well-being among young adults who readily abandoned goals once these became out of reach. Conversely, among older adults, low levels of reengagement were associated with high levels of perceived stress, but only for those older adults who were generally successful at disengaging from unattainable goals. Goal reengagement remained unrelated to well-being among older adults with difficulty disengaging from constrained goals.

These findings are important in light of the contradictory results reported in this study and in previous research about the greater adaptive value of goal disengagement for older adults. Previous studies have indicated that goal disengagement is especially

adaptive for older adults given that they experience reduced opportunities to overcome constrained goals (Brandtstadter & Renner, 1990; Heckhausen & Schulz, 1995). Based on such findings, if efforts to overcome goal constraints are in vain, individuals should withdraw effort and commitment from the pursuit of their goals, and avoid experiencing a sense of helplessness when their efforts continue to fail. However, the present findings add an important caveat, which may account for the failure to demonstrate the greater beneficial role of goal disengagement in this segment of the population. This study suggests that goal disengagement is only adaptive for older adults if it is accompanied by a capacity to undertake new meaningful goals. Otherwise, disengagement may become detrimental to older adults' quality of life. Thus, older adults may be better off as long as their efforts are directed somewhere rather than nowhere. Being unable to invest resources in the pursuit of any activity may lead to a state of de-motivation, which is perhaps worse than when energy is invested into a futile goal.

The goals remaining in late adulthood have been shaped by selective pressures operating throughout development and guiding individuals towards specific pathways and away from alternative ones (Schulz & Heckhausen, 1996), as well as by arising constraints. Therefore, over the course of their lifetime, older adults have likely accumulated more goals that have become unattainable in the distant past or recently. Consequently, they may have fewer remaining self-relevant goals, as well as fewer available pathways towards the achievement of self-defining objectives. Given these considerations, it is all the more important that they exert a conscious effort to reengage in alternative goals as a way to achieve the remaining goals that are central to their lives. Under these circumstances, disengagement alone may be maladaptive given that

individuals must renounce the pursuit of important goals. Abandoning these goals may imply abandoning important aspects of oneself, and losing oneself in the process. The continued commitment to self-defining goals may therefore be beneficial, to provide meaning and purpose to individuals' lives. By contrast, younger adults may have a variety of higher order goals and many pathways towards their achievement. Therefore, especially among young adults who have fewer capacities to disengage from unattainable goals, reengagement may be adaptive as it may motivate individuals to expand their horizons and experience a variety of goals before selecting one specific pathway for achieving higher order objectives. Taken together, these findings suggest that striving towards something is an important component of quality of life.

Research has demonstrated that when individuals are exposed to unattainable goals, their attentional set persists and remains engaged in this goal (Rothermund, 2003). Alternatively, when a goal has been attained, goal-related attentional sets become deactivated, and available to be redirected into new goals. Research has demonstrated that when individuals lack goals to consume their attentional resources, attention wanders and focuses on negative aspects of oneself, and may consequently increase rumination about failure experiences. This underscores the importance of focusing one's attention, whether it may be on a new meaningful goal or an unattainable goal. Therefore, as older adults may lack new goals to pursue, continued investment of effort and attention into an unattained goal may prevent rumination and the deterioration of one's self-image.

The present findings further suggest that goal adjustment capacities may serve different functions for young versus older adults. In young adults, reengagement may compensate for poor abilities to disengage by keeping the person engaged in new goals

and directing their resources towards the pursuit of other activities. It may be more adaptive for younger adults to take advantage of the available opportunities, at the expense of limiting their potential for growth and self-development. On the other hand, in older adults, reengagement may serve to provide purpose for living by keeping the person engaged in alternative and meaningful goals, especially when individuals are able to let go of the goals that have become constrained. This suggests that as people get older, letting go of unattainable goals may represent a threat to well-being if the person is left without goals to pursue. In this case, disengagement alone may decrease motivation to engage the world, and may lead to a sense to hopelessness and desperation.

Finally, based on the present findings, older adults reported greater capacities for goal disengagement and reengagement, and had fewer unattainable goals. These results are consistent with research suggesting that individuals develop greater self-regulation capacities with age. Older adults' greater ability to adjust to unattainable goals may be explained by the fact that the capacity to distinguish solvable from unsolvable aspects of problems or stressors is a skill that is refined through practice and life experience (Aspinwall & Taylor, 1997). Given the finding that capacities for self-regulation increase with age and that unique combinations of strategies are better adapted to specific age groups, it is also interesting to speculate about the possibility that older adults are better able to appropriately combine these strategies to optimize the successful management of unattainable goals. This may imply that older adults enjoy a better quality of life despite the experience of having important goals become unattainable because they are more effective at adapting to these changes by applying the optimal combination of goal

disengagement and goal reengagement capacities. As a result of this pattern, older adults may be less affected by the experience of having important goals become unattainable.

Limitations & Future Research

Despite the importance of the present findings, the cross-sectional nature of this research precludes any conclusions about the causal nature of the relationship between the number of unattainable goals, goal adjustment capacities and well-being. Despite the finding that a greater number of unattainable goals is associated with poor quality of life, it may also be that reduced levels of well-being lead individuals to perceive that goals are beyond their reach, and this perception may be generalized across a number of different goals. To overcome this limitation, future research should examine, in longitudinal and experimental designs, whether encountering a greater number of unattainable goals leads to reduced levels of well-being. Similarly, the possibility that elevated levels of well-being may motivate individuals to engage in (or report) adaptive goal adjustments strategies may not be discounted by the present results. Future research should therefore explore, within a longitudinal design, the causal relations between goal disengagement, goal reengagement, and subjective well-being.

Furthermore, the cross-sectional nature of this study does not permit us to disentangle the influence of age and cohort differences on the reported effects. In the absence of confirmatory evidence from longitudinal or sequential designs (Baltes, Cornelius, & Nesselroade, 1979), we are unable to conclude that the previously reported age effects are due to participants' age rather than a product of the unique historical context coloring the experiences of successive generations. For example, we may not exclude the possibility that older adults' more sophisticated goal adjustment tendencies

have developed in response to specific life circumstances rather than having developed with time as a result of increasing age.

This study examined unattainable goals encountered by individuals within the past five years. Therefore, findings may not be generalized to unattainable goals that individuals were confronted by throughout the course of their life. In particular, in the case of older adults, there may be a critical time frame within which age-related constraints take their toll on the goals that individuals may pursue. Retirement may be a critical period in which goals related to the domain of work become compromised. Given the prominent role of work in the lives of individuals, constraints in this domain may also affect goals in other areas of life. For example, being unable to work due to mandatory retirement may also be associated with an eroding social network, as contact with co-workers may become limited. Retirement may also lead individuals to incur additional losses, such as loss of identity, income, or social support. These constrained goals may not have been captured in older adults who are over the age of 70 and have retired at the age of 65.

In attempting to reconcile the findings that older adults have greater constraints on goal attainment but fewer unattainable goals, it may also be interesting to speculate about the possibility that older adults may have a greater *proportion* of their goals become unattainable. Future research could potentially examine the number of unattainable goals that older adults report relative to the number of goals they are currently pursuing.

Additionally, it may be useful to examine whether having many unattainable goals in specific life domains may be especially detrimental, and how this differs across age groups. Future research should include larger sample sizes in order to overcome the

limitation of the present research which hinders our ability to provide answers to such questions. Future research should also distinguish between unattainable goals that are central to an individual's life or self-definition and those that are less germane to their self-concept. The analyses may require a qualitative in addition to a quantitative approach in attempting to measure the impact of unattainable goals on well-being.

This study did not support previous findings about the greater adaptive value of goal disengagement and reengagement for older adults in comparison to younger adults. Goal disengagement was equally adaptive for all individuals, especially for those who experienced many unattainable goals. This relationship did not differ across age groups. However, this research is limited by the fact that this study did not include a measure of the objective opportunities to overcome unattainable goals. Although unattainable goals are, by self-definition, unattainable, they may nevertheless be associated with differential objective opportunities for overcoming them. For example, although both a 30 and a 70 year old may have the subjective perception that staying physically active has become an unattainable goal, the objective opportunities to overcome this unattainable goal may be more manageable for the young adult in comparison to the older adult. While the young adult may be unable to remain active due to constraints on time, the older adult may label this goal unattainable because of declining health. Objectively, time constraints may be more amenable to change in comparison to chronic health problems. Opportunities to achieve some goals may also change with time, and the likelihood that they will improve is probably greatest for young adults in comparison to older adults.

This study has established that a different interplay of goal disengagement and reengagement may be beneficial for younger and older adults. As such, research should

determine the functions that these goal adjustments capacities serve across different age groups, as well as what it is about the circumstances of these different groups which makes a particular combination of strategies especially well-suited to minimize negative emotional consequences. For example, in younger adults, reengagement may serve to shift attention towards other relevant goals which demand the individual's attention. On the other hand, for older adults, reengagement may be beneficial by allowing individuals to maintain a sense of purpose in life after other meaningful goals have become out of reach. Future research should also examine whether this three-way interaction holds with respect to specific types of unattainable goals.

In addition, future research should attempt to determine the processes by which goal reengagement is adaptive. Reengagement may be adaptive as it allows individuals to compensate for failure by experiencing success in other domains. Alternatively, the pursuit of new goals may facilitate disengagement from unattainable goals. As an additional possibility, the pursuit of new goals may increase one's involvement in pleasurable activities, thereby contributing to greater well-being. However, we must also examine the possible adverse effects of reengagement, especially for older adults. This study demonstrates that goal reengagement is adaptive for older adults who are able to abandon unattainable goals. However, given the greater constraints experienced by older adults, it is interesting to speculate about the effects of cumulative failure experiences on well-being resulting from reengagement into new goals. Based on the results of this study, if goal reengagement contributes to an increase in the number of unattainable goals, it may further compromise well-being.

Conclusion

Throughout life, individuals strive to accomplish the goals they set out to achieve, avoid barriers towards their attainment, overcome difficulties when they arise, and circumvent failure at all costs. This study demonstrated that the experience of having many important goals become unattainable represents an important stressor for many individuals across the lifespan. This research also offered important insights into how individuals may adaptively regulate the experience of unattainable goals. The present findings highlight the complementary function of persistence and disengagement in the adaptive management of life goals, thereby contributing to dispelling the negative stereotype associated with quitting. When confronted by many failure experiences, most individuals seem to benefit from withdrawing effort and commitment from the pursuit of these goals. Reengagement into alternative goals is an additional component of effective self-regulation. Despite the general benefit of letting go of constrained goals, this research offered further insight into when and for whom quitting is better than persisting. The management of life goals requires a sophisticated knowledge, developed and perfected throughout life, of how to effectively combine coping strategies to maximize successful adaptation and development.

These findings have important implications for clinical interventions. Given that having a greater number of unattainable goals may precipitate stress and depressive symptoms, identifying adaptive coping strategies may be important to clinicians for designing interventions that make it easier for people to abandon unattainable goals. This research also suggests that different treatment approaches may be better suited to help individuals of different age groups struggling with the experience of unattainable goals.

In the absence of meaningful goals to pursue and from which one can derive purpose and meaning, older adults should perhaps not be encouraged to abandon unattainable goals. This may further compound negative emotions, and reinforce the loss of motivation to engage the world. On the other hand, interventions should promote goal reengagement in young and older adults, as this is generally beneficial for both groups. This is consistent with the cognitive-behavioral model, according to which engagement in pleasurable activities may promote adaptive cognitions, and positive emotions.

Finally, the adaptive self-regulation of unattainable goals requires that individuals select the most appropriate combination of coping strategies. The adaptive nature of each unique combination is determined by its ability to foster personal agency, supporting the functional primacy of primary control in successful development. As an additional criterion for adaptation, the combination of strategies must be uniquely suited to the changing life circumstances of each individual in order to adequately assist them in reclaiming control and continuing to be active agents in determining their destiny. Worse than encountering many unattainable goals, being unable to reclaim one's sense of personal control may be the ultimate unattainable goal an individual may incur.

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APPENDIX A

CONSENT FORM

CONSENT FORM TO PARTICIPATE IN RESEARCH

This is to state that I agree to participate in a program of research being conducted by Dr. Carsten Wrosch of the Psychology Department of Concordia University.

A. PURPOSE

I have been informed that the purpose of the research is to study people's goal management and well-being.

B. PROCEDURES

The research will involve a short questionnaire. It will take approximately one hour to complete the questionnaire. The participant will receive $10 for participating in the study. The questionnaire will focus on self-reports of personal goals, well-being, health, and life regrets.

There should be no risks or discomfort involved in answering the questions. The participant's name will not be attached to the questionnaire, although the signatures and names on the consent forms will be collected and stored separately by the supervising professor. The participant is free to refuse to answer any question that makes him or her uncomfortable answering.

C. CONDITIONS OF PARTICIPATION

- I understand that I am free to withdraw my consent and discontinue my participation at anytime without negative consequences. Even if I discontinue my participation, I will receive $10.
- I understand that my participation in this study is CONFIDENTIAL (i.e., the researcher will know, but will not disclose my identity)
- I understand that the data from this study might be published.

I HAVE CAREFULLY STUDIED THE ABOVE AND UNDERSTAND THIS AGREEMENT. I FREELY CONSENT AND VOLUNTARILY AGREE TO PARTICIPATE IN THIS STUDY.

NAME (please print) _____

SIGNATURE _____

DATE _____

APPENDIX B

QUESTIONNAIRE ABOUT DEMOGRAPHICS

Demographics

1. How old are you? _____ Years

2. Sex? ☐ **Female** ☐ **Male**

3. Marital Status?

- ☐ Married
- ☐ Living with spouse but not married
- ☐ Single
- ☐ Divorced
- ☐ Widowed

4. Highest Level of Education Completed?

- ☐ High School
- ☐ Cegep
- ☐ University Undergraduate
- ☐ Masters or Doctorate

APPENDIX C

QUESTIONNAIRE ABOUT IDENTIFICATION OF UNATTAINABLE GOALS

Goals That You Had to Stop Pursuing

During their lives, people cannot always attain what they want and they might be forced to stop pursuing some of their goals. This can happen for a number of different reasons.

Sometimes we no longer have the opportunity to realize a certain goal. This can happen because of deadlines, changes in resources, or external constraints. For example, people might not be able to make the transition into a desired job (because of external constraints or personal qualities), or to get any closer to another person, or their age does not fit with attaining a certain goal (e.g. childbearing, realizing perfect health in old age). People might also face unexpected life changes or negative life events, such as having an accident, a separation, an illness, or losing a job. As a consequence, they might not be able to pursue some important goals.

Sometimes people find that they don't have enough time, energy, or other resources to pursue all their goals simultaneously. In those instances, they often have to focus their resources on the most relevant things in their lives (e.g., work, family, or health). As a consequence, they may have to stop pursuing some other important goals.

We would like to ask you to think about your life during the past 5 years. Is there anything that meant something to you, and that was important to you, that you do not pursue anymore? We are interested in former goals, plans, or projects that you had to stop pursuing. Such goals might be either major or minor, and they might be in a number of different life domains (e.g., family, work, friendship, health, leisure, etc.).

Please think about the goals, plans, or projects that you pursued during the past 5 years. Write down all the goals that were important to you but that you had to stop pursuing.

#1 _____

#2 _____

#3 _____

#4 _____

#5 _____

#6 _____

#7 _____

#8 _____

#9 _____

#10 _____

APPENDIX D

GOAL MANAGEMENT SCALE:

GOAL DISENGAGEMENT AND GOAL REENGAGEMENT

Goal Management

The following sentences describe how people manage situations in which they are not able to pursue all their goals. We present two situations in which goals may not be pursued. Please answer the questions, keeping in mind only the situation described. Please indicate the extent to which each of the following statements applies to you by using the following scale:

1 = Almost Never True
2 = Seldom True
3 = Sometimes True
4 = Often True
5 = Almost Always True

Situation 1.

Sometimes we no longer have the opportunity to realize a certain goal. This can happen because of deadlines, changes in resources, or external constraints. For example, people might not be able to make the transition into a desired job (because of external constraints or personal qualities), or to get any closer to another person, or their age may not fit with attaining a certain goal (e.g. childbearing, realizing perfect health in old age). This might also happen because people face unexpected life changes or negative life events, such as having an accident, a separation, an illness, or losing a job. As a consequence, they might not be able to pursue some important goals.

If I have to stop pursuing an important goal, because I no longer have the opportunity to realize it ...

1. _____ I start working on other new goals.

2. _____ It's easy for me to stop thinking about the goal and let it go.

3. _____ I tell myself that I have a number of other new goals to draw upon.

4. _____ I think about other new goals to pursue.

5. _____ I find it difficult to stop trying to achieve the goal.

6. _____ It's easy for me to reduce my effort towards the goal.

7. _____ I put effort toward other meaningful goals.

8. _____ I stay committed to the goal for a long time, I can't let it go.

9. _____ I seek other meaningful goals.

10. _____ I convince myself that I have other meaningful goals to pursue.

APPENDIX E

CENTER FOR EPIDEMIOLOGICAL STUDIES DEPRESSION SCALE (CES-D)

Depressive Symptoms

Below is a list of the ways you might have felt or behaved. Please indicate how often you have felt this way **during the past week** by using the following scale.

1 = Rarely or None of the Time (Less than 1 Day)
2 = Some or a Little of the Time (1 – 2 Days)
3 = Occasionally or a Moderate Amount of the Time (3-4 Days)
4 = Most or All of the Time (5-7 Days)

During the past week:

1. _____ I was bothered by things that usually don't bother me.
2. _____ I had trouble keeping my mind on what I was doing.
3. _____ I felt depressed.
4. _____ I felt that everything I did was an effort.
5. _____ I felt hopeful about the future.
6. _____ I felt fearful.
7. _____ My sleep was restless.
8. _____ I was happy.
9. _____ I felt lonely.
10. _____ I could not get "going."

APPENDIX F

PERCEIVED STRESS SCALE

Perceived Stress

3. The questions in this scale ask you about your feelings and thoughts during the last month. In each case, you will be asked to indicate how often you have felt or thought a certain way. Although some of the questions are similar, there are differences between them and you should treat each one as a separate question. The best approach is to answer each question fairly quickly. That is, don't try to count up the number of times you felt a particular way, but rather indicate the response option that seems like a reasonable estimate.

In the last month, how often have you ...

	Never	Almost Never	Sometimes	Fairly Often	Very Often
1. been upset because of something that happened unexpectedly?	1	2	3	4	5
2. felt that you were unable to control the important things in your life?	1	2	3	4	5
3. felt nervous and "stressed"?	1	2	3	4	5
4. felt confident about your ability to handle your personal problems?	1	2	3	4	5
5. felt that things were going your way?	1	2	3	4	5
6. found that you could not cope with all the things that you had to do?	1	2	3	4	5
7. been able to control irritations in your life?	1	2	3	4	5
8. felt that you were on top of things?	1	2	3	4	5
9. been angered because of things that happened that were outside of your control?	1	2	3	4	5
10. felt difficulties were piling up so high that you could not overcome them?	1	2	3	4	5

APPENDIX G

POSITIVE AND NEGATIVE AFFECT SCHEDULE (PANAS)

Emotions

This scale consists of a number of words that describe different feelings and emotions. Read each item and mark the appropriate answer in the space next to that word. Indicate to what extent you experienced the following emotions **during the past year**. Use the following scale to record your answers.

1 = Very slightly or not at all
2 = A little
3 = Moderately
4 = Quite a bit
5 = Extremely

1. interested	_____	11. irritable	_____
2. distressed	_____	12. alert	_____
3. excited	_____	13. ashamed	_____
4. upset	_____	14. inspired	_____
5. strong	_____	15. nervous	_____
6. guilty	_____	16. determined	_____
7. scared	_____	17. attentive	_____
8. hostile	_____	18. jittery	_____
9. enthusiastic	_____	19. active	_____
10. proud	_____	20. afraid	_____