ACTIVITY THEORY: AN EMPIRICAL TEST AMONG GREATER VICTORIA RESIDENTS 55 AND OVER

by

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ABSTRACT

This cross-sectional study examines the relationship between informal visiting activity with friends, relatives and neighbours and life satisfaction. Visiting activity initiated by the respondent and visiting activity initiated by the friends, relatives and neighbours were analyzed separately.

The data were gathered from structured interviews with 642 randomly selected residents from Greater Victoria, 55 years and over. Random-digit-dialling was used to select the sample.

The results were that both self-initiated and other-initiated activity significantly explained variance in life satisfaction. Self-initiated visiting activity was not more highly associated with life satisfaction than other-initiated activity, and no interaction effect was found between self-initiated and other-initiated activity and life satisfaction. In addition, informal visiting was significantly related to life satisfaction, independent of the effects of health, income, sex, age and marital status.

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INTRODUCTION

In the social gerontological literature, there are three predominant theories that attempt to conceptualize the way in which individuals adjust to their own aging: disengagement, continuity and activity theories. Social disengagement theory suggests that older people will eventually experience an intrinsic desire to "disengage" and thereby decrease social activity during the later portion of the lifespan. In contrast , activity theory proposes that social activity is both necessary and desirable for aging individuals. Finally, continuity theory attempts to incorporate an explanation both for continued social activity and for decreased social activity.

The purpose of this research is to empirically test the social activity-life satisfaction relationship among randomly selected individuals, aged 55 years and over, from the Capital Regional District population. Before testing activity theory, a literature review of the three aforementioned theories is presented in order to clearly separate the basic theoretical assumptions underlying each. This review is important because much of the previous research has resulted

in limited support for any of the theoretical components included within any one of the three theories. Also, social disengagement theory, continuity theory and activity theory are most often discussed in social gerontological literature when life satisfaction, a perceived sense of psychological well-being, is used as the dependent variable, which is the case in this research. Therefore, this review will present each of the three theories separately, along with a brief review of previous relevant research.

DISENGAGEMENT THEORY

Disengagement theory was first proposed by Cumming, Dean, Newell and McCaffrey in 1960. In 1961, an expanded version of the major concepts and theoretical propositions of disengagement theory appeared in Cumming and Henry's book, Growing Old. Cumming and Henry used data from the Kansas City Study of Adult Life to propose a model outlining an orderly transitional exchange of role functions and obligations between the aging individual and society. Disengagement theory was offered as a "bridge" between personality theory and social theory (Cumming and Henry (1961:10). Hence, the focus of the Cumming and Henry inductively based theory was to explain the "interface" between the individu-

al's personality and society at large (1961:11). According to Cumming and Henry (1961), "aging is an inevitable mutual withdrawal or disengagement, resulting in decreased interaction between the aging person and others in the social system he belongs to (1961:14)." During the process of disengagement, which is initiated by either the individual or the encompassing society, the individual is predicted to shift from extrinsic rewards, generated by the external environment, to intrinsic rewards located within the organism's internal frame of reference. The process of disengagement becomes self-perpetuating once initiated. In addition, disengagement is characterized by a change in attitude and orientation, a tendency toward greater individuation, an increased likelihood of giving non-normative responses and an increased tendency to do the unexpected thing (Cumming and Henry 1961:105). Furthermore, Cumming and Henry (1961) proposed that many of the social relationships that had been maintained throughout middle life would eventually become severed , and the remaining relationships would be altered in quality. As partial support for their predictions, Cumming and Henry (1961) cited the variation in morale levels among a group of Kansas City subjects. Cumming and Henry stated that:

> ....we have found that it is not uncommon to find general improvement in total morale and in-

> creasing satisfaction in most areas of the morale index in the later stages of the disengagement process among this group of healthy, economically independent men and women (1961:139-140).

Consistent with the prediction of and reported findings concerning higher morale among disengaged individuals, was the proposal that successful aging was to be characterized by higher levels of morale among individuals who had decreased their interactions, roles and social life space measures to the point where they had achieved a fully disengaged state (Cumming and Henry 1961).

Because of the controversial nature of disengagement theory and the lack of empirical support (Maddox 1963; Palmore 1968), Cumming (1963;1975) added some new elements and propositions to the original theory. Disengagement theory's original propositions had not sufficiently explained variations that might occur during the aging process, such as widowhood before the last child leaves home, or the continued activity patterns of some individuals (Maddox 1966, as cited in Neugarten 1968). Cumming (1963), therefore, attempted to modify disengagement theory to accommodate different patterns of adaptation and make some of the core propositions of the theory more operational (1963:378). Cumming stated that "disengagement had been conceived as a mutual withdrawal between the individual and society, and

therefore the process should vary according to characteristics of both (1963:378)."

In keeping with the functionalist's assumption that asymmetry was to be maintained between the individual and society, Cumming added a biologically based personality variable called temperament. This factor had two components: the impinger and the selector. Two social role typologies also were added to account for the variability in social role functions. These were the instrumental and the socio-emotional role models. Basically, most individuals possessed the qualities of both personality variables and social role transition was possible. Cumming (1963) implied that perceptual changes would occur during middle life that would cause the individual to perceive the inevitability of death. This inevitability of death would be accompanied by a "need" to shift away from achievement, and would be complimented by a tendency to surrender potential feelings associated with a friend's death or children leaving home. Eventually, an individual would fill personal voids with symbolic residue in memory (1963:382). This pattern of change would be most congruent with the selector temperament and the socio-emotional role, because the selector would be more withdrawn and more likely to use symbolic constructs (1963:380), and the socio-emotional role would be more harmonious with the

inner integration of the social system and the maintenance of value patterns that informed the individual of its goals (1963:386). Thus, successful aging and, subsequently, higher levels of morale would occur more frequently among individuals better able to adapt and change, if necessary, in response to both internal and external environmental contingency changes.

Despite various changes and revisions, the core of disengagement theory adheres to the three propositions derived from the Kansas City Study of Adult Life, with a fourth proposition added by Cumming in 1975 (Cumming 1963:1975). Basically, the four propositions are:

1. The life space of an individual decreases with age, in that he interacts with a narrower variety of role partners and spends a smaller portion of his lifetime in interaction.

2. The individual anticipates this change and participates in the process.

3. The individual's preference for interpersonal rewards becomes more individualized and expressive, and less role-connected as he grows older, and thus his <u>style</u> of interaction changes.

4. If the individual has relinquished obligatory roles, and if he has become more individuated and expressive, which is to say less normative and conforming, then he is unlikely to seek out or to be sought out for new obligatory roles (Cumming 1975:188).

As indicated by the four preceding propositions, disengagement theory assumes that disengagement is a biologically based personality variable and an inevitable life event. Consequently, support for this assumption would suggest that any individuals who were highly engaged in activities or social interactions during the later portion of the lifespan, would be considered as deviant or maladjusted.

This all-or-none rationale has been the target for considerable criticism. Martin (1973) studied life satisfaction among a retirement community and found support for the high life satisfaction-disengagement relationship at the structural level only, whereas there was a high life satisfaction-activity relationship at the interrelational level of interaction. In Martin's study the structural level was considered to be the extended family and the economy, whereas interrelational level interactions were conceptualized to be interactions with friends, age oriented organizations, clubs and recreational groups (1963:227).

Carp (1968) divided interpersonal relationships into two categories: family and other persons. Carp (1968) was predicted that if disengagement was a general personality trait, then there would be a positive association between the scores on the engagement-disengagement indicator for

each of the two types of interpersonal relationships. However, the results showed a negative correlation between disengagement from family and from other persons (1968:385). Thus, disengagement patterns were not uniformly consistent.

Patterns of continued labour force participation also caused problems for disengagement theory's primary assumptions. A classic study by Roman and Taietz (1967, as cited in Atchley 1977) found that when university professors were provided with an opportunity for role continuity, 71 per cent remained and 29 per cent disengaged (Atchley,1977:231). Fillenbaum (1971), in a study of men who had worked for, and retired from, the same company in the United States, found that men who found employment after retirement had better health, needed less financial help and belonged to a greater number of associations compared to their non-working retired counterparts (1977:348).

Other research has focused on stress factors related to poor health, socioeconomic status and situational factors such as widowhood. Tallmer and Kutner (1969) found a strong positive relationship between physical health and social stress variables and disengagement than between advancing age and disengagement. In addition, Palmore and Luikart (1972) found that self-rated health was the predominant

variable influencing life satisfaction among middle-aged subjects, whereas the amount of organizational activity and belief in internal control were of secondary importance. Finally, Cutler (1973) found that participants in voluntary activities were in better health and had higher socioeconomic status than those of the comparison group. Thus, the implication was that many individuals who did not participate in activities at a significant rate, were prevented from doing so by health and socioeconomic status factors, rather than an intrinsic desire to disengage.

Criticism of disengagement theory's functional meaning and implications has come from diverse theoretical perspectives. Spence (1975) argued that disengagement theory presented the individual as causing or bringing about a decrease in social relationships (1975:195). Furthermore, according to Spence (1975), disengagement theory was limited in explaining normal aging because it was concerned with the psychobiological universals of aging (1975:195), whereas the impact of social structural determinants are ignored.

This unidimensional nature of disengagement theory was also criticized by Cath (1975), who stated that disengagement theory was inadequate because it failed to consider the full spectrum of human experience, behavior and dynamics,

both at the personal and social level. In addition, Gordon (1975) suggested that disengagement theory's explanatory power is valid at best only as an indicator of how some older people might adapt and cope.

Cowgill (1976) also questioned how well the disengagement model explained the majority of older people's behavior, by presenting Queen and Gruener's (1940) research conclusions that "disengaging" behavior was considered as abnormal and pathological. Cowgill (1976), in discussing the Queen and Gruener (1940) findings stated that:

> On the contrary, they (Queen and Gruener) pointed out the variability among the individuals in the extent and timing of declining participation and they certainly did not consider such withdrawal either inevitable or functional (1976:378).

Carp (1968) proposed that the concept of disengagement be expanded to include withdrawal from material possessions as well as from ideas and activities. Youmans (1969) advocated that all potential social-pathological factors that lead to the disengagement process be studied. This proposal was similar to that of Hochschild (1975) who presented a reformulation of disengagement theory based on the structural determinants of behavior.

To conclude, attempts have been made to expand disengagement theory's simplistic functional relationship which has consistently implied a universal trend toward inevitable disengagement between the individual and the larger encompassing social system. Regardless of the proposed expansions and modifications, the impact of disengagement theory has declined significantly. The functional approach has failed to adequately explain the existing diversity among individuals during the later portion of the lifespan. To illustrate, disengagement theory may help to explain the "need" that society has to transfer social roles and obligations from generation to generation in order to maintain optimal efficiency, but it is not able to explain why the majority of the older population members do not actively and willingly participate in the disengagement process.

CONTINUITY THEORY

As a social gerontological perspective, continuity theory has concentrated on explaining the many different styles of personal adaptation that exist among the aged. Continuity theory has primarily focused on the individual's personality. Neugarten, Tobin and Havighurst (1968) studied the data from the Kansas City Study of Adult Life and concluded that

"there are some older persons who have high life satisfaction and, vise versa, there are others who are high in activity, but low in satisfaction (1968:173)." Continuity theory assesses the degree of psychological well-being in terms of the continuation of previously learned behaviour patterns that had been fully integrated within the human organism.

Based on an analysis of the same data, Havighurst (1968) reported:

> The relationships between activity and life satisfaction are influenced by personality type, particularly by the extent to which the individual remains able to integrate emotional and rational elements of the personality. Of the three dimensions of which we have data -- activity, satisfaction, and personality-- personality seems to be the pivotal dimension in describing patterns of aging and in predicting relationships between the level of activity and life satisfaction. It is for this reason, also, that neither activity nor disengagement theory is satisfactory, since neither deals, except peripherally, with the issue of personality (1968:23).

A more formal statement of the continuity concept was provided by Atchley (1977). Atchley stated that "continuity means that the individual's reaction to aging can be explained by examining the complex interrelationships among biological and psychological changes; the person's habits, preferences, and associations; situational opportunities for

continuity; and actual experience (1977:27)." Thus, according to Atchley (1977), both the acquisition of behavior and subsequent changes in any behavioral patterns, would involve the analysis of the interactional relationships between biological, psychological and situational elements as a holistic process. Also, the interaction of these primary elements is assumed to be instrumental in constructing behavioural and adaptational patterns in the first place.

Empirical tests of continuity theory have remained elusive. When Bultena (1969) investigated the relationship between life continuity and morale among 284 retired male subjects, he concluded that morale was related positively to socioeconomic status, whereas decremental life changes were associated with a low level of morale (1969:253). Life changes were indicated by the components of the social structure defined as the location of the individual's position within the economic hierarchy. Thus, Bultena (1969) concluded that psychological decrement was overly represented among the aged and lower socioeconomic groups (1969:253).

Atchley (1971) discussed the importance of a "continuity" approach as opposed to a "crisis" model for explaining adjustment and leisure participation during the post-retirement phase of the life cycle. Rather than assuming the in-

dividual had primarily derived personal identity from the major life role -- occupation, Atchley (1971) proposed that the relationship between retirement and participation in leisure activity during the post-retirement phase could be modelled as a work substitute for some individuals, and a mechanism for identity continuity for others. This would explain why some individuals retired voluntarily and did not go through a crucial phase of adjustment as predicted by the crisis theory model. Furthermore, Atchley (1971) proposed that a retired individual could continue to assume an identity based on former occupational roles: "the retired individual will continue to see himself as a railroader, teacher, etc. even though he no longer plays the role (1971:16)." In addition, Atchley (1971) reported that geographical, social and psychological diversity among the older population created problems for explanatory models. Thus, support for continuity theory remained tentative, and at best provides only a partial explanation for the effect of aging on life satisfaction.

Covey (1981) discussed the problems concerned with continuity theory's multiple variables and broad conceptualizations. By reconceptualizing continuity theory, Covey (1981) demonstrated continuity theory's usefulness in explaining the role aspect of continuity.

Using a social role dimension, Covey (1981) considered two types of factors affecting the continuity of social roles: individual social characteristics (socioeconomic status, psychological motivation and personality) and sociocultural factors (age-grading). Congruent with these two proposed factors, Covey (1981) stated two general theoretical propositions:

1. As the person's resources and abilities increase, the ability to continue in social roles increases (1981:629).

2. As the restrictiveness of the social structure declines, the ability of older people to maintain and continue desired social roles increases (1981:630).

Covey (1981) suggested that continuation of social roles was dependent both on the individual's efforts, and on the social structural factors that operate to break down social roles and any efforts to maintain those roles. Consequently, Covey (1981) proposed that the type of society, such as industrial or pre-industrial, would determine the probability of an individual's role continuity, as well as the degree of age-grading. Age-grading, according to Covey (1981), was a mechanism to force older people to disengage from roles so that younger people could replace them. In other words, the more roles that could only be maintained by younger individ-

uals, such as blue-collar occupations in an industrial society, the higher the probability of age-grading.

Covey (1981) concluded his analysis of continuity theory by stating:

> ....continuity theory, as conceptualized here, says that participation by older people is a form of adaptation and an expression of the variety of responses available (1981:632).

According to this type of reasoning, continuity theory would incorporate both disengagement theory and activity theory, discussed in the following section of this review, within its theoretical framework as two types of adaptational patterns that would account for certain differences among subgroups within the elderly population.

Overall, continuity theory has remained loosely formulated. The move towards theoretical propositions that are suitable for constructing research hypotheses has been demonstrated by the Covey (1981) research. However, as indicated by the literature surveyed in this review, continuity theory has remained far too general to be of any use at the present time. Therefore, continuity theory may only indicate a direction, not a model, for explaining and predicting adaptational patterns that constitute successful adaptation to aging at this time. In addition, continuity may extend

to life satisfaction, making it impossible to test the theory. Finally, the basic assumptions underlying in continuity theory indicate the need for longitudinal studies to examine whether or not life satisfaction-activity relationships are established earlier in life, and whether or not these relationships remain stable over time.

ACTIVITY THEORY

(a) Activity Theory's Origin and Underlying Theoretical Assumptions

The activity theory of aging represents a third approach social gerontologists have used to conceptualize a "successful" aging process. Historically, activity theory precedes the two aforementioned theories. According to Bell (1976), activity theory emerged as an attempt to explain a number of empirically based findings. In its early formulation, activity theory was fundamentally descriptive in nature: health and well-being were proposed as directly related to physiological, psychological and social activity levels of the aging individual. In describing activity theory's implicit notion of balance, Bell (1976) stated that "reduction of activity levels in one area inevitably meant decrements in others (1976:31)."

Over time, activity theory has been modified, clarified and expanded. A summary of this transitional sequence was described by Bell (1976) who stated that activity "was expanded to consider not only the type of activities engaged in by the older person, but also his phenomenal understanding of the meaning of these activities (1976:32)." Most of activity theory's underlying assumptions continued to remain implicit until Lemon, Bengston and Peterson (1972) presented a formal axiomatic statement in an attempt to test some of the specific aspects of activity theory.

Activity theory has focused primarily on the interaction between the individual and the surrounding social environment. Role occupancy, according to the activity theory approach, functions as a direct link between the individual and the larger encompassing society. Furthermore, Marshall and Rosenthal (1983) proposed that activity theory's "approach is consistent both with Durkheimian structural functionalism and to a symbolic interactionist approach (1983:140)." This would imply that, on the one hand, a sense of psychological well-being could be attributed to a higher level of social integration within the structural context, whereas on the other hand, social interaction from a symbolic interactionist's perspective would be defined as a mechanism for both the acquisition and maintenance of a stabilized self-concept.

Because activity theory incorporates two distinct theoretical perspectives, there is variation in the subject matter discussed in the activity theory literature. Using a paradigm framework as suggested by Ritzer (1980), it is possible to categorize some of this variation in subject matter and operationalization, according to the fundamental orientation or "paradigm" of the specific investigating practitioner (Ritzer 1980). For example, social role maintenance can be defined as a critical variable in the acquisition and maintenance of the self concept. This symbolic interactionist perspective has been presented and investigated by Lemon, Bengston and Peterson (1972) in research that investigated the importance of various types of social interactions and their effect on the well-being of the individual. From a similar perspective, Havens (1968) assessed the importance of self-validation through social interaction. In this research, both the quality and the quantity of the social role for determining psychological well-being was incorporated in the exploratory research that examined the relationship between activity patterns and perceived life satisfaction.

Using an activity theory framework, but now with a focus on the structural aspect of the society, other research has concentrated on the functional necessity of social integration. Assuming that social integration is necessary for

both the maintenance of social order and the psychological well-being of the individual, Liang, Dvorkin, Kahana, and Mazian (1980) used a subjective component as part of activity theory, but only as an intervening variable between the objective structural component of social integration, measured as the amount of social interaction, and the dependent variable, life satisfaction, operationalized as the measurable amount of morale. The structural approach has concentrated on underlying structural mechanisms and the social role participation of the individual within the societal context as the primary subject of interest. This perspective has assumed that external mechanisms are largely causal in determining human social behavior and its consequences (Keat and Urry 1982; Ritzer 1980; Wilson 1983). On the other hand, symbolic interactionism has highlighted the social definition of the situation from the individual's frame of reference. The end result had been described as a subjective feedback cycle that has been assumed necessary for the validation of the self-concept (Keat and Urry 1982; Wilson 1983).

It appears that activity theory remains in the social gerontological literature because it has been able to adequately incorporate both the structural orientation and a symbolic interactionist approach. At this point, however, neither perspective has been adequately tested.

As a direct consequence of activity theory's conceptual variation, there has been diversity in the conclusions reported in the literature. The states of psychological well-being, indicated by scores on happiness, morale and life satisfaction indices, have represented concepts ranging from the degree of social integration, to criteria supporting the existence and importance of social interaction for maintaining a stabilized self-concept (Kalish 1977; Liang, Dvorkin, Kahana and Mazian 1980; Lemon, Bengston and Peterson 1972; Maddox 1963; Palmore 1968). Activity theory is clearly a perspective in current social gerontological research (Hoyt, Kaiser, Peters and Babchuk 1980; Longino and Kart 1982; McClelland 1982; and McLaughlin 1983).

At this point, with an historical overview presented and the underlying theoretical diversity discussed, I will present activity theory in a more specific light as a social gerontological theory that attempts to explain and predict how aging individuals adjust during the later portion of the lifespan. This will provide a foundation for the research hypotheses that follow.

(b) Activity Theory in Current Research

Initially, activity theory's approach was often presented as opposite to that of social disengagement theory, discussed earlier. Because of the divergent viewpoints assumed by activity theory and social disengagement theory, the theories have often been depicted as alternatives on a "successful adaptation to aging" continuum (Atchley 1977;1982; Covey 1980;Dowd 1975; Havighurst 1968; Havighurst, Neugarten and Tobin, in Neugarten 1968; Hendricks and Hendricks 1977; Martin 1973).

Briefly, disengagement theory predicts that lost roles will be part of an optimal aging process, whereby the individual and the society will welcome the "freedom" from a previously maintained obligatory arrangement (Cumming and Henry 1960). This functional relationship has been proposed as the positive outcome in an optimal aging model.

Activity theory, on the other hand, presumes that lost roles will be replaced, whenever time and circumstance permit (Atchley 1977; 1980; Maddox 1963). Consequently, activity theorists propose that older individuals will maintain a sense of psychological well-being, such as a higher level of life satisfaction, only when they have remained active in role relationships (Havens 1968; Maddox and Eisdorfer 1962; Palmore 1968).

The activity theory model does not deny the probability of biological and physiological decline. On the contrary, activity theory assumes that a decline in activities and/or level of social involvement will occur during the later portion of the human lifespan (Dowd 1975; Maddox 1970; Maddox and Eisdorfer 1962). More specifically, activity theory assumes that there will be a change in organic function as the human organism loses its biological capacity. This will result in an overall energy decline. As a direct consequence, activity theory proposes that in the absence of failing health and socioeconomic factors, such as those discussed by Palmore and Luikart (1972), an aging individual will actively substitute role-related activities wherever and whenever energies and biological capacities permit. After surveying social gerontological research, Maddox (1963) reported that two conclusions were consistently reported in the literature:

> (1) Beyond the age of 60, activity tends to decrease with age, and (2) this reduction in activity is accompanied by a lowering of morale (1963:196).

This observation has been further substantiated by Havighurst, Neugarten and Tobin (1968), who presented the following description of activity theory as an optimal aging process:

> ....except for the inevitable changes in biology and in health, older people are the same as middle-aged people, with essentially the same psychological and social needs. In this view, the decreased social interaction that characterized old age results from the withdrawal by society from the aging person; and the decrease in interaction proceeds against the desires of most men and women. The older person who ages optimally is the person who stays active and who manages to resist the shrinkage of his social world. He maintains the activities of middle life as long as possible and then finds substitutes for work when he is forced to retire; substitutes for friends and loved ones whom he loses by death (1968, as in Neugarten 1968:161).

Research on activity theory has consistently assumed that the level of role-participation has always been a primary variable for determining the individual's perceived state of psychological well-being. Higher levels of life satisfaction are assumed to be positively related to higher levels of physical, social and mental involvement (Martin 1973). Social role participation and role maintenance and/or substitution have remained implicit: keeping active, presumably, will maintain an optimal level of social and psychological fitness (Hendricks and Hendricks 1977). Hendricks and Hendricks (1977) reported that exits from obligatory roles could be conceived as easier when the individual had a greater number of optional roles for substitution during the transitional process. Also, Hendricks and Hendricks (1977) reported that activity theory proponents have recognized

that disengagement theory may be applicable to a small portion of the elderly population. However, research has shown that the continuation of life style has been more often related to well-being than to social disengagement (Hendricks and Hendricks 1977). In their conclusion of the activity overview, Hendricks and Hendricks (1977) reported that "both longitudinal and cross-cultural investigations on old age have repeatedly found a positive, but by no means incontrovertible, association between morale, personal adjustment and activity levels (1977:197)."

Maddox (1963) discussed the implicit assumptions that have theoretically linked activity theory to a desirable state of psychological well-being. Continued social activity among aging individuals was necessary, according to Maddox (1963) because:

> The social self emerges and is sustained in most basic ways though the interaction with others. The personality possesses the ego involvement and object cathexis are thus inextricably related to the demands and constraints set by the social structure: consequently, structural constraints which limit or deny contacts with the environment tend to be demoralizing and alienating and to be associated with withdrawal or various forms of aggressive behavior (1963:204-205).

Individuals would experience a decline in well-being, associated with a decrease in role-relationships and/or inter-

actional activities. Social activity is necessary for the individual to function at an optimal level, to sustain a desirable state of psychological contentment.

This theme has been repeated frequently in activity theory research. Palmore (1981) reported that on the basis of evidence from the Duke Longitudinal Study, social activity did not appear to decline with age: contacts with friends and relatives did not significantly decline before age 80, and participation in voluntary organizations varied from a stable level to a slight increase until approximately the same age. Furthermore, health and economic variables were presented as factors that impaired the ability of the individual to participate in activities, more than a "natural" tendency to disengage (Palmore 1981).

In 1972, Lemon, Bengston and Peterson attempted to formally state activity theory. A formal axiomatic statement was presented to make activity theory's implicit assumptions explicit and testable, in a formal empirical sense. Their work proposes that: social activity provides role supports necessary for reaffirming one's self-concept; the more intimate and frequent the activity, the more reinforcing and specific the role supports that maintain a positive self-concept and the higher the level of life satisfaction; when

role loss is present, the magnitude of the relationship changes, but the relationship will remain positive (Lemon, Bengston and Peterson 1972).

On the basis of the foregoing conceptual specifications, Lemon et. al (1972) presented the following postulates and theorems:

P1. The greater the role loss, the less activity one is likely to engage in.

P2. The greater the activity, the more role support one is likely to receive.

P3. The more role support one receives, the more positive one's self-concept is likely to be.

P4. The more positive one's self-concept, the greater one's life satisfaction is likely to be.

(First-order theorems, deduced from the above postulates)

T1. The greater the role loss, the less role support one is likely to receive.

T2. The greater the activity, the more positive one's self-concept is likely to be.

T3. The greater the role support, the greater one's life satisfaction is likely to be.

(Second-order theorems, deduced by combining the above)

T4. The greater the role loss, the less positive the self-concept.

T5. The greater the activity,the greater one's life satisfaction.

(Third-order theorem, deduced from above)

T6. The greater the role loss, the lower the life satisfaction (1972:515).

After constructing the above postulates and theorems, Lemon, Bengston and Peterson (1972) used secondary data from a study on in-movers to a retirement community to test some of the activity theory postulates. Life satisfaction was the dependent variable. The research hypotheses were:

Ho 1: Informal activity (with friends, relatives and neighbours) is directly associated with life satisfaction.

Ho 2: Formal activity (participation in voluntary organizations) is directly associated with life satisfaction.

Ho 3: Solitary activity (leisure pursuits, maintenance of the household is directly associated with life satisfaction.

Ho 4: Informal activity (with friends, relatives and neighbours) is more highly associated with life satisfaction than formal activity.

Ho 5: Formal activity is more highly associated with life satisfaction than solitary activity.

> Ho 6: The direct association between activity types and life satisfaction among females is less pronounced among widows and more pronounced among married women.
>
> Ho 7: The direct association between activity types and life satisfaction among males is less pronounced among retirees and more pronounced among employed men (p. 516).

The overall conclusions indicated a definite relationship between informal social activity with friends and life satisfaction. However, no significant relationship was found between activity with relatives , neighbours, formal organizations, or solitary activity and life satisfaction. In addition, the use of classification variables, such as age, sex, marital status and employment status, did not change the findings.

Since Lemon, Bengston and Peterson (1972) formally stated and tested activity theory, other studies have attempted to probe the implicit relationship between activity and life satisfaction. Longino and Kart (1982) replicated Lemon, Bengston and Peterson's (1972) research with some slight modifications. Three types of retirement communities were used in the sample. Differences in socioeconomic, health, geographical and demographic characteristics were included in the comparative research design. In addition, Longino and Kart (1982) used behaviourally based scales to measure

activity levels. Subjects described the previous day's activities, while the interviewers coded each report according to the activity type: informal, formal and solitary (1982:715). Multiple classification analysis was used to determine the effects of the three activity measures on life satisfaction.

The results indicated that informal activity had a strong positive effect on life satisfaction; findings that were somewhat different from Lemon, Bengston and Peterson (1972); (Lemon, et. al (1972) only reported that a relationship existed, not that it was a strong one); formal activity had a negative effect on the life satisfaction; and finally, solitary activity had no effect on the dependent variable, life satisfaction, at all. This effect was in evidence for all three types of retirement communities, even when, Longino and Kart (1982) controlled for age, gender and health.

Hoyt, Kaiser, Peters and Babchuk (1980) examined the dimensions of the Life Satisfaction Index A within the activity perspective. They reported findings similar to those of Lemon, et. al (1972): there was a general failure of the various measures of activity to be related to life satisfaction (1980:940). The only aspects of activity theory given support were the hypotheses linking role loss and self-con-

cept to the dimensions of the Life Satisfaction Index A. However, Hoyt, Kaiser, Peters and Babchuk (1980) stated that the results were not sufficient to confirm the activity theory perspective.

Other tests of activity theory, have also produced mixed results. McLaughlin (1983) examined the relationship between volunteerism and life satisfaction. Volunteerism was incorporated in an attempt to consider the salience of activity to the individual (1983:3). With data from a survey conducted by Harris (1974), McLaughlin reported that volunteering, as a salient activity, had no significant independent impact on life satisfaction. Furthermore, McLaughlin (1983) reported that health status had a significant effect on life satisfaction. This conclusion, considering health status, was not consistent with the findings of Lemon, Bengston and Peterson (1972), but it supported the earlier research of Palmore (1981), Cutler (1973) and Palmore and Luikart (1972).

When Klemmack and Edwards (1973) explored the relationship between 22 variables and life satisfaction, they concluded that the best predictors of life satisfaction were socioeconomic status, perceived health status and informal participation with nonkin. This research agrees with the

Lemon the et al. (1972) research on the nonkin informal social activity-life satisfaction relationships only, but disagrees on the familial social activity-life satisfaction relationship. Klemmack and Edwards (1972) reported that when the relationship between life satisfaction and both informal familial social activity and participation in voluntary associations were analyzed, the results were non-significant.

Finally Crawford (1981) examined the age-activity-life satisfaction relationship among randomly selected individuals from the Greater Victoria population, over age 19. Controlling for age, Crawford found only minimal support for the effect of life satisfaction on activity. However, at the same time, she found tentative support for disengagement theory since older persons were found to be equally satisfied with low and moderate levels of social activity (1981:65).

Overall, this review of the activity theory research indicates that some support for the activity theoretical model is available. However, the variation in reported findings indicate that further research is required to isolate the factors that may intervene or interact with the activity-life satisfaction relationship.

SUMMARY STATEMENT AND RESEARCH HYPOTHESES

Three theories used in social gerontological research have been presented: disengagement, continuity and activity. Disengagement theory, as a functional approach, predicted that biological changes occured simultaneously with an intrinsic desire coming from within the individual to withdraw from the larger, encompassing society. At the same time, society withdrew from the individual in an orderly transitional process (Cumming and Henry 1961). A review of the literature has indicated that support for the social disengagement theory has been minimal: disengagement may occur at the societal level where older workers are sometimes forcibly "disengaged" from work roles by institutionalized practices such as "mandatory retirement" (Atchley 1977; Havighurst 1968; Maddox 1970).

Continuity theory, on the other hand, has attempted to incorporate a personality variable within a framework that would include both activity and social disengagement theory within a larger, more general framework (Havighurst, Neugarten and Tobin, in Neugarten 1968). However, continuity theory has not been systematically developed and tested to the point where it can make specific, testable theoretical propositions.

Finally, activity theory, a long standing social gerontological theory has two distinct underlying theoretical assumptions: structural-functionalism and symbolic interactionism (Marshall and Rosenthal, in Hagedorn 1983). It appears likely that the theoretical diversity has allowed activity theory the flexibility for development and expansion. Thus, activity theory still exists in social gerontological literature as an approach that may, in time, explain and predict the way in which an aging individual might successfully cope with and adapt to the overall aging process. Regardless of whether the research employs a structural-functional perspective, a symbolic-interactionist framework, or qualities of both, the underlying activity theory premise remains: that activity is related to the psychological well-being of the individual.

Lemon, Bengston and Peterson (1972) and Longino and Kart (1982) both investigated the activity-life satisfaction relationship. Both studies found that informal activity was directly associated with life satisfaction, even though different methodological procedures, sampling techniques and data analyses were used. Lemon, Bengston and Peterson (1972) found a low positive relationship between informal activity with friends and life satisfaction, whereas Longino and Kart (1982) found a strong positive association between

informal activity, in general, and life satisfaction. Therefore, this research will attempt to explore the informal activity-life satisfaction relationship in greater detail.

More specifically, this research will attempt to investigate how visiting patterns of informal social activity are related to life satisfaction. The focus will be on the direction of visitational interactions: on whether visiting patterns that take the individual outside of the home environment to visit friends, relatives and neighbours, or those which bring the visitors into the home environment , such as the visits by friends, relatives and neighbours, are directly associated with a perceived level of life satisfaction. It is assumed that visits to friends, relatives and neighbours that take the respondent out of the home are primarily "self-initiated." This means that the individual would actively participate in the informal visiting relationship. On the other hand, it will be assumed that visits made by friends, relatives and neighbours to the respondent would be primarily "other-initiated." The assumption is that visitors would be more actively initiating the visiting pattern, and the respondent would be more passive in this interactional sequence. Factors such as age, sex, marital status, income and health will be considered as variables

that will also influence the informal social activity-life satisfaction relationship.

With the aforementioned assumptions stated, the research hypotheses are as follows:

1. Informal social activity, initiated by others, is positively related to life satisfaction.

2. Informal social activity, self-initiated by the respondent, is positively related to life satisfaction.

3. Self-initiated informal social activity is more strongly associated with life satisfaction than other-initiated informal social activity.

4. Self-initiated and other-initiated informal social activity will show a significant interaction effect in their relationship to life satisfaction. This is predicted to be a multiplicative type of interaction in which higher levels of both variables, self-initiated informal social activity and other-initiated informal social activity, will produce the highest levels of life satisfaction.

RESEARCH METHODS

This thesis is based upon data gathered for a report describing both services used , and services needed by people 55 years and over in the Capital Regional District. The survey project was proposed by a voluntary organization, Seniors Serving Seniors. Additional support was provided by The James Bay Community Project and The Victoria Institute of Gerontology. Funding was provided by the federal government Summer Canada Works program, the provincial government's Youth Employment Project, a research fellowship from the University of Victoria's Sara Spencer Foundation and a research grant from the University of Victoria.

The study was a cross-sectional field study. Structured face-to-face interviews were conducted by trained interviewers. There were nine student interviewers, three interviewers from the community who were over the age of 55, and one project supervisor who provided training and supervision during the course of this study. The title of the research was "Seniors' Survey Project." The data were gathered from May, 1984 to August 31, 1984.

The interview schedule (Appendix A.) was composed of questions selected by the three sponsoring agencies, to gather information for their various purposes. A committee of agency representatives met through the fall of 1983 and the spring of 1984 to review and re-draft the questions until the final copy was approved.

The three sponsoring agencies expressed concern that an overly long interview schedule would create negative publicity for the needs assessment research. Because the interview schedule was lengthy, the consensus was that the range of answer choices for the life satisfaction questions was to be restricted to a 5-point scale (Appendix A., Card A). This was done to minimize the respondent fatigue factor, since there were a total of one hundred and fourteen questions.

SAMPLE

A random sample from the Capital Regional District population over 55 years was generated by a random digit dialling technique. The interviewers were provided with computer lists of randomly generated telephone numbers representative of the various telephone exchanges available in

the Capital Regional District which included Greater Victoria, Langford, Colwood, Metchosin, Glen Lake, Sooke, Central Saanich and Sidney.

Calls to each number were made. At this point, interviewers screened for potential subjects, 55 years and older. When an eligible respondent was located, the interviewers proceeded to arrange a face-to-face interview at a mutually convenient time at the respondent's home, or at The Victoria Institute of Gerontology.

The screening process for potential participants was accomplished by calling telephone numbers listed on the random number lists and coding each telephone as: (1) called number 7 times and no answer; (2) under 55 years of age; (3) commercial or business number; (4) over 55, but unwilling to do interview; (5) out of service; (6) incomplete call; or (7) (CB) call backs.

Using this procedure, there were 14,355 calls placed. This technique provided 1,308 eligible subjects. This meant that 9.1 percent of all calls placed were to households where there was a person 55 or older. From this group of 1,308 potential respondents, 642 individuals agreed to participate in the survey. Thus, the response rate of this survey was 49.1 percent.

A profile of the age and sex percentage distributions of the sample population and the 1981 census data (Statistics Canada) for the Capital Regional District is presented in Table 1.

As indicated in Table 1., the age distribution of the sample and the Capital Regional census (1981) population are almost identical. However, it should be noted that there is an over-representation of females in the Seniors' Survey sample.

TABLE 1

Age and Sex Distribution Comparing the Seniors' Survey Project Sample and Census Data For the Capital Regional District

Characteristics	Seniors' Survey Sample (1984) N=642	Capital Regional District (CRD) Census (1981) Over 55 Years N=71,570
Age	Percentage	Percentage
55-64 years	40.7	40.8
65-69 years	17.7	19.3
75 years and over	41.6	39.9
	100.0	100.0
Sex		
Males	31.0	42.0
Females	69.0	58.0
	100.0	100.0

MEASUREMENT

The variables in this study were life satisfaction, self-initiated informal social activity, other-initiated informal social activity, an interaction variable, which is the product of other-initiated and self-initiated visiting frequencies, health, age, sex, marital status and family income. The operationalization of these variables is described below.

(a) The Dependent Variable

(i) Life Satisfaction

According to George and Bearon, "perhaps the most crucial subjective assessment of life quality that individuals can report is their relative satisfaction with life in general (1980:7)." In this research, life satisfaction refers to a sense of well-being experienced by the Greater Victoria sample population.

A Total Life Satisfaction Index was created by computing the mean scores on ten items from the Seniors' Survey interview schedule (Appendix A., Questions 70-79). The ten life satisfaction items were selected from Andrews and Withey (1976: Appendix A., 363-364), as indicators of various

aspects of the respondent's everyday life that could be considered as components of an overall sense of psychological well-being.

During the research, the interviewer gave each respondent a card (Card A., Appendix A.) and asked the respondent to indicate how he/she felt about each of the ten life satisfaction questions. The respondent's answers were based on a 5-point scale with 1 representing "very satisfied" and 5 representing "very dissatisfied." The respondent's answers were recorded directly on the interview schedule by the interviewer. Non-responses were coded as 9, which represented the subject's refusal to answer, or the non-appropriateness of a specific question. For example, a widow could not answer the question, "How do you feel about your relationship with your spouse?"

When the Total Life Satisfaction Index was computed, the mean score on the ten life satisfaction questions was computed for each of the respondents. The criterion for the life satisfaction mean score was based on each subject's answering at least seven of the ten life satisfaction questions. Any case that did not meet this criterion was considered as a missing case and therefore eliminated from the Total Life Satisfaction Index.

(b) Independent Variables

(i) Self-Initiated Visits

An index called Self-Initiated Informal Social Activity was developed by computing each respondent's mean score on three questions from the Seniors' Survey interview schedule (Appendix A., Questions 80, 81 and 82). These questions were selected as indicators of self-initiated informal social activity because the respondent was assumed to be the active participator in the visiting interaction, by visiting the friend, relative or neighbour. This is opposed to the respondent being visited by the friend, relative or neighbour, which is assumed to occur in the other-initiated informal social activity index which follows.

The interviewer handed each respondent a card (Appendix A., Card B.), and asked "How often do you visit a friend?"; "How often do you visit a neighbour?"; and "How often do you visit a relative?" (Appendix A., Questions 80, 81 and 82). The response codes for each question ranged from 1 ("never") to 6 ("daily"). Non-responses were coded as 9 and subsequently excluded from the analyses. This included subjects who refused to answer any of the questions because the question was inappropriate, such as when a respondent had no relatives.

(ii) Other-Initiated Visits

An index called Other-Initiated Informal Social Activity was developed in the same manner as the Self-Initiated Informal Social Activity Index. Each respondent was asked, "How often do your friends visit you?"; "How often do your neighbours visit you?"; and "How often do your relatives visit you?" (Appendix A., Questions 24, 25 and 26).

For these three questions, the interviewer coded the respondent's answers according to the categories listed on the interview schedule. The categories ranged from 1 ("daily") to 6 ("less often than a few times a year"). The interviewers coded each response by circling the category that best represented the respondent's verbal answer. Because the values for this variable were coded in an ascending order from "high" to "low" and the values for self-initiated visits descended from "low" to "high", the values for this variable were recoded so that the numerical values were going in the same direction as the values for the self-initiated variable.

It was assumed that the respondent would be less involved in other-initiated visits, than self-initiated. The underlying assumption is that the respondent would be less involved in this type of social activity, than when the re-

spondent was doing the visiting. In this context, it is assumed that the friends, relatives and neighbours would be more active in the visiting patterns, with the respondent taking the more passive role as the recipient. This does not ignore the probability that the visitors may have been invited into the respondent's home by the respondent, but for the purpose of this research, the major distinction is who does the visiting: either the respondent, or the friend, relative or neighbour.

As with all the indices in this study, non-responses and non-appropriate questions were coded as 9 and subsequently excluded from the analyses.

(iii) Interaction: Self-Initiated and Other-Initiated Visits

A variable representing the interaction between self-initiated and other- initiated informal social activity was constructed by multiplying each respondent's score on the Self-Initiated and Other-Initiated Informal Social Activity indices. Cases with missing information were excluded form the computations.

(iv) Health

An Overall Health Index was created by computing the mean score for each respondent on the seven health related items (Appendix A., Questions 90-96). The items were included in the interview schedule because the various agencies who sponsored this research were attempting to assess the general health of the Capital Regional District population, over 55 years.

All of the items on health were based on the respondent's self-perceived rating. The interviewers handed each respondent a card (Card C., Appendix A.), and asked each respondent to rate his/her health according to the most appropriate category. The scale of response categories ranged from 1 ("excellent") to 5 ("poor").

The Overall Health Index was computed as the mean score on the seven health items, with non-responses excluded from the analyses.

(v) Marital Status

Marital Status was indicated by the respondent's verbal statement, and was recorded on the interview schedule by the

interviewer (Appendix A., Question 8.). The categories were consistent with Statistics Canada classification procedures.

(vi) Age

Age was defined as each respondent's declared age at his/her last birthday (Appendix A., Question 7.).

(vii) Sex

Sex categories were coded according to the interviewer's observation. A percentage distribution is shown in Table 1.

(viii) Family Income

Family income was defined as the total household income, including Old Age Security, pensions, investments and employment income of everyone who contributed to the maintenance of the household on a yearly basis.

The respondent was handed Card E. (Appendix A.) and asked to "please indicate the number of the group that reflects

the total income of your household (Appendix A., Question 113)." The response categories ranged from 1 (" no income") to 11 ("More than $50,000.00 per year"). Non-responses were coded as 99 and excluded from the data analyses.

RESULTS

Table 2 presents a correlation matrix among the dependent variable, life satisfaction, and the independent variables included in the following analyses.

The following data analyses will be presented to test the research hypotheses presented in the preceding chapter. Bivariate analyses will be presented for hypotheses one and two, and the remaining hypotheses will be analyzed by multivariate comparisons. In addition, a multivariate analysis will be included to show the effects of the additional independent variables, health, income, sex, marital status and age on the informal social activity-life satisfaction relationship.

TABLE 2

Correlation Matrix, Means and Standard Deviations
(Pairwise deletion of missing values)

Variables	Life Satisfaction	Other-Initiated Visits	Self-Initiated Visits	Interaction Term	Age	Sex	Income	Health
Life Satisfaction	1.00	.2073 n=641 p=.001	.2375 n=640 p=.001	.2404 n=640 p=.001	-.0487 n=641 p=.109	.0523 n=641 p=.093	.3157 n=563 p=.001	.5330 n=641 p=.001
Other-Initiated Visits		1.00	.5754 n=641 p=.001	.8588 n=641 p=.001	-.0355 n=642 p=.184	-.1158 n=642 p=.002	.0490 n=563 p=.123	.0546 n=642 p=.084
Self-Initiated Visits			1.00	.8681 n=641 p=.001	-.0975 n=641 p=.007	-.0842 n=641 p=.017	.0552 n=563 p=.095	.1787 n=641 p=.001
Interaction Term				1.00	-.0761 n=641 p=.027	-.0990 n=641 p=.006	.0546 n=563 p=.098	.1316 n=641 p=.001
Age					1.00	-.0310 n=641 p=.217	-.3896 n=563 p=.001	-.2104 n=642 p=.001
Sex						1.00	.2367 n=563 p=.001	-.0079 n=642 p=.421
Income							1.00	.2726 n=563 p=.001
Health								1.00

*Means and Standard Deviations on Following Page

TABLE 2
(continued)

Variables	Mean	Standard Deviation
Life Satisfaction	4.35	.57
Other-Initiated Visits	3.54	1.17
Self-Initiated Visits	3.24	.99
Interaction Term	12.14	6.52
Age	67.91	8.62
Sex	.33	.47
Income	7.46	2.15
Health	3.70	.07
N=561*		

*Listwise deletion of missing values

BIVARIATE ANALYSES

(a) Other-Initiated Informal Social Activity and Life Satisfaction

Figure 1 presents the regression equation for the relation between other-initiated visiting activity and life satisfaction.

As indicated by the regression equation, the predicted mean score on the Life Satisfaction Index is 4.01 when the frequency of other-initiated visits is zero. For every unit increase in the frequency of other-initiated visits, the predicted score on the Life Satisfaction Index increases .10 units.

The standardized equation is:

$$Zy' = .21(Zx)$$

This equation shows that the standardized score on the Life Satisfaction Index will increase .21 standard deviation units for every standard unit increase in the frequency of other-initiated informal social visits.

The Pearson-product-moment correlation coefficient is .21, indicating that a low zero-order relationship between the frequency of other-initiated informal social activity and life satisfaction. The relationship is positive in na-

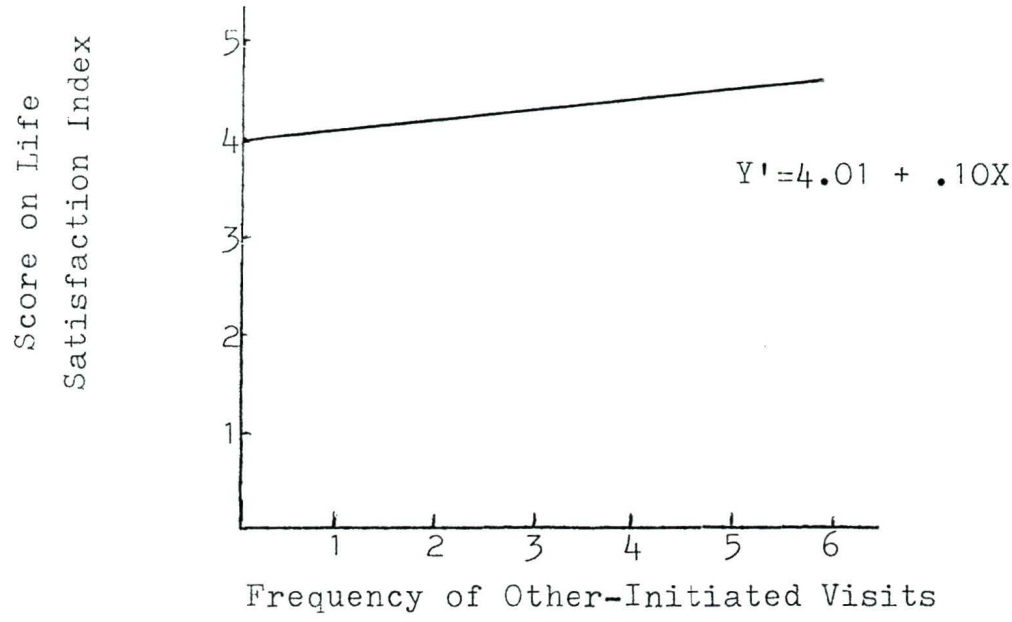

Figure 1: Regression Equation of Predicted Score on Life Satisfaction Index by Frequency of Other-Initiated Visits (N=641) ($p < .001$)

Figure 1: Regression Equation of Predicted Scores on Life Satisfaction Index by Frequency of Other-Initiated Visits

ture. In addition, r^2.04 means that 4% of the variance in scores on the Life Satisfaction Index can be explained by the linear relationship with the other-initiated informal social activity scores.

The F value (28.691) for the equation is significant (p,<.001), indicating that it is highly unlikely that the relationship is due to chance. In sum, the evidence supports the prediction that there will be a positive relationship between other-initiated informal social activity and life satisfaction.

(b) Self-Initiated Informal Social Activity and Life Satisfaction

Figure 2 shows the regression equation for the mean frequency of self-initiated visiting activity and life satisfaction.

The regression equation in Figure 2 shows that the predicted score on the Life Satisfaction Index is 3.93 when there is an absence of self-initiated informal social visits. Subsequently, for every unit increase in the frequency of self-initiated visits, the predicted score on the Life Satisfaction Index will increase .13 units.

The standardized equation for the same variable is:

$$Zy' = .24(Zx)$$

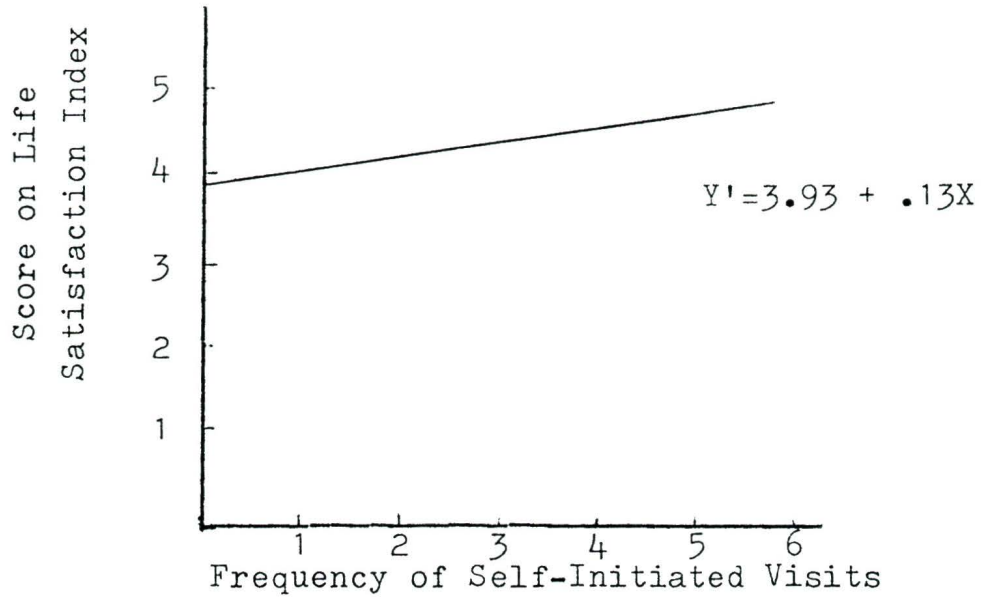

Figure 2: Regression Equation of Predicted Score on Life Satisfaction Index by Frequency of Self-Initiated Visits (N=640) ($p < .001$)

The standardized equation indicates that for every standard deviation increase in the frequency of visits, the predicted score on the Life Satisfaction Index will increase .24 standard deviation units.

The Pearson-product-moment correlation is .24, indicating a relationship that is low in strength and positive in direction. The r^2 of .06, interpreted as the percentage of explained variance, indicates that 6% of the variance in the score on the Life Satisfaction Index can be explained by the linear relationship with the frequency of self-initiated informal social activity. Finally, the F value for the equation is significant ($p,<.001$).

This analysis substantiates hypothesis two, which predicts a positive relationship between informal social activity and life satisfaction.

MULTIVARIATE ANALYSES

(a) Other-Initiated, Self-Initiated Visits and Life Satisfaction

The relationship between other-initiated and self-initiated informal social activity and life satisfaction is shown in Table 3.

TABLE 3

Relationship of Other-Initiated and Self-Initiated Activity With Life Satisfaction (LS) (N=640)

Independent Variables	Correlation With LS	Multiple Regression to Predict LS			
		Intercept	b	Beta	Significant t
Other-Initiated Visiting	.21	3.85	.05	.11	.0137
Self-Initiated Visiting	.24		.10	.18	.0001

$R = .26$

$R^2 = .07$ $(p < .001)$

Table 3 shows the independent effects of other-initiated and self-initiated informal social visiting frequencies on the dependent variable, life satisfaction. The regression equation predicts that the mean score on the Life Satisfaction Index will be 3.85 when there is an absence of both self-initiated and other-initiated informal social activity. For every unit increase in the frequency of other-initiated visiting activity, the predicted score on the Life Satisfaction Index will increase .05 units, independent of the effects of self-initiated visiting frequency. And, for every unit increase in the frequency of self-initiated informal visiting activity, the value on the Life Satisfaction Index will increase .10 units, independent of the effects of other-initiated informal social activity.

The Beta's from the standardized equation, suggest that for every standardized unit increase in other-initiated visiting, the predicted score on the Life Satisfaction Index will increase .11 standard deviation units, controlling for the effects of self-initiated visits. In contrast, for every standardized init increase in self-initiated visits, the predicted standard score on the Life Satisfaction Index will incease .18 units, holding constant the frequency of other-initiated visits.

The multiple correlation coefficient is .26, which indicates a low relationship between the independent variables and the dependent variable. The variance explained by R^2, indicates that only 7% of the the variance in life satisfaction can be explained by its linear additive relationship with self-initiated and other-initiated informal social activity.

In addition, the standardized regression coefficients in Table 3 facilitate comparisons of the relative effects of the two independent variables: self-initiated and other-initiated visits. The beta for self-initiated visits (.18) is greater than beta for other-initiated visits (.11).

However, a t test for determining statistically significant differences between the zero-order correlation coefficients for both self-initiated and other-initaited visiting activity and life satisfaction, shows that there is no significant difference ($t=.80$, $p< .05$) between the correlation for self-initiated visits and life satisfaction (r.24) and other-initiated visits and life satisfaction (r.21). Therefore, the third hypothesis cannot be substantiated: self-initiated visits are not more strongly associated with life satisfaction than other-initiated visits.

(b) Other-Initiated and Self-Initiated and Interaction of Self-Initiated and Other-Initiated Visiting Activity on Life Satisfaction

An attempt to examine a multivariate relationship among the three informal social activity variables is problematic. A regression equation which adds the interaction term to the original equation, incorporating both self- and other-initiated visiting, is shown in Table 4.

The explained variance only increases from .065 to .068, confirming that the interaction term is not significant. In addition, the t value for the interaction term is .1932, which means that the regression coefficient for the beta does not meet the probability criterion significance level of .05.

There is evidence of multicollinearity as the standard error for the interaction term is .20, which is almost equal to the value of the beta coefficient. In addition, the 95% confidence interval for beta is very wide, ranging from -.06 to .01. Finally, the intercorrelations shown in Table 5 indicate that the interaction term is highly correlated with other-initiated and self-initiated visits. The interaction term is therefore, highly collinear with its component variables.

TABLE 4

Relationship of Other-Initiated, Self-Initiated and Interaction Term With Life Satisfaction (LS) (N=640)

Independent Variables	Correlation With LS	Multiple Regression to Predict LS				
		Intercept	b	Beta	Standard Error Beta	Sig. t
Interaction Term	.24	3.60	-.02	-.27	.20	.1932
Other-Initiated Visits	.21		.12	.26	.12	.0327
Self-Initiated Visits	.24		.18	.33	.12	.0089
R=.26						
R^2=.068 ($p < .001$)						

TABLE 5

Correlation Matrix of Independent Variables: Interaction Term, Self-Initiated and Other-Initiated Visiting (N=640)

Variables	Interaction Term	Self-Initiated Visits	Other-Initiated Visits
Interaction Term	1.00	.87	.86
Self-Initiated Visits		1.00	.55
Other-Initiated Visits			1.00

To conclude, it is appropriate to state that the product of the self- initiated and other-initiated mean scores on the informal activity measures, does not predict life satisfaction any better than the additive equation incorporating both self-initiated and other-initiated frequencies of informal social activity. Thus, the fourth theoretical hypothesis in the theoretical model can not be substantiated.

(c) Addition of Age, Health, Income, Sex, and Marital Status

The data from the addition of other independent variables to the other-initiated, self-initiated and life satisfaction relationship is shown in Table 6.

As indicated by the multiple regression equation shown in Table 6, when health, age, sex, income and the marital status dummy variables are entered in Step 1, R^2.37 is significant (p,<.001). In the equation, 37% of the variance in life satisfaction can be explained by its additive relationship with the predictor variables included in the first step.

When other-initiated and self-initiated visits are entered in Step 2, the R^2change of .03 is statistically significant (p,<.001). The addition of self-initiated and other-initiated visits increased the amount of explained

TABLE 6

Addition of Other Independent Variables to the Informal Social Activity-Life Satisfaction (LS) Relationship (N=563)

Independent Variables	Correlation With LS	Multiple Regression to Predict LS						
		Intercept	b	Beta	Sig. t	R^2	R^2Change	Sig. F
Step 1:		1.35						
Health	.54		.47	.50	.0001			
Income	.32		.05	.17	.0001			
Sex	.06		.04	.03	.3238			
Age	-.07		.008	.14	.0004			
Marstd1(Married)	.23		.004	.004	.9541			
Marstd2(Widowed)	-.10		-.08	.06	.3195			
Marstd3(Separated)	-.13		-.15	-.07	.1460			
Marstd4(Divorced)	-.15		-.49	-.14	.0007	.37	.37	.0001
Step 2:								
Other-Initiated Visits	.24		.06	.12	.0046			
Self-Initiated Visits	.20		.05	.08	.0488	.40	.03	.0001

variance in life satisfaction to 40%. Furthermore, regression coefficients for other-initiated and self-initiated visits remain statistically significant ($p,<.05$).

The standardized regression coefficients show that health is the best predictor (beta .50), followed by income (beta .17) and age (beta .14). Therefore, these predictors are important when considering the factors which explain variation in predicted scores on the Life Satisfaction Index. However, the activity theory model, which predicts that social activity can sufficiently predict life satisfaction has been substantiated because both the R^2change (.03) and the regression coefficients for other-initiated (beta .12) and self-initiated (beta .08) are significant when added to the relationship calculated on Step 1. Thus, the relationship between informal-activity and life satisfaction increases the explained variance, independent of the effects of the other variables in the equation.

DISCUSSION AND CONCLUSIONS

GENERAL REVIEW OF THIS STUDY AND THE FINDINGS

Activity theory proposes that adjustment to aging by the older individual is threatened by age-related declines in role occupancy. Activity theory assumes that it is essential to remain active in role-related relationships as long as possible in order for well-being to be maintained by the older person. Thus, as biological energies decline, substitutions will occur that contribute to the maintenance of an ongoing level of well-being.

This study was cross-sectional. Structural interviews were conducted to explore the relationship between informal social activity and life satisfaction among randomly selected individuals from the Greater Victoria population, 55 and over. A sample of 642 respondents was generated by a random-digit-dialling technique.

Based on Lemon, Bengston and Peterson's (1972) activity theory hypothesis which stated that informal activity with friends, relatives and neighbours, would be directly associ-

ated with life satisfaction, this research used measures of the frequencies of these types of activities to construct three separate indices of informal social activity: self-initiated visiting activity and other-initiated visiting activity and an interaction term made up of the product of the individual's mean scores on the self-initiated and other-initiated visiting indices.

The other-initiated and self-initiated indices were each made up of three of the six items in the Seniors' Survey interview schedule: asking how often the respondent visited friends, relatives and neighbours, versus asking how often the respondent was visited by friends, relatives and neighbours. This was done in an attempt to measure how much the respondent initiated social activity in order to assess whether this factor would affect the informal social activity-life satisfaction relationship. It was predicted that that the more active the respondent was in the visiting interaction, the greater the probability that the individual would experience a higher level of life satisfaction, i.e., a sense of psychological well-being.

This study used a life satisfaction index to measure the self-perceived sense of psychological well-being. Ten questions from Andrews and Withey's (1976) 'life-as-a-whole' and

specific life concern questions were selected to quantify the respondent's sense of well-being (Appendix A., Questions 70-79). These life satisfaction questions were selected to represent more than one level of specificity, ranging from global to specific life concerns. For example, the question "How do you feel about your life as a whole?", was asked because it was a global measure, not refering to any one particular aspect of life. The remaining nine questions in the Total Life Satisfaction Index, were asked to assess more specific life concerns such as the home, family, and health. increase the reliability of the measure.

Using the informal social activities and life satisfaction indices, four research hypotheses were tested. The hypotheses were formulated to examine the effects of self-initiated (respondent as initiator) and other-initiated (respondent as recipient) visiting activities on life satisfaction, as well as any interactive effects resulting from the combination of self-and other-initiated visiting activities on the dependent variable, life satisfaction.

The results confirmed two of the four research hypotheses. Both self-initiated and other-initiated visiting activity were positively associated with life satisfaction: self-initiated explained 6% of the variance, whereas other-initiated explained 4% of the variance in life satisfaction.

The third hypothesis was not supported: self-initiated visiting was not more highly associated with life satisfaction than other-initiated visiting. Also, there was no evidence of an interaction effect. Self-initiated and other-initiated visiting activity explained 7% of the variance in life satisfaction. This was equal to the amount explained with an interaction term included, so the fourth hypothesis was not supported.

In addition to the four research hypotheses, selected control variables were included in an additional multivariate analysis to examine the effects of informal social activity, independent of the effects of health, income, marital status, sex and age. These control variables were included in this research because many of them are often cited as factors that directly or indirectly affect the social activity-life satisfaction relationship (Edwards and Klemmack 1973; Larson 1978; Palmore and Luikart 1972; Palmore 1980).

The multivariate analyses in this research revealed that the control variables explained 37% of the variance in life satisfaction. However, informal visiting activity explained an additional 3% of the variance and this was statistically significant ($p, <.05$). Thus, in this study, informal social

visiting and life satisfaction were positively associated, independent of the effects of health, income, sex, marital status and age. These findings support research by Edwards and Klemmack (1973), Markides and Martin (1983), Palmore (1980), and Palmore and Luikart (1972), where relationships between general measures of social activity and life satisfaction were investigated and found to be statistically significant when variables such as health, sex, income, marital status and age are controlled.

COMPARISON WITH PREVIOUS RESEARCH ON SOCIAL ACTIVITY

(a) Comparison With Cross-Sectional Studies

The findings of this research are not directly comparable to any previous research because this study was not an exact replication of any previous work. This research measured the frequency of visiting with friends, relatives and neighbours among randomly selected individuals, 55 and over from a general population of all ages. The frequencies of visiting activities were divided into indices representing self-initiated visiting, other-initiated visiting and a total measure of informal visiting activity. The Total Life Satisfaction Index was constructed from questions Andrews and Withey (1976) developed to measure an overall sense of well-being, refered to as life satisfaction.

This combination of activity measures, life satisfaction measure and general population sample is specific to this study. Therefore, though if is possible to compare these findings with other research that has focused primarily on informal social activity with friends, relatives and/or neighbours, this research was not an exact replication of any prior work.

A review of the social activity-life satisfaction literature by Larson (1978) and Mangen and Peterson (1982) indicates that social gerontological studies have consistently incorporated unique combinations of social activity and life satisfaction measures, based on widely varying conceptual definitions. This has resulted in immense diversity among the findings and conclusions reported. Consequently, the results of this research and studies done by others can only be compared in a very general sense.

To illustrate this problem, this discussion will briefly describe some of the cross-sectional research conducted on informal activity and life satisfaction, in order to outline the inconsistencies reported in research findings frequently reported in social gerontological literature. Some of the findings are similar to the findings reported here, and others are not.

Larson (1978) reviewed twenty studies that related subjective well-being to activity and social interaction. Six of these studies measured relationships between friends, relatives and/or neighbours and life satisfaction (Bultena and Oyler, 1971; Smith and Lipman, 1972; Philblad and Adams, 1972; Edwards and Klemmack, 1973; Larson, 1975; Cavan et al., 1949; in Larson 1978:124). The most frequent measure of life satisfaction was the LSIA (Neugarten, Havighurst and Tobin 1961). The measures of social activity with friends, relatives and/or neighbours were extremely diverse, including number of friends, peer interaction, contact with friends specifically and/or phone calls to others.

Briefly, findings reported in the studies by Larson (1978) were as diverse as the measures. Some studies reported that there were significant positive relationships between activity with friends, relatives and neighbours and life satisfaction, whereas other studies reported that there were positive relationships between activities with friends and/or neighbours and life satisfaction, but not between relatives and well-being (Edwards and Klemmack ,1973; Philblad and Adams, 1972, in Larson 1978).

Because of the diversity in the measurements of social activity, studies such as these and the findings reported in

this research can not be directly compared. More specifically, this research used indices that combined friends, relatives and neighbours into one measure , which was not done in any of the research reviewed by Larson (1978). The only possible comment is that both this research and the findings reviewed by Larson (1978), indicated a significant positive relationship between informal activity and well-being. The problem seems to be in assessing how much of the variation can be attributed to the types of informal activity measured and/or the procedures used for quantifying these interactions, such as counting the number of friends, relatives and/or neighbours, measuring the frequency of interactions, or in some cases, combining both.

Two studies by Lemon, Bengston and Peterson (1972) and Longino and Kart (1982) are relevant to this research. Both of these studies used the activity theory model to test the relationship between informal social activity and life satisfaction, as did this research. This discussion will briefly present each of the studies and compare their findings with those reported in the present study in order to further illustrate inconsistencies reported in the literature. This study failed to replicate most of Lemon, Bengston and Peterson's (1972) findings, although it managed to successfully replicate all of the findings of the Longino

and Kart (1982) research. Reasons for differences will be discussed.

Lemon, Bengston and Peterson (1972) reported a significant relationship between informal social activity with friends and life satisfaction (gamma .21, $p<.05$), but an unreliable relationship between visits with relatives or neighbours and life satisfaction. In contrast, this study reported that informal visiting activity, combined into an index including friends, relatives and neighbours explained 7% of the variance in life satisfaction.

There are some notable differences in each of these two studies. First, Lemon, Bengston and Peterson (1972) studied an age-segregated population of in-movers to a retirement community and the life satisfaction measure was the 13-item Life Satisfaction Scale B (Neugarten, Havighurst and Tobin 1961). In contrast, this research studied a non-age-segregated population, used indices based on combining the visiting frequencies with the respondents friends, relatives and neighbours, and incorporated the passive and active involvement of the respondent as initiator or recipient in the visiting interactional process. Therefore, although each study examined the relationship between visiting activity with friends, relatives and neighbours and life satisfaction, the

results may have differed because of diversity among the measurement instruments and, possibly, the type of population studied, age-segregated versus general population.

Research by Longino and Kart (1982) indicates that the homogenous nature of the Lemon, Bengston and Peterson (1972) sample may have biased their results because Longino and Kart (1982) used a less age-segregated population samples and found results similar to the ones reported in this research. In their study on three separate aging populations located in various regions of United States, Longino and Kart (1982) reported that informal social activity with friends, relatives and neighbours explained 7%, 6% and 26% of the variance in life satisfaction among their three research groups.

These results are relevant here because, as stated, this research supports the Longino and Kart findings since the explained variance in this study was 7%. Results such as these suggest that the homogeneity of the sample in the Lemon, Bengston, and Peterson (1972) study may have influenced their findings. This factor should be considered in future research.

It is important to consider the homogeneity of the sample in future research on activity theory to ensure that the

selective relocation of older individuals into retirement community settings, doesn't affect the results, assuming for example, that interactions with relatives of different age groups may have become minimized . In addition, future research should consider whether or not using an index combining friends, relatives and neighbours into one measure, could have created a relationship between relatives and life satisfaction that may have not been found if each item had been measured separately.

(b) Comparisons With Longitudinal Research

Most of the studies reported in this discussion have been cross-sectional as was this research. As demonstrated, the findings of others studies and this research, have reflected many of the inconsistencies in social gerontological research that have been discussed in reviews by Larson (1978) and Mangen and Peterson (1982). However, a brief review shows that longitudinal research on social activity and well-being also tends to report inconsistent findings.

Ideally, longitudinal research is the only way to actually test activity theory specifically because it allows analyses based on changes over time, of individual behavioral patterns. Thus, changes in life satisfaction can be direct-

ly compared to changes in social activity within the same individual.

Maddox (1963) found that morale and activity was positively correlated, and reported that the mean activity scores did decrease over time with age, along with a decrease in morale. However, Maddox (1963) proposed that this was an artifact of the unanticipated concentration among older panelists in the study to experience greater decline in health, or psychological changes such as depression or the feelings associated with a sense of uselessness.

In a third longitudinal study Palmore (1980) reported that social activity contributed to the maintenance of both health and happiness. In addition, Palmore (1980) reported that social activity in general, contributed to greater longevity.

Both of these studies support the activity theory's notion that social activity is positively related to life satisfaction. However, Maddox (1963) proposed that decline in health leads to a decrease in activity and morale, whereas Palmore (1980) implied that activity increases the potential for better health. Thus, even longitudinal research fails to define the role that social activity plays in maintaining a sense of well-being for the aging individual.

The results of the present research cannot resolve the inconsistencies reported in these two studies because this study was cross-sectional. The findings that health and other variables explained 37% of the variance in life satisfaction, whereas activity significantly explained only a further 3%, do not permit specific statements about whether or not increases or decreases in activity lead to changes in either health or well-being. Changes observed over time would be the only way to resolve the issue.

PROBLEMS ASSOCIATED WITH THIS RESEARCH

Besides the limitations imposed in this research because of its cross-sectional design, there are other problems that should be presented. Factors to be considered are the difficulties in measuring social activity, some concerns regarding the scale of measurement used for the Life Satisfaction Index, the potential for sampling biases, and the response rate. Each of these items will be discussed in turn, and recommendations will be made for future research.

(a) Issues Concerned With the Measurement of Activity

The lack of standardized measures of activity as well as an unclear conceptual definition of the types of activities,

and the meaning of these activities to the individual is evident. Social gerontological research has focused on many types of social activity among the elderly, including participation in formal organizations, participation in important social roles as members of families and religions, participation in leisure activities, as well as social activity as a worker, friend or volunteer. The findings reported in this research are not directly comparable to most of these studies because this research was not an exact replication of any one study specifically. However, it appears that most of the studies in social gerontology share this problem. There is little evidence that existing research has made any clear concise statements about the meanings of these activities, nor about how specific social relationships such as those among individuals and their friends, relatives and/or neighbours should be operationalized.

According to Mangen and Peterson:

> ....much of the research that focuses on friendship and neighbouring functions with a crude definition of the relationship and, in the main, seeks to establish correlates (including age) of the relationships. Research that either implicitly or explicitly treats friendship and neighbouring as independent variables too typically employs only a crude definition of the concepts and usually operationalizes a highly limited number of dimensions of the dimensions (eg. the number of friends, frequency of contact) (309:1982).

In addition, research that attempts to assess the interaction with relatives, as did this study, has faced similar criticism. To illustrate, Mindel (in Mangen and Peterson 1982), reviewed two frequently used scales of measurement, the Frequency of Interaction with Relatives (Cumming and Henry 1961) and Familial Interaction Index (Bultena 1969), and stated that although both instruments provided a useful summary of familial interaction, the quantity of the interaction does not provide any information about of the quality of the interaction.

This study faces the same dilemma. The measures of activity were based on frequencies of interactions with friends, relatives and neighbours, without clearly specifying what each of these relationships actually means.

(b) Issues Concerned With the Scale of Measurement of Life Satisfaction

The measurement scale used in the Life Satisfaction Index, presents a second problem. Because of the length of the interview schedule and the consensus of the sponsoring committees, this study used a five-point scale to measure life satisfaction. There is evidence that differences in the measurement scale used could affect the percentage distributions of the Life Satisfaction Index scores.

When Andrews and Withey (1976) used a seven-point satisfaction scale for their life-as-a-whole question, 82% of their respondents were distributed in the top three satisfied categories, while 15% were located in the 'neutral' category and 6% were located in the lower three dissatisfied categories.

By comparison, the percentage distribution in this study for the same question, showed that 90% of the distribution was located in the two satisfied categories, 5.4% in the 'neutral' and the remaining 6% were distributed in the two unsatisfied categories. This comparison demonstrates that the scale of measurement could directly affect the distribution on the life satisfaction scores.

Research indicates that regardless of the scale of measurement used, there will always be a tendency for respondents to report themselves as more often satisfied than not (Andrews and Withey, 1976; Carstensen and Cone 1983). Therefore, in order to get a more normal distribution a broader scale of measurement would be more appropriate, but would not likely provide the perfectly symmetrical distribution idealized in sociological research.

(c) Issues Concerned With Potential Sampling Biases and the Response Rate

The demographic characteristics of the sample population must be considered when interpreting the results of this study because potential sampling biases are indicated. Census data in Table 1 show that the sample was overrepresented by females. Also, 87.5% of the sample rated their health as average or above, over 50% of the sample reported that their household incomes were in excess of $10.000.00 to $15.000.00 per year, while 20.2% of the sample reported incomes greater than $30,000.00 per year, 70% of the sample owned their own homes, 66.7% reported their occupational status to be white collar, professional/technical, managerial/administrator, and 49.9% of the respondents had more than twelve years of education.

These characteristics indicate that this sample may have possessed specific characteristics such as good health, higher incomes, higher occupational status and educational levels than would be found in a sample of older individuals that were more equally representative of the overall older population of the Capital Regional District. Excluded individuals could be population members who did not possess a telephone because of economic circumstances, those who were residing in institutional facilities because of health re-

lated problems, or those who lived in accommodation that did not necessarily facilitate private telephone services, such as hotel or rooming-house types of accommodation. Thus, the possibility of sampling biases must be considered when attempting to generalize the final results of this research. These conclusions would most likely reflect relationships true of other populations with very similar demographic characteristics.

In addition to the sampling biases, this study had a response rate of 49.1%. Therefore, again, the findings reported in this research must remain tentative because the responses provided can only reflect the response characteristics of the Greater Victoria population who were willing to participate.

There is one population characteristic that the sample group accurately estimated. This was the age distribution (see Table 1). The sample group in this study reproduced age range distributions that were comparatively similar to 1980 census data, indicating that though other characteristics may not have been representative, no specified age groups were excluded from the study.

SUMMARY OF CONCLUSIONS AND RECOMMENDATIONS FOR FUTURE RESEARCH

Overall, the findings in this research indicate a significant relationship between informal social activity and life satisfaction. However, there is no evidence to indicate that self-initiated informal activity with friends, relatives and neighbours was more strongly associated with life satisfaction than other-initiated social activity. It appears that social activity in the home setting can explain a significant amount of the variance in life satisfaction that is basically equal to that of other-initiated visiting activity. However, the effects of poor health and lack of transportation should be further investigated. In addition, research should determine what the respondent's preference is: for visiting outside the home, or entertaining visitors in the home environment.

Future research should also include the development of clear, concise definitions of what a friend, neighbour and/or a relative is, since these relationships are often not very well operationally defined. For example, there is no clear way to specifically state the difference between a neighbour who is a friend, a relative who is a friend, or even how to classify a neighbour who is a relative. In activity theory research, it is important to separate these

concepts so clearly so that both the researcher and the respondent are able to understand which relationship is being investigated.

In addition, future research should study each of the separate relationships once they have been clearly and conceptually defined in order to find out if they are individually or collectively associated with a higher level of well-being. Some of the activity theory research has reported that interaction with relatives is not necessarily associated with life satisfaction (Edwards and Klemmack 1973; Larson 1978; Lemon, Bengston and Peterson 1972). Therefore, replication of this research should include independent measures of the effects of these relationships on life satisfaction.

To conclude, this study has demonstrated that diversity in activity measures, unclear specifications of the three types of relationships measured, and inconsistencies in life satisfaction measures has resulted in problems when comparisons among studies have been attempted. It appears that the diversity reported in research conclusions, must be attributed generally to these many sources of variation, whether or not the research design is cross-sectional or longitudinal.

Until there is consistency within the activity theory research, beginning with clear and concise statements about what social activity is, it is impossible to test activity theory adequately. Without specifying exactly what social activity is, and what is means, it is only possible to conclude that most of the evidence indicates that social activity is directly associated with a sense of well-being on older populations, but how it is, and why it is, at this point, remains unclear.

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Appendix A

INTERVIEW SCHEDULE

Seniors' Survey

Victoria Institute of Gerontology

1984

FACE SHEET TO BE COMPLETED AFTER INTERVIEW

1. ID number of the respondent _____

2. Sex: (1=male) (2=female) _____

3. Location of interview (CODE IN OFFICE, AS PER CENSUS TRACT)

_____

4. Length of interview:

    1. 15 minutes
    2. 15-30 minutes
    3. 30-60 minutes
    4. longer than 60 minutes

5. Interviewer's name._____

6. Date of interview: Day (1-31) _____

    Month (5-8) _____

NAME: _____ ID NUMBER _____

ADDRESS:_____

(INCLUDE POSTAL CODE)

PHONE NUMBER _____

DO NOT FOLLOW-UP _____

INTRODUCTION

(READ TO THE RESPONDENT)

This survey is being conducted by the Victoria Institute of Gerontology, Seniors Serving Seniors, the James Bay Community Project and the University of Victoria. The purpose of this survey is to gather information about the needs and activities of seniors in the Capital Regional District. The information will be used to compile a report, available for public use, which will describe the people over the age of 55 in the Greater Victoria area.

Your responses will be held in complete confidence. The information that you provide will be used to make statistical comparisons for research purposes only. This means that there will be no way of identifying the answers of individuals.

Some of the questions may not be directly applicable to you if you are under 70 years of age. In addition, please do not assume that we are stereotyping seniors by asking questions that seem to imply a general state of decline. We are merely asking a great variety of questions, some of which only apply to the older individuals in this study.

Finally, if you are uncertain about any of the questions asked in this survey, you should feel free to ask for clarification. It is important that you understand each question completely. You have the right to withdraw from the survey at any time and you will not be asked to participate any further. Do you have any question before we begin?

Now let's begin:

SECTION 1

In the first part of this interview, we will be asking some questions to gather some general background information.

7. What was your age at your last birthday? (ENTER AGE)

_____

8. What is your current marital status?

1. married
2. widowed
3. divorced
4. separated
5. never married
9. N/A

9. (IF NOT NEVER MARRIED) How long have you been X?

1. less than 1 month
2. 1-3 months
3. 3-6 months
4. 6 months-1 year
5. 1-2 years
6. 2-3 years
7. 3-5 years
8. more than 5 years
9. N/A

10. How many people live in this household? (INCLUDE THE RESPONDENT)

_____

11. (IF MORE THAN ONE IN Q 10) Can you please tell me the relationship of the other household members to you, as well as their sex and age?

(ENTER CODES FOR EACH PERSON)

	Relationship	Sex	Age
1.	_____	_____	_____
2.	_____	_____	_____
3.	_____	_____	_____
4.	_____	_____	_____
5.	_____	_____	_____

12. How long have you lived in the Greater Victoria area?

1. less than 3 months
2. 3-6 months
3. 6 months to 1 year
4. 1-3 years
5. 3-10 years
6. 10-20 years
7. more than 20 years
9. N/A

(IF LESS THAN 10 YEARS SKIP TO Q 14)

13. Can you tell me the most important reason why you moved to Victoria?

1. relative lived here
2. friend lived here
3. climate
4. city size (small/friendly)
5. job
6. retired here
7. other _____
9. N/A

14. What type of housing are you in?

1. whole house, condo, town-house
2. self-contained suite, multiplex
3. suite in seniors' housing
4. room (cooking or bathroom facilities not present)
5. board and room (hotel, boarding house etc.)
6. trailer home (mobile home)
7. other _____
9. N/A

15. Do you rent or own this home?

1. own
2. rent
9. N/A

(PAUSE AND INTRODUCE THE SECOND SECTION OF THE INTERVIEW)

In this section, we will be asking some questions about the contacts that you have with friends and relatives.

16. Do you have any living relatives (other than spouse)?

1. yes
2. no
9. N/A

(IF NO SKIP TO QUESTION 25)

17. Do you have any living children ?

1. yes
2. no
9. N/A

18. Do you have any living grandchildren ?

1. yes
2. no
9. N/A

19. Do you have any living brothers or sisters ?

1. yes
2. no
9. N/A

20. Do you have any living parents ?

1. yes
2. no
9. N/A

21. Do you have any living aunts, uncles, in-laws ? (INCLUDE MOTHER-, BROTHER-, SISTER-, AND FATHER-IN-LAWS)

1. yes
2. no
9. N/A

22. Where does your nearest relative (other than your spouse) live?

1. same household
2. same building
3. same neighbourhood
4. same city
5. less than 1 days' journey by car
6. more than 1 days' journey by car
9. N/A

23. If your spouse does not live here with you, where is he/she living now?

1. nursing home
2. hospital
3. other_____
9. N/A

24. How often do your relatives visit you?

1. daily
2. once or twice a week
3. a few times a month
4. once a month
5. a few times a year
6. less often
9. N/A

25. How often do your friends visit you?

1. daily
2. once or twice a week
3. a few times a month
4. once a month
5. a few times a year
6. less often
9. N/A

26. How often do your neighbours visit you?

1. daily
2. once or twice a week
3. a few times a month
4. once a month
5. a few times a year
6. less often
9. N/A

(PAUSE AND INTRODUCE THE THIRD SECTION OF THE INTERVIEW)

Now, we would like to know of any problems you may be having in a variety of areas. For each of the areas I mention, we would like to know if it has been a problem for you in the last year. We also want to know if you would say it has been a serious problem or not.

27. Has TRANSPORTATION been a problem for you in the past year?

1. yes, a serious problem
2. yes, somewhat of a problem
3. no, not a problem
9. N/A

	(CODE EACH RESPONSE)			
28. Housing	1	2	3	9
29. Preparing meals	1	2	3	9
30. Housework	1	2	3	9
31. Yardwork and home repairs	1	2	3	9
32. Your general health	1	2	3	9
33. Using your leisure time	1	2	3	9
34. Getting access to doctors, other health care providers	1	2	3	9
35. Pursuing educational goals	1	2	3	9
36. Obtaining employment	1	2	3	9
37. Amount of income	1	2	3	9
38. Financial planning	1	2	3	9
39. Illness of a spouse or relative	1	2	3	9

40. Lack of social contacts, friends	1	2	3	9
41. Alcohol or drug use	1	2	3	9
42. Getting information about government programs for seniors	1	2	3	9
43. Getting information about other programs or services for seniors	1	2	3	9
44. Getting help for stress or emotional problems	1	2	3	9

45. Is there any other area which has been a problem for you in the past year?

(IF YES, WHAT WAS IT? WRITE RESPONSE)

(PAUSE AND INTRODUCE SECTION FOUR OF THE INTERVIEW)

This section of the interview will ask about agencies that deal with seniors.

I will read you a list of local agencies for seniors, and I would like to know if you have heard of them, used their services, or worked for them.

(CODE THE HIGHEST NUMBER)

1. haven't heard of
2. heard of only
3. used the services
4. worked for

46. Meals on Wheels	1	2	3	4
47. Seniors Serving Seniors	1	2	3	4
48. Hospitality Club	1	2	3	4
49. Victoria Stroke Club	1	2	3	4
50. New Horizons	1	2	3	4
51. Retirees Remotivation Through Television	1	2	3	4
52. Handidart	1	2	3	4
53. Skills Exchange	1	2	3	4
54. Victoria Gerontology Association	1	2	3	4
55. Silver Threads	1	2	3	4
56. Widows' Association	1	2	3	4
57. Victoria Senior Citizens' Housing Society	1	2	3	4

58. Newcomers' Club 1 2 3 4

59. Memorial Society of B.C. 1 2 3 4

60. James Bay Community Project 1 2 3 4

61. Canadian Arthritis and Rheumatism Society 1 2 3 4

62. Old Age Pensioners' Association 1 2 3 4

63. Long Term Care Citizens' Assoc. 1 2 3 4

64. Victoria Institute of Gerontology 1 2 3 4

65. Altzheimer's Association 1 2 3 4

66. Homemaker's Service 1 2 3 4

67. Hospice Victoria/Victoria Association for the Care of Dying 1 2 3 4

68. Victoria Self-Help for Seniors 1 2 3 4

69. Are there any services or programs for seniors which you think SHOULD be offered? (IF YES, WHAT?)

_____

_____

HERE IS A CARD FROM SENIORS SERVING SENIORS.

(HAND YELLOW CARD)

IF YOU WANT MORE INFORMAION ABOUT ANY OF THE SERVICES AVAILABLE FOR SENIORS OR THEIR FAMILIES, JUST CALL THE NUMBER ON THE CARD.

(PAUSE AND INTRODUCE THE FIFTH SECTION OF THE INTERVIEW)

The following set of questions will ask about how satisfied you are with various aspects of your everyday life, as well as the number of activities that you are regularly involved in.

To begin, (HAND RESPONDENT CARD A) on this card there is a scale which runs from 1 (very satisfied) to 5 (very dissatisfied). For each area that I mention, please tell me the number which best describes your feelings.

CARD A RESPONSES

1. very satisfied
2. somewhat satisfied
3. neutral
4. somewhat dissatisfied
5. very dissatisfied
9. N/A

70. Your life as a whole	1	2	3	4	5	9
71. Your family	1	2	3	4	5	9
72. Your health	1	2	3	4	5	9
73. Your financial situation	1	2	3	4	5	9
74. How interesting your daily life is	1	2	3	4	5	9
75. How you adjust to life changes	1	2	3	4	5	9
76. Your friends and neighbours	1	2	3	4	5	9
77. Your ability to get around	1	2	3	4	5	9
78. Your relationship with your spouse	1	2	3	4	5	9

79. Your home 1 2 3 4 5 9

Now, we would like to know how often you do each of the following activities on a regular basis. (HAND CARD B)

80. Visit a friend 1 2 3 4 5 6
81. Visit a neighbour 1 2 3 4 5 6
82. Visit a relative 1 2 3 4 5 6
83. Go out on the town 1 2 3 4 5 6
84. Take a trip out of town 1 2 3 4 5 6
85. Do volunteer work 1 2 3 4 5 6
86. Church related activities 1 2 3 4 5 6
87. Exercise or take part in a fitness program 1 2 3 4 5 6
88. Visit the doctor 1 2 3 4 5 6
89. Shop 1 2 3 4 5 6

(RESPONSE CODES FOR 80-89)

1. never
2. a few times a year
3. once or twice a month
4. 3 or 4 times a month
5. several times a week
6. daily
9. N/A

On this card (HAND RESPONDENT CARD C) there are five items that range from 1 (excellent) to 5 (poor). Could you please tell me which of the numbers on the card best describes the various aspects of your health from the list that I will read to you.

90. Your overall health	1	2	3	4	5	9
91. Your hearing	1	2	3	4	5	9
92. Your eyesight	1	2	3	4	5	9
93. Your ability to get around	1	2	3	4	5	9
94. Your memory	1	2	3	4	5	9
95. Your ability to cope with stress	1	2	3	4	5	9
96. Your dental health	1	2	3	4	5	9

(RESPONSE CODED FOR 90-96)

1. excellent
2. good
3. average
4. fair
5. poor
9. N/A

(PAUSE AND INTRODUCE THE SIXTH SECTION OF THE INTERVIEW)

This is the final section of the interview. The questions that we will be asking here will be related to occupational status and social class background. These questions will provide us with information so that we can analyze peoples' responses in greater detail. We wish to remind you that all of the information that you provide in this interview will be classified as confidential.

97. Are you currently working for pay?

1. yes
2. no
9. N/A

(IF NO, SKIP TO QUESTION 100)

98. Do you work?

1. full-time (30 hours+per week)
2. part-time
9. N/A

99. What type of occupation are you in?

1. manager/administrator
2. professional/technical
3. white-collar
4. blue-collar
5. farm/fish/forest/mine
6. other/not stated
9. N/A

(SKIP TO QUESTION 103)

100. If you are not working, are you?

1. retired
2. unemployed
3. never worked
9. N/A

101. If you are retired or unemployed, what was your lifetime occupation?

1. manager/administrator
2. professional/technical
3. white-collar
4. blue-collar
5. farm/fish/forest/mine
6. other/not stated
9. N/A

102. If you are retired, how long have you been retired?

1. less than a month
2. 1-3 months
3. 3-6 months
4. 6 months to 1 year
5. 1-2 years
6. 2-5 years
7. more than 5 years
9. N/A

(IF NOT MARRIED, SKIP TO QUESTION 109)

103. Is your spouse currently working for pay?

1. yes
2. no
9. N/A

104. Does your spouse work?

1. full-time (30+per week)
2. part-time
9. N/A

105. What type of occupation is your spouse in?

1. manager/administrator
2. professional/administrator
3. white-collar
4. blue-collar
5. farm/fish/forest/mine
6. other/not stated
9. N/A

106. If your spouse is not working, is he/she:

1. retired
2. unemployed
3. never worked
9. N/A

107. If your spouse is retired or unemployed, what was his/her major occupation?

1. manager/administrator
2. professional/technical
3. white-collar
4. blue-collar
5. farm/fish/forest/mine
6. other/not stated
9. N/A

108. If your spouse is retired, how long has he/she been retired?

1. less than a month
2. 1-3 months
3. 3-6 months
4. 6 months to 1 year
5. 1-2 years
6. 2-5 years
7. more than 5 years
9. N/A

109. If you (or your spouse) are not retired, do you plan to retire in the next 2-3 years?

1. yes-self
2. yes-spouse
3. yes-both
4. no

9. N/A

110. How much formal education did you receive?

1. 0-1 year
2. 1-4 years
3. 5-8 years
4. 9-10 years
5. 11-12 years
6. 13-16 years
7. more than 16 years
9. N/A

111. What ethnic (or racial) group do you consider yourself a member of?

1. Canadian
2. British
3. American (U.S.A.)
4. French
5. German
6. Scandinavian
7. Dutch/Belgian
8. Polish/Russian/Ukrainian
9. other European
10. Chinese/Japanese/East Indian
11. Other_____
99. N/A

112. If you were asked to describe what social class you belonged to, which of the following would you choose?

1. upper class
2. upper-middle class
3. middle class
4. working class
5. lower class
6. don't know/can't place
9. N/A

113. Now, for this next question, we would like to know what category your total household income falls into. (HAND RESPONDENT CARD E). Using the income groupings on this card, could you please tell me the number of the income group that reflects the total income of your household. Please remember that this information is for statistical analysis only. You should include old age security, pensions, investments, employment income, of yourself, your spouse, and any other member of the household who contributes to the maintenance of your home?

1. no income
2. up to $2,000/year
3. $2,000-$4,000/year
4. $4.000-6,000/year
5. $6,000-8,000/year

6. $8,000-$10,000/year
7. $10,000-$15,000/year
8. $15,000-$20,000/year
9. $20,000-$30,000/year
10. $30,000-$50,000/year
11. More than $50,000/year
99. N/A

114. Is there any area near your home where you would be afraid to walk alone at night?

1. yes
2. no
9. N/A

115. How about at home at night---- do you feel secure, or not?

1. yes
2. No
9. N/A

(READ TO RESPONDENT)

We are now finished the questions. Thank you for your participation and help. Do you have any questions that you would like to ask me about this research project or the questions that you have ben asked? (WRITE RESPONSES IF APPROPRIATE)

_____

_____

Again, I wish to let you know that all of the information that you have provided will remain confidential. The information gathered from all of the individuals in this survey will be used to make statistical comparisons which will be documented in a report which will be available for public use some time in the fall. If you would like to examine the results, or have a copy, feel free to call the number on the yellow card.

Now we would like to invite you to participate in a long-term study of aging in Greater Victoria. The results of this survey will give us a good idea of the situation of people 55 and over right now, but to fully understand the

process of aging, we need to stay in touch with the same people for several years. We would like to include you in this long-term study.

We won't be contacting you again for another year, even then you can always decline to take part in future studies. All we are asking now is for your permission to contact you next year. Is that all right with you?

(IF YES, ENTER POSTAL CODE) ON FACE SHEET AND END THE INTERVIEW)

(IF NO, CHECK BOX ON FACE SHEET AND END INTERVIEW)

VITA

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ACTIVITY THEORY: AN EMPIRICAL TEST AMONG GREATER VICTORIA RESIDENTS 55 AND OVER

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May 30, 1985
date