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A place and time for a gerontology journal

The first number of the *Southern African Journal of Gerontology (SAJG)*, which appeared in October 1992, did not include an editorial. In our excitement to launch the journal we omitted to introduce *SAJG* to readers. This omission is put right in the second number. Future issues of the journal will include an editorial – sometimes written by a guest editor.

The timing of the launch of the journal is important. The decision to produce a journal of our own in the southern African region was made on several grounds.

First, it was felt that a journal could provide a forum for the exchange of knowledge on ageing in the region. Trends in ageing and problems of the aged have commonalities in all southern African countries. By pooling and sharing knowledge through such a forum, common solutions to problems can be found.

Second, researchers and gerontologists in South Africa have until recently been isolated as a result of academic sanctions imposed on them because of the country's apartheid policy. Over a decade or longer authors have experienced difficulty in having research published in international journals. A lack of two-way exposure during this period stunted the development of gerontology in the country. We thus felt that a journal of our own would provide a much-needed medium for publishing local research. At the same time it would serve to expand gerontology in the region generally.

Third, we felt that there was sufficient interest in gerontological research in southern Africa to warrant a fully-fledged journal. The efforts of the Co-operative Research Programme on Ageing to a large extent promoted this interest in South Africa – and are continuing to do so.

Fourth, we noted that articles on gerontological topics were being published in a wide variety of social science, medical, health care, social work and other journals. The time had come, we felt also, to gather scientific articles on ageing-related matters – the corpus of southern African gerontologists – under a single cover.

Finally, the field of ageing and the concerns of the elderly are of interest not only to academics and practitioners but are also relevant to policy makers. The political transformation period in South Africa is a critical time to review ageing issues and matters affecting the elderly. Hence we felt that a scientific gerontology journal could provide a valuable medium for publicizing the issues, as well as reporting new thinking on how the matters should be dealt with.

The shape of SAJG

It is difficult to anticipate at the outset what shape *SAJG* will eventually take. This shape will be determined by the response from readers and contributors as time goes by. We welcome feedback from readers, as we are keen to learn how

we can improve the format of the journal and make it more appealing and useful to them.

Although the journal's focus is on gerontology in southern Africa, it is hoped that authors in other parts of Africa and overseas will contribute to the journal. Important practical and policy lessons can be learnt from colleagues working in other parts of the world. In the past policy formulation in South Africa has suffered because of a lack of an international perspective. Alternative options and solutions pioneered in other countries may find new applications in South Africa during the transformation period. It is important that new knowledge, both indigenous and from abroad, be brought to gerontologists and researchers in the region. To this end the journal has an important role to play.

This issue

The second number of *SAJG* again presents knowledge on ageing and the aged which can be useful in the development of better practices and the formulation of better policies in southern African countries. A focus of the articles in this number is on housing and living arrangements.

Nyanguru and **Peil** writing on Zimbabwe give a finely detailed description of the housing situation of the elderly population using survey material. They draw on comparisons with other developing contexts to place the Zimbabwean housing situation in perspective. At the outset, the authors note that the impact of disability on the elderly is directly related to the nature and quality of housing. In conclusion to their overview of urban and rural housing circumstances, they recommend a more appropriate housing policy for the elderly which makes provision for home maintenance and home-help services to assist the elderly to stay in their homes.

Møller re-analyses data collected for South Africa's baseline study of the elderly to explore the possible benefits for South Africa's elderly when they live with adult children. Her comparative case studies are based on the assumption that black elders might prefer to live with sons as traditional custom dictates and whites would usually choose to live independently according to Western custom.

Chen systematically explores the question of which children co-reside with elderly parents in Taiwan using a large national database and sophisticated multivariate analyses. He also raises the question whether filial piety is on the decline when children no longer co-reside with their parents.

The articles by Chen and Møller are revised versions of twin papers presented at a Sino-South African symposium held in Cape Town during October 1992. Chen's data constraints forced him to review Taiwanese living arrangements for the elderly from the adult-child perspective, while Møller's data constraints dictated the elderly parent perspective. Both authors point to the need to include both parent and child perspectives in future research (cf. Speare & Avery, 1993).

Readers will be struck by the many similarities but also the differences in the housing situations and living arrangements described in the three articles referred to above. The southern African and Taiwanese study contexts have in common a background of turbulent historical developments, rapid urbanization, and belief in the notion of filial piety. In describing the different research contexts the authors remark on the strong influence of the recent historical past in shaping housing choice and changing patterns of living arrangements. In Zimbabwe and South Africa, rapid urbanization, held in check for many years by restrictive influx control policy, has changed the pattern of housing and living arrangements. Chen notes that geographic mobility of children has dramatically altered living arrangements for the elderly in Taiwan. The southern African researchers comment on the generally high level of satisfaction with housing despite objective shortcomings.

Both in southern Africa and Taiwan it is feared that filial piety may become a victim of rapid social change. Chen worries that the lax visiting behaviour of younger Taiwanese might be a sign of waning filial piety. Møller finds subtle signs in her data that rapid urbanization has damaged the caring image of the co-resident black household.

The onus may be on the researcher to look for new concepts and approaches to better assess the consequences of rapid change for intergenerational relations. Chen's review of the situation in Taiwan provides many instructive pointers for African researchers. His research demonstrates that filial piety can undergo transformation in time and may be more resilient than hitherto recognized. Many African readers of *SAJG* may be unfamiliar with a caring principle which was formerly a common living arrangement in Taiwan. "Meal rotation" allows siblings to share in the care of their ageing parents. This flexible caring situation probably occurs in Africa but has not been formally registered by local researchers.

Regarding redefinitions of conventional concepts, Chen sees in new visiting practices the continuation of the traditional norm of filal piety. His research found that parents who lived alone were visited more frequently by their children. Thus visiting practices are employed as a revised indicator of filial piety.

The last article in this issue picks up a subject relating to quality of life – a topic introduced in an article in the first issue of *SAJG*. Authors **Gillespie** and **Louw** wish to re-open the debate on activity and quality of life. They pose the provocative question: Does a decline in activity in the elderly really dampen morale?

Preliminary results from the pilot study undertaken by the authors reported in the article yielded inconclusive results. However the pilot study involved only a small sample and is presented to make the point and whet our appetite for further research and debate.

In support of Gillespie and Louw's call to re-open the debate on the activity question we contribute further South African evidence which allows for various interpretations.

- In a study of 253 social pensioners in KwaZulu conducted in 1983-84, an activity index correlated positively with various measures of life satisfaction (Møller, 1988). The original intention was to offer these results as counterevidence. On a second inspection of the data it had to be admitted that the measure of activity used in the study tapped social participation activities as well as purely physical ones.
- Unpublished results from a more recent study of 300 threegeneration households in Soweto and Durban's Umlazi and KwaMashu are similarly inconclusive. Although 74 % of the grandparents in the households agreed that "It is dignified for grandparents to sit and rest most of the time", 95 % also endorsed the statement that "Active older people are happier that those who just sit around". The grandparents' viewpoints were echoed by their teenage grandchildren and adult children.

Other SAJG readers and researchers may want to take up the challenge offered by Gillespie and Louw to join the debate on the activity issue in a rejoinder or a letter to the editor.

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Housing and the elderly in Zimbabwe

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Abstract

This paper is based on a study of people aged 60 years and older living in Harare and Mutare in Zimbabwe, and villages located within 50 km of these cities. The main areas studied were home ownership, household composition, number of rooms in a house, occupancy ratio, services, building materials, and the condition of the houses. The study showed that the majority of the respondents who lived in rural areas owned their houses. However most respondents who lived in urban areas were either tenants or people of no fixed abode. The majority of the respondents were heads of households; the majority of the household heads were widows. Occupancy ratio, as expected, was higher in urban than in rural areas. More houses in urban areas than in rural areas were built from "modern" materials, because of standards imposed by urban authorities. Houses in urban areas were better serviced -for example, they had electricity and piped water - and were of a better quality than those in rural areas. In general the respondents were satisfied with their living arrangements. However a surprising finding was that some respondents in the urban areas where houses were considered to be of poor quality and overcrowding was common, were very satisfied with their living arrangements. The policy implications of the findings are discussed briefly.

Introduction

Since independence in 1980, the Zimbabwean government under Robert Mugabe has made a concerted public effort to change the organization of the society it inherited in the direction of socialism. However it has tried to maintain a pragmatic approach to avoid alienating the white population which plays a major role in the economy. Land reallocation has been slow, because the government agreed to allow the sale of any private land that it took over at commercial rates. As a result of the slow reallocation of land in urban areas, as well as Zimbabwe having one of the highest birth rates in the world – presently 3,1 %, the African (black) rural population is more numerous than previously. However there has been large-scale migration to the cities. In 1965, 14 % of the population lived in urban areas, whereas by 1988, 27 % did (Adams, 1991).

Due to rural-urban migration, the failure of the Smith regime to enforce influx control measures during the latter years of the liberation war, as well as a natural increase in the size of the population, there has been a rapid growth in the size of the urban population. This growth has resulted in a critical shortage of housing and strain on the existing services, e.g. sanitation and transport, in urban centres. According to Patel (1988), a result of the shortage of housing has been the mushrooming of large squatter settlements in and around towns in Zimbabwe, e.g. Chirambahuyo in Chitungwiza.

Since liberation the Zimbabwean government has succeeded in expanding the education and health systems, and providing services more widely than in the past. However it has put less emphasis on the provision of accommodation or housing than it has on education and health. This is evident in the lack of accommodation and the waiting lists for housing in most urban centres. Harare, for example, has approximately 83 000 people on a waiting list for housing.

There has also been limited provision of housing in rural areas. The government had proposed the erection of consolidated villages in rural areas, where houses would be built in a specific area, to facilitate the provision of services such as water and schools, but this programme was never carried out. Nor did the people, who were to be settled in these villages, have houses built for them as they had been promised by the government.

No policy exists concerning the provision of housing for the elderly. The government's emphasis has been on the building of low-cost houses for employed people. Most elderly people are not formally employed and so do not qualify for housing under most housing provision schemes.

Studies by Hampson (1982) and Muchena (1978) have found a number of elderly persons who are homeless, who live in the open, or who are tenants. Housing plays an important role in the care of the elderly. For instance, the impact of disability on elderly people is directly related to the nature and quality of their housing. Further, retired persons spend more time in their houses than working people. House-bound people tend to spend almost all their time indoors. Houses that are cold, that leak, and that are expensive to run, make it difficult for elderly people to remain living in the community. The importance of adequate housing for the elderly in these regards has been acknowledged by several authorities (Griffiths, 1988; Wagner, 1988).

In Zimbabwe elderly people tend not to enter institutions. Nyanguru (1987, 1990) found this to be the case for the majority of African elderly in Zimbabwe. The success of the provision of housing for elderly people has been judged in part by the extent to which the houses meet the preferences of the old people themselves. Obviously preferences vary and not all elderly people prefer the same type of accommodation. Some elderly people may want to live in a flat rather than a bungalow; some may differ in the number of rooms that they require; some may want a garden; and some may not want to live in a busy street. Despite these differences, Sinclair and Williams (1990) argue that most elderly people want convenient housing which is within their financial means. Studies in the United Kingdom have shown that most elderly people, particularly those who want to move, consider that a bungalow or a flat would suit their needs best (Gray, 1976; Age Concern, 1980); the bungalow or flat should preferably be "central", close to relatives, near shops and amenities, neither so small that no one can come to stay nor so large that it is difficult to manage, safe from vandals, away from noisy children, and easy to keep warm.

The study

The study reported on in this article attempted to identify the type of accommodation available to elderly Africans living in urban and rural areas in Zimbabwe. The study examined matters such as home ownership, household composition, and the relationship of the elderly respondents to the head of the household. It also investigated the size of the houses, occupancy ratios, and the type of services that are available to the elderly residents. The study further examined the condition of the houses and from which materials they were constructed. Lastly, the respondents' satisfaction with their houses and living arrangements was examined. In conclusion this article makes recommendations, based on the findings of the study, for changes in policy to meet the housing needs of the elderly in Zimbabwe.

Methodology

The data used in this article were collected during surveys among African elderly in Zimbabwe during 1989. A total of 540 women and 272 men, aged 60 years and older, living in Harare (the capital city) and Mutare (the country's fifth largest city), and villages within 50 km of these cities, were interviewed. Four hundred respondents lived in urban areas and 412 lived in rural areas.

In Harare, the interviews were carried out in four suburbs (townships). These particular suburbs are known as "highdensity" suburbs, because of the large numbers of people living in them. "Low-density" suburbs are those which before independence were exclusive to whites. The suburbs selected for the study were the following: Mbare, which is the oldest African suburb, is extremely overcrowded, has old houses and has a large rural bus terminus through which over a million people pass each day; Highfield, which is the second oldest suburb, and the first to have a home-ownership scheme as well as a municipal housing scheme; Kambuzuma, which had the first African home-ownership township scheme; and Rugare, which is a suburb exclusively for employees of the National Railways of Zimbabwe.

In Mutare, interviews were conducted in the township of Sakubva. Like Mbare, it is one of the oldest suburbs and has a large rural bus terminus, and houses which are old and overcrowded. Interviews were also conducted in Dangamvura Township, which is similar to Highfield, and Marymount, which is similar to Kambuzuma.

Further, the study was conducted in six rural areas around Harare and Mutare. Around Harare, interviews were conducted in Goromonzi and Domboshawa communal lands. Around Mutare, interviews were conducted in Mutasa, Zimunya/Dora, Penhalonga (a small town near Mutare) and Chipenje. The interviewers were unemployed school leavers from the cities of Harare and Mutare, and were specially trained for the task. They were assigned sections (both in rural and urban areas) and instructed to interview persons over 60 years whom they encountered, but no more than two in a house, with a quota of two women to each man. A pre-test of the data-collection instrument was carried out in a suburb in Harare and a communal area some 45 km outside Harare.

Profile of the respondents

Gender

About a third of the respondents were men and about twothirds were women. This was the case in both rural and urban areas. However there were significantly more women in the rural areas than in the urban areas; in the urban areas, there were slightly more men than in the rural areas. This is probably due to men migrating to the cities, as migrant workers.

Table 1

Profile of the respondents, by urban and rural location

Characteristic	Loca	tion	Total	
	Urban %	Rural %	%	
Total	100,0	100,0	100,0	
Gender				
Male	35,3	31,8	33,5	
Female	64,7	68,2	66,5	
Age group (vears)				
60-64	36.2	21.4	28.8	
65-74	45,3	50.0	47.7	
75-84	14,0	20,0	17,0	
85+	4,5	8,5	6,5	
Education				
None/Pre-primary/				
Primary	37,5	44,7	41,1	
Full primary	40,5	41,3	40,9	
Secondary 1-4	17,3	12,1	14,7	
Higher	4,7	1,9	3,3	
Marital status				
Widowed/Divorced	44,6	44,9	44,8	
Married (monogamous)	41,7	53,6	47,6	
Married (polygamous)	13,7	1,5	7,6	
N	400	412	812	

Age

Twenty-eight comma eight per cent of the respondents were younger than 65 years. The majority were in the 65-74-year age group, with the smallest percentage in the 85+ age group. This age group, referred to as the "very old", is found in most developed countries. The number of people aged 80 and over in Zimbabwe is increasing. Population ageing places strain on scarce resources, especially in developing countries where youth programmes tend to be emphasized (Nyanguru, 1991a).

Education

The majority of the respondents had completed seven years of formal education. Rural elderly and women are generally more disadvantaged in terms of education than other groups. The results of this study in this regard are consistent with findings of other studies (Nyanguru, 1991a; Adamchak, Nyanguru, Hampson & Wilson, 1990; Wilson, Nyanguru, Hampson & Adamchak, 1990).

Marital status

Forty-four comma eight per cent of the respondents were widowed or divorced. The majority of the marriages were monogamous (47,6 %). A few marriages (7,6 %) were polygamous. The sample included more widows than widowers. Most widows in Zimbabwe have few resources and are less educated than men generally. Few policies are enacted in Zimbabwe to protect women, especially elderly women.

Economic status

Two-fifths of the men and a third of the women in Harare, and a fifth of the men and women in Mutare reported cash incomes greater than the minimum wage of \$50 a month, compared to just under a fifth of rural men and only a tenth of rural women. A third of the men and half the women in the samples reported that they had incomes of less than \$50 a month. Low incomes are threatening to elderly people in general; this was found to be so especially in the case of the respondents in the Mutare area who had lost children and siblings during the war.

Twenty-three comma seven per cent of the respondents were not economically active; $3\tilde{7}$ % were engaged in agriculture – the majority of these being the respondents living in the rural areas. The majority of the respondents who were formally employed did manual work. A few respondents (18 %) worked at a trade; the majority of these respondents lived in towns. Most of the respondents working at a trade were women who sold vegetables and other wares at market places. Very few respondents worked at non-manual jobs (3 %). (The economic status data are not tabulated.)

Home ownership

Slightly less than three-fifths of the respondents owned their houses, a fifth lived with kin and another fifth were tenants. Further analysis of the data showed that only a third of the elderly who lived in urban areas owned their homes; 42,4 % of the urban respondents were tenants, compared to a mere 1 % of the rural elderly. The high tenancy rate in urban areas is probably due to the shortage of housing in these areas. More women than men lived with kin. Traditionally in Zimbabwe, elderly African women live with married or unmarried daughters. An elderly African man is unlikely to live with a daughter and a son-in-law.

Table 2

Home ownership, by urban and rural location

Variable	Loca	Tota	
	Urban %	Rural %	%
Owner	33,2	84,6	58,9
Kin	24,4	14,4	19,4
Tenant	42,2	1,0	21,7
Total	100,0	100,0	100,0
N	412	400	812

In Harare, Highfield had the largest number of respondents who owned houses and Rugare had the smallest number. All houses in Rugare are owned by the National Railways of Zimbabwe. In Mutare, Sakubva had the greatest number of residents who owned houses (21 %), while Dangmavura has the smallest number (7 %). This is probably due to Dangmavura being a fairly newly-built suburb and most of the house owners being young people. There were very few differences

in the rate of home ownership between the rural areas in the study. However a few respondents in Goromonzi (0,8%) and Penhalonga (5.6%) were tenants. (These respondents may have been squatters or refugees from Mozambique.)

The data on housing are consistent with those found in other studies. In a study in Zimbabwe, Hampson (1982) found that 43 % of the sample were paying rent for their mainly two- or three-roomed dwellings, while 40 % were looked after by sons or married daughters. Four respondents were dependent on friends, six on siblings, and six on grandchildren. Only two were directly dependent on the spouses of their children; it is not customary in Zimbabwe for older people, especially men, to live with a son-in-law or a daughter-in-law where a natural child is not present.

In a study in Vilcabamba Valley, Ecuador, Tout (1989) found that 70,4 % of the respondents were home owners, 22,7 % lived with their families, 3,7 % rented a house, 1,5 % lived with friends and 1,5 % were without a fixed abode. In Barbados, Braithwaite (1986) found that 83 % of the elderly respondents owned houses. In South Africa, Ferreira, Møller, Prinsloo and Gillis (1992) found that more black elderly people owned houses than was the case in the Zimbabwean study: 46 % of urban elderly blacks and 91 % of rural elderly blacks in South Africa owned their houses. However, as in Zimbabwe, the majority of the houses in rural areas were traditional huts.

Number in household

Household composition was also recorded in this study. In the overall sample the number of people most often found living together was four (in 19,8 % of the cases). Seven comma five per cent of the respondents lived alone.

Further analysis of the data showed that in Mutare, Sakubva suburb has the highest percentage of respondents living alone (58,5%) and Highfield in Harare had the highest percentage of households with eight or more people. Many families in Highfield have taken in lodgers, as evidenced by the large number of backyard shacks which have been erected to expand accommodation – thus the high percentage of households with eight or more people. There were slight differences in the number of people living in a household in urban and rural areas. However there was a significant difference in the case of households with more than five people. This was probably due to the shortage of accommodation in towns, compared to rural areas.

Table 3

Number of persons	Loca	Total	
	Urban %	Rural %	%
1	8,5	6,5	7,5
2	18,8	15,0	16,9
3	14,0	19,5	16,7
4	18,5	21,1	19,8
5	12,5	15,0	3,8
6-7	17,5	15,7	16,6
8+	10,3	7,0	8,6
Total	100,0	100,0	100,0
N	400	412	812

Number of persons living in the house, by urban and rural location

Household composition

Table 4 shows that 7,4 % of the respondents lived alone or with a spouse; 38,8 % lived in a two-generation household; 27,3 % in a 3-4-generation household; and 21,4 % lived with their grandchildren, i.e grandparents and grandchildren lived together, constituting a "skip-generation" household. There were more one- and two-generation families in the urban areas than in the rural areas. There were no significant differences in the number of 3-4-generation families in urban and rural areas. More elderly respondents in urban areas lived with relatives than those who lived in rural areas. However more rural elderly (30,8 %) lived with grandchildren, as compared to only 12 % of urban elderly. In Zimbabwe it is culturally and traditionally expected that adult parents provide a child to live with their old parents in a rural area. Children help their grandparents with household chores, e.g. fetching water and collecting firewood. In turn, grandparents are expected to provide foster care for the children. However this practice is no longer as common; with mass education, parents choose to send their children to good schools, which are mainly located in urban areas. Children are therefore sent to school as opposed to living with grandparents (Hampson, 1990).

Table 4

Household composition, by urban and rural location

Туре	Loca	Total	
	Urban %	Rural %	%
One-generation	8,5	6,3	7,4
Two-generation	44,2	33,5	38,8
3-4 generation	27,7	26,9	27,3
With relative(s)	7,5	2,5	4,9
With grandchildren	12,0	30,8	21,4
Total	100,0	100,0	100,0
N	400	412	812

Comparisons with other studies are useful here. In a study in Bangladesh, Andrews, Esterman, Braunacvk-Mayer and Rungie (1986) found that 70 % of the households comprised parents and married children. The elderly in the Bangladesh study were not found to be alienated. In a study in Jamaica, Frances (1987) found that almost 59 % of the sample lived on their own. Of those respondents who lived with younger people, 36 % had left their previous dwelling to do so. Reasons for sharing accommodation included financial reasons, illness and physical security (5 % of the respondents had been victims of crime). In a study in India, Pathak (1975) found that 70 % of the elderly lived with families and only 5 % lived alone.

In South Africa, Ferreira, Møller, Prinsloo and Gillis (1992) found that 5 % of the black elderly in urban areas lived alone, compared to 6 % in rural areas. The percentages of multigenerational households in which black elderly persons lived were high: 92 % in urban areas and 93 % in rural areas. The percentage of multigenerational households in Zimbabwe (27,3 %) is much lower than in South Africa.

The situation in developed countries differs. Sinclair (1990) found that in the United Kingdom, 30 % of the elderly live with their families and only 10 % live with a spouse only. Sinclair and Williams (1990) contend that the proportion of old people in the United Kingdom who live in different types

of households differs by gender and age. Overall about threequarters of men over 65 years live with their spouse, as do about two in five women. Seventeen per cent of men live with their spouse but only 9 % of women do so. Twenty-eight per cent of men and 60 % of women live on their own (Victor, 1987). These differences reflect the tendency, as is the case in Zimbabwe, for men to marry women younger than themselves, to die younger than women, and for both reasons to leave widows rather than be widowed themselves.

Head of the household

The study also sought to determine who the head of the household was. The results show that 80 % of the respondents in the overall sample were heads of households. In a tenth of the cases, the spouse was the head; in 7 % of the cases, a parent was the head; and in only 3 % of the cases someone who was unrelated to the respondent was the head. Further analysis showed that 95 % of the rural households were headed by either the respondent or the spouse, compared to 82 % in urban areas. This finding is important: elderly people have fewer resources than other adult age groups in the community. The burden of heading households can be very telling, especially when the head is a widow. In the urban areas, more parents and other people headed households. In several cases the elderly respondents were caring for *their* elderly parents.

In a study in Potosi in Bolivia, Tout (1989) found that 80 % of the respondents were heads of households. In the multidimensional survey in South Africa, Ferreira *et al.* (1992) found insignificant differences in the black samples between the head of the household in rural and urban areas.

Number of rooms in the house

Seventeen per cent of the respondents lived in a one-roomed house, 23,3 % in a two-roomed house, 20,6 % in a threeroomed house, and 38,8 % in a four or more roomed house. More respondents in urban areas (21,7 %) than in rural areas (12,4 %) lived in one-roomed houses. This finding further shows the shortage of accommodation in urban areas.

Further analysis of the data showed that a high percentage of respondents in Mbare (57,6 %) lived in one-roomed houses. These houses are mainly shacks built in the backyards of houses. Kambuzuma and Rugare had high percentages of respondents living in four-roomed houses: 71,4 % and 87,5 %, respectively. The reason for this could be that in Kambuzuma, which has an old home-ownership scheme, many house owners had extended their homes. In Rugare, all houses are standard: most have four rooms, with only a few having more than four rooms. No shacks are allowed in this suburb. Overcrowding occurs to a large extent in this suburb.

In the study in Ecuador, Tout (1989) found that 35,6% of the respondents lived in single-roomed houses, 37% in tworoomed houses, 14,1% in three-roomed houses and 6,7% in four-roomed houses. The remainder lived in five-, six- or nine-roomed houses, although some of the rooms were used for storage or to house animals. In Tout's study (1989) the respondents had on average a smaller number of rooms in the house than the respondents in the Zimbabwean study. Tout's study was conducted in a rural setting.

A study by Braithwaite (1986) in Barbados found that 3 % of the houses of the respondents had one room, 17,8 % had two rooms, 20,2 % had three rooms, 35,2 % had four rooms and the remainder had more than five rooms. Braithwaite (1986) also found a decrease in household size with advanced age of the respondents, which suggested that many old people continued to live in the community in the traditional family house.

Construction of the houses

Table 5 shows that 95,5 % of the houses in the urban areas had cement floors, and brick and plastered walls, in comparison to only 13,8 % of the houses in the rural areas. This situation is a result of the strict building standards which are imposed by local authorities on all buildings erected in municipal areas. Most of the houses in the urban areas were built by local authorities and then rented out to tenants. It was only after independence that former tenants could own municipal houses. However some structures in these areas do not meet the required "municipal" or urban standards. These structures have been built in the backyards of houses. The shacks have recently caused a great deal of controversy, with many people calling for their demolition. In Mutare, the city council asked each shack owner to pay \$50 rent each month. This was met with considerable protest from shack dwellers.

Table 5

Type of building materials used in the house, by urban and rural location

Location/building material	%
Urban	
Cement floor and brick/plaster walls	95,5
Cement floor and walls of other (planks, met- al sheets)	1,8
Earth floor and walls of other	1,6
Earth floor and plastic walls	1,3
Total	100,0
N = 400	
Rural	
Cement floor and brick/plaster walls	13,8
Cement floor and mud walls	50,2
Mud floor and brick walls	20,4
Mud floor, and pole and dagga	15,6
Total	100,0
N = 412	

Seven comma six per cent of the houses in Mbare and 1,1% in Highfield had mud floors and walls made of plastic. These findings strengthen the argument that there are a number of squatters in these two suburbs of Harare. Most of these squatters have recently been forcibly removed to Porta Farm, an "official" squatter settlement, 25 km from Harare.

Very few respondents owned "modern" houses in the urban areas. Slightly more than half the respondents lived in houses with earth or mud floors but which had walls made of brick. The remainder of the houses were made of poles and dagga – and were therefore traditional huts. There were insignificant differences between the different rural areas, although Goromonzi had more pole-and-dagga huts than the remainder of the areas, and Domboshawa had more "modern" houses. This is probably because Goromonzi has a large number of squatters, while Domboshawa has a large number of people engaged in market gardening.

A comparison with the study of Tout (1989) in Ecuador shows that 48.9 % of the houses in Tout's study had mudbrick walls, 20.7 % were built of unburnt, sundried brick, 10,4 % were a mixture of bricks and cement, and 3,7 % had a composition of various materials such as wood and cement.

Occupancy ratio

The data in Table 6 show that of the whole sample, 55,1 % of the houses accommodated between one and 1,4 persons per room. Slightly over a third of the houses accommodated between 1,5 and 2,9 persons per room, with a tenth accommodating over three persons per room. Occupancy ratio was highest in Mbare and Sakubva suburbs. The ratio was much lower in rural areas than urban areas, as expected.

Table 6

Occupancy ratio of rooms, by urban and rural location

Number of persons	Loca	Total	
per room	Urban %	Rural %	%
1 – 1,4	49,5	60,7	55,1
1,5 – 2,9	36,8	32,0	34,4
3+	13,7	7,3	10,5
Total	100,0	100,0	100,0
Ν	400	412	812

Services

In the study 42,6 % of the respondents' houses had both electricity and piped water. As expected, most of these houses were in urban areas. Eighty-four comma seven per cent of the urban houses had these two services, compared to a mere 0,5 % of the rural houses. Ninety-two comma seven per cent of the rural houses had no electricity and these respondents reported that they drew their water from a well. Only 1,2 % of the urban residents drew water from a well; these respondents were able to get water from a public tap; this was mainly the case in Mbare and Sakubva suburbs.

Six comma eight per cent of the respondents in the rural areas fetched their water from a stream. This method increases the risk of their contracting water-borne diseases, such as cholera, dysentry, typhoid and bilharzia. Most respondents in the urban areas had toilets, except a few who lived in squatter camps. The availability of toilets varied in the different areas. A few had pit latrines, but a large number of respondents used the bush.

In his study in Ecuador, Tout (1989) found that 58,5 % of the respondents had running water on the property, while the remainder carried water from local streams. Eleven comma one per cent had water-closets, 2,2 % had dry privies, 3 % had septic tanks, but 83,7 % had no form of lavatory and used fields or river banks. Forty-six per cent had electric light and the remainder used candles or other fuel-ignited lights. In Braithwaite's (1986) study in Barbados, 68,7 % had piped water, 47,2 % had water-closet latrines, 50,6 % used pit latrines, and 81 % had electric lighting but depended on kerosene or wood for cooking.

Ownership of a television set and a radio

Ownership of a television set or a radio is important for the elderly for entertainment and educational purposes. The study found that 83,3 % of the respondents had no television sets. All those who had a television set lived in an urban area. None of the residents from Mbare owned a set, while 90 % in Sakubva did not own one. The highest percentage of owner-

ship of a set was in Kambuzuma in Harare (53 %) and in Marymount in Mutare (30,7 %).

Asked whether they owned a radio, 82, 1% of the respondents answered in the affirmative. Again, the highest percentage of people who owned a radio was in Mbare (75 %). Highfield had the highest percentage of respondents with radios (92, 1%). In each of the other suburbs, more than 80% of the respondents owned a radio.

Only 16,3 % of the rural elderly owned a radio. All the elderly in Chipenje and in Mutare had a radio; in Penhalonga, 53,3 % had one. Mutasa had the smallest percentage of respondents owning a radio (2,4 %), followed by Zimunya/Dora, where 9,1 % owned a radio. Tout (1989) found that 64,4 % of his respondents in Ecuador owned radios of the cheap transistor type. None owned a television set.

Condition of the houses

A quarter of the houses were rated by the interviewers as "poor", two-fifths were in a "fair" condition, while the remainder (a third) were rated as "good". (The interviewers were trained to rate the houses according to specific criteria, e.g. good ventilation, adequate lighting, a garden, and a roof that did not leak.) As expected, a third of the rural houses were rated as poor, with only a quarter rated as good. Two-thirds of the houses in the urban areas were rated as good, with a fifth rated as poor. (See Table 7.) Further analysis of the data showed that Mbare suburb had the highest percentage of houses rated as poor (44,2%). These houses included squatter settlements and temporary shelters built to accommodate refugees from the rural areas during the liberation struggle.

Kambuzuma had the highest percentage of houses rated as good. This high percentage is due to the fact that from the outset, Kambuzuma had a home-ownerhsip scheme, whereby people built their houses according to their own specifications. In Mutare, Sakubva had the highest percentage of houses rated as poor (46 %), while Dangamvura had the highest percentage of houses rated as good (52,9 %). Dangamvura is similar to Kambuzuma, in that the majority of the houses are owned by the residents.

Table 7

Condition of the house, by urban and rural location

Condition	Loc	Total	
	Urban %	Rural %	%
Poor	20,5	46,1	42,3
Fair	38,5	29,1	24,8
Good	41,0	24,8	32,9
Total	100,0	100,0	100,0
N	400	412	812

In the rural areas, Goromonzi had the highest percentage of houses rated as poor (34,1 %). Again, this finding can be attributed to the large number of squatters in this area. In Mutare, Zimunya had the highest percentage of houses rated as good (43,3 %). This area includes Zimunya Township, a township built to accommodate Africans working in Mutare. It is some 20 km from Mutare and was built as a dormitory for workers in Mutare. It was built on the same "apartheid" philosophy as Chitungwiza was for Harare, Tsanzaguru for Rusape in Zimbabwe, and Soweto for Johannesburg in South Africa. For this reason, houses were built by the city council

and certain standards had to be adhered to. Penhalonga had a large percentage of houses rated as fair (60 %). This small town is near Mutare.

Satisfaction with housing

The respondents were asked to position themselves on a ladder of faces, which had a smiling face at the top (score 7) and a frowning face at the bottom (score 1), in terms of their level of satisfaction with housing and other areas such as marriage, children, health, income and standard of living, as well as their opinions on the progress in Zimbabwe and its chances of getting ahead. Most were able to do this, and were relatively satisfied with their lives and the situation in Zimbabwe on most of these variables (mean 4 or above; mode 5-6).

As far as housing was concerned, a fifth of the respondents reported that they were "not particularly satisfied" with their housing. Yet another fifth were "somewhat satisfied" with their housing, while three-fifths of the respondents were "satisfied" with their housing. (See Table 8.) A surprising result was that 60 % of the respondents in Mbare and 42 % in Sakubva were "very satisfied" with their housing, yet these suburbs have been noted for their poor quality housing and high occupancy ratio. This finding could be explained by the fact that many elderly people "make do" with what is available (Sinclair & Williams, 1990).

Table 8

Satisfaction with housing, by urban and rural location

Level of satisfaction*	Loca	Total	
	Urban %	Rural %	%
1-3	21,7	18,2	19,9
4	19,5	20,9	20,1
5-7	58,8	60,9	59,9
Total	100,0	100,0	100,0
N	400	412	812

* 7 = highest level of satisfaction

The Zimbabwean findings may be compared to those of a study conducted by Braithwaite (1986) in Barbados. In Braithwaite's study, 81,5% of the sample rated their housing as satisfactory. A comparison of the Zimbabwean findings with those of Ferreira *et al.* (1992) is useful. The South African study found that 49% of black respondents in urban areas and 65% in rural areas were satisfied with their living arrangements. More respondents in urban areas in Zimbabwe were satisfied with their living arrangements than their counterparts in South Africa.

Policy recommendations

Most of the housing standards stipulated by local government authorities are unrealistic. One such standard is that the roof of every house built in an urban area should sustain a certain amount of snow. There is no snow in Zimbabwe. The standards should be changed to fit local conditions and people should be allowed to use local materials for building. Material such as timber, bamboo, stones and thatch are readily available and cheap. Although cleanliness and efficiency are required when looking after old people, such persons in developing countries who have to live in so-called "modern" buildings, with a preponderance of glass, concrete and steel, would for the main part be unhappy and not "feel at home" (Tout, 1989). The elderly belong to a generation which appreciated "natural", technologically-simple building materials, such as wood, mud and thatch. Natural materials are less expensive than modern materials, such as cement and steel. It should be kept in mind that Zimbabwe will remain short of cement for quite a time to come.

Zimbabwe should develop a housing policy which includes the elderly. At present there is no housing policy for the elderly (Nyanguru, 1993a,b). Low-cost special housing should be developed on an ownership or lease basis, which would enable successive generations of elderly to use the same property. Architects and town planners should plan space in houses to accommodate the grandparent generation, in addition to the nuclear family. In this way, the family will be able to support its elders. Further, the government should give financial assistance, tax benefits, and other forms of economic help, for the elderly to maintain independent living in the dwelling of their choice. There is also a need to establish community services which enable the elderly to remain living in their homes. These services include maintenance and home-repair services. This has already been done in some communities in Africa. In Kenya, for example, young people in Pumwani have been building and repairing houses for old people. The youth organized a walk with the aim of collecting money to help the aged (Tout, 1989). Associations for the elderly can also be formed which help members to build, repair and maintain houses. Joot Society is an example, again found in Kenya. In Zimbabwe, the Masonic Association helps its members build and maintain their houses.

Finally, an important consideration in planning national housing for the elderly is to include the elderly themselves: the elderly should be involved in all stages of planning, implementation and evaluation.

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Living with adult children: a benefit assessment of co-resident living arrangements among black and white older South Africans

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Abstract

South Africa serves an an instructive case for the study of living arrangements. Co-residence with a child is the rule for the black elderly and the exception for the white elderly. The article analyses the living arrangements of black and white elderly drawing on a national database (Ferreira et al., 1992). The focus of attention is the co-resident living arrangement. The article explores the determinants of co-residence and discusses the specific benefits accruing to the older person and the adult child. The findings suggest that traditional social security arrangements for the black elderly are adapting to the rapid social change taking place in South Africa. Notably, daughters as well as sons are involved in carrying out filial piety duties, especially in the urban areas. There are signs in the data that poor housing conditions and a lack of choice in housing place family relations under severe strain in the urban areas. Overall, co-residence is generally perceived as a positive experience by the elderly. It is recommended that the extended family living arrangement deserves consideration as both an acceptable and a viable option for the care of the elderly in South Africa in the foreseeable future.

Living arrangements represent critical choices for the wellbeing of the elderly in society (Hermalin, Chang, Lin *et al.*, 1990; Kinsella, 1990). The composition of households which shelter the elderly is a crude indication of the availability of informal care for the aged. A database which contains information on intergenerational exchanges occurring within and between households is a further refinement.

This article examines two aspects of shared living arrangements in South Africa from the viewpoint of the older party to the agreement. The discussion reviews caregiving advantages and the personal satisfactions derived from various co-residence situations.

Theoretical considerations

Living arrangements typically differ around the world. However the need for love, care and personal space for the parties to these contracts is universal. Family solidarity is a convenient reference concept which summarizes the benefit assessments of family living arrangements. Research into family solidarity (Mangen, Bengtson & Landry, 1988; Roberts, Richards & Bengtson, 1991) was initiated to examine correlates and consequences of intergenerational cohesion in terms of the psychological wellbeing of family members. According to Mangen *et al.* (1988) family solidarity is multidimensional and can be described in terms of family structure, contacts, affection, agreement on basic values, interactions and exchanges. The multigeneration household represents a special case of family solidarity. Parent-child interaction largely reflects availability. When members of the extended family live under the same roof, they are more available for interactions than would otherwise be the case. The residential proximity factor was also found to have a major influence on the other dimensions of solidarity (Mangen *et al.*, 1988).

For purposes of the discussion here, a broad distinction is made between popular living arrangements in developing and Western-industrialized societies.

In developing societies filial piety is still the norm. Social security in old age is provided by the kinship system (Cowgill & Holmes, 1972). Filial piety is an integral part of the mutual support system operating between the generations throughout the life course in traditional society. Although there is wide-spread concern that the extended family system is breaking down under the strain of rapid industrialization and urbanization, the high incidence of multigeneration households in rapidly developing countries suggests the contrary (Hashimoto, 1991).

In Western-industrial societies the trend is for the elderly to live independently. Industrialization has undermined the traditional role of the extended family in providing a safety net for its elderly members. There is evidence that independent living for the elderly is socially acceptable and often the preferred living arrangement in Western society (Alwin, Converse & Martin, 1986; Kendig, Hashimoto & Coppard, 1992). Higher standards of living ensure that the elderly have the financial means to care for themselves. Formal support services are available to complement or, if necessary, to substitute for family support. However independent living does not necessarily mean that there is a lack of solidarity among family members. Advanced technology makes regular communication possible between family members who live apart.

Improved quality of life for the elderly appears to be associated with both higher living standards, and filial love and care. There is a tendency to presume that there is a trade-off between these two factors; as societies develop, so the elderly lose out on one count or another, depending on the

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level of development of society. Paradoxically, failure to modernize may threaten the financial support of the elderly in some developing countries, although care may still be forthcoming in terms of the filial piety norm (Mason, 1991).

In Western society co-residence of parents and child is atypical but not unusual. The incidence of multigeneration households in the United States is approximately 18 %; this proportion has remained fairly constant between 1975 and 1985 (Ward, Logan & Spitze, 1992). It is usually assumed that co-residence is primarily a response to the needs of the elderly for companionship, care and financial assistance. However recent research (Ward *et al.*, 1992; Crimmins & Ingegneri, 1990; Lawton, 1992) challenges this common assumption. In the co-residential households studied by Ward and colleagues, helping behaviours and housing needs indicated that child needs appeared to be the main determinant of co-residence. Older members were more likely to perform household tasks than younger members, and never-married children dominated co-residence situations.

The theory of fertility decline put forward by Caldwell (1982) has relevance for the kinship exchanges which are associated with traditional and Western living arrangements for the elderly. The theory posits that wealth typically flows up to the oldest generation in traditional societies, whereas in Western societies wealth flows downwards. Therefore, a large number of offspring makes good sense in traditional societies where raising children requires large financial outlays and social security provisions are a state concern, large families are not a requisite to financial wellbeing in old age. The finding cited earlier that child needs dominate in US coresidence situations supports the Caldwell thesis that wealth flows tend to benefit the younger generation in Western society.

The South African case

South Africa serves as an instructive case for the study of the relationship between living arrangements and the subjective wellbeing of the elderly. First and Third Worlds live side by side in South Africa's different subpopulations comprise different levels of development. The situation of the white elderly is comparable to that of people living in First World societies; that of the Indian, coloured and black elderly is similar to developing countries around the world. The disparity between South Africa's population groups in demographic terms is indicated in average life expectancy. A white woman can expect to live to 75 years, a black woman to 65 years.

The Multidimensional Survey of Elderly South Africans aged 60 years and older conducted in 1990-91 (Ferreira, Møller, Prinsloo & Gillis, 1992)¹ shows that living arrangements vary for the different population groups. White elderly South Africans, who tend to enjoy a higher standard of living and live independently, conform to the First World lifestyles outlined above. The majority of Indian, coloured and black elderly South Africans live in multigeneration households which conform to trends in the non-Western world. The indicators in Table 1 highlight these differences in lifestyles.

Research aims

The relationship between living arrangements and intergenerational relations warrants further examination. The family relations topic is one which has received little attention to date in South Africa (Gerdes, 1987). The discussion here draws on data collected for the baseline study of South Africa's elderly referred to earlier (Ferreira *et al.*, 1992). For ease of reference

Table 1

Selected social indicators: Multidimensional Survey of Elderly South Africans, 1990-91

Indicator	Urban black	Rural black	Col- oured	Indian	White
Socio-economic indicators					
No formal education % Monthly income	50	79	30	46	0
> R500 (%) Made provision	11	3	14	15	79
for old age (%)	18	7	25	23	79
Health indicators Self-reported good health (%)	29	24	46	43	66
Psychosocial indicators Very satisfied, satisfied with life (%) Very happy, happy (%)	39 45	65 43	91 87	78 79	90 90
Social support and living arrangements Number of living	40	40	07	75	30
children (median) Receives financial	4	4	5	2	3
support from children (%) Gives financial	68	66	59	61	15
support to children (%) Lives alone/with	59	60	40	41	25
spouse (%) Multigeneration	5	6	10	8	79
households (%) Satisfaction with	92	93	87	90	17
living arrangements (%)	49	65	86	87	91
Ν	997	401	978	999	989

the discussion is limited to the case of the white and black elderly. The selection of these two groups is considered the optimal one for the task at hand for the following reasons: The choice of the white elderly is given. For historical reasons only whites have attained First World levels of development and population ageing. The black elderly represent the numerically largest subgroup among South Africa's Third World cases. Elderly blacks account for some 60 % of all elderly South Africans but only 3 % of blacks over 65 years. In terms of living standards and lifestyle the contrast between the life conditions for the black and white elderly is greater than that of all other population groups (see Table 1). Black South Africans have experienced rapid urbanization during the past decade which has led to the decline of the patrilineally-extended household (Dubb, 1972). The Multidimensional Survey collected data on black subjects living in both the urban and the rural areas, which allows for an examination of the possible effects of urbanization on the living arrangements of the black elderly.

Living arrangements

The incidence of multigeneration households is between 92 and 93 % for urban and rural blacks but only 17 % for whites (see Table 1). Mason (1991) argues that the critical indicator of the propensity for the generations to co-reside is the percentage of elderly who reside with children rather than the percentage of households that are multigenerational.² For the purpose of this article, a distinction is made between older persons currently living with a son (and/or a daughter-in-law), with a daughter (and/or a son-in-law), and with both a son and a daughter. Co-residence is compared with the situation of the elderly living independently, i.e. alone or with a spouse only.

Slightly less than 80 % of whites live independently (see Table 2). Half in this group live alone, the other half with their spouse. Slightly less than 16 % live with a son or a daughter, a figure comparable to the US one cited earlier. Only about 5 % of elderly whites are party to a different arrangement.

Table 2

Living arrangements: residence with sons and daughters (black and white subsamples)

Urban	an blacks Rural blac		blacks	lacks Whites	
%	%	%	%	%	%
	82,8		76,6		15,5
43,6		32,2		0,7	
18,4		27,2		7,6	
20,8		17,2		7,2	
	17,2		23,4		84,5
4.6		6,2		79,2	
2,5)		3,5)		38,7)	
2,1)		2,7)		40,4)	
12,6		17,2		5,4	
100,0	100,0	100,0	100,0	100,0	100,0
997		401		989	
	% 43,6 18,4 20,8 4,6 2,5) 2,1) 12,6 100,0	82,8 43,6 18,4 20,8 17,2 4,6 2,5) 2,1) 12,6 100,0 100,0	% % % 82,8 32,2 18,4 27,2 20,8 17,2 17,2 17,2 17,2 17,2 12,6 17,2 100,0 100,0 100,0	% % % % 82,8 76,6 43,6 32,2 18,4 27,2 20,8 17,2 17,2 23,4 4,6 6,2 2,5) 3,5) 2,1) 2,7) 12,6 17,2 100,0 100,0 100,0	% % % % 82,8 76,6 0,7 18,4 27,2 7,6 20,8 17,2 7,2 17,2 23,4 17,2 44,6 6,2 79,2 2,5) 3,5) 38,7) 2,1) 2,7) 40,4) 12,6 17,2 5,4 100,0 100,0 100,0 100,0

^a In a very small number of cases includes son's spouse in the case of the son's absence.

^b In a very small number of cases includes daughter's spouse in the case of the daughter's absence.

c Independent living arrangements include living alone or with a spouse only.

) Summate.

)

Black society is patrilineal in South Africa (cf. Dubb, 1972; Preston-Whyte, 1972). The reference norm for the present analysis will therefore be for one son to remain with his ageing parents to care for them. At the outset of the inquiry, it was assumed that the traditional pattern would be for the black elderly to live with a son, with family life-cycle factors determining the exact timing of the departure of other children from the parental home. The Multidimensional Survey database shows that three in four elderly rural blacks and four in five elderly urban blacks live with children (see Table 2). In half of these cases the older generation co-resides with both the son and the daughter. In town blacks are just as likely to live with a daughter as with a son. In the country, living with the son appears to be the more common living arrangement. Less than one in four elderly blacks live away from their children. Living alone or with a spouse only rarely occurs. The elderly blacks who live apart from their children usually live with other relatives. Many of the households in this last category will be skip generations consisting of the grandparent and grandchild generations only3 (see Table 2).

In terms of the filial piety norm one would expect an increasingly higher proportion of each age cohort to live with a son only. The data does not confirm the expected pattern. The distribution of co-residence with sons, daughters and children of both sexes is similar for all age groups in the black subsamples. However in town, housing shortages might influence the higher incidence of co-residence with both sons and daughters. Among whites, co-resident living arrangements do not appear to be gender or age specific. The majority of white men (63 %) live independently with a spouse; the majority of white women (50 %) live alone. The proportion living alone increases with each age cohort (22 % in the 60-64-year age bracket, to 69 % in the over 85+ age bracket). However the proportion of men and women living with children remains fairly constant, between 10 and 21 % in each age bracket. Widowed (1 %) and married (14 %) persons are more likely to live with children than never-married (11 %) and divorced (3 %) persons. A quarter of never-married and 19 % of divorced persons live with persons other than children.

Although the numbers are very small, there appears to be a similar trend among urban blacks for more men (8 %) than women (3 %) to live independently. In contrast to the white pattern, the proportion of urban blacks living independently decreases with each age cohort. About twice as many persons in each age cohort live with sons and daughters.

Rural black co-residence patterns differ from urban black ones. If we exclude the oldest age bracket (85+ years), the trends become clearer. There is a shift from co-residence with son and daughter in the 60-65-year age bracket, to coresidence with a son only in the 80-84-year bracket. The trend to live with sons is more evident among Sothos living in Lebowa than among Zulus. The proportion living independently (alone or with a spouse only) and with other persons increases from the youngest to the oldest age bracket. It is possible that the rural pattern is a truer reflection of the societal ideal in terms of co-residence with sons. However circulatory migration may have distorted the clear pattern by introducing the need to live independently or with grandchildren and other relatives according to availability, especially in the oldest age bracket, i.e. over 85 years.

Never-married black persons in the urban and rural areas tend to live with persons other than their children. This pattern appears to be common to all groups under study. Availability may be the decisive factor here. It is noteworthy that nevermarried blacks (who are mainly women) rarely live with a son.

The results of regression analyses⁴ confirmed that coresidence is determined largely by life-cycle and child-availability factors. Among blacks urbanization and gender also appear to influence co-residence decisions. Younger and urban-domiciled black elderly are more likely to live with both sons and daughters; rural-domiciled elderly with sons only. Black women are more likely than men to live with adult daughters. As a rule, whites living with children are younger and have an above-average number of children.

Antecedents of co-residence: child or parent needs?

This section reviews the indicators in the Multidimensional Survey which contain clues as to whether co-residence is meeting parent or child needs.

Parent needs in co-residence

Disability represents a major parent need which might determine co-residence. There appears to be little evidence in the Multidimensional Survey database that the health status of the elderly living with children is very different from those living alone. The poorer health of rural blacks living with a daughter only appeared to be the exception here. The lower household incomes of female-dominated households may be a factor. Seventy-one per cent of rural blacks living with daughters (versus the subsample average of 63 %) indicated that their poor health often interfered with their daily activities. However co-residence is the norm in black society, where 71 % of urban blacks and 77 % of rural blacks, compared to 34 % of whites complained about their health. The practice of coresidence appears to be an appropriate societal response to the health needs of the black elderly.

There are signs in the Multidimensional Survey data that co-residence may be dictated by financial need on the part of elderly parents. The white elderly in co-residence were less likely than others to have prepared for retirement. Black elderly living with daughters were also less likely than other co-resident elderly to have prepared for retirement but the difference was not statistically significant.

Child needs in co-residence

The literature cites housing and contributions to household tasks as telling signs that co-residence may be as attentive to child needs as parent needs. Home-ownership indicators in the Multidimensional Survey database suggest that the older generation makes housing available to the younger generation. Between 44 and 48 % of urban blacks indicated that they owned the home in which they were residing. This figure is slightly below the national average of 50 % of blacks living in houses (1991 census statistics). Among whites, a higher proportion of co-residents (51 %) lived in their own home than in one owned by a member of the household or one put at their disposal by a relative (37 %).

In co-resident households the parent generation usually assumes the role of head. The only exception is in the case of white women in co-resident households, who are less often awarded the status of head than black women.⁵ In all types of co-residential households, sons, where available, were most likely to replace the older generation as the household head.

Child care represents an important contribution of the grandmother in traditional society (cf. Hermalin *et al.*, 1990). Only a minority of white co-resident households (36 %) in South Africa include grandchildren. In contrast, 68 % of urban black and 78 % of rural black co-resident households include grandchildren. It can be assumed that the women in households with young children will be involved in child care.

Subjective indicators also suggest that elderly co-residents feel that they pull their weight and contribute to the welfare of the household. Black and white co-resident elderly were more likely than others to feel that people made too many demands on them. However these differences were only significant in the case of whites. Assuming that older people are responding to social pressure, the "being in demand" indicator can be interpreted as a positive contribution on the part of the elderly to the economy of the co-resident household. Interestingly, the elderly were least likely to feel the pressure of demands if they lived with a same-sex child. In the black community women are called upon to contribute as house and child minders well into advanced age. Greater value may be attached to female helping roles in male-dominated households. The practice of older men handing over headship to their sons may account for their feeling less in demand than women. In all instances, intra- and intergenerational role competition may influence feelings of "being in demand".

There were further indications that older persons living in co-residence evidenced feelings of self worth. Among urban and rural blacks the proportion of persons who felt "useful to others" was highest among the small number of persons living independently, followed closely by persons living in coresidence with sons. The proportion of whites indicating feelings of usefulness was highest in the co-resident group. Rural blacks living with sons were less likely to indicate that "being unwanted" was a problem for them. Admittedly, the subjective evidence cited here is slight in that the data is based on self-reports of the elderly. The question of parent-child needs requires further research from the viewpoint of adult children.

Benefits of co-residence

The Multidimensional Survey findings indicated that care and financial security for blacks represent the most important benefits for the elderly living in co-residence. As mentioned earlier, with the possible exception of the rural black elderly living with their daughters, health appeared not to be a problem peculiar to the co-resident elderly. Nevertheless, the elderly living with children indicated that if they fell ill, they were able to count on their children's assistance to a greater extent than those living independently or with other relatives. In all population groups living with a daughter appeared to be most advantageous in terms of health-care benefits. As might be expected, loneliness appeared to be less of a problem for persons living in co-residence than for persons living alone.

Co-residence appears to facilitate intergenerational financial exchanges. The majority of urban (77%) and rural (72%)blacks received a social (mainly a state old-age) pension. Persons in receipt of a social pension were fairly evenly distributed among the various living arrangements. Among blacks, variations in the rates of exchanges by living arrangement are insignificant. The very small number of persons living alone were most likely to be excluded from financial exchanges. The level of exchanges in co-resident households of whites was higher than in other living arrangements of whites but still very low in comparison to the levels of blacks in general. The proportions of older blacks who indicated that they gave a great deal or quite a lot of money to their children, were higher than those who stated that they received comparably large amounts of money from their children. The proportions giving and receiving were about even among co-resident whites. It is difficult to establish unambiguously, whether child or parent needs dominate the exchanges. In some cases, pooling financial resources may be beneficial to both generations in co-residence.

Incidental financial assistance for older members may also be more forthcoming in co-resident households. Results indicated that blacks living in co-residence were more likely than others to receive money from their children to pay their medical expenses. This was not the case among whites.

In terms of financial benefits, it appears that living with daughters is less advantageous than living with sons. This rule seems to apply to all groups under study. Although the number of cases is very small, white persons living in co-residence with daughters were more likely than other whites to indicate that money was a serious problem. Money was a serious problem for the majority of blacks in all living arrangements, but rural blacks living with daughters were less likely than others to receive income from children.

Subjective indicators confirm the advantages of living with sons. The highest percentages indicating satisfaction and happiness among blacks were persons living in co-residence with sons. Rural blacks living with daughters tended to be most dissatisfied and unhappy with life in general.

Dependence

There is a catch with the parent benefits listed above. Dependency is feared by all older persons. A caring environment such as the co-resident living arrangement can become patronizing or oppressive for its members. The literature cites the danger of persons becoming smothered, or losing their identity in a too caring social environment (cf. Roberts *et al.*, 1991). There were few manifest signs of overdependence among co-resident elderly. The majority of persons living in coresidence indicated that they managed their own money. Nevertheless, the incidence of money being managed by children was higher for co-residents than persons living independently or with other relatives. Money of co-residents was managed by children in 10 % of cases of co-residence among whites and up to 20 % of cases among blacks. Nevertheless, a subjective indicator suggested that feelings of independence are not stifled in co-resident living arrangements. The proportion of co-residents stating that they felt in control of their lives was not very different from persons in other living arrangements.

Social integration indicators suggested that the co-resident elderly conform to the life-style patterns of their group in terms of having access to a confidant, belonging to a club, and feeling respected by their families. However it was observed that a substantial number of persons living independently avoided giving an answer to the last item concerning respect. This response suggests that some persons living independently may have had doubts about their children's filial piety and their own social standing.

Satisfaction with living arrangements

As is the case all over the world, older people express satisfaction with their housing which does not always reflect the objective conditions in which they live (Lawton, 1980). In this sense, housing satisfaction may be considered a sign of positive adaptation. In the Multidimensional Survey the subjects were specifically asked to indicate satisfaction with living arrangements rather than with their housing situation. The intention was for the cue to elicit responses to the social as well as the physical housing situation.

Levels of satisfaction with living arrangements varied markedly by population group, as is shown in Table 3. Whites were most satisfied and urban blacks least satisfied. However within population groups similar proportions expressed satisfaction with each type of living arrangement. Correlation and multiple regression analyses indicated that satisfaction with living arrangements is closely associated with psychological wellbeing and positive intergenerational relations.⁶

In all groups the lowest level of satisfaction was indicated by persons living alone. Whites as a group were more inclined to want to move in spite of being satisfied with their living arrangements. Previous residential mobility for whites was higher than for other groups, suggesting that the disposition to move may be one carried over from mid-life. The opposite trend holds for blacks who were more inclined to want to remain in place even if they were dissatisfied with their situation.

The spontaneous reasons given for dissatisfaction with living arrangements and wanting to move or stay are revealing. Of the three groups under discussion here, the urban blacks expressed the greatest dissatisfaction with their living situation. Their reactions are singled out for more detailed review.

In all, 270 urban blacks, or 27 %, described what they disliked about their current living situation. In approximate order of mention, dislikes included the cost of housing (47 %), limited dwelling space and crowding (14 %), general unhappiness and misery (14 %), loneliness and neglect (9 %), and basic needs not being met (5 %). It is evident that dislikes focussed on the physical housing situation rather than on intergenerational relations.

Similarly, the reasons given by the minority of urban blacks who wished to move referred mainly to the housing rather than to the social situation. Most persons in this group wanted

Table 3

Indicators of satisfaction with living arrangements by type of co-residence (black and white subsamples)

Subsample	Percentage "very satisfied" and "satisfied" with living	Percentage not wanting to move	Total
	arrangements %	%	Ν
Jrban blacks	49	75	997
Living with son and			
daughter	51	78	435
Living with son	48	71	183
Living with daughter Living alone/with	46	75	207
spouse	46	70	46
Living with others	52	75	126
Rural blacks Living with son and	65	86	401
daughter	63	88	129
Living with son	69	86	109
Living with daughter Living alone/with	64	81	69
spouse	48	80	25
Living with others	71	91	69
Whites Living with	91	76	989
child(ren)	95	77	153
Living alone	89	78	383
Living with spouse	91	74	400
Living with others	87	77	53

to move to a larger dwelling or to another location, usually away from the city. A few persons indicated that they owned their own home elsewhere. Compared to housing and location factors, personal relations and inability to cope figured insignificantly as reasons for wanting to move.

There appear to be few attractive features of urban living for elderly blacks. The main reason given for not wanting to move referred to a lack of alternatives (19%). More positive factors were a sense of place and habit (17%), satisfaction (15%), home ownership (9%), and the family and care situation (9%). It is worth noting that under the "family and care" heading, reference was made to wanting to be with the family and to child-care duties. The proportion mentioning the lack of alternative housing options was higher among urban than rural blacks.

The urban black case study reveals that traditional social security arrangements for the elderly are no longer taken for granted. There were signs in the data that poor urban housing conditions and a lack of choice in housing placed family relations under severe strain in some cases. For example, when referring to dislikes associated with living arrangements, four persons living with children mentioned that there was no one to care for them; a further four persons indicated that their children neglected them; and three persons complained that their children took their pensions. Considering the many housing problems in urban areas, it is surprising that not more references to elder abuse were made. In black society institutional care for the elderly runs counter to traditional ideas of care for the aged (Chinkanda, 1987; Møller, 1988). Nevertheless, six persons expressed the felt need to live in a home for the aged or with other old people. Contrary to the norm of filial piety, a further three persons stated that they did not want to live with their children.

The reactions of rural blacks and whites to their living situations were more positive. There was less evidence of

housing constraints for rural blacks. A sense of place and familiarity was the single most important factor for not wanting to move for rural blacks, which may be interpreted as indicating positive satisfaction. The very small number of rural black persons living alone or with their spouse indicated that they suffered from loneliness and neglect but had no alternative place to stay.

White co-residents appeared to be at least as satisfied if not more so than persons in other living situations. Fewer co-residents (5 % versus a sample average of 9 %) expressed dissatisfaction with their living situation; a similar percentage of co-residents and other persons (18 % of co-residents versus a sample of average of 19 %) wanted to move if the opportunity arose. Persons living with children (3,9 % versus a sample average of 6,4 %) were less likely than others to want to move for personal reasons, such as not being able to cope on their own. Only one person indicated that she would prefer not to live with her child, whereas 13 persons living independently wanted to live with or closer to their children. The satisfaction derived from intergenerational relations in co-residence is highlighted in the case of the white elderly. For the white subsample as a whole, happiness and habit were the main reasons for wanting to remain in place, followed by factors referring to convenience, home ownership, lack of choice, family reasons, and neighbours. Co-resident whites ranked family factors in second place, immediately after happiness, as the main disincentive to move.

Summary and conclusions

The survey evidence suggests that co-residence is mainly a positive experience for older persons. Living with family is cited as a disincentive to move. It is not clear whether coresidence is determined by adult or child needs, but the data indicate that both child and parent needs are being met in co-resident households. Child-care services are an example of child needs which are well catered for in black co-resident households. Co-residence facilitates intergenerational financial exchanges which tend to favour the elderly. Care in the case of illness is more readily available for the elderly in co-resident households. Nonetheless, the negative effects of urbanization on co-resident living arrangements for the black elderly are evident in low levels of housing satisfaction. It is apparent that crowding in urban homes aggravates good intergenerational relationships.

A starting point for the examination of living arrangements was the assumption that black elderly persons would prefer to live with sons as custom dictates and whites would prefer to live independently according to Western norms. It appears that urbanization has relaxed strict rules of filial piety for blacks. As a result elderly blacks appear to derive benefits and satisfaction from living with either sons and daughters, or both. In the case of whites the evidence suggested that the minority of white elderly living in co-residence tended to lose a certain degree of independence, for which other satisfactions of living with family might compensate.

There appear to be no special advantages attached to the different co-resident situations distinguished in this article. Overall, the elderly living with sons may be better off, especially in terms of financial support. On the other hand care in the case of illness was more often available in the case of co-residence with daughters.

To sum up, the extended family is alive and well and caring for its older members. There seem to be mutual benefits for parents and children in living together under one roof. In black South African society the family is still the most important safety net in old age. Black society has managed to adapt rules of filial piety to meet modern needs, while ensuring that the elderly are properly cared for. The burden of caring for older parents is shared more equally between sons and daughters. Nevertheless, the tensions caused by social change are a cause for concern. There are subtle signs that urbanization has damaged the caring image of the co-resident black household. For white society co-residence represents a less popular but nevertheless important and satisfactory option for a minority. In all cases, the subjective wellbeing expressed by elders living with their children is proof of the viability of the extended family living arrangement in South Africa for the foreseeable future.⁷ However further research is required to assess the benefits of co-residence accruing to all generations party to the arrangement from the adult child's viewpoint.

Notes

- The Multidimensional Survey of Elderly South Africans represents the first comprehensive study of South Africans of all population groups. The questionnaire survey was a partial replication of cross-cultural inquiries conducted in southeast Asian countries. The sample consisted of 4 000 equally represented black, coloured, Indian and white persons over 60 years, who were living in the community in metropolitan areas. In addition, an exemplary sample was drawn of 400 blacks living in the deep-rural areas of two homelands, Lebowa and KaNgwane. The survey was conducted in March 1990.
- In most developing countries the average life expectancy is increasing. The survival of the elderly may maintain a constant proportion of multigenerational households even where the propensity of the elderly to live with children has declined (Mason, 1991).
- 3. Using the same database, it is estimated that 16 % of rural and 9 % of urban black households are skip-generation ones (Møller, in Ferreira et al., 1992:106). The rural economy is dependent on the cash remittances of migrants who work in town. Rural skip-generation households are the result of the middle-generation household members leaving their children to be raised by their elderly parents while they work in town.
- 4. Variables included in the stepwise multiple regression analyses were age, gender, marital status, rural-urban domicile, headship, home ownership, number of living children, disability, locus of control, feelings of being helpful, satisfaction with living arrangement, respect shown by family, and the life satisfaction index A.
- 5. Between 78 and 89 % of urban black, 81 and 87 % of rural black, and 71 % of white males living in co-residence stated that they were the household head. The incidence of headship for females was lower but still substantial, with 54-69 % for urban blacks, 51-74 % for rural blacks, and 28 % for whites. If females *or* their spouses are designated household heads, the respective figures for parent-generation headship rises to 81 % for urban blacks, 88 % for rural blacks and 47 % for whites.
- 6. In both the black and white subsamples satisfaction with living arrangements was positively correlated with feelings of being respected by family, feelings of usefulness to others, and, in the case of women, feeling in control of one's life.
- 7. Steyn (1993) reaches a similar conclusion on the basis of her research into ideal and existing family structures. With reference to the high incidence of urban blacks (50,8 % of the sample population) living in multigeneration families, Steyn (1993: 25-26) notes that "the multigeneration family can be regarded as an important legitimate family structure amongst urban blacks".

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Kinship and living arrangements in later life: the case of Taiwan¹

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Abstract

This article examines living arrangements in later life in Taiwan from the perspective of adult children. It focusses on the question of which adult child co-resides with his/her parents. It is hypothesized that the choice of living arrangement is primarily circumscribed by economic feasibility which varies during stages in the life cycle. Parents may live with children who are single or divorced, or who need their help. When all the children are married, they choose to live with those who are financially better off. Middle-aged children who have their own families are least likely to co-reside with parents. The article further addresses the question whether filial piety is abandoned by children who do not live with parents. A trend of declining frequency of visiting parents has been observed. Nevertheless, it has been found that children who have the greatest probability of living away from their parents tend to visit them most frequently.

This article examines living arrangements in later life in Taiwan from the perspective of adult children. The research focusses on which children are selected to co-reside with parents. This appears to be an area which has received little attention in Taiwan. In the past two decades, most debate in the study of the family has addressed the trend of family nuclearization in Taiwan (e.g. Freedman et al., 1978, 1982; Weinstein et al., 1990; Shu & Lin, 1989; Lo, 1987; Chen, 1986; Lai & Chen, 1980). A branch of this mainstream theory is a pragmatic-oriented discussion on the causes and consequences of living arrangements for the elderly (Lo, 1988; Chen & Speare, 1990; Chen, 1991, 1992a,b; Hermalin et al., 1990, 1992). Most of these studies employ partial models which examine the questions according to parental characteristics. The question remains as to which children are selected to live with their parents. By 1989, 65,6 % of the elderly in Taiwan still co-resided with their children (Chen, 1992b). Since parent-adult children co-residence was and still is the major type of living arrangement in Taiwan, it is important to find out the determinants for the selection of which children to live with.

Another question concerns the activities of children who do not live with their parents. It is a matter of great concern whether filial piety is abandoned by these children because of a distance barrier (Martin, 1989). On the other hand the children may visit their parents frequently to render emotional support. Unfortunately, a trend of declining frequency of visits is observed. Better understanding in this regard is thus needed. This article has the following two objectives:

- (1) To identify the determinants of the choice of children with whom to live
- (2) To examine the variation in frequency of children visiting parents.

Literature review

Kobrin and Goldscheider (1982) propose that there are three sets of constraints on residential arrangements for the elderly. These constraints are demographic availability, economic feasibility and normative availability. Conversely, the choice of living arrangements is circumscribed by the availability of relatives, monetary costs, and the matters of family norms and preferences. When the framework is applied in Taiwan, four mechanisms have been identified to explain the rapid increase in the proportion of elderly persons living apart from children. The mechanisms are migration selectivity in the 1950s, migration selectivity in the 1980s, differential mortality, and differential attitude toward living arrangements (Chen & Speare, 1990).

In the 1950s a million Chinese mainlanders moved to Taiwan. The immigrants included a large number of soldiers who were young and unmarried at the time. By the early 1980s, a substantial proportion of the immigrants remained single and lived alone. Meanwhile, it has been found that these elderly who are better educated and who live in rural areas have the greatest probability to live apart from children. This reflects the phenomenon that the younger generation of this group of elderly moved to urban areas for economic benefit. However the elderly preferred, and were able to afford, to live in rural areas. This type of increase in living apart from children is therefore simply the result of positive migration selectivity in the 1980s.

However differential mortality may have had a negative effect on the increase of living apart. In the 1980s, females in Taiwan outlived males by about five years. In general, widows were more inclined to live with their children than were widowers. The trend toward living apart from children was therefore checked only by differential mortality. However differential attitude toward living arrangements indicated that the better educated and higher-income elderly favoured living apart from their children. This group was presumably Westernized: they had adopted the Western norm of independent living which might avoid sources of potential friction in intergenerational living, including life-style differences, conflict over authority or household division of labour, and the

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irritating boisterousness of grandchildren (Lopata, 1973: 114-23). The increase in the elderly's income and education level thus has a positive effect on the trend of living apart from children.

When discussing the selection of children to co-reside with aged parents, demographic availability is not applicable. The availability of both children and at least one of their parents becomes a necessary precondition. A study sample therefore needs to be limited to subjects aged 25-49 years, who have at least one parent available with whom to reside. Such a sample can enable an examination of the question of which children are selected, from the perspective of the children.

It has been suggested that birth order, inheritance rules, and the assumption of filial obligation are relevant to norms and values which may govern the selection of children for coresidence. It has been reported that in many parts of Japan the eldest sons are expected to co-reside with their aged parents. In the case of having no living sons, the elderly tend to live with their eldest daughter and son-in-law. Children who coreside with parents inherit most of the parents' property, including land and the house (Kojima, 1987).

In past tradition, Chinese society featured a lack of primogeniture regarding the division of property; property was usually divided among sons. In contemporary Taiwan society, equal right to parents' property has been expanded by law to include daughters. In practice, more than 68 % of surveyed elderly agree that it is important for old people nowadays to keep some property to ensure respect and support from family members (Li, 1992).

On the other hand the principle of equal inheritance leads to the conception of equal sharing of the responsibility of supporting parents. "Meal rotation", a common practice in Chinese families (Hsieh, 1985), is an example of this principle. Not only meals are provided but also spending money, housing and other concrete forms of support for parents. Nevertheless, meal rotation has declined since 1951 for two possible reasons (Chen, 1969: 97-99, cited in Hsieh, 1985: 73). One is the breakdown of norms. Another is that aged parents fear negative attitudes of their daughters-in-law. Furthermore, massive rural-to-urban migration by young couples makes meal rotation inconvenient or unfeasible.

The constraint of norms is inevitably weakened in urbanized societies, while economic feasibility becomes crucial in the decision of living arrangements. In the course of the life cycle, co-residence is commonly equated with dependency. The co-residence of unmarried, divorced, or unemployed adult children with aged parents is attributed to the continued dependency of children on parents. On the other hand coresidence of elderly parents with their married adult children is taken as parents' dependency on children. It has been shown that parents provide a home for unmarried children and meet their needs (Aquilino, 1990). However there is little evidence in the United States that adult children living in a parental household provide care for their parents. It would seem that symbiosis is more possible than dependency in Eastern societies. While parents provide the home and money, married adult children take care of the housekeeping and fulfil their parents' emotional and physical-care needs.

As a result of limited data, this article will focus on a test of children's dependency on parents. Only the children's characteristics and the current living arrangements of their parents are available for analyses. Family composition, family structure, the parents' characteristics and norms about co-residence are either not available or are too difficult to trace. It is hypothesized that the choice of living arrangement by the elderly is primarily circumscribed by economic feasibility which is affected by stages of the life cycle. The elderly may live with children who are single or divorced, or who need help. When the children are all married, they choose to live with those who are better off. In the case of married children who are not well-off, meal rotation is a preferred arrangement. The middle-aged children who have their own children are least likely to co-reside with their aged parents.

The behaviour of children who do not live with their parents is also of great interest. This factor reflects a general sociological concern about the effect of societal and technological change on the family. Specifically, it has been speculated that urbanization results in the destruction of the tightly-knit extended family (Cohler, 1983), or that older people become alienated from their families (Shanas, 1979). Reviewing studies in the 1960s, Troll (1971) concluded that older people were not alienated. A similar finding was iterated in a review of studies conducted in the United States in the 1970s (Mancini & Blieszner, 1989). Most studies in the 1970s reported that more than 70% of older parents have face-to-face contact with a child on a weekly or semi-weekly basis.

In this article, frequent visits to parents is taken as an indicator of the continuation of filial piety. It is hypothesized that frequent visits are compensatory for not co-residing with parents by those who are better off. It is further hypothesized that if the children's dependency need is not met, they become distant from their parents, or visit parents infrequently.

The data

The primary source of data for this study is from the December round of the monthly labour force survey conducted by the Directorate-General of Budget, Accounting and Statistics (DGBAS) in Taiwan in 1988. The survey is intended to be representative of the non-institutional population aged 15 years and older in Taiwan, and involves a two-stage stratified sample design. In the first stage, village level units (known as Tsuns or Lis) were selected from a list stratified according to degree of urbanization and industrial composition, as indicated in the household registration data. In the second stage, households were systematically selected within the sampled Tsuns and Lis. In total, 515 Tsuns or Lis and about 18 600 households were selected, which is equivalent to an overall sampling fraction of four per thousand (DGBAS, 1989).

In some cases, the results of this survey are compared with findings of other surveys conducted by DGBAS in other years. The comparisons are aimed at finding out if there are any patterns of change. In this survey, the subjects were divided into four age groups: 15-24 years, 25-49 years, 50-64 years, and 65 years and older. Different questions were addressed to each group in order to gather information that could be used for policy planning in education, vocational training and welfare for the elderly. In this study only those aged 25-49 years and who had parents living in Taiwan were selected for analysis. A total of 24718 cases were included. Each case was given a weight which enabled the sample population to be inflated to the total population of Taiwan. These weights were adjusted to match the population by age and sex as recorded in the household registers (DGBAS, 1989). Weighted results are given, except in the logit analysis.

Who lived with their parents

The trend of living arrangements

In the four-year period from 1986 to 1989, the distribution of the parents' living arrangements was found to be rather stable. A majority (86 %) of the parents lived with their children (see Table 1). Among them, about a third stayed with the survey respondents and two-thirds with their siblings. These figures show that most parents had more than one child with whom to co-reside. This situation is probably a result of the babyboom which occurred in the late 1940s. Meal rotation as a type of living arrangement (i.e. in 1986 and 1989) was found to be no longer as common. It accounted for only 7.5 % of cases and was disproportionately related to living with respondents and with siblings. Massive rural-to-urban migration caused by industrialization and urbanization could be a main reason for its relative rarity.

The share of the elderly who had living children but lived alone was again rather stable in the four-year period. The proportion remained at about a 13 % level. On the contrary a rapid increase was noted in the proportion of elderly persons who either lived alone or with a spouse only, when the elderly who had never married and had no living children were included and the data were analysed in the context of the total elderly population. In 1986 the proportion was 25,6 %. By 1988 it had increased to 28,7 % and in 1989, to 31,1 % (Chen, 1992b). The contrast between the two types of statistics implies that the increase in the elderly who have low family support is the source of the overall increase in the proportion of elderly living alone. If this is the case, government intervention or social support is needed. Nevertheless, Table 1 indicates that the proportions of elderly living with relatives or in institutions were insignificant.

Table 1

Parents' living arrangements, 1986-89: percentage distribution

	With respon- dent	With siblings	Rotating	With relatives	Alone	Institu- tion	Total	N (1 000s)
Male								
1986	43,2	31,3	10,3	0,7	14,4	0,0	100,0	3 0 2 3
1987	49,8	37,0	-	0,6	12,5	0,0	100,0	3 131
1988	48,4	37,2	-	0,6	13,8	0,0	100,0	3 251
1989	42,9	30,8	10,5	0,4	15,1	0,1	100,0	3 340
Femal	B							
1986	10,6	71,9	4,7	0,5	12,2	0,0	100,0	2 935
1987	12,3	76,2		0,6	10,7	0,0	100,0	3 054
1988	12,4	75,6	-	0,9	11,1	0,0	100,0	3 169
1989	12,2	70,8	4,4	0,4	12,2	0,0	100,0	3 256
Total								
1986	27,1	51,3	7,6	0,6	13,3	0,0	100,0	5 958
1987	31,3	56,4	-	0,6	13,4	0,1	100,0	6 185
1988	30,6	56,1	-	0,7	12,5	0,0	100,0	6 420
1989	27,7	50,5	7,5	0,4	13,7	0,1	100,0	6 596

Source: Report on the Youth and the Old Survey in Taiwan area, Republic of China. 1987-89. DGBAS. Report on the Old Status Survey, Taiwan area, Republic of China, 1990, DGBAS,

Sex differentials are shown in Table 1. Since Taiwan is a patriachic society, it is understandable that some 70 % of parents stay with siblings of female respondents. However it is surprising to note that 12 % of the elderly stayed with daughters and sons-in-law. In addition, about 5 % of the female subjects participated in meal rotation. As Taiwan's fertility level has been under the replacement level, a change in sex preference or willingness to live with daughters and sons-in-law is needed. Otherwise, the elderly who have no sons have no choice but to live alone.

Among the male respondents, 85 % had parents who lived with one of the sons. Some 40 % of the male respondents reported that they co-resided with their parents. The proportion staying with the respondent's siblings was 10 % less than the proportion living with a respondent, since some elderly

may have only one son. In addition only 10 % engaged in meal rotation, or actually followed the principle of equal inheritance and equal sharing in supporting their parents.

However differences in the proportions of elderly living alone, with relatives or in institutional care between the two sexes are insignificant: 12,2 to 15,1 % of the respondents let their parents live alone. Less than 1 % had their parents stay with relatives or in institutions.

Table 2

Parents' living arrangement by SES: percentage distribution

	With respon- dent			With relatives	Alone	Institu- tion	Total	Chi- square
Sex								
Male	42,9	30,8	10,5	0,5	15,1	0,1	100,0	4653,62
Female	12,2	70,8	4,4	0,4	12,2	0,1	100,0	(5)
Marital	status							
Single	70,6	17,1	2,7	0,3	9,4	0,0	100,0	5066.52
Married	17,5	58,5	8,7	0,5	14,7	0,1	100,0	(10)
Other	25,1	54,7	6,6	0,7	12,7	0,3	100,0	
Educati	on							
Primary Junior-	16,1	60,8	10,2	0,5	12,3	0,1	100,0	1025,12 ⁴ (5)
high+	33,7	45,2	6,2	0,4	14,4	0,1	100,0	3-7
Resider	nce							
Rural Town-	26,0	51,7	7,0	0,4	14,7	0,1	100,0	157,08 ^t (10)
ship	32,9	50,2	6,4	0,4	10.1	0.0	100.0	1
Urban	28,5	48,2	9,4	0,5	13,4	0,1	100,0	
Age gro	qup							
25-29	45,1	39,4	3,5	0,5	11.4	0,1	100.0	1827,63
30-34	27,0	51,3	6,2	0,4	15,0	0,0	100,0	(10)
35-49	17,1	57,2	10,8	0,4	14,3	0,2	100,0	, .,
Total	27,7	50,5	7,5	0,4	13,7	0,1	100,0	
	(1 829 992) а	(496 476)	(29 191)	(900 967)	(6'238)	a	

Source: Report on the Old Status Survey, Taiwan area, Republic of China. 1989. DGBAS.

Weighted case numbers are not available in the computer output because of overflowing.

Significant at 0,01 level. ()

a

h

Figures in parentheses are weighted number of cases, or the degree of freedom.

The determinants of living arrangements

In Table 2 it is seen that parents' living arrangements are affected not only by sex but also by other socio-economic variables. Seventy per cent of the single adults stayed with their parents, while slightly more than half the adults of other marital status reported that their parents lived with their siblings. Regarding education, better educated adults had a greater probability of co-residing with parents. About a third of the adults with junior-high or higher education lived with parents, while the counterpart ratio was about a sixth for adults with primary or lower education. Significant differences in terms of residence were also observed. Township adults were more inclined to live with parents than adults in rural and urban areas. It is surprising to note that meal rotation is most common in urban areas, where it accounts for 9,4 % of parents' living arrangements. Finally, it was found that the probability of co-residing with parents sharply declined with an increase in age. Forty-five per cent of the age group 25-29 years stayed with parents. This percentage decreased to 27 % for the age group 30-34 years and to 17,1 % for the age group 35-49 years. Nevertheless, a positive correlation was observed between meal rotation and age: only 3,5 % of the

youngest age group (25-29 years) participated in meal rotation. This percentage increased to 6,2 % for the age group 30-34 years and to 10,8 % for those aged 35-49 years.

It is highly possible that some socio-economic variables are correlated and confound the effect of each other. Two other questions regarding the effect of socio-economic variables are therefore addressed. First, there is a need to know whether the variables have cumulative effects. Second, there is a need to know whether each of the variables has an independent effect. Table 3 shows the probabilities of elderly persons staying in various types of living arrangement (with the exception of living with relatives and in an institution) with a different combination of four SES characteristics (i.e. age, sex, education and marital status). For example, parents of married males aged 25-29 years and with a junior-high or higher education had a probability of 0,55 of living with their married sons; 0,23 of living with the son's siblings; 0,06 of participating in meal rotation; and 0,14 of living alone. A closer look at Table 3 reveals some patterns of joint effect. The joint effect of marital status and sex is decisive in probabilities of living with a subject. The greatest probability of married daughters living with their parents amounted to only 0,04. Instead, an overwhelming majority of the parents stayed with the daughter's siblings (0,77 to 0,81). Parents were most inclined to live with unmarried children regardless of their sex, with the exception of females aged 30-49 years. The probability of co-residing with unmarried children ranged from 0,53 to 0,72 (excluding the aforementioned exception). Since it is difficult for unmarried persons to maintain a home, the co-residence of unmarried adults with their parents is considered beneficial for unmarried adults. This finding thus supports the hypothesis of children's dependency on parents.

The probability of co-residing with parents was followed by one of living with younger married sons and then with older married sons. The age difference reflects that most sons began their married life in the parents' house (Freedman et al., 1978). Here the effect of education was also observed. Better-educated married sons had a greater probability of living with parents than less-educated married sons. In general, when sex and marital status are held constant, a rank order was observed. The younger and better-educated adults were most likely to live with their parents, while older and less-educated ones were least likely to do so. Again, the results give support to the dependency hypothesis. The younger and better-educated adults are favoured by parents. They are therefore selected to live with parents and receive more favours from parents. On the other hand less educated children are less favoured by parents according to Chinese tradition. When these children grow older and start their own family, they become a burden to parents and are requested to be independent or to set up a separate household.

It is interesting to note that the cumulative effects of the selected socio-economic variables on living with siblings are opposite to the effects of living with subjects. This finding further supports the dependency hypothesis.

Regarding which persons are more likely to participate in meal rotation, Table 3 indicates that older married men with less education had a probability of 0,19 of participating in meal rotation. They are followed by married, older and better-educated men, and then by married, younger and less-educated men. Their probabilities of participating in meal rotation were 0,12 for the former and 0,11 for the latter. Adults with other characteristics had a probability of less than 0,1 of participating in meal rotation. The results imply that those children who are most likely to participate in meal rotation are those who are less well-off, thus allowing the responsibility of supporting their parents to be shared.

Table 3

Probabilities of various living arrangements,^a by sex, age, marital status and education

	М	ale	Fer	male
-	25-29 years	30-49 years	25-29 years	30-49 years
With respondent Married				
Primary Junior-high+	0,43 0,55	0,28 0,30	0,03 0,04	0,02 0,03
Other Primary	0,66	0,58	0,55	0,18
Junior-high+	0,71	0,67	0,72	0,53
With respondent's Married	siblings			
Primary Junior-high+	0,29 0,23	0,37 0,39	0,81 0,80	0,80 0,77
Other Primary Junior-high+	0,13 0,16	0,23 0,19	0,35 0,18	0,66
Rotating		-1	-1	-
Married				
Primary Junior-high+	0,11 0,06	0,19 0,12	0,03 0,03	0,06
Other	0.07	0.00	0.01	
Primary Junior-high+	0,07 0,02	0,03 0,08	0,01 0,02	0,06 0,03
Alone Married				
Primary	0,14	0,14	0,12	0,11
Junior-high+	0,14	0,19	0,12	0,15
Other Primary	0,13	0,11	0,09	0.00
Junior-high+	0,13	0,11	0,09	0,09
Case numbers Married				
Primary	32 274	708 318	131 528	1 115 640
Junior-high+ Other	348 676	1 346 387	492 342	969 794
Primary	38 723	101 520	26 913	90 547
Junior-high+	529 561	234 484	286 961	148 248

Source: Report on the Old Status Survey, Taiwan Area, Republic of China. 1989. DGBAS.

Probabilities of living with relatives and in an institution are excluded.

The study was also concerned about which children leave their parents living alone. Table 3 shows that married children had a greater probability of letting their parents live alone. This was especially true for older married males with better education, who had the highest probability (0,19). It is presumed that migration was the main cause for this type of living arrangement for parents. Some parents were not willing to move with their children to an urban area; they preferred to live alone in a rural area. On the other hand unmarried daughters had the lowest probability of letting their parents live alone: the probability ranged from 0,08 to 0,10. The finding suggests that this group was in need of help from the parents.

To find out if each of the selected socio-economic variables has an independent effect, a polytomous logit analysis (Aldrich & Nelson, 1984) was performed. Parents' living arrangements were divided into six categories, i.e. living with the respondent, living with siblings, meal rotation, living with relatives, living alone, and living in an institution. Living with a respondent was taken as the reference group. The independent variables were all dichotomized. Code 1 was assigned to children who were male, married, aged 30-49 years, had a senior-high or higher education, and lived in urban areas. The remainder of the cases were given a code of 0.

Table 4 shows the results of the logit analysis. It was found that all the independent variables and some of their interaction had significant effects on the probability of parents' co-residing with the respondent's siblings relative to living with the respondent. Basically, the finding confirms the results shown in Table 3 and indicates their relative importance. Sex and marital status were found to be decisive factors in whether parents lived with the respondent's siblings, rather than with the respondent. Females and respondents who were not married, rather than married respondents, were significantly more inclined to live with their parents than were respondents' siblings. Their co-efficients were the largest among the selected independent variables. In addition, the co-efficients for their interaction ranked third. Unmarried females were more inclined to live with their parents relative to parents living with their siblings. Again the finding supports the dependency hypothesis. In a patriachic society, at least one son is expected to live with the parents, and parents are regarded as having a responsibility to take care of their single, divorced or widowed children, regardless of their sex.

Table 4

Results of the polytomous logit analysis of parents' living arrangements

	Sibling	Rotating	Relatives	Alone	Institution
	Respon-	Respon-	Respon-	Respon-	Respon-
	dent	dent	dent	dent	dent
Constant	1,96	2,31	0,36	-2,04	1,16
	(32,35) ^b	(38,68) ^b	(5,23) ^b	(-15,94) ^b	(18,52) ^b
Sex	-0,52	0,56	-0,14	0,02	0,07
(male)	(-9,00) ^b	(9,78) ^b	-2,15	(0,17)	(1,19)
Marital status	0,84	-0,29	-0,30	0,18	-0,13
(married)	(15,82) ^b	(-5,57) ^b	(-4,88) ^b	(-1,45)	(-2,29) ^a
Education	-0,23	0,01	0,17	-0,01	-0,11
(Junior-high+)	(-4,90) ^b	(0,14)	(3,65) ^b	(-0,06)	(-2,46) ^a
Urbanization	0,15	0,06	0,15	0,06	0,00
(urban)	(3,41) ^b	(1,37)	(3,16) ^b	(0,71)	(0,05)
Age	0,25	-0,08	-0,23	0,18	-0,05
(30-49 years)	(4,73) ^b	(-1,51)	(-3,82)	(1,78)	(-0,91)
Marital status	0,41	-0,22	0,06	-0,18	-0,14
by sex	(7,78) ^b	(-4,22)b	(0,92)	(-1,51)	(-2,46) ^a
Education by	-0,13	0,05	-0,04	-0.08	0,04
sex	(-2,80) ^b	1,20	(-0,82)	(-0,86)	(0,79)
Age by sex	0,02	0,05	0,01	-0,10	-0,02
	(0,40)	(0,97)	(0,10)	(-0,99)	(-0,40)
Chi-square DF P N			587,50 115 4.oE-32 24 718		

Source: Report on the Old Status Survey, Taiwan area, Republic of China. 1989. DGBAS.

a Significant at 0,05 level.

b Significant at 0,01 level.

() Figures in parentheses are Z values.

The influence of age and education was next to that of marital status and sex. Middle-aged subjects (30-49 years) who had their own families had a greater probability of living away

from parents and letting their parents live with their younger siblings. However education had a negative effect; bettereducated subjects had a greater probability of having their parents live with them rather than with their siblings. This is especially true for better-educated males as indicated by the interaction of the variables education and sex. This finding is contradictory to the stated child-dependency hypothesis. It is likely that parents who are not well-off are supported by better-educated children. The findings suggest that there is a type of parent-child co-residence arrangement in which parents are supported by a better-off child.

Finally, it was found that urbanization has a significant positive effect. Respondents living in urban areas had a greater probability of living away from their parents and letting their siblings live with the parents. As mentioned before, this phenomenon is a function of the rapid urbanization which occurred in the last two decades.

The types of parent-adult child co-residence

In brief, the significant effects of the selected variables seem to suggest the existence of various types of parent-adult child co-residence in contemporary Taiwan society. If this is true, some typical parent-adult child co-residence types can be identified as follows:

- · Parents and unmarried children of both sexes
- · Parents and younger married children
- · Parents and better-educated male children
- Parents and children living in rural areas.

Only the first two types support the hypothesis of children's dependency on parents. In contrast, the last two types suggest the possibility of parents' dependency on children. However no data are available to confirm this argument.

The second column of Table 4 shows that three variables had effects on the probability of participating in meal rotation, rather than living with subjects. Sex was the most important factor in a meal-rotation arrangement. Males were more likely than females to participate in meal rotation than to live with parents. Married respondents had a greater probability of having parents live with them, rather than participate in meal rotation. However the interaction of sex and marital status has a negative effect on participating in meal rotation. The findings suggest that males are assumed to be responsible for supporting parents. Moreover, meal rotation does not appear to be a popular choice of living arrangement for parents.

The third column shows the effects of the selected variables on the probability of letting parents live with relatives rather than with respondents. Male, married and middle-aged respondents were more likely to live with parents than to allow parents to live with relatives. However respondents with a better education and living in an urban area had a greater probability of having their parents live with relatives than with them. Again the finding confirms the effects of migration.

In the last column of Table 4, three variables are shown to have had negative effects on the probability of parents' living in an institution rather than with respondents. The respondents who were not married, who were less educated, or who were married males, were more likely to arrange for parents to enter an institution rather than live with them. It seems that children who were less well-off or who had family burdens, were more inclined to let their parents live in an institution.

Although the study was concerned about an increase in the number of parents living alone, it was found that the selected variables failed to have effects on the probability of living alone rather than living with the respondents. The finding suggests that the question should be pursued from the perspective of the parents.

Frequency of visiting parents

The trend of frequency of visiting parents

A trend of a steady decline in the frequency of visiting parents was observed in the period 1986-89. In 1986, the percentages of children who did not live with their parents but visited their parents daily or weekly were 12,2 % and 18,6 %, respectively (Table 5). The counterpart proportions decreased to 8,7 % and 16,3 % in 1989. A decline was observed for both sexes. Among males, daily visiting declined about a third, from 19,6 % in 1986 to 13,7 % in 1989, while weekly visiting decreased from 22,1 % in 1986 to 19,5 % in 1989. In general, females visited their parents less often than did males; they showed a similar decline in the frequency of visiting parents. Daily and weekly visiting accounted for 8 % and 16,4 %, respectively, in 1986. The figures were reduced to 5,9 % and 14,4 %, respectively, in 1989.

Table 5

Frequency of visiting parents, 1986-89: percentage distribution

	Daily	Weekly	Monthly	Quar- terly	Bi- annually	Yearly+	Total	N (1 000s)
Male								
1986	19,6	22,1	24,8	14,4	10,0	9,0	100,0	1 405
1987	15,8	21,5	21,4	22,8	9,8	8,6	100,0	1 573
1988	14,5	20,7	22,7	24,6	10,1	7,4	100,0	1 677
1989	13,7	19,5	24,9	25,5	9,6	6,9	100,0	1 554
Female								
1986	8,0	16,4	24,2	20,2	14,5	16,5	100,0	2 485
1987	6,1	15,0	21,3	28,3	14,1	15,2	100,0	2 676
1988	6.0	13,9	22,6	29,9	13,7	13,8	100,0	2 775
1989	5,9	14,4	24,5	30,7	12,5	12,0	100,0	2716
Total								
1986	12,2	18,6	24,4	18,1	12,9	13,8	100,0	3 890
1987	9,7	17,4	21,4	26,2	12,5	12,8	100,0	4 250
1988	9,2	16,5	22,7	27,9	12,4	11,4	100,0	4 452
1989	8,7	16,3	24,6	28,8	11,4	10,1	100,0	4 269

Source: Report on the Youth and the Old Survey in Taiwan area, Republic of China. 1987-89. DGBAS. Report on the Old Status Survey, Taiwan area, Republic of China. 1990. DGBAS.

The trend of a decline in the frequency of visiting parents raises the question of whether parents are being abandoned by their children. The greatest concern here is for parents who live alone. A concern also exists for parents who live with one of their children. If they are visited by other children, this suggests that the norm of filial piety is still maintained.

The determinants of frequent visits to parents

Table 6 indicates that parents who lived alone were visited most frequently: 26,3 % were visited by their children daily or weekly. Another 50 % were visited monthly or quarterly. The next most frequently visited group were parents who lived with the respondent's siblings: 24,7 % were visited daily or weekly. Another 54 % were visited monthly or quarterly. On the other hand parents who lived with relatives or in an institution were relatively less frequently visited by their children; they probably had fewer children. Generally speaking, a quarter of the parents were visited monthly or quarterly. It thus seems that parents were usually not abandoned by children who did not live with them, or further, that filial piety is still maintained in contemporary Taiwan society.

Table 6

Frequency of visiting parents by SES: percentage distribution

	Daily	Weekly	Monthly	Quarterly	Bi- annually	Yearly+	Total	Chi-square
Sex								
Male	13,7	19,5	24,9	25,5	9,6	6,9	100.0	478,32 ^a
Female	5,9	14,4	24,5	30,7	12,5	12,0	100,0	(5)
Marital stat	us							
Single	8,8	10,4	23,3	30,2	15,8	11,4	100,0	57,94 ^a
Married	8,8	16,8	24.8	28,6	11.1	9,9	100,0	(10)
Other	8,0	15,1	23,1	30,4	10,2	13,2	100,0	
Education								
Primary	7.4	14,8	22,6	29.3	13.0	12,9	100,0	143.08 ^a
Junior-								(5)
high+	9,6	17,2	25,9	28,4	10,4	8.4	100,0	
Residence								
Rural	8,2	16,0	24,7	29,8	10,7	10,7	100,0	41,84 ^a
Township	8,9	16,4	25,9	25,5	12,0	11,3	100,0	(10)
Urban	10,0	16,9	23,9	28,2	12,9	8,2	100,0	
Age				U.				
25-29	8,1	14,0	24,6	30,5	13,5	9,2	100,0	49,54 ^a
30-34	8,6	16,7	25,3	29,4	11,3	8,3	100,0	(10)
35-49	9,1	17,0	24,3	27,6	10,5	11.4	100,0	1. S.
Living arra	ngement							
With								
sibling	8,3	16,4	25,4	28,9	11,1	9.9	100,0	24 859,61 ^a
With								
relative	7,7	13,8	20,1	30,6	9,0	18,7	100,0	
Alone	10,5	15,8	21,9	28,4	12,7	10,7	100,0	
Institution	4.5	17,6	21,5	17,3	9,5	29,5	100,0	
Total	8,7	16,3	24,6	28,8	11,4	10,1	100,0	
	(373 547)	(694 247)	(1 052 337)(1 228 879)	(487 173)	(433 265)	(4 269 448	3

Source: Report on the old status survey, Taiwan area, Republic of China. 1989. DGBAS.

a Significant at 0,01 level.

 Figures in parentheses are weighted number of cases, or the degree of freedom.

Table 6 also shows that respondents who were male, married, better-educated, urban-resident and older, visited their parents more frequently than did other respondents. The cumulative and independent effects of these variables were further investigated.

The probability of respondents' visiting their parents weekly or more frequently with different combinations of four SES characteristics are shown in Table 7. Again it was found that marital status and sex were decisive factors for the probability of visiting parents weekly or more frequently. Married males had a greater probability of visiting parents frequently: the probability ranged from 0,24 to 0,39. It is interesting to note that the rank order of the finding was rather similar to the counterpart probability of parents' co-residing with a sibling or living alone (Table 3). The finding indicates that the groups in which the respondents had a greater probability of living away from their parents, visited their parents more frequently. The finding also offers further evidence that parents not co-residing with children are not abandoned by their children.

Nevertheless, there is an obvious concern with the behaviour of unmarried young adults with a lower education who are somewhat isolated. In the study these persons not only stayed away from their parents but also visited their parents infrequently. The probability of visiting their parents weekly or daily was only 5-6 %. It is hoped that this can simply be attributed to a "stage" that they will later grow out of.

Table 8 shows the results of polytomous logit analysis on frequency of visiting parents. It seems that there is a threshold of changing the frequency of visiting for some SES variables. Male subjects preferred daily visits to weekly or monthly visits. When the visiting interval was expanded, males preferred quarterly or biannual visits to daily visits. A similar pattern was observed for marital status and education. However the cut-off point was between quarterly and biannual factors. Also, married and better-educated subjects preferred daily to weekly, monthly or quarterly visits. Otherwise they visited parents biannually rather than daily. The behaviour of urban residents was somewhat different: they preferred weekly (even monthly and quarterly) to daily visits, or biannual to daily visits. This pattern suggests that distance influences the frequency of visiting. If both parents and subjects lived in the same city, they preferred to visit their parents daily. If parents lived in rural areas, the subjects had a greater probability of visiting their parents weekly rather than daily.

Table 7

Probability of visiting parents weekly or more frequently, by sex, age, marital status and education

	M	ale	Female		
	25-29	30-49	25-29	30-49	
	years	years	years	years	
Married					
Primary	0,24	0,39	0,19	0,17	
	(15 042)	(369 545)	(124 029)	(1 020 618)	
Junior-high+	0,33	0,35	0,22	0,17	
	(134 238)	(778 049)	(458 455)	(895 705)	
Other					
Primary	0,06	0,23	0,05	0,19	
	(10 482)	(34 897)	(11 891)	(68 426)	
Junior-high+	0,17	0,27	0,02	0,26	
	(140 476)	(70 876)	(74 564)	(62 155)	

Source: Report on the Old Status Survey, Taiwan area, Republic of China. 1989. DGBAS.

Figures in parentheses are weighted number of cases.

Nevertheless, there is no clear visiting pattern for the variables of age and parents' living arrangement. Middle-aged respondents prefer daily visits to monthly visits. This probably indicates that parents help to care for grandchildren during the day and that the adult children fetch their children from the grandparents in the evening. When parents live alone, live with relatives, or live in an institution, they are more likely to be visited quarterly rather than daily. The finding suggests that the parent-child relationship is rather loose in such cases.

Summary and discussion

Although the selection of an adult child with whom to coreside in later life is a complex process, the analytical results in this article suggest that the selection is basically governed by economic feasibility or dependency theory. Parents may provide continued assistance to unmarried, divorced, or less well-off children by living with them. On the other hand parents living with better-off adult children, or being supported in meal rotation by less well-off children implies parents' dependency on children. To confirm these findings, a full model, rather than a partial model, is needed. There is therefore a need for more data, including parents' characteristics, family composition, family structure and home ownership.

Table 8

Results of the polytomous logit analysis of frequency of visiting parents

	Weekly Daily	Monthly Daily	Quarterly Daily	Biannually+ Daily
Constant	-0,78	-0,29	0,24	0,49
	(-19,13) ^a	(-8,39)a	(8,46) ^a	(19,04) ^a
Living				
arrangement	0,01	0,04	0,07	-0,02
(With others)	(0,37)	(1,82)	(3,57) ^a	(-1,01)
Sex	-0,38	-0,10	0,05	0,16
(male)	(-15,71) ^a	(-5,07) ^a	(3,28) ^a	(9,65) ^a
Marital status	-0.10	-0.16	-0,01	0.08
(married)	(-2,75)	(-4,95) ^a	(-0,31)	(3,30) ^a
Education	-0.07	-0.08	-0,06	0.03
(junior-high+)	(-2,63) ^a	(-4.07) ^a	(-3,28) ^a	(1,85)
Urbanization	0.08	0.01	0.00	-0,05
(urban)	(3,60) ^a	(0,69)	0,12	(-3,43) ^a
Age	-0,02	-0,06	0,00	0,04
(30-49)	(-0,80)	(-2,48) ^a	(-0,07)	(1,87)
Chi-square	520,07			
DF	228			
P	1.oE-21			
N	15819			

Source: Report on the Old Status Survey, Taiwan area, Republic of China. 1989. DGBAS.

Significant at 0,01 level.

Figures in parentheses are Z values.

Another concern in this article is the continuation of filial piety. Filial piety was demonstrated by living with children, or not living with children but being visited frequently. Basically, the results of the analysis support the continuation of the traditional norm: parents who lived alone were visited most frequently. Adult children who had a greater probability of living away from parents were more inclined to visit their parents more frequently. Nevertheless two findings give cause for concern: one is that a trend of a steady decline in frequency of visiting parents was observed in the period 1986-89. The other is the behaviour of young, unmarried and less-educated adults; these children not only lived away from their parents but visited their parents infrequently. Alternatively, they were somewhat isolated from their stem family. There is therefore a need to closely observe the change in frequency of visiting parents in the future.

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Life satisfaction in old age and activity theory: should the debate be re-opened?

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Abstract

Since the formulation of the activity theory of ageing by Havighurst and Albrecht in 1953, the theory has been subject to intense scrutiny. Although subsequently challenged by the disengagement theory advanced by Cumming and Henry in 1961, it is now widely held that activity, particularly social activity, contributes to increased life satisfaction in the elderly. A literature review however suggests only limited support for activity theory. Meanwhile, the increased proportion of aged people in the population over the past forty years has made the significance of activity theory for the wellbeing and care of the aged increasingly important. Given the paucity of South African research on activity theory, a pilot study was conducted among 43 white South Africans between the ages of 62 and 89 years, using a modified activity scale as developed by Lee and Markides (1990), and a multidimensional life satisfaction index originally developed by Neugarten, Havighurst and Tobin (1961) and further refined by Adams (1969). The pilot study failed to provide support for activity theory, as described by the original theorists, possibly due to a small sample size. Further research in the South African context is suggested, and attention is drawn to the importance of investigating the type and quality of activity in terms of its perceived effects on life satisfaction.

Activity theory

For forty years social gerontology has observed and encouraged debate on what is known as the "activity theory of optimum aging". Although the concept already existed informally in the 1940s (Longino & Kart, 1982: 713), the first explicit statement concerning the importance of social role participation in relation to "successful" adjustment to old age was made in 1953 by Havighurst and Albrecht. In contrast to a view of old age as a period of life in which feelings of dissatisfaction and low morale prevail, these researchers argued that there is a positive relationship between activity and life satisfaction, and that the greater the loss of roles, the lower the life satisfaction (Lemon, Bengtson & Peterson, 1972: 511). Or, in Havighurst's own words, "... activity in a wide variety of social roles is positively related to happiness and good social adjustment in old age and . . . a high degree of activity in a given social role is positively related to happiness and good social adjustment" (Havighurst, 1954: 309). Inactivity was seen as leading to deterioration and illness (Maddox, 1987: 45).

The observed decrease in social interaction which accompanied ageing was, according to activity theory, attributed to the withdrawal of society from the ageing person rather than the reverse. Withdrawal was viewed as being contrary to the wishes of the aged. Optimum ageing was seen as success by the aged in finding substitutes for those interactions which they were forced to relinquish by reason of retirement, the death of significant others, or other circumstances (Havighurst, Neugarten & Tobin, 1963: 161). Appealing to a "common-sense" view of successful ageing, the functionalist approach of activity theory found a ready response in the 1950s and rapidly became ". . . a part of gerontological wisdom . . ." (Longino & Kart, 1982: 713).

In 1952 a series of large-scale investigations of social and psychological ageing were begun under the direction of Robert Havighurst, William Henry and Bernice Neugarten. These investigations, which continued for more than a decade, became known as the Kansas City Study of Adult Life (Cumming & Henry, 1961; Kimmel, 1974; Maddox, 1987). The study involved a large number of anthropologists, sociologists and psychologists, and constituted "... the first community-based research to focus attention upon middle age and upon the changes that occur as persons move from middle to old age" (Maddox, 1987: 372).

Analysis of the first sets of cross-sectional data gathered by the Kansas City Study provided the basis of a serious challenge to activity theory. This challenge took the form of an exposition of a theory of disengagement by Cumming, Dean, Newell and McCaffrey (1960), which was later modified in a book by Cumming and Henry (1961), and in subsequent papers by Cumming (1963) and Henry (1963). The theory took as its basis data showing ". . . a marked decline in the amount of social interaction, present role activity, ego involvement in present roles and changes in role activity with age" (Kimmel, 1974:314). According to disengagement theory, decreased social interaction is a mutual process in which the withdrawal of society from the ageing person is paralleled by a withdrawal from society by the ageing person. Moreover, the withdrawal of ageing persons is accepted and perhaps even desired by them. The theory went on to suggest that withdrawal has "... intrinsic or developmental, qualities as well as responsive ones; social withdrawal is accompanied by, or preceded by, increased preoccupation with the self and decreased emotional involvement in persons and objects in the environment; and in this sense, disengagement is a natural rather than an imposed process" (Havighurst, Neugarten & Tobin, 1963: 161). The proponents of disengagement theory further argued that it led to individuals maintaining morale in old age at a higher level than if they "... attempted to keep involved in a range of social affairs and activities" (Fennel, Phillipson & Evers, 1988: 47).

Additional support for disengagement theory was provided by data from projective tests included in the Kansas City Study. They also appeared to substantiate Jung's observation that "... aging people should know that their lives are not mounting and expanding, but that an inexorable inner process enforces the contraction of life... for the aging person it is a duty and a necessity to devote serious attention to himself" (Jung, 1933: 17). The data also showed compatibility with Erikson's view of the eighth stage of personality development, namely "Integrity vs Despair" (Erikson, 1980).

Life satisfaction

The enunciation of disengagement theory prompted debate and called forth more specific statements on activity theory as well as improved measures of life satisfaction. To begin with, Neugarten, Havighurst and Tobin (1961) developed "Life Satisfaction Ratings", or LSRs, which analysed the concept of psychological wellbeing according to five components:

- (1) "Mood Tone" gave high ratings to respondents who expressed "... happy, optimistic attitudes and mood; who use spontaneous, positively-toned affective terms for people and things; who take pleasure from life and express it" (1961: 138), and low ratings for those who expressed depression, feelings of bitterness, frequent irritability and anger.
- (2) "Zest vs Apathy" gave high ratings for "... enthusiasm of response and degree of ego-involvement – in any of various activities, persons or ideas, whether or not these are activities which involved ... other people .." (1961: 137). Low ratings were given for listlessness and apathy but physical energy per se was not involved in this rating.
- (3) "Congruence between desired and achieved goals" measured the extent to which respondents felt that they had achieved their goals in life, whatever those goals might be.
- (4) "Resolution and Fortitude" dealt with the extent to which respondents accepted personal responsibility for their lives, accepted their lives as meaningful and inevitable, and were relatively unafraid of death (Erikson's "integrity"). Low ratings were given for the highly intro-punitive who were self-critical, and the extra-punitive who blamed others and the world in general for their failures and disappointments.
- (5) "Self-concept" was concerned with the respondent's concept of self, i.e. physical as well as psychological and social attributes, with high ratings given to those who felt proud of their achievements and who were concerned with their grooming and appearance. Low ratings were given to those who spoke disparagingly of themselves, or felt "old", weak, sick or incompetent.

Two self-report instruments were devised which would take only a few minutes to administer and which could be used separately or together. The first, called the Life Satisfaction Index A (LSIA), consisted of 25 items for which only an "agree" or "disagree" response was required. The second, called Life Satisfaction Index B (LSIB), consisted of 17 open-ended questions and check-list items, to be scored on a three-point scale. After testing, the indices were reduced to 20 and 13 items, respectively, and correlations with the LSR of ,55 and ,58 were obtained.

Using the Life Satisfaction Index A, the same researchers subjected the remaining 55% (159) of the original sample included in the Kansas City Study to further analysis. On the basis of this analysis they concluded that neither activity theory nor disengagement theory was sufficient in itself to account for the overall findings of the Kansas City Study; as people became older than 70 years (in a modern-industrialized community), they regretted the decrease in role activity that occurred in their lives. Havighurst, Neugarten and Tobin found that the relationship between life satisfaction and present activity, while positive, was only moderate, thus providing "... all four combinations of activity and life-satisfaction: high-high and low-low, but also high-low and lowhigh" (1963: 171), and took this as a measure of support for disengagement theory. On the other hand they found that as the level of activity decreased, so did the individual's feelings of contentment regarding present activity, thus supporting activity theory. Overall, they distinguished between disengagement as a process and disengagement as a theory, and concluded that the data supported the first but not the second, and that social engagement, not disengagement, is generally related to psychological wellbeing. Finally, they found that this relationship did not hold for all persons; they found personality to be ". . . the pivotal dimension in predicting relationships between social engagement and psychological well-being" (Havighurst et al., 1963: 177).

Activity theory and life satisfaction: later studies

Further work relating to activity theory was done by Maddox (1966) and Palmore (1969), based on a sample of 148 non-institutionalized volunteer subjects aged 60 years and over. Maddox showed that persistence rather than changes in lifestyle characterized 79 % of the subjects on re-evaluation; he interpreted this as being contrary to disengagement theory in as much as levels of social activity had not shown a decrease over time. He went on to argue that "... a pattern of disengagement is more adequately viewed as a continued life-style of particular individuals than as a likely culmination of a process characteristic of all aging individuals" (Maddox, 1966; 182).

In a further review of the same studies, Palmore (1969) pointed out that they were based on relatively healthy subjects and commented that disengagement might be more typical of the less healthy aged who die earlier. He stressed that the studies indicated that disengagement was not inevitable, even over long periods of time, and concluded that ". . . on the question of whether activity is related to high or to lowered morale and life-satisfaction, the evidence is overwhelmingly on the side of activity theory" (Palmore, 1969). (Palmore (1987) later analysed the predictors of successful ageing in the second Duke Longitudinal Study of Aging; by stepwise multiple regression he found two of the strongest explanatory predictors to be group activity and physical activity.)

These and other findings sufficiently undermined support for disengagement theory to enable Maddox to assert: "In the balance, disengagement theory has been found wanting empirically and its original formulation is rarely defended by anyone" (Maddox, 1969). However, as far as activity theory was concerned, it became increasingly clear that an adequate formulation of the theory was lacking. This was then provided by Lemon, Bengtson and Peterson (1972) who after careful definition of constructs, presented a summary of their view of activity theory: "Activity provides various role-supports necessary for re-affirming one's self-concept. The more intimate and the more frequent the activity, the more reinforcing and the more specific will be the role supports. Role supports are necessary for the maintenance of a positive self-concept which in turn is associated with high life satisfaction" (1972: 515).

Lemon *et al.* (1972) also carried out a study to test various hypotheses resulting from their formal axiomatic theory. The study, based on a sample of 411 subjects, focussed on persons aged 52 years and older who were about to move into a retirement community in Southern California. Using the LSIB scale in conjunction with interviews they found no significant relationship between activity with neighbours, relatives, formal organization or solitary activity and life satisfaction. They concluded that the data lent ". . . only limited support to some propositions of this theory" (1972: 522), and that overall this pointed to a need to revise and/or enlarge the theory, including as concepts personality configurations and the availability of confidants. They also identified a need to test the theory on a broader spectrum of the aged population.

The Life Satisfaction Index had meanwhile received attention from Adams, who found it to provide a "... fair estimate of life satisfaction for a small town elderly sample as it does for the urban and rural samples on which it has previously been tested" (Adams, 1969: 473); however the fifth factor, "self-concept", had no items highly correlated with it. Adams (1969) also found that two items, S and T, which correlated more highly (,42 and ,39) with "self-esteem" than any other factor, performed very poorly in terms of item reliability and accordingly recommended that they be dropped from the index. Adams' study was based on 508 persons living in towns of between 1 000 and 2 500 persons in Missouri.

A study by Knapp (1976) based on interviews with 51 subjects (age range 62 to 86 years; mean age 75,7 years) in a coastal resort in Southern England, nicknamed the "Costa Geriatrica", drew attention to the importance of treating the LSIA as a multidimensional measure. This suggestion was followed up by Hoyt, Kaiser, Peters and Babchuk (1980) in a study involving 124 completed interviews with persons aged 65 years and older in a midwestern United States community of 35 000 (mean age 74,7 years; SD 6,66), using a total of five activity measures.

Hoyt *et al.*'s (1980) conclusions were that "The general failure of the various measures of activity to be related to life satisfaction is reaffirmed in a multi-dimensional context" and that the only "... aspects of the activity theory perspective given strong support were the hypotheses linking role loss and self-concept to the dimensions of the LSIA." They went on to suggest that in order to provide a more definite test of the relationship of activity to life satisfaction it would be necessary to develop "... activity measures that indicate the quality of the interactions" (1980:940).

Hoyt *et al.* (1980) summed up their inquiry into life satisfaction and activity theory by saying "... there may be greater problems inherent in activity theory than those which attend utilizing a multidimensional interpretation of life satisfaction." "It is extremely difficult" the authors continued, "to uncover significant associations which characterize activity theory, given the measures of interaction that have been employed and developed up to this time" (1980: 940). In this, they summarized the state of activity theory at the beginning of the 1980s. Hence, despite the attractiveness of the theory and its implications for social policy, there was still a lack of general confirmation of the relevance of the theory.

The past ten years have seen further work, notably by Longino and Kart (1982) who attempted a formal replication of the work of Lemon et al. (1972) but with a considerably enlarged sample of 1 209 from three distinct types of retirement communities, thus providing " ... far greater variation on background variables than existed in the original study." (Longino & Kart, 1982: 714). Apart from this improvement, the researchers addressed the self-criticism of the earlier study - that its activity measures were inadequate. Accordingly, behaviourally-based activity scales were drawn from daily activity inventories rather than the single-item ordinal measures of activity types used in the original research. Three activity scales were devised, measuring informal social activity, formal social activity and solitary activity. For the dependent variable, life satisfaction, a 13-item modified Life Satisfaction Scale B, which was factor analysed, was used. Multiple classification analysis was used to sort out the effects of each activity type from the others, and from the effects of age, gender and health on life satisfaction.

The results, although mixed, differed from those of Lemon et al. (1972) and were considered to lend "... strong support to the activity theory of aging. Informal activity contributed positively, strongly and frequently to the life satisfaction of respondents. Solitary activities had no effect on life satisfaction. Formal activity had a negative effect. All activity effects were similar in the three communities" (Longino & Kart, 1982: 713). Overall it was concluded that parts of activity theory have predictive power but that more research is needed, especially as regards "... the interactionist underpinnings of activity theory" (Longino & Kart, 1982:720). They also urged that activity theory be examined in broader theoretical contexts by taking into account Rose's aged subculture hypothesis (Rose, 1962), and by placing activity theory in the context of a life-course perspective, bearing in mind that "The degree to which the activity theory model holds over the adult phases of the life course has not yet been well tested" (Longino & Kart, 1982: 721).

One of these suggestions was followed by McClelland (1982: 723), who found self-conception to be "... an important intervening variable between social activity and life satisfaction, especially for the sub-sample of older people who prefer to spend time with others their own age". McClelland used data from a survey conducted by the Louis Harris organization in 1974 for the United States' National Council on Aging. The data covered two samples of 1 324 and 439 respondents, respectively. Arising out of this study McClelland made several suggestions for future research, including "... the matter of better defining and mapping the extent of aging group consciousness among the elderly", and the "... investigation of how local group situations affect aging group consciousness and adjustment" (McClelland, 1982: 731).

Finally, a very recent study by Lee and Markides (1990) at the University of Texas has developed a useful activity level scale derived through factor analysis which they employed in an attempt to examine the influence of activity on mortality.

Rationale for the study

It will have been seen from this review of the increasingly sophisticated research on activity theory over the past forty years that, despite occasional "encouraging" results, the overall picture has been one of failure to find any widespread support for the theory. Better measures have been constructed and refined. Larger and more elaborate samples have been used. But despite these methodological changes, it has not been possible to obtain unqualified support for activity theory. It has even been argued that continued preoccupation with the question of how the individual successfully adapts to his/her own ageing hinders theoretical progress in new and perhaps more fruitful directions (Marshall, 1978). However the considerable growth, both absolute and relative, which has taken place in the population of old people, not only in Western Europe and North America but also in South Africa (a million and a quarter people over the age of 65 in 1991 (Central Statistical Services, 1991)), has made it increasingly important to analyse the significance of activity theory for the wellbeing and care of the aged.

With this in mind, and in view of the fact that a search of the literature failed to reveal any published research on activity theory in the South African context, a pilot study was conducted to establish some preliminary empirical baselines for further research in the country.

Method

Sample

Questionnaires were completed by 43 members of a seniors' centre managed by the Cape Peninsula Organization for the Aged (CPOA) in Sea Point, Cape Town. The respondents comprised a fairly homogenous urban group and were all members of the white population group. Thirty-five women and eight men between the ages of 62 and 89 years, with a mean age of 76,5 years (SD = 7,6) completed questionnaires.

Fourteen of the respondents were either married or had never married. The remaining 29 had all suffered marital role loss, being either separated, divorced or widowed. Forty-one respondents who described themselves as retired had suffered occupational role loss.

Measures

The questionnaire was made up of 35 items: six related to personal details; 11 to activity levels; and 18 to life satisfaction.¹

Three measures of activity were included in the questionnaire, based on Lee and Markides (1990: 40) and Hoyt *et al.* (1980: 937). These measures were an activity level scale and the number of days per week that the respondents interacted with friends and relatives.

Eighteen of the original Life Satisfaction Index A items developed by Havighurst *et al.* (1961) were used. Wood, Wylie and Shaefor's (1969: 467) method of scoring the LSIA was used. On some items of both the activity and the life satisfaction indices the wording had to be altered slightly to eliminate Americanisms.

Procedure

The questionnaires were completed after a mid-day musical event at the centre, as these events usually attract an audience of between 80 and 100 centre members, which includes residents of the adjacent aged residential centre. It was briefly explained to the members that their participation was sought in a preliminary study of life satisfaction. An assurance of confidentiality was given. The majority of the members present remained behind; 70 questionnaires were distributed, of which 50 were completed. Seven of the completed questionnaires had to be discarded because of omissions, leaving 43 completed questionnaires for inclusion in the study.

Results

The means and standard deviations for the independent and dependent variables are shown in Table 1. The potential range of scores for the activity measures were contact with friends and with relatives (0 to 364), and activity scale (9 to 27). Life satisfaction indices were 0 to 26. The distribution of scores on the variable measuring contact with relatives is skewed, the median being 52, the minimum 0 and the maximum 364.

Table 1

Means and standard deviations for the variables

	x	SD
Activity measures		
Friends	215,30	120,40
Relatives	117,50	136,40
Activity scale	17,58	4,76
Life satisfaction		
Mood Tone	7,61	3,27
Zest vs Apathy	8,61	3.08
Congruence	4,00	1,99
Resolution and Fortitude	2.84	1,72
Total LSI	23,05	7,80
N = 43		

Table 2 shows correlations between the four life satisfaction indices, demonstrating relatively low correlations, except between Mood Tone and Zest vs Apathy.

Table 2

Correlations between the four life satisfaction index dimensions^a

	Mood Tone	Zest vs Apathy	Con- gruence	Resolution and Fortitude
Mood Tone	-	,678	,311	,433
Zest vs Apathy		-	,385	,330
Congruence			-	,432
Resolution and Fortitude				-

The estimates are the product-moment coefficient of correlation, r.

Table 3 shows correlations between the three activity measures and life satisfaction and its four dimensions. No significant correlations are demonstrated.

Table 3

Correlations between activity measures and measures of life satisfaction^a

	Friends	Relatives	Scale
Mood Tone	,234	-,045	,069
Zest vs Apathy	,175	-,134	,287
Congruence	-,057	,022	,038
Resolution and Fortitude	,078	,056	,067
Total LSI	,170	-,054	,167

a The estimates are the product-moment coefficient of correlation, r.

Table 4 shows the multiple regression equation estimates for the dimensions of the life satisfaction index. The estimates are standardized regression coefficients. No significant differences (at the 0,05 level) were found. Despite the small sample size the table is shown as a replication of Hoyt *et al.*'s (1980: 938) Table 3.

Table 4

Multiple regression equation estimates for the dimensions of the life satisfaction index^a

	Mood Tone	Zest vs Apathy	Con- gruence	Resolu- tion and Fortitude	Total LSI
Control varia	bles				
Age	-,176	-,312	,198	,024	-,141
Sex	-,060	-,049	-,204	-,163	-,134
Role loss Marital					
status	,315	,160	,178	,047	,251
Retirement	-,222	-,084	-,099	,062	,138
Activity					4
Friends	,187	.032	-,038	,091	,097
Relatives Activity	,204	,125	-,137	,058	,097
scale	,054	,215	,072	,016	,100
R ²	.254	,239	,101	,047	,155
Adjusted R ²	.105	,087	Nil	Nil	Ni
F	1,710	1,570	,560	,250	,920

^a The estimates are the standardized regression coefficients. There is no significance at the ,05 level.

Discussion

The sample, although small compared to those referred to in the literature review, was similar in terms of sample characteristics to some of the samples used in the cited studies. For example, Knapp's (1976) sample had a mean age of 75,7 years (SD 6,91) and Hoyt et al.'s (1980) sample had a mean age of 74,7 years (SD 6,66). The means found by Knapp for the dimensions of life satisfaction approximated fairly closely those found in the Cape Town study (the Cape Town study's means are shown in brackets): Mood Tone X7,49 (7,61); Zest vs Apathy \overline{X} 9,16 (8,61); Congruence \overline{X} 5,20 (4,00); Resolution and Fortitude \overline{X} 3,02 (2,84). However similarity was not evident in a comparison with Hoyt et al.'s sample, which recorded much lower ratings: Mood Tone X 4,01 (7,61); Zest vs Apathy X 3,98 (8,61); Congruence X 2,44 (4,00); Resolution and Fortitude X 1,84 (2,84). A higher activity with friends score was found in the Cape Town study than in the Hoyt et al. study: activity with friends in the Hoyt et al. study had a mean of 148,5 days a year (215,3 in the Cape Town study). On the other hand the Hoyt et al. study recorded a mean of 183,4 days a year activity with relatives, compared to 117,5 days in the Cape Town study. Overall there was no indication that the sample in the Cape Town study was unsuitable; however it is obviously not possible to generalize the Cape Town findings to populations other than similar urban-based semi-institutionalized white South African elderly communities.

Conclusions

Essentially the results show no significant support for activity theory. This is in line with the general findings in other Western countries, which it was seen only found limited support for the theory even when examined multidimensionally – as has been done here. A number of possible conclusions follow. The first is that there is in fact no significant

relationship between social activity and perceived life satisfaction. To accept this would be to entirely discount reports from social workers and other professionals in the field who repeatedly report observing marked improvements in cheerfulness and psychological wellbeing in elderly people after they are drawn into social and other activity (Meiring, 1990; 370). Nevertheless it must be recognized that activity theory has the effect of legitimizing the provision of certain social services to the elderly and that the report of benefits derived from such services is open to the possibility of classification with self-fulfilling prophecies. However the persistence which researchers overseas have displayed in attempting to explicate activity theory demonstrates that the theory continues to attract support from gerontologists despite suggestions that attention should shift to ". . . questions of social structure and large-scale social changes" (Longino & Kart, 1982: 721).

A second possible conclusion is, equally obviously, that a larger sample should have been used. The data in the present study were not subjected to step-wise multiple regression analysis because of the sample size (see Hoyt et al.'s (1980) criticism of Knapp (1976) in this regard). It would certainly be useful to administer the questionnaire (with minor revisions) to several similar communities in order to ascertain whether a similar pattern of results is obtained, or whether the particular community sampled is less representative of the urban white South African elderly population than assumed. In this regard it has to be borne in mind that although seniors' centres provide a convenient venue for the administration of questionnaires such as the one used in this study, in some cases their proximity to institutionalized or semi-institutionalized retirement accommodation may have the effect of making the sample biased when compared with the elderly population at large. Despite the growth in retirement accommodation, the greatest section of the South African aged population still lives outside such accommodation and samples should therefore be carefully controlled to avoid such bias. However in view of the fact that, though a minority, the white group in South Africa compares most closely to the samples used in research in Western-industrialized countries, it continues to represent an ideal starting point for local research in this regard.

It is suggested that whilst a larger sample would clearly be desirable, the findings support the view of those who have drawn attention to the need for more sensitive measures of activity. Although time-consuming to administer, the behaviourally-based activity scales developed by Longino and Kart would appear to provide more satisfactory measures than those employed in the present study. Further, the emphasis that several researchers have given to the importance of measuring the *quality* rather than the *degree* of activity warrants serious attention. Clearly regular, increased social interaction with depressed or aggressive others is unlikely to bring about a heightened sense of life satisfaction. In this regard a phenomenological approach may prove invaluable in establishing parameters for a measure of the perceived quality of social activity.

Finally, in order for activity theory to be examined in a life-course perspective, any future sample should be constructed so as to be adequate for an examination of the effects of activity on life satisfaction at various stages of ageing. Such a study would then also be suitable for replication over time.

Accordingly, it is concluded that despite the inadequacies of the pilot study, further research in the South African context is warranted, if directed towards establishing a relationship between type and quality of activity, and perceived life satisfaction amongst the elderly.

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Note

 The following extracts from the questionnaire are given as examples of items:

From Part 1, Question 13: How often do you get together with friends or neighbours to play games such as cards, dominoes, chess, etc.?

Once or twice a month or more	SCORE 3
Once or a few times a year	SCORE 2
Never or almost never	SCORE 1

From Part 2, Question 1: As I grew older, things seem better than I thought they would be

Agree	SCORE 2
Disagree	SCORE 0
Query or no answer	SCORE 1
From Part 2 Question 11: A	s I look back on my l

From Part 2, Question 11: As I look back on my life, I am fairly well satisfied

Agree	SCORE 2
Disagree	SCORE 0
Query or no answer	SCORE 1

A copy of the questionnaire is available from the first author.

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