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> "...the scripts by which adulthood might be understood were markedly few and sketchy. It was as if human beings were considered "all done", fixed, upon coming of age. And, then, alas, un-made, undone, bit by bit, by the decrements of old age. (Helen H. Perlman, "Foreword" in *Passing through Transitions*, Naomi Golan, New York Free Press, 1981, pp. xv-xvi.).

1. Introduction

Our previous papers looked into early and mid-life events in the family life course of Canadians as portrayed in the data collected by the General Social Surveys 1990 and1995. The division into early, mid, and late life stages is only an analytical tool and is arbitrary when viewed from the notion of "chronological age" that simply refers to the biological process of growing old. On the contrary, our earlier works have emphasized more on the notion of "social age" that marks transitions from one social role to another. According to this view, we grouped events such as end of schooling, start of work, home-leaving, first cohabitation, first marriage and first birth under early life stages, and events such as last birth, home-leaving of first child, separation, divorce and remarriage under mid-life stages.

In this paper we move on to the late life stages that include other related changes in social roles that happen around and after age 50, such as end of parenting (or home-leaving of last child), activity limitation, widowhood and/or separation and divorce, and retirement. We have selected these events forming the core of late life stages for reasons explained in the following sections.

In attempting to study late life courses, we need to be aware of the heavy data requirements and limitations unlike in the case of early or even mid-life transitions. While the number of early and mid-life transitions are usually large enough to capture regularity or departures from regularity, the number of transitions that can be recorded in late life courses are often small, particularly when we deal with retrospective data. If selectivity operates in human life course, it is nowhere more real than among those who reach the so-called late life, and no surveys of whatever sophisticated design can eliminate this problem. In addition, as the above quote from Perlman indicates, theoretical constructs themselves have not been well developed regarding late-life transitions; only in recent years social and behavioural scientists have begun to contribute to our limited knowledge concerning how the aged and their families negotiate a wide array of late-life transitions and demands with notions such as intergenerational transfers (McDaniel, 1996) and moral economy of interdependence (Robertson, 1996).

2. Democratisation of Late Life Stages

Until recently, demographic studies on late life stages were more a matter of chance and relegated to the domain of irrelevance as far as demographic changes, particularly in fertility behaviour, were concerned. But things have changed in many ways; there are not only demographic changes but a host of other historical changes in society and economy. Longer lifetimes and more certain survival into old age have given rise to the emergence of empty nest, and more recently of crowded nest, followed by an appreciably long period of solitary living especially for women. Changes in labour force participation patterns as well as consolidation of social programs have helped older persons today experience a relatively new and comfortable life-style and life stage called retirement. Changes in marital behaviour usually associated with mid-life transitions have also crept into these late ages, as will be discussed below. All these changes have necessarily shifted the focus of researchers on life-cycle patterns. Mid- and late- life transitions have suddenly become so remarkable that social scientists are paying more attention to them than ever before.

The more important aspect of all these changes is that, as Treas and Bengtson (1982:13) remark, they have created a new element of democracy in the life cycle stages. “What is new is that these stages have been democratised. They are no longer characterised as rare and uncertain, but rather as commonplace and predictable.”

2a. Survival to Late Age and its Consequences

Improvements in mortality have opened up late life-cycle stages to a broad cross-section of people, rather than to a select group of superior health. Surviving to older and older ages has become, so to say, a democratic right. But this democratic right is seen by some to have added many a burden to our society. According to the so-called "bankruptcy hypothesis of aging", the swelling ranks of the aged are expected to tax not only the capacities of children and/or relatives to care for the elderly in need but also the fiscal integrity of all societal provisions to the elderly. In contrast, others like Robertson (1996) view such catastrophic projections about the burden of society of an aging population as "apocalyptic demography".

One of the obvious outcomes of being able to live to older ages is that more and more couples are likely to experience an unprecedented length of time together after their children have left home. Women, in particular, are older before death claims their partner. Treas and Bengtson (1982, p.15) put it well by saying: "...women born in the 1920s are estimated to enjoy an 11-year hiatus between child's marrying and spouse's burying." And, if the latest trends are to continue for sometime in the future, we can expect more and more couples to experience a second "parenting" when their children return home for whatever reasons.

2b. Retirement

Even at the beginning of this century, Epstein (1928) observed how a totally different situation prevails in industrial societies as opposed to agricultural societies. In many societies and cultures, old age brought a certain feeling of satisfaction and accomplishment, and in agricultural communities, activities continue even in old age. In contrast, in industrialized societies, specialization has become a universal rule, and standardized production not only eliminates skills and experience - the very assets of older employees - but wears out working people more rapidly than before. Epstein indeed foresaw that people in the industrialized world of the 80s and 90s would opt for early retirement from the workforce!

Retirement from regular work plays a central role in late life and has been the topic of many studies in recent times. We are so much used to the picture of active, and early, retirement that we forget that it is a recent social institution. Universal retirement itself is a relatively new phenomenon and has become a democratic right on its own. Several factors paved the way for creating retirement as a life cycle stage. Standardized production, as Epstein observed, undermined the elderly's claim to employment. The elderly were viewed less than valued employees in industry and in government. The main justifying argument was that they held jobs that rightfully belonged to younger workers. All these led to the birth of private pensions, and pensions brought with them the practice of mandatory retirement at a specific, predetermined age of 65. Thus, a relatively stable pattern of career employment leading to retirement around age 65 set in, and a "normal" pattern of work and the life course was seen to consist simply of three major stages: pre-work or education, work or career development, and finally retirement.

In recent times, however, such a "normal" career pattern is slowly disappearing. While retirement became a nearly universal practice, the transition to retirement, and its timing, was changing. People take various routes to arrive at retirement. Some retire because of poor health; others retire because they are eligible to retire and want to do so; and, still others because they have lost their jobs and have been unable to find new ones. From the GSS 1994, we learn that only 16% of men and 11% of women follow the mandatory retirement policy. In contrast, 25% of men and 22% of women retire for health reasons, almost similar proportions of men and women retire by choice, and 10% of men and 4% of women go for early retirement for whatever reasons (see Table 2.2 in Monette, 1996).

The timing of retirement also varies; some retire early, some retire at the customary age of 65, and others late for financial reasons as well as out of personal preferences. In most developed societies like Canada, increasing numbers of men and women are leaving their major employment situation earlier than age 65 and as early as age 55. Cross-sectional data reveal that the labour force participation rates of Canadian males aged 55-64 have been falling over the past several decades, with a marked decline from 86% in 1956 to 84% in 1970 to 60% in 1994 (Statistics Canada, *The Labour Force*, Catalogue no.71-001-XPB). Similarly, female labour force participation rates which dramatically increased between 1956 and 1986 have levelled off at 36% in 1992 (McDonald and Chen, 1994). According to the GSS 1994, the average age at retirement has virtually remained unchanged since 1989: 61.0 years in 1989 and 60.4 years in 1994 (Monette, 1996:16). From a cohort perspective, perhaps what Elder and Pavalko (1993) described about different patterns of men's retirement in the US may hold true for Canadians as well: The older cohorts retired at later ages and were more likely to exit from employment into retirement in a single transition, while the younger cohorts retire at earlier ages and follow a more complex transition.

In recent times, there is a new dimension added to the process of retirement. The GSS 1994 reveal that among men aged 60-64, the proportion employed dropped from 54% in 1989 to 41% in 1994, and among men aged 55-59, the same proportion dropped from 75% to 69%. However, this decrease has not been accompanied by a proportionate increase in retired men; for men aged 60-64, there was a slight increase from 42% to 45%, but for men aged 55-59, there was a decrease from 15% to 14%. Instead, what has happened is a marked increase in the proportion of men in these age groups who reported another "main activity", that is, neither employed nor retired (for details, see Monette, 1996). Thus, the process of retirement seems to be assuming a "new" face now (or perhaps, there is nothing new if we recall the history cited earlier by Epstein) in that many people who retire from career jobs return to work in what are referred to as "bridge jobs". Return to work seems to be more likely to part-time work, especially if retirement is very early. According to the 1991 Survey on Aging and Independence, 21% of men and 11% of women who described themselves as retired, returned to paid employment. And, 76% of men and 88% of women who returned to paid employment did so as part-time workers (Schellenberg, 1994). What is more interesting is that these persons tend to be highly educated, skilled workers and professionals or managers, rather than people with less education or human capital (see Chart 3.3 in Monette, 1996).

As Marshall (1996) argues, the above trends tell us that we can no longer view "labour force withdrawal" and retirement as synonymous and that retirement patterns are many and varied. Surveys like the GSS in the future will have to devise more refined ways of capturing the process of retirement than with a single question as of now.[1]

In the international context, the decline in the labour force rates of older persons is perhaps the most dramatic feature of labour force change in this century (Gruber and Wise, 1997). Studying social security programs and retirement around the world, the authors argue that social security provisions themselves provide enormous incentive to leave the labour force early. The decline in the labour force participation of men aged 60-64 from 82% to 53% in the US or 84% to 60% in Canada during the last two decades is supposedly modest in comparison to the much more precipitous declines in Europe, in countries like Germany and Belgium or the Netherlands to 35% and 20% respectively (See Fig.1 in their paper). Smeeding and Quinn (1997) point out that in the US, the early retirement trend seems to have stopped because of several public policy initiatives to encourage more work and later retirement among older Americans. At present, among the seven countries studied by these authors (namely, Australia, Canada, the US, the Netherlands, Sweden, the UK, and Germany) only Canada currently has the highest rate of labour force exit and an increasing trend toward early retirement.

As a final point from the research perspective, the remark made by Treas and Bengtson (1982:19) is interesting. "As retirement spread and trickled down to younger age groups, there was a widely held suspicion that retirement was too good to be true. Researchers went looking for the decline in happiness thought to be associated with the loss of a meaningful work role. They investigated retirement as a possible cause of disease and death. They sought out marital strains assumed to arise in having newly retired husband underfoot. Interestingly, few of these leads panned out. By and large, retirees in good health and with adequate incomes voiced real satisfaction with retirement. Couples demonstrated surprisingly smooth adaptations. This lack of negative outcomes reinforces the conclusion that retirement has attained the status of a genuine social institution." Canada's GSS 1994 data also reveal the same story: only one retiree in five reported enjoying life less and attributed this deterioration mostly to their health (Monette, 1996:13). This brings us to the discussion of health dimension as a stage in late-life transitions.

3. Other Late-life events

3a. Activity Limitation

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1. The question on retirement used in the GSS 1995 is not as clear as we would like it to be! The survey classified retirement also as work interruption and truncated the age at "interruption" to age 55+. This hampers the analysis of work interruptions, particularly the first interruption. However, work interruptions that happen at or after age 55 do not contribute substantially either to changes in the labour force or to the interpretations of life course transitions.

Health dimension obviously assumes an important role in late-life transitions and is closely related to the process of retirement. Dwyer and Mitchell (1998), using the Health and Retirement Study (HRS), find that health problems influence retirement plans more strongly than economic variables. Specifically, men in poor overall health can be expected to retire one to two years earlier, an effect that persists even after correcting for potential endogeneity of self-rated health problems. On the contrary, the Canadian GSS 1994 data reveal that health dimension has little impact on intended age at retirement (Monette, 1996:22).

Emphasizing the health dimension as one of the consequences of changing life courses in old age, Marshall (1996) points out that there is virtually no research about the effects of life course instability in mid-to-late life on health and that with the emerging pattern of late life course, a new social determinant of health should be added to our conceptual toolkit of health.

3b. Changes in Marital Status and their Consequences

Late-life stages cannot ignore the changes in marital status or, in general, marital disruptions that are inevitable at older ages. As people age, the likelihood of joining the ranks of the "unattached" increases, especially through widowhood and among women. This disruption typically represents a major life change for many since marriage is still one of the most significant emotional, social and economic relationships in life. For many couples, marital disruptions can also occur as a result of a spouse's dementing illness or institutionalization (older women are called "grass widows" whose spouses live part, possibly in an institution for the aged).

Recent enquiries reveal that a growing number of seniors have lost or are losing their spouses through separation and/or divorce. It is not only because many separated or divorced persons are becoming seniors but also because more senior couples are separating or divorcing at an increasing rate. An appreciable increase has occurred in this century in the rates of separation and divorce in Canada among people aged 65 - from 0.1% in 1921 to 2% in 1986, and to 5% in 1991. In particular, since 1951, the rate of separation and divorce among seniors has approximately doubled each decade. Payne (1994) suggests that we will find greater proportions of persons who are permanently separated but not divorced in the senior population than in other age groups because older separated have fewer incentives to divorce than younger adults, the prospects of remarriage being slimmer in later life.

Norris (1994) points out that since every intact marriage will eventually produce a widow or a widower, widowhood can be considered a normative, age related event, especially for women. She also points out that research on widowhood which flourished in the 70's and 80's has slowed considerably and that widowhood does not appear to be a popular topic in the broader gerontological literature. This is because researchers attempted to draw straightforward causal linkages between the experience of widowhood and psychological variables such as depression or loneliness, or social variables

such as financial well-being but found that few people conformed to their expectations - a repeat of the story mentioned earlier with respect to happiness of retired people!

Gerontologists have, however, noted a major difference in men's and women's social networks: While older women have broader and qualitatively richer networks, older men tend to rely primarily on their wives for social and emotional support. Thus widows in general have a better chance of finding social support after their husbands die. The higher incidence of remarriage among widowers suggests that remarriage is a more popular coping strategy for men after bereavement than for women.

Because of its recency and data paucity, the impact of separation or divorce on well-being in later life has largely been unexplored. What are the consequences of separation or divorce for seniors? The 1991 Survey on Ageing and Independence and the GSS 1985 data reveal (Payne, 1994) that the separated and divorced are not only the most likely to rate their physical health as excellent but also the most likely to experience limitations in their activities of daily living (80% versus 65% of the married, 69% of the ever-single and 62% of the widowed). This curious combination of findings calls for further research to explore the effect of late-life separations or divorces on family relationships and on care-giving arrangements.

4. Other Considerations

All that we have discussed so far regarding late-life transitions vary systematically and predominantly by sex and social class. For example, it is well known that women are less likely to be covered by pensions in addition to social security; they are more likely to retire early or late rather than around age 65. And, women are also more likely to retire for health reasons. The same variations apply to working-class people in comparison with the middle or professional class. In addition, studies on late-life courses cannot ignore the influence of extended family relationships, ethnic family culture, and contemporary changes in the family. These are known to influence social participation outside the family throughout the life cycle and older people's responses to the later life transitions of retirement, widowhood and decline in health (Woehrer, 1982).

5. Data, Methodology, and Results

As in earlier papers, we use the data gathered through the General Social Survey1995 and confine ourselves to a total of 1,673 men and 1,905 women who were aged 50 and over at the time of survey [The GSS has sampling weights and these weights have been used in all analyses presented below.] As before, we take a cohort perspective and analyses are carried out for ten-year birth cohorts of men and women: - those born before 1915 and those born during the years 1916-25, 1926-35 and 1936-45. Men and women of the youngest cohort (1936-45) are aged only 50 to 60 at the time of survey and would not have experienced the many events considered here; they are included here more for the sake of examining the trends over cohorts and caution should be exercised in making inferences about their experience.

In accordance with our discussion in the previous sections, we consider the following six late-life stages: Living Alone, Retirement, Activity Limitation, End of Parenting, Separation or Divorce, and Widowhood. Since our earlier analyses covered mid-life transitions until age 50, we focus here on "late-life" transitions that happen only after age 45. Thus, we avoid all irrelevant reports on, for example, activity limitation or living alone or even retirement that happened at ages as early as 20 (except in Table 1). Life tables as well as probabilities of specific sequences of transitions are presented here as in earlier papers. Some new types of analyses that we have not presented in our earlier papers but that are also available in the LIFEHIST package are also included here.

5a. Trends in timing of late life transitions

Table 1 presents the ages at 10th, 25th and 50th percentiles of various late-life events by sex and birth cohorts obtained through simple life table analyses (corrected for censoring but including transitions that took place before age 45).[2]

The results presented in Table 1 reveal the problem inherent to analyses of late-life transitions: Many events will not be experienced by 50% of those exposed to the risk of experiencing the events. Consider, for example, women born during the years 1916-25 who should be at least 70 years old at the time of survey. Although these women had started regular work sometime in their lives, it becomes difficult to find the median age at retirement for these women. And, however interesting and novel the idea is about "increasing" rates of separation and/or divorce among the seniors and the consequent "unattached" status, we can find only the age at 10th percentile, that too for the youngest cohort considered.

In spite of these problems, we can still see some interesting findings especially as differences between men and women. First, the percentiles of end of parenting (or when the last child left home) are higher for men than for women; this is because men generally marry and start parenting later than women. Second, women report earlier *start* of retirement (that is, ten percent of women are retired at ages earlier than the age at which 10% of men are retired), but they *end* the process of retirement late (that is, 25th or 50th percentiles for women are higher than those for men). This seems to be in accordance with what we discussed earlier. Third, living alone is a characteristic late-life transition among women, while men scarcely reach the 25th percentile. As seen in Table 1, women born before 1925 experienced living alone mostly after widowhood, but in later cohorts there is a reversal of this trend; this indicates the disconnectedness between widowhood and living alone among the younger cohorts.

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2. These life tables were constructed separately for each event, and therefore each life table starts only with those persons who are "exposed to a specific risk"; thus, the end of parenting life table is constructed only for those who have had at least one birth, separation and/or divorce and widowhood only for the married, retirement only for those who had started regular work, living alone and activity limitation for all persons.

The results in Table 1 suggest that four of the six events are worth pursuing in further analyses, namely retirement, activity limitation, living alone and widowhood (we shall not concentrate here on end of parenting and separation/divorce, as we have incorporated it under mid-life transitions).

5b. The first transition after age 45

Table 2 presents the probabilities of the first transition after age 45 and the mean ages at experiencing the events considered. These probabilities have been corrected for censoring and represent the chance that members of each cohort will eventually experience the event. For the first transition, these probabilities can also be interpreted as proportions of the cohort[3] who experience the specific event.

As Table 2 reveals, for a majority of men, the first transition in late-life is either to retirement or to end of parenting. Only 7% of the youngest cohort (aged between 50 and 60 at the time of survey) are retired, but 36% of the same cohort have experienced the end of parenting. In contrast, although the greatest proportions of women report the end of parenting as their first transition, an appreciable proportion of them experience also retirement, living alone and widowhood.

From the mean ages at first transition given in brackets in Table 2, we see a systematic decline in the mean ages from the oldest to the youngest cohort. This may look obvious at first sight because the younger cohorts have still time to experience these events. All the same, mean timings of the first transition show real trends of decline, even though not to the extent that we see in the youngest cohort. For example, the mean age at retirement for men born during the period 1916-25 is definitely lower than that for the men born a decade earlier by about two years, and we cannot expect any conspicuous change in this since the former are already 70 to 80 years old at the time of survey. The youngest cohort has definitely a lot of time to catch up such that its mean age can be expected to come close to 60 years. In any case, the fact that mean ages at retirement for Canadian men hangs around age 60, and not the mandatory retirement age 65, corroborates the observation made in an earlier section.

In contrast to retirement, we do not expect any conspicuous changes to take place in mean ages at end of parenting, and we can consider the values almost definite, even for the men born during the second world war. Similar interpretations can be deduced for women as well as for other events. Here, we would like to point out one curious phenomenon that may need further examination. The proportions of men and women who report activity limitation seems to be on the rise from cohort to cohort, with the corresponding mean ages falling. One possible reason for this may be the greater

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3. Unlike in the life tables presented in Table 1, these results are something like from the multiple decrement life tables. Since many events are considered simultaneously, it is not possible to consider the distinct groups of "exposed to risk" individuals; all individuals and their transitions are considered from age 45.

awareness of health and activity limitation among younger cohorts. Another possible reason is selectivity mechanism, that is, those who experienced activity limitation at younger ages among the earlier cohorts may have already died and hence excluded from the sample.

5c. The second and higher order transitions

Table 3 presents the probabilities of second transition following the first and the mean durations (in years) since the first transition. The probabilities are conditional probabilities and are to be interpreted as follows. For example, of the 43% of men who experienced retirement as the first transition in the oldest cohort (Table 2) , 34% experienced activity limitation, 22% the end of parenting and 18% became widowers. These probabilities can be multiplied by 0.43 (from Table 2) to arrive at the conditional probabilities of making the specific sequence such as Retirement ⇒Activity Limitation (.43 x .34 =.15), Retirement⇒ End of Parenting (.43 x .22 =.09) or Retirement ⇒Widowhood (.43 x .18 =.08). Similar procedures apply for other sequences given in the Table.

We find in Table 3 that for men in the oldest cohort the most common experience after retirement was activity limitation. And, *for these men*, activity limitation happened on the average about 14 years after retirement[4]. Similarly, if the end of parenting was the first transition, the most commonly experienced second event for the same cohort was retirement and this took place on the average about 12 years after the last child left home. This picture has changed for men belonging to the next two cohorts; their first transition after age 45 was predominantly to end of parenting which took place around age 55 and their second transition was to retirement which took place on the average about 10 years later. The picture is also somewhat different and more complex for women; if the first transition was to retirement, the most likely second event was either end of parenting or widowhood; if the end of parenting was their first experience, then their second experience was either living alone or retirement.

While studying the sequences of transitions, it was found that women's reported timings of living alone and widowhood were identical in many cases; it is understandable that living alone for many women happens mainly because of widowhood and it is not a good strategy to separate the two events. But as was pointed out earlier, for later cohorts, living alone and widowhood are two separate events and, therefore, we have maintained the distinction between the two in this table and show separately the events that follow widowhood as the first transition in the last panel of the table.

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4. One has to be careful here not to make the common error of adding the mean duration since retirement to the mean age at retirement to get the mean age at activity limitation as age 77. Because, the groups of individuals exposed to the risk of these two events are different. To compute the correct mean age at activity limitation, one has to consider only that group of individuals who *complete* the sequence of the two events, namely Retirement⇒Activity Limitation.

In trying to sense a pattern of sequences, the picture gets muddled even at the second transition. In other words, the variety of transition patterns in late-life introduce much more uncertainty than what we have seen so far in either early or mid-life transitions. This is captured in the entropy and uncertainty coefficients presented at the bottom of Tables 2 and 3.[5] Figure 1 plots these uncertainty coefficients for higher order transitions also. As this figure reveals, uncertainty increases over cohorts even for the second transition. Although uncertainty declines for higher order transitions in the younger cohorts, it is certain that these cohorts are going to introduce more uncertainty as they experience more complex pattern of transitions in late life.

Another way to summarize and to capture the changes over cohorts in sequence patterns of late-life transitions is to use the technique of cluster analysis.[6] We present the results of cluster analysis in Table 4. Each cluster in this table identifies the "most descriptive sequence" or simply the dominant sequence in each cohort; thus, cluster 1 is the most dominant sequence, cluster 2 the next dominant sequence that has not been included in cluster 1, and so on. From this table, we see that retirement and/or end of parenting make up the two most descriptive sequences among men; while for women, the dominant sequence is invariably end of parenting in all the cohorts and something other than retiring such as widowhood or activity limitation assumes the secondary place. In particular, it also becomes clear in the case of women that living alone and widowhood are confounded (see cluster 3). Separation and divorce becomes a distinct cluster (#4) only for the youngest cohort. Thus, by way of summarizing, we can say that, in general, the most descriptive sequences centre around end of parenting, retirement and activity limitation. As mentioned earlier, we shall therefore pay more attention to these three events, collapsing widowhood and living alone, and examine the socioeconomic differentials by social status, gender, and region of residence.

5d. Socioeconomic Influences on Late-life Transitions

5.The uncertainty coefficients, denoted by H_i for the i-th transition, are computed from the entropy measures $H(i)$ defined in the usual way for probabilities. That is, $H(i) = -\Sigma\ p \log p$ and $H_i = H(i) - H(i\text{-}1)$ with $H(0) = \log S$, where S is the number of states (here, 6), $H_1 = H(1)$, and with the logarithms to base 2. It is sufficient to note here that the uncertainty coefficients encapsulate the notion of conditionality and tell us how much *new* information is added by successive events. The sequence H_i will normally be a monotonically decreasing sequence, measuring the conditional uncertainty for each order of dependence. A smaller H_i indicates less uncertainty given the lower order event (i-1). In other words, a higher order event provides no more significant information than a lower order event, in which case we can be satisfied with the information given by the lower order event. On the contrary, if uncertainty increases for a given order of events, there is greater uncertainty, which is a sign of diversity and complexity of the phenomenon under study.

6. Readers familiar with this technique can use the association matrix of transitions or correlation matrix of timings of transitions provided by LIFEHIST in any statistical package such as SPSS to do a cluster analysis. In this paper, however, we produce the results obtained through another package called SEQUENCE by Wil Dijkstra (1999). This package produces a simplified form of cluster analysis that offers sufficient insight into the cluster structure of sequences.

Tables 5A through 5C present the results of the proportional hazards analysis of three selected late-life events, namely retirement, living alone and activity limitation. "Living alone" in Table 5B includes both the event of living alone and widowhood for reasons mentioned earlier. All the three events are examined for three sets of socioeconomic characteristics: social status (individual education serving as proxy), economic context (with region of residence as proxy), and cultural background (with mother tongue and immigrant status as proxies). The main idea behind the selection of these socioeconomic characteristics is consistency with our earlier studies; we have examined the influence of these socioeconomic characteristics on early and mid-life events, so we retain them here for comparative purposes. We have however excluded one variable used in previous analyses, namely mother's education, because older men and women are obviously not able to recall their mother's education.[7] In examining retirement and living alone, we do not present the results for the youngest cohort (1936-45) for the obvious reason of very high proportion of censored cases. And finally, in doing this type of analysis, neither do we intend to examine any causal linkages nor do we examine the impact of previous experiences in the family life course; these will be the topic of our study in the near future.

As for retirement (see Table 5A) , all the three sets of socioeconomic characteristics play an important role in all the three birth cohorts. Individual education is a strong predictor of timing of retirement, although its effects in the presence of other variables are not uniform over cohorts. While in the oldest cohort of men, where 83% are retired by the time of survey, higher education has significantly stronger influence toward early retirement. High-school educated men have higher risks than the college-educated, who in turn have higher risks than the university-educated; all these three, however, with much higher risks than the elementary-school educated. In the 1916-25 cohort of men, where 80% are retired, for some reason or other, this neat pattern is not only absent but also the effects are reversed; that is, higher education leads to significantly lower risks of retirement. It may be that the differentials by individual education are actually disappearing for later cohorts as seen in the 1926-35 and 1936-45 cohorts (the latter not presented here) or it may be that these differentials will exert their influence only when a large proportion of cohort members will have retired. In the case of women's retirement, higher education is still associated with higher risks, but one has to keep in mind the high percentage of censored cases among women.

In contrast to social status variable, the variable region of residence gives a much clearer picture of trend over cohorts. In reference to the Atlantic region, all other regions in general have stronger influence on the relative risks of retirement, Quebec the strongest in the oldest cohort, Ontario and BC the strongest in later cohorts. A similar pattern holds for women as well, except for some minor variations. These three provinces, known for their economic prosperity, exert

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7. The LIFEHIST package uses as much information as possible in estimating the coefficients of the hazards model and does not use case-wise deletion of missing values. Even then it was found that the large proportion of missing values in mother's education inordinately affects the convergence of estimates and therefore it was decided to drop the variable altogether.

a strong influence on the timing of retirement, perhaps because of the opportunities and the security these strong economies provide to seniors.

While talking about the impact of regional economic impact on retirement, a note of caution is in order. As mentioned earlier, we cannot make causal inferences here. It is well known that retirees move, and they move to where life will be pleasant. The variable region of residence has been measured as of the time of survey, and our analysis may simply capture the "pull" of these three regions on the retirees. This is in partial consistency with what the GSS 1994 data reveal (Monette, 1996:11); the proportions of retirees living in BC (13%) and Ontario (12%) are higher than in the rest of Canada (11%) as a whole. The hazards analysis presented here gives additional information on how things have changed over cohorts.

As for the effect of cultural characteristics on retirement, one can see clearly that immigrants have much lower, although not significant, risks of retirement than those born in Canada. Apart from the effect of region of residence, the French-speaking in particular had lower risks of retirement in the two older cohorts as compared to the English-speaking, but this difference seems to be reversing in later cohorts.

Table 5B presents the results for the late-life event of living alone by the selected socioeconomic characteristics. As mentioned earlier, while only ten to thirty percent of men from the youngest to the oldest cohorts respectively have experienced living alone, 24 to 61 percent of women report having lived alone. Unlike retirement, social status variable has no significant impact on living alone (except for university educated women who seem to have lower risks of experiencing the event). However, as in the case of retirement, region of residence comes out as a strong predictor, and men and women living in Quebec, Ontario and BC have much higher risks of living alone than those in the rest of Canada. The cultural background also comes out with its very strong role in this specific late-life event, particularly in the case of women: Immigrants have much lower risks of living alone in their old age than the Canadian-born. This is to be differentiated from the influence of language groups; excepting some minor variations, the French and other language groups have higher risks of living alone than the English.

And, lastly, as a health dimension, we examine in Table 5C the risks of experiencing activity limitation. In this table, we also provide the results of hazards analysis for the youngest cohort 1936-45, since censoring in this cohort is not very different from other cohorts. Ten to 25% of men and women report having experienced some activity limitation, and as mentioned earlier, such reporting seems to be taking place at younger and younger ages, thanks to the greater awareness of health among Canadians and better healthcare facilities available to them.

Social status seems to have some influence on this event, though it is not clear whether we would be able to find any trend over cohorts. In the two older cohorts of men, the college and university-educated show significantly higher risks

of experiencing activity limitation, while in the two older cohorts of women, the higher education groups show significantly lower risks. The economic context plays a major role here too, with the three well-off provinces having significantly much higher risks of reporting activity limitation than the rest of Canada. And, the immigrants have generally much lower risks of reporting activity limitation than the Canadian-born.

6. Conclusion

Recent preoccupation with the mid- and late-life transitions among researchers has evolved from historical, demographic and economic changes that have resulted in new stages in the life cycle. The new stages in late-life include empty nest and/or crowded nest periods, a longer life of retirement and solitary living, and perhaps a longer period of activity limitation as well. As a result, personality and behavioural patterns among the old are changing in response to these new conditions. Studying what was once considered as "normal" pattern of behaviour among the old is no longer adequate, and as the analyses presented in this paper reveal, life course studies in the near future will have to deal with as much diversity and complexity in late-life transitions as we have discovered in early or mid-life transitions.

Among the late-life events examined in this study, retirement has been the central focus as in many other papers, and the results confirm the changes that are taking place among men and women who are nearing the mandatory retirement age. In Canada as well as in other industrialized countries, social security provisions themselves seem to have contributed to the decline in the labour force participation of older persons and if this trend is to be reversed, efforts in changing these provisions will play a key role in the future. Recent trends show that many early retirees themselves opt for a change either by working part-time or being self-employed after retirement. With the GSS 1995 data we were not able to explore this change in late-life course trajectory but there is reason to think that this trend will continue with the younger cohorts of men and women. If "bridge jobs" were to become a common phenomenon, then it would be interesting to study the socioeconomic profile of those who seek employment after retirement.

As part of trajectories before and after retirement, we included in this paper an examination of the transitions related to health and marital status changes. Unfortunately, both data paucity and selectivity do not allow us to make inferences on the trends that are vaguely visible over cohorts such as increased proportions of persons reporting activity limitation or the disconnectedness between widowhood and living alone. There are very few studies on late-life separations/divorces at present and the new trend that we observe in the GSS data calls for further investigation particularly with respect to caregiving arrangements. Perhaps the future family surveys of the GSS will shed more light on these trends.

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Table 1: Ages at 10th , 25th and 50th Percentiles of Late-life Transitions, by sex and birth cohorts, GSS 1995

	Birth Cohorts											
	-1915			1916-25			1926-35			1936-45		
	10th	25th	50th	10th	25th	50th	10th	25th	50th	10th	25th	50th
Men												
End of Parenting	49.4	53.6	59.4	47.1	51.5	57.2	47.9	52.0	58.2	45.7	50.4	57.0
Separation/Divorce	-	-	-	-	-	-	-	-	-	57.8	-	-
Widowhood	76.9	-	-	73.9	-	-	-	-	-	-	-	-
Retirement	56.7	64.1	65.7	57.3	60.4	63.8	55.8	59.5	63.8	57.0	-	-
Living Alone	72.3	-	-	72.1	-	-	65.9	-	-	58.9	-	-
Activity Limitation	74.6	-	-	61.7	76.4	-	55.8	66.6	-	50.3	-	-
Women												
End of Parenting	45.2	50.1	56.6	45.6	51.1	57.0	45.5	49.6	54.9	44.6	48.6	54.0
Separation/Divorce	-	-	-	-	-	-	61.6	-	-	46.0	-	-
Widowhood	50.5	63.4	75.5	53.1	65.1	74.7	57.4	68.6	-	57.9	-	-
Retirement	42.7	64.3	70.6	45.3	62.1	-	56.8	64.6	-	-	-	-
Living Alone	58.5	69.6	78.0	54.9	68.2	77.6	55.7	68.4	-	52.8	-	-
Activity Limitation	-	-	-	67.0	74.8	-	57.7	66.9	-	49.7	-	-

Table 2: Probabilities of first late-life transition after age 45, and corresponding mean ages - Males and Females, classified by birth cohorts - GSS Canada 1995

	M E N				W O M E N			
Events\Birth Cohorts	-1915	1916-25	1926-35	1936-45	-1915	1916-25	1926-35	1936-45
Live Alone	.01 (65.0)	.02 (56.8)	.03 (52.7)	.03 (50.8)	.22 (63.5)	.09 (56.7)	.07 (54.3)	.03 (49.1)
Retirement	.43 (62.8)	.33 (61.5)	.30 (59.2)	.07 (54.7)	.12 (60.4)	.10 (59.6)	.09 (57.5)	.03 (54.1)
Act. Limitation	.02 (65.6)	.03 (57.4)	.08 (55.3)	.07 (50.7)	.01 (67.9)	.05 (62.6)	.11 (59.6)	.09 (49.6)
End Parenting	.40 (55.9)	.52 (54.8)	.50 (55.8)	.36 (51.5)	.40 (55.3)	.49 (54.8)	.53 (53.7)	.51 (52.1)
Sep/Div.	.02 (69.0)	.01 (54.7)	.01 (54.3)	.03 (48.4)	.01 (67.4)	.02 (48.7)	.03 (53.5)	.05 (49.4)
Widowhood	.07 (63.7)	.02 (62.2)	.01 (52.4)	.01 (49.8)	.12 (59.8)	.17 (58.6)	.07 (54.8)	06 (53.8)
Weighted N	89	353	537	694	200	434	577	694
Uncertainty H_1	**1.56**	**1.46**	**1.68**	**1.70**	**1.93**	**1.91**	**1.86**	**1.71**

Table 3: Probabilities of second late-life transition, and corresponding mean durations since first transition - Males and Females, classified by birth cohorts - GSS Canada 1995

	M E N				W O M E N			
Event\Birth Cohorts	-1915	1916-25	1926-35	1936-45	-1915	1916-25	1926-35	1936-45
Retirement ⇒ Act. Limitation	.34 (14.1)	.21 (6.6)	.51 (13.9)	-	-	-	-	-
Retirement ⇒ End Parenting	.22 (4.9)	.35 (7.5)	.39 (3.6)	.49 (1.5)	.19 (13.1)	.27 (2.8)	.30 (5.2)	-
Retirement ⇒ Widowhood	.18 (15.3)	.06 (7.6)	.05 (3.7)	-	.16 (9.6)	.14 (7.6)	.18 (7.6)	-
End Parenting ⇒ Live Alone	.02 (15.0)	.01 (14.5)	.08 (10.0)	.19 (8.4)	.49 (14.1)	.29 (12.7)	.14 (10.3)	.10 (6.5)
End Parenting ⇒ Retirement	.93 (11.6)	.81 (9.1)	.80 (10.4)	.43 (9.2)	.18 (10.1)	.21 (9.2)	.17 (7.0)	.10 (5.5)
End Parenting ⇒ Act. Limitation	-	.08 (7.0)	.05 (5.9)	.06 (2.4)	.06 (6.6)	.19 (12.1)	.41 (14.4)	.08 (3.8)
End Parenting ⇒ Sep./Div.	-	-	-	.05 (4.3)	-	-	.02 (6.5)	.07 (6.8)
End Parenting ⇒ Widowhood	-	.02 (5.3)	-	-	.15 (14.6)	.09 (11.9)	.03 (10.7)	-
Widowhood ⇒Live Alone					.17 (5.3)	.14 (6.4)	.33 (4.0)	-
Widowhood ⇒Retirement					.23 (9.3)	.19 (6.0)	-	-
Widowhood ⇒Act. Limitation					.23 (15.6)	.25 (10.1)	-	-
Widowhood ⇒End Parenting					.32 (9.3)	.26 (9.6)	.28 (8.9)	-
Uncertainty H(2)	**2.42**	**2.38**	**3.07**	**3.83**	**3.37**	**3.88**	**4.13**	**3.79**

Table 4: Most descriptive sequences identified by cluster analysis - Males and Females, classified by birth cohorts - GSS Canada 1995

	Men				Women			
Cluster	-1915	1916-25	1926-35	1936-45	-1915	1916-25	1926-35	1936-45
1.	R ⇒ EP	EP ⇒ R	EP	EP	EP	EP	EP	EP
2.	EP ⇒R	R	R	AL	R	W	AL	AL
3.	R ⇒ AL	R ⇒AL ⇒EP	AL ⇒EP ⇒R	R	A ⇒W ⇒EP	R	R	SD
4.	R ⇒W	EP ⇒AL ⇒R	AL	SD ⇒EP	EP ⇒A ⇒W	A	A ⇒EP ⇒W	R
5.	W	AL ⇒R	EP ⇒R ⇒AL	A	W	-	-	-

Abbreviations:
R = Retirement EP = End of parenting A = Living alone AL = Activity Limitation SD = Separation or divorce W = Widowhood

Table 5A: Relative risks of experiencing retirement by socioeconomic characteristics, a proportional hazards model - Males and Females, classified by birth cohorts, Canada GSS 1995

* - Significant at 5% ** - Significant at 1% or less

		Men			Women		
Covariates \Birth Cohorts		-1915	1916-25	1926-35	-1915	1916-25	1926-35
N		92	351	535	202	434	575
% censored		17.1	20.4	50.8	73.9	73.2	80
Model LR χ^2 (11df)		49.5**	111.9**	141.8 *	50.5**	91.8**	60.1**
Social Status							
Education							
Elementary		1.0	1.0	1.0	1.0	1.0	1.0
High school		4.5 **	0.6 **	2.3 **	2.7 **	1.6 *	0.5 *
College		4.5 **	0.8	1.1	6.4 **	1.3	1.8 **
University		1.8 *	0.6 **	1.0	2.4 *	2.0 **	1.4 *
Economic Context							
Province of Residence							
Atlantic		1.0	1.0	1.0	1.0	1.0	1.0
Quebec		9.6 **	4.3 **	1.8 **	2.1	2.7 *	1.3
Ontario		1.5	4.8 **	4.1 **	8.5 **	7.9 **	5.1 **
Prairies		1.0	1.2	1.0	1.2	1.5	1.8
B.C.		1.7	4.2 **	4.9 **	5.4 **	5.5 **	5.2 **
Cultural Background							
Mother Tongue							
English		1.0	1.0	1.0	1.0	1.0	1.0
French		0.3 *	0.4 **	1.7 **	1.1	0.5 *	1.0
Other		1.3	0.8	1.0	1.0	1.4	1.0
Immigrant Status							
Born in Canada		1.0	1.0	1.0	1.0	1.0	1.0
Immigrant		0.2 **	0.7 **	0.8	0.6	0.8	0.8
Life Course Variable							
Experienced Activity Limitation							
Before retirement	- No	1.0	1.0	1.0	1.0	1.0	1.0
	Yes	1.8	2.0 **	4.7 **	8.5 *	2.0	-

Table 5B: Relative risks of living alone (incl. Widowhood) by socioeconomic characteristics, a proportional hazards model - Males and Females, classified by birth cohorts, Canada GSS 1995

* - Significant at 5% ** - Significant at 1% or less

	Men			Women		
Covariates\Birth Cohorts	-1915	1916-25	1926-35	-1915	1916-25	1926-35
N	92	351	535	202	434	575
% censored	71.9	85.9	90.7	38.8	48.9	76.3
Model LR χ^2 (10df)	9.8	27.5 **	26.8 **	58.4 **	89.2 **	41.1 **
Social Status						
Education						
Elementary	1.0	1.0	1.0	1.0	1.0	1.0
High school	0.6	0.6	0.7	1.2	0.9	1.4
College	1.4	0.4	1.0	1.4	0.7	0.9
University	1.7	1.2	0.9	0.6 *	1.2	0.6 *
Economic Context						
Province of Residence						
Atlantic	1.0	1.0	1.0	1.00	1.0	1.0
Quebec	6.9 **	3.4	5.0 **	1.46	2.0 **	1.0
Ontario	2.5	5.7 **	7.4 **	5.4 **	4.4 **	3.8 **
Prairies	1.2	2.5	1.3	1.4	0.7	1.2
B.C.	2.4	9.2 **	2.1	3.7 **	1.5	2.1 *
Cultural Background						
Mother Tongue						
English	1.0	1.0	1.0	1.0	1.0	1.0
French	0.3 *	1.8	0.4 *	1.2	0.8	2.2 **
Other	0.6	1.6	1.0	0.8	2.4 **	2.0 **
Immigrant Status						
Born in Canada	1.0	1.0	1.0	1.0	1.0	1.0
Immigrant	1.3	0.6	1.0	0.4 **	0.7 **	0.6 **

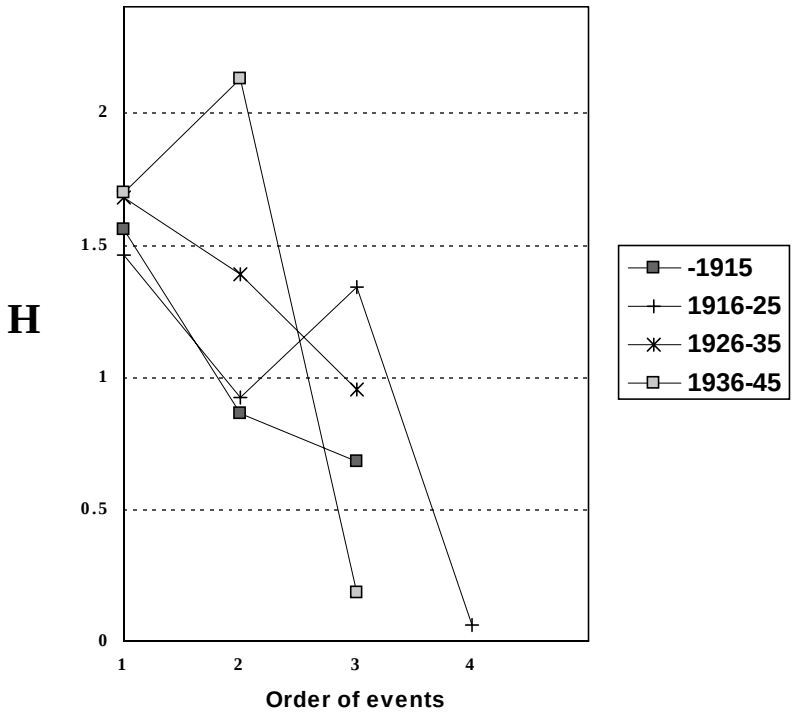
Table 5C: Relative risks of experiencing activity limitation by socioeconomic characteristics, a proportional hazards model - Males and Females, classified by birth cohorts, Canada GSS 1995

* - Significant at 5% ** - Significant at 1% or less

	Men				Women			
Covariates\Cohorts	-1915	1916-25	1926-35	1936-45	-1915	1916-25	1926-35	1936-45
N	92	351	535	693	202	434	575	694
% censored	74.9	78.9	81.7	92.3	78.9	77.7	79.9	89.8
Model LR χ^2 (10df)	16.1	23.5 **	38.1 **	8.9	28.2 **	40.6 **	48.5 **	32.8 **
Social Status								
Education								
Elementary	1.00	1.0	1.0	1.0	1.0	1.0	1.0	1.0
High school	1.11	0.6	0.4 *	0.7	0.2 **	0.8	0.5 *	0.3 **
College	3.43*	2.4 **	0.0 *	0.4 *	1.1	0.6	0.7	0.8
University	3.51**	1.2	1.0	0.5 **	0.4 *	1.3	0.6 **	0.9
Economic Context								
Province of Residence								
Atlantic	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Quebec	8.5 **	1.7	2.0	0.7	2.2	2.2 *	0.8	1.1*
Ontario	1.6	3.6 **	4.0 **	1.0	6.1 **	4.8 **	4.1 **	4.2 **
Prairies	1.1	1.5	1.3	1.1	1.3	1.0	1.1	1.2
B.C.	3.4	1.3	2.9 **	1.1	2.4	1.2	1.9 *	4.2 **
Cultural Background								
Mother Tongue								
English	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
French	0.2 *	1.2	1.3	1.5	1.8	1.0	1.8 *	1.3
Other	1.1	1.0	1.2	0.8	2.6 *	1.4	0.7	1.0
Immigrant Status								
Born in Canada	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Immigrant	0.4	0.8	0.9	1.0	1.0	0.5 **	0.6 *	0.7

Measures of Uncertainty in late-life transitions

Men



Women