

MOTIVATION IN THE ELDERLY: A THEORETICAL FRAMEWORK AND SOME PROMISING FINDINGS

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ABSTRACT

Despite a widespread concern with the well-being of elderly people, very little is known about the motivation behind everyday behaviours in old age. In this paper, a theoretical framework that has been found useful in research on young adults is suggested as a promising direction for research on the psychology of motivation in the elderly. This framework (Deci & Ryan, 1985a) posits the existence of four types of motivation (intrinsic, self-determined extrinsic, nonself-determined extrinsic, and amotivation) which are assumed to have a number of consequences for adaptation and well-being. After presenting the theory, we review findings from an ongoing research program that has found that the four types of motivation can be reliably measured and are related to other important aspects of the lives of elderly people in a theoretically meaningful manner. Suggestions are made for further research and for potential applications.

One of the most significant changes taking place in Canadian society is the growing number of older adults. For example, the population of Canadian adults over the age of 65 has climbed from approximately 4% in 1960 to 9.7% in 1981, and is expected to reach 19.6% by 2021 (Statistics Canada, 1985, Projection #3). In other words, soon almost one out of five individuals in Canada will be over 65 years. Similar trends are occurring in the United States (Allan & Brotman, 1981).

Accompanying this demographic trend has been a growing realization among researchers and practitioners of the importance of understanding the processes involved in aging. In psychology, much of the research has focused on cognitive changes, on mental health, on living

environments, and on the psychology of death and dying (see Belsky, 1984; Binstock & Shanas, 1985; Birren & Schaie, 1985).

While this research has significantly increased our understanding of the psychology of aging, relatively little is known about motivation in the elderly. Textbooks and handbooks on aging usually do not have chapters on this topic due to a lack of research. Those authors who have discussed the topic (e.g., Kleiber & Maehr, 1985; Schaie & Willis, 1986; Veroff & Veroff, 1980; Wigdor, 1980), have been forced to extrapolate from research with young subjects, to draw inferences from their own clinical experience, or to offer speculations based on other theoretical interests. The relevant empirical research is either not very "psychological," or has dealt with motivation only tangentially.

For example, there has been work on changes in biological drives (Eisdorfer & Cohen, 1980; Woodruff, 1975), changes in level of energy and arousal (Thompson & Nowlin, 1973), and on changes in the central nervous system (Walker & Herzog, 1975; Wigdor, 1980). These discussions are sometimes based on dated concepts from animal research, and their applicability to elderly humans is not always evident.

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Other research (see Schulz, 1982) has focused on whether elderly people should find new interests and friends to replace activities from their working life (activity theory), or reduce their number of activities and contacts in order to "slow down and enjoy life" (disengagement theory). Most of this research has been conducted by sociologists, and the motivation of elderly persons themselves on this issue is rarely mentioned and deserves closer attention.

One can also find discussions of how theoretical frameworks developed from research on young adults (e.g., on achievement motivation) may apply to the elderly (e.g., Kleiber & Maehr, 1985; Maehr & Kleiber, 1981; Reker & Wong, 1988; Veroff & Veroff, 1980). However, little empirical work has been conducted to date (see Die, Seelbach, & Sherman, 1987; Steinkamp & Kelly, 1985, for exceptions).

Finally, there has been much interest in the concepts of locus of control (Cicirelli, 1987), perceived control (Bailes & Bailes, 1986; Mony & Perlmutter, 1987; Rodin, 1986, 1987), self-efficacy (Holahan & Holahan, 1987a, b; Woodward & Wallston, 1987), and learned helplessness (Abramson, Seligman, & Tansdale, 1978; White & Janson, 1986). In this literature, it is often mentioned that a lack of control (or self-efficacy) can reduce motivation. However, the prime concern has been with perceptions and beliefs about control and self-efficacy and with the consequences of such beliefs, and not with motivation per se. Further, much of the work on control has focused on reactions to stressful life events and not on more common, everyday behaviour. As will be seen below, control may be quite important in the initiation and regulation of such behaviour.

The issue of motivation in the elderly deserves closer attention for a number of reasons. First, it would help us understand the factors that regulate behaviour in one of the most prominent age groups in society. Second, old age is a period during which there is physical decline, cognitive changes, a loss of energy, changing social roles and interactions, and often a change in living environment. These experiences may involve growing perceptions of incompetence or feelings of reduced self-determination—two factors that are known to affect motivation (Deci & Ryan, 1985a). Understanding the role of motivation in these changes is necessary for a more complete picture of the psychological processes involved

in aging. Third, motivation research would lead to a better understanding of the factors that influence mental and physical health among the elderly, because research on young adults has found motivation to have a number of consequences for adjustment and well-being (Deci & Ryan, 1985a; Maddi & Kubasa, 1982). Finally, understanding the nature of motivation in the elderly would suggest ways of restructuring living environments to enhance motivation and its associated consequences. According to Wigdor (1980, p. 245), "a better understanding of motivational changes with aging would be useful in developing programs and environments which would result in optimal functioning."

The purposes of this paper are threefold. One is to present a theoretical framework for research on the psychology of motivation in the elderly. A second is to review findings from an ongoing research program that has used this framework. Finally, we suggest directions for further research and for potential applications.

Motivation in the Elderly: A Theoretical Framework

Motivation refers to the forces that initiate, direct, and sustain behaviour (Petri, 1981) and has been studied from several perspectives. For example, some have focused on instinctual drives (e.g., Freud, 1962/1923), whereas others have focused on environmental contingencies (Skinner, 1953). In this section we outline a more recent theoretical perspective that has emerged from empirical research on young people (Deci, 1971, 1973; Deci & Ryan, 1985a). This perspective distinguishes between intrinsic, self-determined extrinsic, nonself-determined extrinsic, and amotivation. After defining these four kinds of motivation, we describe some of the consequences and determinants of these types of motivation, and state how they may apply to the lives of elderly people.

Intrinsic, Extrinsic, and Amotivation

Intrinsically motivated behaviours are engaged in for their own sake—for the pleasure and satisfaction derived from their performance (Deci, 1971). They are voluntarily performed in the absence of material rewards or constraints (Deci & Ryan, 1985a, 1987). The elderly person who plays cards for the inherent pleasure derived from doing so is intrinsically motivated toward

that activity, intrinsic motivation is thought to stem from the needs to feel competent and self-determined (Deci, 1975; Deci & Ryan, 1985a). Activities that lead the individual to experience feelings of competence and/or self-determination are intrinsically rewarding and are likely to be performed again.

Extrinsically motivated behaviours are performed to receive or avoid something once the activity is terminated, and are not performed for their inherent experiential aspects (Deci, 1975; Kruglanski, 1978). It was originally thought that extrinsic motivation referred to nonself-determined behaviour—to behaviour that could be prompted only by external contingencies. More recently, however, Deci, Ryan and their colleagues (Connell & Ryan, 1986; Deci & Ryan, 1985a; Ryan, Connell, & Deci, 1983; Ryan, Connell, & Grolnick, in press) have proposed that there are different types of extrinsic motivation, some of which may be self-determined. In this paper we will distinguish between two broad types of extrinsic motivation only: self-determined and nonself-determined.

"Nonself-determined extrinsic motivation" occurs when behaviour is externally regulated (usually through rewards or constraints). For example, nursing home residents may participate in card games because they feel urged to do so by the staff. In this case, an activity that can or should be fun is performed in order to avoid negative consequences (e.g., criticism from the staff). The motivation is extrinsic because the reason for participation lies outside the activity itself. Furthermore, the behaviour is not chosen or self-determined.

Nonself-determined extrinsic motivation may also be fuelled by a desire for rewards. For example, a nursing home resident might agree to play cards "because the doctor told me that it would be good for me." In this case the motivation is still extrinsic and nonself-determined, but the instigating factor is the desired reward (e.g., praise from the doctor). Regardless of whether the goal of behaviour is to obtain rewards or to avoid sanctions, the individual experiences an obligation to behave in a specific way, and feels controlled by the reward or by the constraint (Deci & Ryan, 1985a).

In contrast, "self-determined extrinsic motivation" occurs when a behaviour is valued by the individual and is perceived as being chosen by oneself. Behaviour is internally regulated. An

example is the elderly person who plays cards "because I feel that it is a good way to keep my mind sharp." The motivation is extrinsic because the activity is not performed for itself but as a means to an end (to keep one's mind sharp). However, the behaviour is nevertheless self-determined: the individual has *decided* that playing cards is beneficial. The person experiences a sense of direction and purpose, instead of obligation and pressure, in performing the behaviour.

Apart from intrinsic and extrinsic motivation, Deci & Ryan (1985a) claim that a third construct, "amotivation," must be considered to fully understand human behaviour. Individuals are amotivated when they perceive a lack of contingency between their behaviour and outcomes. There is an experience of incompetence and lack of control. Amotivated behaviours are neither intrinsically nor extrinsically motivated; they are nonmotivated. For example, a nursing home resident might say, "I really don't know why I play cards; I don't see what it does for me." There are no rewards (neither intrinsic nor extrinsic) and participation in the activity will eventually cease. Learned helplessness (Abramson, Seligman, & Teasdale, 1978) is an eventual consequence of amotivation. Amotivated behaviours are the least self-determined because there is no sense of purpose, and no expectation of reward or of the possibility of changing the course of events.

In sum, a distinction has been made between four types of motivation with varying degrees of self-determination. Intrinsically motivated behaviours are the most self-determined whereas amotivated behaviours are the least self-determined.

Consequences of Intrinsic, Extrinsic, and Amotivation

Given that behaviour can be intrinsically, extrinsically, or amotivated, what are the consequences of these kinds of motivation for everyday life and well-being? Because the four kinds of motivation are supposedly on a continuum from high to low self-determination (Deci & Ryan, 1985a), and because self-determination is associated with enhanced psychological functioning (Deci, 1980), one would expect a corresponding pattern of consequences. That is, one might expect intrinsic motivation to have the most positive consequences, followed by self-determined extrinsic motivation. One might also expect nonself-determined extrinsic motivation

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and especially amotivation to be associated with negative consequences.

These predictions have been confirmed in recent research on young adults in a variety of life settings (e.g., education, sports, the workplace, interpersonal relationships). The more self-determined forms of motivation lead to greater cognitive flexibility, enhanced conceptual learning, greater interest, a more positive emotional tone, higher self-esteem, higher levels of marital happiness, greater life satisfaction, higher levels of creativity, performance and persistence, and have positive effects on health in stressful situations (Blais, Sabourin, Baucher, & Valleraud, 1988; Bouygano & Barrett, 1985; Deci & Ryan, 1985a, 1987; Kobasa, 1979; Maddi & Kobasa, 1982; Valleraud & Bissonnette, 1988; Valleraud, Blais, Briere & Pelletier, in press). It would therefore seem worthwhile to examine these forms of motivation in the elderly. If similar findings emerge, the implication would be that the physical and mental health of elderly people can be sustained, in part, by enhancing intrinsic and self-determined extrinsic motivation, and by preventing nonself-determined extrinsic motivation and amotivation. The following is a brief review of some factors that have been found to affect motivation.

Determinants of Intrinsic, Extrinsic, and Amotivation

Much of the work on the determinants of intrinsic, extrinsic, and amotivation has been based on cognitive evaluation theory (Deci, 1975; Deci & Ryan, 1980, 1985a, 1987) according to which two key factors affect motivation: perceived locus of causality and perceptions of competence. Changes in motivation occur when there are changes in either of these processes. Factors that lead to an internal perceived locus of causality enhance feelings of self-determination, which in turn enhance intrinsic motivation. On the other hand, when individuals perceive situations to be controlling, the perceived locus of causality becomes more external, self-determination is diminished, and intrinsic motivation is decreased. For example, providing nursing home residents with choice regarding if or when to participate in activities should produce an internal locus of causality which should enhance intrinsic motivation. On the other hand, forcing residents to participate in activities should lead to an external

locus of causality, which should undermine intrinsic motivation.

Research on young adults has consistently supported these hypotheses. Enhancing self-determination through choice increases intrinsic motivation (e.g., Swann & Pittman, 1977; Zuckerman, Porac, Lathin, Smith, & Deci, 1978), whereas experiences that reduce self-determination (e.g., evaluation apprehension, surveillance, deadlines) lead to an external locus of causality and decreased intrinsic motivation (see Deci & Ryan, 1985a, 1987).

Promoting self-determination should also enhance self-determined extrinsic motivation: the individual will experience a sense of purpose and direction in the performance of activities that are not inherently interesting. On the other hand, a decrease in feelings of self-determination should increase nonself-determined extrinsic motivation and eventually amotivation, because the individual may become dependent upon others to provide direction. For example, encouraging responsibility for personal self-maintenance activities among nursing home residents (e.g., Jameton, 1988) should lead to an internal locus of causality which should augment self-determined extrinsic motivation toward these activities. On the other hand, if personal self-maintenance activities are regularly performed by the staff without encouragement for self-responsibility, there is a risk of inducing an external locus of causality which could enhance nonself-determined extrinsic motivation, dependence on the staff, and perhaps eventually amotivation.

While research has yet to focus explicitly on the link between self-determination and motivation in the elderly, many studies have found that providing elderly people with choices (Moos, 1981; Monty & Perlmutter, 1987; Wolk & Telleen, 1976), personal responsibility (Langer & Rodin, 1976; Rodin & Langer, 1977), or control (Haermerlie & Montgomery, 1987; Schultz, 1976) enhances feelings of self-determination and has positive effects on adjustment and well-being. While there is considerable debate over how self-determination exerts its effects (Bailes & Bailes, 1986), one explanation, suggested by the present motivational approach (Deci & Ryan, 1985a), is that providing opportunities for self-determination increases intrinsic motivation and self-determined extrinsic motivation, which in turn produce beneficial outcomes. Self-deter-

TABLE 1
Total Scores and Internal Consistencies of the Four Motivational Scales

| | AM | NSDEM | SDEM | IM |
|---------|------|-------|-------|------|
| Males | 30.6 | 46.8 | 93.6 | 77.4 |
| Females | 23.4 | 39.6 | 102.6 | 88.2 |
| Alpha | .89 | .89 | .89 | .88 |

Note: AM: amotivation; NSDEM: nonself-determined extrinsic motivation; SDEM: self-determined extrinsic motivation; IM: intrinsic motivation.

motivation were the most important forms of motivation reported by the elderly subjects. Nonself-determined extrinsic motivation and amotivation followed in order. Females reported higher levels of intrinsic and self-determined extrinsic motivation, and males reported more nonself-determined extrinsic motivation and amotivation. Although these gender differences could stem from a variety of factors, they are interesting because similar results have been obtained in studies on the motivational styles of high school and college students both in Canada and the United States (Connell & Ryan, 1986; Vallerand et al., in press) as well as in studies on perceived control in the elderly (Reker, Peacock, & Wong, 1987).

The pattern of intercorrelations among the four kinds of motivation (see Table 2) was generally consistent with the predictions of Deci & Ryan (1985a). The correlations indicate a continuum from Amotivation, to NonSelf-Determined Extrinsic Motivation, to Self-Determined Extrinsic Motivation, to Intrinsic Motivation. Adjacent scales on this continuum show moderate positive intercorrelations, whereas scales farther apart show stronger negative intercorrelations. The simplex structure proposed by Deci & Ryan (1985a) is therefore supported.

There was also a significant positive relationship between Intrinsic Motivation and self-rated health ($M = .21, p < .01$), but no relationship between health and the other kinds of motivation. None of the correlations between the four kinds of motivation and age was significant (see Table 2).

Relations Between Motivation and Psychological and Health Variables

The subjects who completed the revised MES had also been asked to complete one or more of

health of the residents. The questions formed three scales assessing 1) "psychological status" ("To what extent has the person been: mentally alert? autonomous? psychologically stable?"); 2) the degree of "activeness" in everyday behaviors; and 3) a general evaluation of health. The alpha values ranged from .76 to .90.

The correlations between the four kinds of motivation and these other variables were expected to correspond to the continuum proposed by Deci & Ryan (1985a). That is, health, locus of desired control, life satisfaction, meaning in life, self-esteem, health, psychological status, and activeness were expected to show the strongest positive correlations with Intrinsic Motivation, and the strongest negative correlations with Amotivation. Depression and perceived residential constraint were expected to show an inverse pattern of correlations with the motivation variables.

The partial correlations between the four types of motivation and the other variables, controlling

for self-rated health, appear in Table 3. The correlations were generally in accord with the predictions. Meaning in Life, Life Satisfaction and Self-Esteem showed the clearest patterns: the strongest negative correlations were with Amotivation; there were weaker but still negative correlations with NonSelf-Determined Extrinsic Motivation; there were moderately positive correlations with Self-Determined Extrinsic Motivation; and the strongest positive correlations were with Intrinsic Motivation. For Depression, the highest positive correlation was with Amotivation ($r = .43, p < .001$), and the highest negative correlation was with Self-Determined Extrinsic Motivation ($r = -.34, p < .001$). The correlation between Depression and Intrinsic Motivation was also significant ($r = -.31, p < .001$), but slightly lower than that of Self-Determined Extrinsic Motivation.

The correlations between the motivation variables and Perceived Residential Constraint and Locus of Desired Control indicate that elderly

TABLE 3
Correlations Between the Four Kinds of Motivation and the Psychological and Health Variables

| | AM | NSDEM | SDEM | IM |
|--|-------------------|-------------------|-------------------|-------------------|
| Residential* Constraint (n = 143) | .23 ^b | .31 ^c | -.51 ^c | -.42 ^c |
| Locus of Desired* Control (n = 146) | -.42 ^b | -.30 ^c | .50 ^c | .45 ^c |
| Self-Esteem* (n = 146) | -.27 ^b | -.25 ^c | .39 ^c | .44 ^c |
| Depression* (n = 146) | .43 ^c | .37 ^c | -.34 ^c | -.31 ^c |
| Life Satisfaction* (n = 174) | -.33 ^c | -.14 ^a | .16 ^a | .19 ^a |
| Meaning in Life* (n = 145) | -.15 ^b | -.34 ^b | .47 ^c | .51 ^c |
| General Health (n = 80) | -.28 ^b | -.41 ^c | .35 ^c | .38 ^c |
| Psychological Status (n = 80) | -.12 | -.36 ^c | .35 ^c | .34 ^c |
| Activeness (n = 80) | -.17 | -.32 ^b | .22 ^a | .18 |

Note: * indicates partial correlations controlling for self-rated health; AM: amotivation; NSDEM: nonself-determined extrinsic motivation; SDEM: self-determined extrinsic motivation; IM: intrinsic motivation. "a" indicates $p < .05$; "b" indicates $p < .01$; "c" indicates $p < .001$.

mined elderly people should have higher levels of intrinsic and self-determined extrinsic motivation towards the activities of daily living and may engage in such activities more frequently and with more zest, leading them to derive more satisfaction and meaning from their performance.

Apart from self-determination, perceptions of competence and self-efficacy (Bandura, 1977) are also important. For example, positive competence feedback (e.g., praise, success) enhances intrinsic motivation (e.g., Blais, Reiss, & Jackson, 1984; Sansone, 1986; Vallerand & Reid, 1984, 1988), and the experience of self-efficacy is associated with positive outcomes in the elderly (Holohan & Holohan, 1987a, b; Woodward & Wallston, 1987). In fact, research on young adults has revealed a causal sequence in which positive competence feedback and self-efficacy exert their effects on adjustment and well-being through their effects on motivation (Blais et al., 1988; Pelletier, Briere, Blais & Vallerand, 1988). However, the competence feedback must be given in a context of self-determination, otherwise it will be perceived as controlling and non-self-determined extrinsic motivation will be enhanced at the expense of intrinsic motivation (Fisher, 1978; Ryan, 1982). Thus, congratulating nursing home residents for their initiatives in restructuring leisure activities should promote feelings of competence which should increase intrinsic motivation. On the other hand, continually telling residents that they are doing good work because their initiatives serve to reduce the staff workload could eventually lead to feelings of being controlled, which would reduce intrinsic motivation. Eventually, nonself-determined extrinsic motivation may increase and residents may not engage in such activities unless prodded by the staff. Similarly, negative competence feedback decreases intrinsic motivation (Vallerand & Reid, 1984) and eventually leads to amotivation and withdrawal (Boggiano & Barrett, 1985; Peterson & Seligman, 1984).

Although much of the research to date has focused on the situational factors that affect motivation, a more recent concern has been with relatively stable individual differences in motivational styles or orientations (Connell & Ryan, 1986; Deci & Ryan, 1985b; Harter, 1981; Vallerand et al., in press). Emerging findings indicate that motivational styles are associated with similar consequences (Connell & Ryan, 1986; Deci & Ryan, 1985b; Grolnick & Ryan, 1987;

Vallerand & Bissonnette, 1988; Vallerand et al., in press). The individual's habitual motivational style is an important factor in the regulation of behaviour in life domains as diverse as education (Vallerand et al., in press), interpersonal relationships (Blais et al., 1988), and sports (Pelletier et al., 1988). Research on motivational styles has only recently begun, and little is known about their stability or sensitivity to situational conditions. However, recent research revealed that motivational styles in the education domain show relatively high test/retest reliability (Vallerand et al., in press) and that motivation towards school in September is a strong predictor of dropout rate in a compulsory course at the end of the term (Vallerand & Bissonnette, 1988). These findings suggest some stability in motivational orientations. Broad cross-situational motivational tendencies may be more stable than domain-specific tendencies. One might also expect the physical and social environments to have long-term effects on motivational tendencies.

Findings From An On-Going Research Program on Motivation in the Elderly

The following studies on motivation in the elderly had two purposes. One was to further understanding of the nature of motivation in the elderly via application of Deci and Ryan's theoretical framework. The second purpose was to initiate a research program that should eventually be useful in improving the lives of elderly people. For both, a necessary starting point was to develop reliable measures of the different kinds of motivation in the elderly. A second step was to determine whether the four kinds of motivation display a pattern of intercorrelations that is consistent with the theory. A third step was to see if the four kinds of motivation are related to other important aspects of the lives of elderly people (see Vallerand & O'Connor, 1988, for a more detailed presentation of the scale).

Development of the Motivation in the Elderly Scale (MES)

To develop a measure of broad cross-situational motivational tendencies items from a variety of life domains were required. Therefore, the first task was to determine the life domains that are important to the elderly. A number of domains have been discussed in the literature (Belsky, 1984; Newman & Newman, 1984; Smyer &

Gauz, 1983), from which a list of 23 domains was compiled. Then, 130 elderly (94 women and 36 men, with a mean age of 76.3 years) from nursing homes, hospitals, private residences, and from low-cost public housing, were asked to rate the importance of each of the 23 domains. The following six domains received mean ratings of at least seven on a scale of one to nine, and were therefore used to develop the MES: health, religion, biological needs, interpersonal relations, current events, and recreation. These were the six most important domains for both men and women, and for elderly living in different settings.

The next step was to specify important behaviours/situations within each domain. To this end, 42 elderly and six nursing home staff were asked to nominate important situations within each of the six life domains. A variety of situations were identified, and for each domain the two most commonly nominated situations were selected for inclusion as questions in the MES (e.g., "Why do you go to church?"). As well, a general question for each domain was added (e.g., "In general, why do you practise your religion?"), for a total of three questions from each of the six life domains.

Because the goal was to develop a measure of four different motivational tendencies, each question involved rating the truthfulness of four possible answers, corresponding to the four kinds of motivation. For example, the question "Why do you go to church?" involved rating the truthfulness of the following statements: 1) "I would like to go to church, but I don't have the motivation to do so" (AM); 2) "Because it gives me courage for the days ahead" (NSEM); 3) "Because it brings me closer to God" (SDEM); 4) "Because I like to reflect on the sermon" (IM). Conceptually similar statements were designed for the four kinds of motivation for each of the 18 questions—for a total of 72 items.

Two hundred and one French-Canadian elderly (151 women and 50 men, with a mean age of 77 years) were then asked to complete the MES. Subjects were randomly chosen from nursing homes (n=101), private residences (n=50), and low-cost public housing (n=50). Subjects were also asked to complete measures of self-esteem, depression, life satisfaction, and meaning in life. A total score for each subject on each of the four kinds of motivation was computed. Clear and theoretically meaningful patterns or correlations emerged among the four types of motiva-

tion as well as between the different kinds of motivation and the other variables. However, the reliabilities of the four motivational scales were moderate at best (the alphas ranged from .54 to .75), and item analyses did not reveal subsets of items that were themselves more reliable or useful.

We therefore decided to modify the MES. The same three questions from each of the six life domains were retained, but the form of the four responses to each question was changed. As it was, for each kind of motivation subjects rated the truthfulness of reasons, suggested by the experimenter (e.g., for NSEM: "Why do you go to church?" "Because it gives me courage for the days ahead"; "Why do you see members of your family?"; "Because they are nice to me"). Perhaps the reliabilities were low because the particular reasons suggested in the answers were not what subjects had in mind; i.e., a subject may have been high on a given kind of motivation, but not for the reason suggested. Therefore, to bypass this source of variation the same four responses (corresponding to the four kinds of motivation) were used for all 18 questions (as in the Attributional Style Questionnaire of Seligman, Abramson, Semmel, & von Baeyer, 1979). The four responses selected were as follows: 1) "I don't know, I don't see what it does for me" (AM); 2) "Because I am supposed to do it" (NSEM); 3) "I choose to do it for my own good" (SDEM); and 4) "For the pleasure of doing it" (IM). These statements are example-free and may therefore be more reliable and sensitive measures of the different kinds of motivation.

One hundred seventy six French-Canadian nursing home residents (146 women and 30 men, with a mean age of 81.6 years) were then asked to complete the revised MES. The questionnaire was administered interview-style by trained research assistants. The reliabilities for the four motivation scales (see Table 1) were considerably higher (alphas ranged from .88 to .89), and were quite high in light of the fact that the questions tapped six life domains. Furthermore, the reliabilities of the four kinds of motivation for each of the six life domain subscales were also quite high, indicating that motivation in the elderly can be examined within each domain.

An examination of the means (see Table 1) revealed that self-determined extrinsic and intrinsic

¹ These are English translations; a copy of the French statements used for the questionnaire (MES) can be obtained from the first author.

who reported having control over desired activities reported less Amotivation ($r = -.52, p < .001$) and more Self-Determined Extrinsic Motivation ($r = .50, p < .001$). Similarly, elderly who perceived more residential constraint reported less Self-Determined Extrinsic Motivation ($r = -.42, p < .001$). Intrinsic Motivation was less strongly related to these variables than was Self-Determined Extrinsic Motivation.

Finally, the Pearson correlations between the four kinds of motivation and the social workers' ratings were also generally in accord with predictors (see Table 3). Elderly people higher on Intrinsic and Self-Determined Extrinsic Motivation received higher ratings on General Health, Psychological Status, and Activeness, whereas elderly people higher on Amotivation and NonSelf-Determined Extrinsic Motivation received lower ratings on these variables.

Conclusions

The present findings indicate that four kinds of broad, cross-situational motivational tendencies in elderly people can be reliably measured; that the intercorrelations between the four kinds of motivation are in accord with the simplex structure proposed by Deci & Ryan (1985a); and that the four kinds of motivation are related to other important aspects of the lives of elderly people in a theoretically meaningful manner. The framework proposed by Deci & Ryan (1985a) based on research with young people thus appears quite applicable to the motivation behind everyday behaviours in the elderly.

One interesting finding was that locus of desired control and perceived residential constraint were correlated with the motivation variables, which were in turn associated with the psychological and health variables. This provides tentative support for the causal sequence proposed by Deci and Ryan (1985a): perceived self-determination affects motivation, which in turn affects a variety of psychological variables. However, the findings are merely suggestive because they are correlational and because the variables were measured at only one point in time. It is also possible that changes in health status affect motivation and control. Longitudinal studies employing causal modelling are therefore required to determine the correct causal sequence. It would also seem important to examine the actual amount of self-determination in living environ-

important to examine the stability of the different forms of motivation in elderly people. How quickly does the motivation behind everyday behaviours change? How quickly do life events and living environments exert their effects on motivational tendencies?

The present framework may also extend previous research on control in the elderly. For example, Perlmutter, Monty, and Chan (1986) propose that choice increases perceived control, which in turn enhances motivation and performance. The present findings suggest the usefulness of examining different forms of motivation within this context. Lachman (1986) reports a relationship between locus of control and intellectual functioning, and suggests there may be a reciprocal causal relationship between the two. However, the individual's motivational orientation may be a mediating variable. Control may enhance the more self-determined forms of motivation for intellectual activities; the performance of which is beneficial to cognitive functioning. Conversely, the performance of intellectual activities may produce a sense of competence and intrinsic reward which in turn enhances motivation and control. Finally, Piper and Langer (1986) report how the physical and social environments of elderly people decrease control and encourage mindlessness, which has a variety of negative consequences. One negative consequence could be detrimental effects on motivation. Similarly, interventions that enhance mindfulness may be successful if they lead to a sense of meaning, competence, and self-determination, which in turn enhance motivation. One might also expect the different kinds of motivation to be associated with different kinds of mindfulness/mindlessness.

A number of practical applications for enhancing the lives of elderly people can be derived from the present findings. For example, individuals who work with elderly people should pay close attention to the factors that affect motivation. Providing opportunities for autonomy and choice are most strongly recommended. Self-determination is the necessary condition for enhancing the more beneficial forms of motivation. "Self-determination allows one to try out new activities, to explore new spaces, and to experience gratification from the exploration" (Deci, 1980, p. 44). Living environments that provide opportunities for choice are more likely to instill feelings of self-determination among residents (see Moos,

1981; Monty & Perlmutter, 1987; Rodin, 1987; Schulz, 1976; Wolk & Telleen, 1976), which should eventually enhance intrinsic and self-determined extrinsic motivation. Attempts to increase self-determination are most likely to be beneficial if they are directed at life domains that are considered important by the elderly (e.g., Lachman, 1986; Rodin, 1987). Such attempts should also address the amount of choice or control desired by particular individuals because there is much variation in preferences for control among the elderly and too much choice or control may be overwhelming and detrimental (Lachman, 1986; Rodin, 1986).

A second suggested application is that elderly people should be supported in their attempts to engage in potentially enjoyable, optimally challenging activities of their own choosing. Participation in such activities should enhance more positive forms of motivation and their associated consequences. This suggestion is in accord with Glasser's (1976) positive addiction therapy, which encourages depressed individuals to engage in potentially rewarding everyday behaviours.

Although many researchers and practitioners may be aware of the importance of self-determination and participation in everyday behaviours, the present findings suggest a much less familiar caution in dealing with the elderly: very close attention should be paid to the nature of any encouragement to participate in the activities of daily life. If elderly people feel compelled by others to engage in particular activities, their intrinsic or self-determined extrinsic motivation towards these activities may actually be impaired. On the other hand, if the social climate of the residence encourages a sense of self-determination, then these forms of motivation may be enhanced. Clearly, a considerable degree of interpersonal knowledge and skill is required for any attempt to enhance motivation and well-being. Further research could focus on the development of strategies for encouraging participation in the activities of daily living that instill feelings of choice and self-determination.

Finally, some reviewers have remarked that the social psychology of aging, as it has been practised within the multidisciplinary field of social gerontology, is incomplete and not sufficiently "social psychological" (Blank, 1982; Schulz, 1982). Sociologists have been the main contributors, and theoretical and methodological

perspectives from experimental social psychology have not been used (Schulz, 1982, p. 510). The theoretical framework and research directions suggested in this paper represent one step

RÉSUMÉ

Même si de plus en plus d'intérêt est accordé à la condition des personnes âgées, nous savons très peu de choses en ce qui concerne la motivation de celles-ci face à leurs activités de tous les jours. Dans cet article nous proposons l'adoption d'un modèle théorique de la motivation qui a démontré son utilité en recherche avec de jeunes adultes. Ce modèle théorique (Deci & Ryan, 1982a) propose l'existence de quatre types de motivation (intrinsèque, extrinsèque autodéterminée, intrinsèque non-autodéterminée et motivation). Qui plus est, on propose que ces types de motivation sont reliés de façon spécifique avec des conséquences psychologiques et physiques. Après avoir décrit la théorie, nous présentons certains résultats d'un programme de recherche sur la motivation chez les personnes âgées présentement en cours. On démontre que les quatre types de motivation peuvent être mesurés avec validité et fiabilité et qu'ils sont reliés avec d'importants aspects de la vie des personnes âgées de façon conforme avec la théorie. Des suggestions sont faites en ce qui concerne les recherches futures ainsi que des applications potentielles.

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AGING, DISABILITY AND QUALITY OF LIFE: A CHALLENGE FOR SOCIETY

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ABSTRACT

Quality of life is becoming a major theme in the field of developmental disability. It is argued that some of the same issues arise in the field of aging and many of the problems and solutions are generic to the development of a range of services and systems. By examining the transfer of knowledge from the field of developmental ability some of the pitfalls encountered in allied systems may be avoided. Quality of life raises issues associated with cognition, emotion and personal attributes of lifestyle. This paper argues for a re-evaluation of professional services in the context of quality of life which can lead to the client paying a much more dominant role in decision-making within a delivery service oriented to the individual's personal and familiar environment.

It is increasingly recognized that an examination of the field of disability, and particularly developmental disability, in relation to issues associated with aging may have considerable relevance to the development of health and welfare programs for the elderly community (Brown, MacFarlane & Bayer, 1988). Disability and aging have, at least superficially, many aspects in common from the point of view of environmental structure and restriction of stimulation. It is particularly in the environmental area that knowledge of professional and program development from the field of developmental disabilities may help society minimize error in the development of programs and services for elderly people.

Developmental disabilities in this paper refers not only to mental handicap but to a range of sensory and physical impairments which take place during the early years of life. However field and research workers are beginning to recognize that categorization is of limited value when it comes to educational, social and psychological intervention. In the field of special education the British Warnock Report (1978) underscores this development. Recognition of the importance of behavioural description rather than categorization has been associated with the development and application of continuous assessment (Hogg & Raynes, 1987), criterion-referenced testing (Baire, 1978) and, latterly, individual program planning (Gall, 1984).

Developmentally disabled, particularly mentally handicapped, persons are living to a much greater age than in former generations (Rice & Feldman, 1985). Yet many people who are disabled and attend day programs, see and present themselves as elderly people by 50 years of age (Janicki, 1988; Brown, Bayer & MacFarlane, 1989). Conditions such as Alzheimer's Disease are recognized as a complex of syndromes with possibly different origins and different contributions from inheritance and environment (Heston & White, 1983). The link between Down's Syndrome and Alzheimer's Disease is reasonably well established (Wisniewski & Merz, 1985), and in a concrete fashion demonstrates the importance of seeking parallels between, and integrating knowledge from, the fields of aging and disability. It also underlines the fact that being "old" may occur at a relatively young chronological age. Purmenter (1988) states, in relation to physical disabilities, that persons who are disabled not only have to cope with the disability, but are also beset by a lack of resources both professional and economic. It is those individuals who lack such re-

Handicap and Aging

In the area of aging and disability Blake (1984) indicates that amongst those over 65 years of age