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THE ROLE OF THE PAST
IN ADAPTATION TO OLD AGE

by

Peter George Coleman

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ABSTRACT

This study consists in an inquiry into whether reminiscing and related characteristics, notably the concept of life reviewing, appear adaptive features of the aging process, as has been suggested in the recent literature.

The attempt was made to produce more thorough evidence on this question than previous studies, firstly by obtaining more individually sensitive measures of losses incurred in old age, and using person subjective but carefully monitored indices of adjustment. The analysis was performed on forty eight subjects (aged 68 - 92 yrs. of mean age 80 yrs.) living alone in sheltered housing accommodation in five London boroughs.

Reminiscing, life reviewing, and use of the past in general attitudinal and informative conversation were quantified by obtaining one hour recordings of the subjects' conversations with the author in a naturalistic setting and performing a rigorous procedure of analysis on the transcripts of same. Reliability over time was demonstrated for each of the categories. Affect of reminiscing was also noted and a measure obtained of satisfaction with past life. Subjects were rated as well on their conversation over the whole time period of visiting (averaging six visits per person over two years).

An examination of the results revealed that life reviewing, defined in this study by the willingness of the subject in his reminiscing to engage in interpretations and evaluations of his past self and expressions of his past subjective states, did indeed appear related to adjustment for subjects who indicated dissatisfaction with their past lives. Past life satisfaction and affect of reminiscing emerged as general adaptive factors, independent of any effect of presently incurred loss upon them. An ability to reminisce when provoked seems to be an adaptive characteristic of old age, and avoidance of an unpleasant past a maladaptive one.

to my grandmothers

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Ce livre essentiel, le seul livre vrai,
un grand écrivain n'a pas, dans le sens
courant, à l'inventer, puisqu'il existe
déjà en chacun de nous.

Marcel Proust.

Chapter One Review of the Literature

Changes in personality functioning that may occur throughout adulthood have been subjected to little in the way of scientific clarification. This is due in large part as Neugarten ('64) has stressed to the lack of suitable methods for measuring these changes. The vaguenesses and inconsistencies of intuitive understanding form an insufficient basis for a truly scientific advance unless pursued by an adequately sophisticated technology of measurement which can be applied on a representative scale. But it is also true that this is not an area of psychology particularly well endowed with suggestive theoretical concepts to stimulate investigation and measurement. We realise that changes in personality functioning must necessarily occur, for the individual at some time faces the necessity of adjusting to global changes in his life circumstances, to changed inner motivations and aspirations and changed demands from his environment, which themselves interact together and with both of which the personality must achieve a balance. (Personality is not most fruitfully considered in isolation from the environment in which it functions, but rather in terms of the whole 'way of life' - the unity which environment as well as personality combines to shape.) But the concepts that we do consider are often child centred in the sense that they pertain to the processes and circumstances by which the child develops, coping with his own impulses and the outside realities of other people and the impersonal world. One does not have to deny the relevance

of the concepts of Freudian theory for example to the psychology of the adult, to feel that alone they must be insufficient to understanding, to feel that there are characteristics of personality and processes of development which are peculiarly adult and are not to be gleaned from the literature on child development. To take an illustration, the study of intelligence and intellectual development are advanced areas of psychology, with IQ tests relatively successful as predictors of academic achievement at school, but the very underlying abilities themselves which are tapped by such tests do not form so good a basis for accounting for later adult accomplishment. The additional characteristics which are then most salient may not be issues revealed in child psychology, for these qualities of mind and personality may not receive exercise and development till adulthood. Do not people speak of learning from 'experience' as one of the inevitable truths of life which we acquire, and this experience being the experience of adult years.....the fortunes of love and work, the responsibilities accompanying the development of family and career, and the conflicts arising from the limits of time where much has to be done. Admittedly ego psychology has stressed the importance of certain relevant concepts as stabilized identity, sense of self autonomy, confidence, competence, ability to plan ahead and execute accordingly, but little is indicated about how such states of development are attained. One suggestion (Neugarten ('68)) is that one of the inherent changes in personality

that accompany adulthood, which distinguishes a child's psychology from that of an adult, is the conscious awareness of past experience in evaluating and shaping one's behaviour, a consciousness implying a higher cognitive process of adapting, a learning about more abstract and less stimulus perceivable and response reinforceable characteristics of one's situation and behaviour. This results in a heightened awareness and knowledge of the self and on the role of differing circumstances in determining one's behaviour, in limiting or facilitating how one wants to be.

Old Age is the last period of adulthood, and like the period of transition from childhood to early adulthood, a time for many at least of especial change, setting large problems for personality adaptation, challenges this time to cope not with new responsibilities and new roles but the loss of these, the loss of abilities and ultimately the knowledge of the loss of life itself. Such events as bereavement and disablement may occur in all stages of life but one can think of old age as a generalised period of loss (almost indeed as defined by the negative changes that occur). Personality reactions in old age to changed circumstances has, as with earlier periods of adulthood, been little investigated, but important and stimulating sets of studies have been carried out in the last decades at Chicago (Cumming and Henry ('61), Neugarten et al ('64)) which tend to point to a decreased willingness to be actively engaged in the outside world in old age, an increase in passive adapting processes, less emotional

investment with outside affairs and people, and altogether a greater attention to one's own inner life and self interests. Psychometric evidence too shows that introversion in many of its defined aspects increases with age (Chown ('67)). And though the scope of 'disengagement theory', (which was put forward by Cumming et al to encompass these findings in terms of an adaptive and developmental tendency of old people to 'withdraw' in the face of the realities of age, a tendency with which society in its attitude to old people was by and large in harmony), has been severely questioned both as a true explanation of the course of events and as a model for optimal ageing, the disengagement studies as a whole have opened up the subject of adaptation in old age to much more fruitful conceptual and practical consideration.

Functions of Reminiscing in Old Age

One of the changes in personality that Cumming and Henry refer to in their account of growing old is the increased attention to memories of the past. Other theorists too have suggested that the relationship of the individual with his own past may enter an important new phase with the advent of old age, quite different from the adult functional use of past experience in preparing for and coping with present problems and ambitions of a similar nature. The past it is suggested is surveyed much more for its intrinsic worth and significance. But only relatively recently has this attention been paid to the adaptive value of reminiscing in old age.

That the average old person does talk and think proportionately more about the past seems a generally accepted 'ecological' fact that hardly requires demonstrating. But is it really a fact of much positive significance? The general attitude, indeed, to reminiscing has been one of declining respect and sympathy. Such dwelling on the past is sometimes regarded as an aspect of senility, or as at least being determined by negative features of old age as lack of interest in the present, greater loneliness and inability to engage the interests of others in any alternative ways, and having negative results as distancing the old person from others in consequence of one sided talk. Until recently these views appeared to be reflected somewhat in psychological writings. For instance Havighurst ('59), in

evaluating possible modes of adapting to the losses of old age, classified living on past memories together with regression to states of childhood dependency and the development of obstinate aggressive characteristics, as irrational defences against the situation of old age, and 'recommended' avoidance of reminiscence (except in the presence of the very young and old!). And in studies of disadvantaged old, as for example studies on the effects of institutionalization (e.g. Fink ('57), Lieberman ('68)), increase in past time perspective is looked for as a 'deteriorative sign characteristic'. But the movement away from 'continued activity' as the single main standard by which to judge old age, that accompanied the 'disengagement' research, has led to a more propitious context for studying the positive functions of reminiscence, and other more passive, interior aspects of personality in late life. (Cumming and Henry ('61) themselves in fact hypothesised as one of the processes promoting disengagement the re-evaluating of time. The realisation that future time is limited, it is suggested, leads to a shift of cathexis from outside achievement to an inner life which includes personal memories and an 'image of the self as someone who was something and did accomplish things'. Though with further global decline of 'psychological energy' in later old age one might also expect according to the theory a decline in active inner life as well as a change in direction from an active outer life.)

There are two main theorists who have elaborated a dynamic function for reminiscing in old age. Their accounts of this function, which are similar in many respects, will first be discussed, and afterwards those of other recent writers who have attributed different but related functions to reminiscing, as well as quite distinct viewpoints stemming from the general psychological literature on motivational influences on memory. Subsequently there will be an assessment of empirical investigations that have been generated by all these ideas on the use of the past in old age.

Erikson ('50, '57) conceives the successful outcome of the last stage of life as the achievement of 'integrity', a final securing of identity by 'the acceptance of one's one and only life cycle as something that had to be and that by necessity permitted of no substitution'. Failure to achieve integrity is characterised by despair (sometimes hidden by disgust), because the life one has led does not constitute a basis for the acceptance of the world and oneself, and the time is now too short to attempt to start another life. The implication of Erikson's view is that in old age a person goes through a process of reworking his memories to achieve a more consistent and positive evaluation of the past..... e.g. 'it thus means a new and different love of one's parents, free of the wish that they should have been different'.....'although aware of the relativity of all the various life styles which have given meaning to human striving, the possessor of integrity is

ready to defend the dignity of his own life style against all physical and economic threats'.

Butler ('63, '70) who has devoted especial attention to the problems of the elderly as a research psychiatrist, has pointed to the importance of a similar reminiscence phenomenon in his concept of the 'life review', but has a much less simplified view of its nature and outcomes. The life review is a 'naturally occurring, universal mental process characterised by the progressive return to consciousness of past experience, and particularly the resurgence of unresolved conflicts; simultaneously and normally, these revived experiences and conflicts can be surveyed and reintegrated'. But he describes as 'almost mystical or somewhat Pollyanna-ish', Erikson's admittedly vague notion that the end state should necessarily be one of acceptance of one's life as it has been in all respects..... e.g. 'more appropriate could be full and open expression of his disenchantment with life, his anger over personal and social events that had befallen him.' Thus Butler conceives of life reviewing as much more an active and critical process (which parallels his disagreement with the unequivocal positive evaluation that Erikson ('56) has also given to consolidating identity per se in younger life with its implications of passivity e.g. 'the acceptance of what one seems to be made to be'.

The functions of these processes are said to exist in the opportunities they give the individual to find significance through a greater sense of fulfillment, by reconciling his life as it has been lived with his values. The final outcome is adaptive in the face of death, the uncertainties of which 'appear to be more acceptable if he evolves an acceptable image of himself and of the influences he will leave behind' (Birren ('64)). It may even perhaps provide the impetus to make amends for failings if this is possible (as is illustrated in the development of heightened sensitivity to others of the egocentric old man in Bergman's film 'Wild Strawberries'), or at least the psychological preparedness for rebirth. Indeed the self realisation involved may be the essential value.

This process is considered naturally characteristic of old age (though a similar greater reflectiveness on the past may be supposed to characterise any period of life when there is a crisis in identity and aspirations), because at this time the pressures for this kind of resolution are great with the awareness that life is coming to an end, making hopes and intentions for the future no longer possible as modes of adjustment, and with the greater time available for reflection as the pursuits of adult life disappear. The irreversibility of life at the individual level is made more obvious and thus also the potentiality for 'tragic' judgments of success or failure on the individual's life, seen now clearly if never before as comprising a unity of clearly limited length.

Both Erikson's and Butler's accounts (and also those of other writers with emphases on similar features of old age as Buhler ('61), Von Vischer ('58)) can be related to general theorising on the functioning of those human motivations and purposes in the realm of ideals, values and sense of personal meaning which cannot sensibly be reduced to biological drive or social role playing (Frankl ('68), Maddi ('67)). It is perhaps a significantly related fact that the demands of both the latter do decrease in old age. Butler certainly has made ambitious claims as to the theoretical value of his life review concept to the constructing of a psychology of old age. Assuming it to be a normative process helps, he thinks, to account for a number of recognised 'facts' about old age in general, namely the increased reminiscing, the prevalence of certain kinds of disorders as depression contrasting with those positive qualities which are generally held to characterise the well adjusted elderly, as serenity, wisdom and candour, and the appearance of relative lack of attention and poorer memory for the present.

What evidence is there for the validity of these ideas as applied to the population as a whole? The empirical strength of a theory lies first and foremost in its ability to predict kinds of data better than other theories, and less in its surface capacity merely to interpret them. The kinds of concepts considered by Erikson and Butler are probably not so difficult to define operationally as say some of those of psychoanalytic theory, and therefore one would hope it should be feasible to investigate these

theories scientifically on a representative scale. The general psychological literature prior to the last few years contains little of specific relevance. Indeed the study of personality and social behaviour in old people is a very little developed area of research. In Reichard's et al ('62) study of personality in retired men a change in the remembered past was noted in line with Erikson's account, for perception of significant figures was found to be more positive for subjects in their 70s than subjects in their 50s (this was also a finding of Revere's ('71) study). They concluded that this was probably a developmental difference. But the majority of the scientifically collected evidence relevant to life reviewing in the old has been carried out fairly recently and stimulated directly by the propositions of Butler and Erikson. Before going into detail on these studies which have attempted a more defined characterisation of the postulated processes of life reviewing and to relate its development during the period of old age, it is as well to describe other less 'dramatic' functions which have also been suggested to underly reminiscence in the elderly.

The first quantitative data from psychological research pointing to the need for a more positive appraisal of reminiscing in the old was provided by McMahan and Rhudick in an article first published in 1964. In the course of a multidisciplinary study of a sample of veterans of the Spanish-American War (who emerged as a very 'superior' group in the success with which they coped with old age (being of average age 81), in their intelligence,

physical condition and activities), attention was drawn to the level of reminiscing occurring in interviews. The authors determined to perform a controlled quantitative study of this characteristic to see if it was related to successful aging, taking freedom from depression as a criterion of successful coping with problems of senescence. Twenty five subjects were selected at random from this same sample, and from transcripts of nondirective interviews of an hour length, reminiscence scores were arrived at by classifying each sentence according as whether its content referred to aspects of the remote past, the present or at least to aspects of the subject's current life situation, or to the future. During the same interview the subjects were also clinically rated on the presence of depression based on criteria of 'prevailing affect of depression, evidence of loss of self-esteem, and expressed feelings of hopelessness and helplessness.' With such small numbers (four subjects were rated as depressed and five as suspected of depression (exhibiting some but not all of the three criteria)) it would have been surprising to have achieved statistical significance, but the chi square was in fact only just short of significance when both depressed groups were compared with the nondepressed according to their frequency of reminiscing. (Further validity on the use of depression as the evaluative measure was provided in a follow up one year later in which it was found that three of the four subjects rated as depressed had died; four of the five subjects rated as suspected of depression had died; and only one of the 16 subjects rated

as not depressed had died (which gives a chi-square significant at .01). On a check up of causes of death it was found that the subjects were not close to death at the time of the interview, and so McMahon and Rhudick concluded that 'it is unlikely that their depression was secondary to a terminal physical illness.') They also analysed the relationship of amount of reminiscing with degree of intellectual deterioration, using the deterioration quotient derived from the Wechsler-Bellevue Intelligence Test in their subjects and found no sizeable relationship, and the basic correlation between IQ scores and the reminiscing score was in fact found to be +.15. Thus their study offered no support to the view that reminiscing is associated with declining intellectual ability in old age.

The implications of these results were discussed in a symposium with Butler and others (ed. Levin & Kahana ('67)), in which McMahon and Rhudick suggested, from a look at the content of reminiscing in their study, some other functions besides life reviewing for reminiscing, functions also of a clearly adaptive nature. For though one possible way of explaining the seeming relationship between reminiscing and depression would be to argue that depressive states inhibit such kinds of mental activity, focusing attention on the perceived origin of depression which is in the present, they argued that reminiscing might well have a contributory role of its own in helping the individual cope with the stresses of old age.

It is a widely accepted view of remembering that it is not a photographic process but an active and selective process of reconstruction, and so can be used to create and preserve a sense of personal significance along with satisfying other emotional needs (Rapaport ('61) Schachtel ('59)). Thus McMahon et al characterised a few of their sample as belonging to a group of reminiscers who use memory to depreciate the present and glorify the past, often in a rather fantasising way. Their accounts were 'full of stories of unexpected recoveries from illness and miraculous escapes from danger', creating an image of the past in which they could invest themselves, a past in which they had and did the best. It seems plausible that such a frame of mind, so long as it could be maintained, could help preserve a sense of self respect in the face of blows in the present, by basing self esteem on the past.

But McMahon et al thought that a greater part of reminiscing observed in this group seemed to be motivated by a desire to tell 'stories' about the past in an entertaining and informative way, which seemed to them to characterise the 'best adjusted' group of their sample. They associated this kind of reminiscing with the function of older men in primitive societies, who by their story telling provided the main link between the past and the present. For 'memory being the only repository of knowledge, skills and rituals.....few conclusions concerning the aged in primitive societies can be made with greater confidence than that they are generally regarded as the custodians of

of knowledge par excellence and chief instructors of their people' (Simmons ('46)). In modern society with its faster changing systems of values, institutional structures and modes of life, and with quite different means from primitive societies of acquiring, storing and conveying information, this 'story telling' function or role for old people no longer can have the same importance attached to it.

(Certainly we do not see it as important). But this is not to say that we do not have something important to learn from old people, something which would be less easily or not at all ascertainable in a society without them. And certainly, if old people do believe that they have important things to communicate to younger people, then this function may still be an important psychological element in the reminiscing of many elderly and in the sense of significance and usefulness reminiscing to this purpose would give them.

It would however be a mistake to generalise too freely from the function which certain behaviours may have in primitive societies to that of homologous behaviour in quite different societies. Primitive societies are more 'comic' in that they are more concerned with continuity, with the eternal recurrence of life and less with the fate of the single individual. Thus, in primitive societies, it is that much more important to see the function of the individual's behaviour in terms of its contribution to the maintenance of the group, than in developed societies which have a more heightened sensibility for the individual. In these societies where there is also the possibility for

'tragic' outcomes, because the individual's life is limited, and failures and successes are important and may not be reversed, it is easier to see how a behaviour as recalling the past might come to be something more personally significant, more fulfilling of a need to come to some 'true' assessment of the individual's life considered in its own right, a conception alien to the primitive mind.

However McMahon et al felt that the 'life review' attitude was not typical of the reminiscences of their old people, who rather possessed 'a sense of continuity with their past which required no further synthesis'. Further they thought that those subjects who did seem 'preoccupied with the need to justify their lives', and whose 'reminiscences reflected themes of guilt, unrealised goals, and wished for opportunities to make up for past failures were the more obsessive-compulsive subjects who, we may suspect, have been reviewing their past behaviour in the same judgmental and evaluative way all their lives.' They quote Busse ('59) and Hackett and Weisman ('62) in support of the view that the normal elderly do not seem 'preoccupied with guilt or with the need to come to terms with the personal past.' But it seems that the characteristics McMahon et al looked for as indicative of life reviewing in this kind of conversation setting would be shown by those elderly who for whatever reason feel dissatisfied with the lives that they have led, and whose consciousnesses are so full of unrepressed memories of this nature that they spill over into 'open' conversations.

One would not expect such characteristics to be shown by more than a few. The period of life reviewing is conceived of as an interior and developmental process through which the older person moves. Those for whom the past does not hold so many 'problems' would be less likely to undergo so intense and so long a period of assessing and evaluating, and from the point of view of an investigation at a single point in time, would be less likely at that time to exhibit 'regret' themes in their conversation. This is not to say that one would not expect the old to exhibit any distinguishing characteristics pertaining to whether they were under going or had undergone a period of life reviewing (if life reviewing is as normative as Butler believes it to be), but that the characteristics McMahon et al appear to have noted in their analysis are of too limited a range to bear much on the question whether the concept does indeed have considerable generality of application. What is needed is a clearer elucidation of signs of life reviewing.

Nevertheless this is not to detract from the stimulating contribution of McMahon et al's study. Their emphasis that the ability to reminisce may be a characteristic signifying adaptedness in old age certainly deserves following up. They noted that their depressed subjects 'showed the greatest difficulty in reminiscing. They seemed to have given up hope and to have lost self-esteem.' The theoretical implications of this statement suggests further study, as does also their indication that reminiscing serves other adaptive purposes than life reviewing. But perhaps the distinctions they draw between kinds of 'reminiscers' are

not the most helpful for understanding the different functions involved. For example, one important feature in the reminiscences of all kinds of reminiscers, in those who 'glorify the past' as well as those who just 'story tell', may well be 'teaching', the traditional 'useful' role for old people when they feel that they are benefitting their audience from their own life experiences. Again it is perhaps misleading to imply by their first distinction that any kind of 'living in' a much valued past life marks off those elderly who are adapting to the present by very extreme manoeuvres of denial and defence. It seems likely that those who enjoy story telling to others about the past are also those whom the past interiorly (a perspective McMahon et al neglect) offers a means of solace and support. But merging one's identity and situation with one's self and life as it has been does not necessarily mean 'fantasising' and 'boosting' the past and grossly depreciating the present, in the manner of McMahon's first group. This is an extreme form of identifying with one's past by denying the importance of changes in the status of one's life in the present. Thus, it may be more accurate to consider how reminiscence could serve a number of different functions simultaneously rather than in the McMahon et al 'type' way; maintaining self identity and self-esteem directly via the past, as well as using the past to 'teach' others the lessons of experience, and integrating an acceptable image of one's self and life by reviewing. It would seem well worth investigating each of these further.

Subsequent research on the function of memory for past life in old people can be conveniently divided into that which has considered further how continuity of self identity may be subserved by reminiscence, that which has been stimulated to investigate more rigorously the nature and development of 'life reviewing', and that research which has tried more generally to validate the general thesis of the adaptive significance of reminiscence raised by McMahon et al. But before dealing with each of these in turn, it is as well to be aware of a quite different theoretical viewpoint on the dynamic function of memory, not how memory of the past is used by the ego as a way of coping with the present, but how in its very selectiveness it reflects the present and its concerns, the underlying life style of the person and his current environmental stresses and emotional reactions.

Adler ('56) considered early recollections along with dreams as providing 'natural projective material' inasmuch that the distortions, selections and inventions, that defined their structure and flow as a narrative account, fitted their owner's mood and purpose, his state of preparedness for the present and the future, his fundamental view of life and the style and role delineated for him to play in it. Leaving aside the larger areas of personality research where investigators have systematically analysed the manifest qualities (and also latent content and concealing qualities suggested by Freudian theories) of early memories e.g. for possible use in psychiatric diagnosis

(Langs ('65), Winthrop ('58), Wynne et al ('65), Levy ('62)), it is worth considering to what extent the past may be determined in its interpretation by feelings and thoughts concerning the present. For example it is one of Adler's own illustrations that 'a depressed individual would not remember his successes only his failures'.

Tobin et al ('68, '70) on this view have looked at the potentiality of data on early memories for revealing the current concerns of elderly people. And indeed from their data they claim that early memories reveal a greater intensity both in quantity and quality of negative 'affectivity' associated with environmental change, than is obtained either by direct questions or more conventional projective tests (which is an important fact since this kind of data may be much easier to gather!) Their data was collected in a study comparing an institutional sample both before and after institutionalisation and a matched community sample, whose early memories were assessed on a scale developed to measure incidence of 'loss' themes (as separation experience, threat of injury, illness, mutilation, death). The feeling of personal loss or self mortification is considered especially important among the experiences of those undergoing institutionalisation (Goffman ('61)). Thus, (considering the highest level of introduced 'loss' in the early memory) 33 subjects (55%) in the pre-post- institutional sample manifested increased loss over time as compared to only 6 of the 27 respondents (22%) in the community sample. And the percentage of the

severe losses of personal injury and death was higher for the institutionalised sample (47%) than for either the community sample (28%) or the waiting-list sample (24%). Of added interest was that this study revealed that 'shifts in loss level were invariably associated with the selection by a respondent of a different incident, rather than an elaboration of the same incident that would be clearly related to a breakthrough of repression.' Further data suggested a comparability of percentage of severe loss for the (non-institutionalised) elderly and for adolescents in contrast to a lower level in middle aged samples, perhaps relating to the heightened experience of crises in development both in adolescence and old age. This suggests again the possible value of further systematic analysis of this sort of data. (For example, Tobin points out that issues of aggression and separation were more prominent for the adolescents than for the other two samples).

It would seem then, important to bear in mind this more simply 'reflective' function of memory when drawing inferences from the quality and characteristics of reminiscence in old age. It should be pointed out, though, that spontaneous reminiscing may not show these effects to the same extent as specifically requested 'early memories'. Tobin, making this comparison in further studies, has not found that ordinary childhood reminiscences show comparable changes in increased 'losses' content before and after institutionalisation, whereas they do show a much greater thematic consistency than early memories in repeat gatherings. Of course it is always necessary to clarify the differences

involved in using more focused data and analysing more spontaneously arising 'natural' data.

The question of consistency brings us back to the question whether the characteristics of reminiscence appear as consistent demarcating individual differences. If they do, how do they relate to and function with other aspects of the personality?

One aspect of personality which it has been suggested there is good reason to investigate in this connection is the self concept, for old age seems to be a period of life in which the continuity of self can be substantially threatened by losses of role identities, of physical and mental abilities, and the decline in the accustomed self validating experiences and emotional supports that the company of 'chosen' others provides. Lewis ('71) has carried out a study of 'reminiscers', which offers further support to the view that reminiscence is a consistent individual difference at least in its quantitative aspect, and which attempts to investigate whether it does function in this self supportive way, 'enabling the old person to identify with past accomplishments and to avoid the discrepancy in self-concept that old age represents to a formerly engaged and active member of society'. Further, 'reaching out to inform others of one's memories' may be of importance in bolstering this attitude (as one would expect from the attitude dynamics literature on the role of influencing others in dissonance reduction). Devising an experimental situation that posed somewhat of a threat to self-esteem, in which subjects' expressed opinions on a

matter of present day concern (the problem of student revolt) were challenged to their face in an authoritative fashion, it was predicted that 'reminiscers' would react by basing their present self concept on their past to a greater extent than 'non-reminiscers'. Ss were designated as reminiscers if in a non directive interview (with three standard general questions used to provoke conversation) over 40% of their sentence units were rated as referring to the past. As Lewis points out, it certainly seems possible to speak of reminiscing as characteristic of a person, both because of the group consistency of 'reminiscers' across different sessions and the association of reminiscence behaviour with admitted frequency of thinking about the past. The results of the experiment showed that though the initial correlation of past and present self concepts was not significantly different in 'reminiscers' and 'non-reminiscers' (measured by Q sorts of the usual itematic kind; physical, interpersonal, psychological, general self evaluative (Butler and Haigh ('54))), 'reminiscers' alone did show a very significant increase in this correlation after being put in the 'threatening' experimental situation, which offers at least tentative support to the view that resorting to the past may be one important way in old age of coping with stresses tending to lower self esteem. To those elderly who have difficulty in maintaining their old activities and interests or developing them into new equally respected social roles, cognitively linking the present with the past may be a much more satisfactory method of holding the self together than other kinds of denials,

defences and escapes such as regressing to dependent states, adopting aggressive manners of obstinately having one's own way, and the 'deliberate' loss of the senses of hearing and seeing memory as a way of shutting out the present.

Rosner ('68) carried out an interesting study on the maintenance of self concept in old people who were being institutionalised, which of course usually involves just this kind of serious disruption in habitual patterns of interaction and thus in external sources for self validation which they provide, and found that 'internal sources of evidence' were being used for purposes of supporting the self concept in old age. His method was to look at the kind of responses given by subjects when asked to illustrate self sort descriptive statements by examples of current interpersonal behaviour, and to categorise these responses in terms of whether they referred to present behaviour, to past behaviour, more to an internal conviction, or possessed instead a 'wish to be' quality, or more a distorted 'magical' quality. A particularly significant increase in 'distorted' illogical responses was noted in the institutionalised group (which did not appear explainable by the low order correlations between types of self validation and tests of cognitive impairment). Unfortunately the experimental procedure of asking for 'current' examples of behaviour biases this particular study against revealing the true significance of the use of the past as a means of self validation among the other 'internal' sources of evidence,

but the contrast drawn between having a present-based self-concept and resorting to the past or using a more 'escapist' means of maintaining the self, would certainly seem worth further investigation of this kind. It at least sets this particular use of the past in a more sympathetic context in which to evaluate its function.

The development of a personal quality of 'integrity' as envisaged by Erikson, and the search for an integrated and significant view of one's life contained in the notion of the life review, can also both be interpreted as other means (perhaps the 'ideal' means) of preserving by restructuring one's identity in the face not only of death but of all the signs of forthcoming dissolution. It is this 'life reviewing' conception of the role of the past in old age which has attracted most attention from psychologists who recently have considered the significance of reminiscing. It is a rich concept and no doubt illuminating of certain mental processes found in particular individuals in old age, but as McMahon et al, and others have questioned, what range of relevance does it have to a psychology of old people as a whole?

One connection that comes to mind is its possible relationship with the shift from outer to inner world orientation from middle age onwards, described in the research of Neugarten et al ('64) etc. One investigator who has considered this, Gorney ('68), has looked at in particular the relationship between life reviewing and experiencing ability or the willingness to introspect upon feelings etc, to see whether this may be a more basic

characteristic underlying life reviewing. From Gendlin's research ('62, '64), positive outcome of client-centred therapy has been associated with 'experiencing' (the degree to which and ease with which a person refers to his own feelings, thoughts and reactions when conversing about himself and his present life). This ability is conceived of theoretically as a relatively persistent personality trait, which if present at high levels, facilitates successful adaptation when personality change is necessitated by environmental demands. If this is so, it should indeed be a very relevant characteristic to the process of aging. In a previous study by Gorney ('66, '67) of older people aged 63 to 92, experiencing was shown to be significantly related to age, such that nearly all subjects over 80 years displayed low experiencing when tested in an interview which probed personal emotions, whereas a good number of subjects under 80 displayed high experiencing. What is the significance of this finding? It is certainly in line with the hypothesis that introspecting upon feelings etc would be more important a function in the earlier stage of adapting to old age changes. Gorney also saw these findings as paralleling Butler's developmental theory of the life review, 'an introspective process perhaps characteristically occurring during the 60s and early 70s followed by a less-introspective state of acceptance and serenity if the issues arising from the need to re-examine one's life are successfully resolved in that time.' Thus in a further study Gorney ('68) predicted that he would find three major groups from his data on old people: those in their 60s and

70s of low 'experiencing' who indicate a refusal to engage in effective reminiscence, those of the same age who indicate they are going through a period of active life review and display high experiencing, and those very old who indicate that they have resolved issues in relation to the past and are no longer intensely involved with reminiscing and show low levels of experiencing. The majority (54% of 172) of his subjects did indeed fit these three patterns though two weaker patterns were noticeable: those who appeared to have reached the stage of 'resolution' at a low age and also had a high level of experiencing, and those very old who indicated 'avoidance' of life reviewing and a low level of 'experiencing'. Of course, (though Gorney does not mention this in his paper), neither of these two patterns pose contradictions for a theory which sees the development of life reviewing and resolution neither as fixed to a rigorous time scale nor as an inevitable process (i.e. it can occur early or be resisted altogether), and which sees the process of life reviewing as being dependent on being open to experiencing in old age but not necessarily vice versa. Previous studies on personality functioning in older people have tended just to point to an increased inner life as compared with younger people, but this study points to further developmental viewpoints within old age itself. For, to quote Gorney, introspection upon feelings may be 'employed as a means of focusing upon the past in order to establish a new ego-identity in the face of impending death, whereas for others low experiencing may

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be employed as a means of avoiding unresolved past conflicts and denying the full emotional impact of imminent death and physical dissolution'. Older, 'wiser' and 'serener' individuals may have passed beyond this stage of achieving resolution of past conflicts and making peace with the future, and so for them, the intense emotional involvement with past life, as with the world outside, may no longer be necessary.

This work constitutes an imaginative elaboration on Butler's theory of old age, but since the life review concept is not yet sufficiently validated we need more analytic study of its possible components and their relationship to other variables (personality, environmental etc). Gorney, in fact, made his divisions of life review 'types' by rating subjects' responses to a 17 item questionnaire dealing with broad evaluations of the person's life (e.g. what kind of life... the main disappointments... the happiest period etc). So as to obtain complete reliability between judges on categorisation he ended by employing the three categories stated above. One group of subjects was classified as 'resolved' on the basis of revealing attitudes of 'acceptance' and 'serenity' in regard to the past, in contrast to the direct emotional focus upon particular past conflicts of the 'active reviewers', and the apparent avoidance of issuing 'full hearted' statements by the third group. On the results of this analysis, about one half of the subjects displayed flight

from the past, one sixth active life review, and one third resolution. The kind of definition obtained with gross rating of this sort of data is probably inadequate for the securing of very accurate data. But admittedly there are great problems of feasibility in applying a 'technology' to the measurement of mental life which is truly adequate to the complexity of concepts involved.

One attempt has been made by Revere ('68, '71) to develop a more rigorously defined procedure for studying the nature of reminiscing via detailed interviews and questionnaires. From an inspection of the theories explicit and implicit in Erikson's and Butler's writings she derived three central 'processes' that should occur with the advent and conclusion of life reviewing: firstly a heightened 'involvement' with one's memories shown by an increased amount of attention to them and a noticeable affect revealed in descriptions of the past, secondly the achieving of some kind of 'integration' through analysing and synthesising one's past, which should result in more consistent and definite interpretations and evaluations put upon past events as well as add a more 'dramatic' structure to one's reminiscences, and finally 'reconciliation' (though for Butler this is not the only form of 'positive' outcome) defined by the positive affirmation or at least the acceptance of one's life events (e.g. the focus being typically on the good things without resentment or denial over the bad) and the absence of emotional conflicts in the recounting of the past. For all the various components of these processes (22 in all), Revere devised separate scales

tied to the possible responses to the various parts of a long structured questionnaire. It can be seen even from this brief summary that this study contains a much more detailed consideration of the criteria of life reviewing than Gorney's project, and instead of comprising an a priori division of what should constitute pre and post phases of life reviewing, actually attempts to investigate empirically the relationship between differing reminiscing characteristics. From an analysis of the results of the study (71), the 'involvement' scales were shown to be highly correlated, as also the 'reconciliation' scales, but not the 'consistency' scales. On a subsequent factor analysis of all the scales together, Revere named the components which emerged, 'acceptance of life' (thought to mirror the idea of the successfully completed 'life review'), 'involvement', 'consistency of reconstruction', 'dramatisation', 'past life as interesting (satisfying and dramatic)', and 'past life as (monotonously) good'. The old as compared with a middle aged group scored significantly higher on 'involvement', 'dramatisation', 'past as interesting' and 'past as good', but not on the other two. Although one cannot be sure of the validity of this methodology, these results certainly do not altogether parallel what one might expect from life review theory. The old seemed to show a greater ability than the middle aged not in accepting and integrating negative elements in their lives, but rather either in dramatising without integrating or in simply denying negative elements. The data do indicate that the old are more involved in

interpreting the past but not that they are any closer to the kind of 'reconciliation' conclusion defined by the scales of 'absence of conflict', 'lack of resentment', 'ownership of life', and 'seeing negative life events as a meaningful part of life.'

Besides providing evidence on the composition of reminiscing, this study was designed also to give some indication of the extent to which such differences in attitudes to the past and in utilisation of reminiscence may be attributable to personality and environmental factors. For instance, the achieving of 'integrity' or finding significance via life reviewing may not be a normative response to aging, but rather the reaction of a particular kind of life style. Gorney has indicated that his 'life review' group possessed 'strong emotional reactivity', whereas his 'flight from the past' group were low on emotional reactivity. However, Revere found no consistent relationships for any of her scales with introversion, anxiety and ego strength, nor with social interaction, education and occupation (in an aged group of 35 persons).

Before passing on from studies performed to investigate 'life reviewing', it seems worth pointing out that Butler's recent work has been on identity crises of old people, in investigations of how a person's image of himself remains stable in the face of the changes of age and how threats to that stability are coped with. He shares with the other authors previously mentioned an emphasis upon the maintenance of self concept in understanding old age psychology including reminiscing. It seems worth stressing

again too that though the theory of the life review might be thought a 'romantic' one (i.e. it may attribute more to old age than superficially meets the eye), it was not put forward as a theory prescribing a 'happy ever after' ending to the life story. Butler explicitly rejects the state of global positive evaluation of the personal past that seems to characterise Erikson's 'integrated' old men as, generally speaking, an unrealistic goal. Very few old people say that they would like to live their lives over again. Why is this? For Butler 'most lives have been largely wasteful when one considers what they could have been'. The internal pressures not to dare break loose from unsatisfactory paths through life are psychologically very great even for those lucky enough to escape relatively from the primary constructions of class and education. People buckle down to 'enforced' identities rather than risking changing direction from the course to which they have been turned, and leading more creative evolving lives ('70). But at the same time one would hope that there is some dignity to be gained from the recovery of 'true' memories even for those who have allowed themselves to live very distorted lives. Certainly the revelation of the forces shaping the course of life and the denouement of the character which permitted them so to do, evident in the final reminiscences of those whose lives' decisions have been of grave import for others, is an awesome spectacle (for instance the final interviews with a Nazi concentration commandant recorded by Gitta Sereny (Telegraph magazine Oct. 8th 1971) a little while before his death in a German

prison). Yet the load might be too heavy to accept fully. The house to be put in order when one comes to look at it, may resemble more of a ruined shell, the grounds a wasteland. Butler at least, does not play down the psychopathological manifestations that may characterise old age.....denial and despair over a wasted past and depression in an empty present in which society neither demands nor provides anything in the way of a role which would be really fit for old people to end their lives playing. It follows that hypotheses and observational measures devised to survey processes of life reviewing should attempt to mirror them as they are conceptualised, not a simplistic version for the ease of investigation.

Studying reminiscing characteristics as adaptive features of old age.

How are we to relate the functions of reminiscing, such as were discussed in the preceding pages, to our thinking generally on the processes and problems of the end of life? Certainly we need to know more about to what extent the different characteristics people show in reminiscing are simply reflecting more basic underlying personality traits, but a more important contribution would be to attempt studying approaches towards handling past memories in the context of a general consideration of the way different life styles face up to the problems of aging. Such a view must take account of the fixed points of personality traits, but it must also see growing old as a time of change, of adaptive development in relation to differing circumstances of the individual's life situation. Thus the need is for longitudinal studies of social behavioural and personality changes in a changing environmental context. Perhaps indeed, it will be found more realistic to look for the continuity of personality in terms of the underlying manners, styles and goals of life, including most importantly the ways of coping with change in the world around, and the threats to the self and the opportunities for development they bring. Personality and development can be studied most profitably in relation to each other.

But of course we are still far from having sophisticated accounts of similarities and differences in 'ways' of growing old. Indeed, we only have a fair idea of which of our concepts might be the fruitful ones and so which measures might be the ones worth making. What of reminiscing? Is the use of the past a bright and stable enough star to warrant using it as one of our signs for charting out the course of old age? Is it really the important feature that Butler for one has argued for? Does it have the adaptive functions that the McMahon et al study seemed to indicate? Or do the ideas of both reflect the special samples they were looking at? The first questions then we would do well to answer concern the adaptive significance of reminiscing. Is it an adaptive characteristic? What aspects of it in particular? In what circumstances? To problems of the past as well as problems of the present? These questions must be approached systematically with an adequate methodology and with representative samples of old people. These are the questions to which the study reported in this thesis is directed.

How in the first place are we to adequately monitor reminiscence? It is in substantial part an inner experience, a recalling of people and events, thoughts and feelings, whether idly as in daydreaming or more purposefully. We can choose between attempting to assess it by the material we can collect from interviews and questionnaires (and perhaps also from projective tests) or from observing what naturalistically emerges in the person's spontaneous

conversation, which is the method largely adopted in this study. This latter course makes the unjustified assumption that a person's conversation mirrors, in the most important ways at least, a person's inner thoughts. But, of course, Butler, McMahon et al and Lewis have all pointed to the importance of 'exterior' reminiscing as part of the general concept, whether it be involving a sympathetic listener in one's reviewing, convincing others of the good old days, instructing the young in the follies of life etc. And this method also has the great advantage of avoiding the problems of contamination and neutralisation of evidence through artificially designed and executed measures (e.g. the superficiality of the 'right' response that is so often obtained in survey studies). There is also the problem of getting adequate responses from representative numbers if anything sophisticated in the way of interviewing is attempted (as in Revere's study).... But natural observation has problems of validation of its own too. For the extent to which the data collected could be determined by specific characteristics of the interaction situation and interactees, may be left unknown.

Havighurst et al in Chicago have recently written ('71) an account of preliminary findings on a study of the functions of reminiscing through the life span, using a questionnaire cum interview schedule on reminiscing, which had been drawn up in the course of a series of exploratory studies. As they themselves admit the method 'works best with people who are fairly verbal, speak easily and are fairly well educated. They are accustomed to thinking and talking

about human behaviour and about themselves. Thus our samples tend to consist of middle class people.' The basic characteristic of the study so far has been the attempt to develop solid and reliable measures of two simple dimensions of reminiscence, 'amount' and 'affective quality' (attitude to reminiscing).

In old people's minds attitude towards reminiscing as an 'activity' certainly seems to be a very salient issue. Those who claim not to reminisce are certainly aware of others of their friends and contemporaries who do, and often develop strong views on the wisdom of dwelling on the past versus keeping up interests in the present. Some even, may be unable to avoid a lot of spontaneous reminiscing while perceiving this as a maladaptive characteristic in themselves. Tobin ('70) noted this negative attitude to reminiscing in a significant number of a sample of institutionalised aged, who (in the context of a study using drugs to improve memory) showed a wish to control or 'avoid the resurgence of a more vivid past' into consciousness. This in itself indicates that the dynamic affect surrounding memory is not something negligible. In his studies already carried out on particular samples of elderly people, Havighurst has found that his measure of affective quality of reminiscence (cf Appendix E), besides being positively associated with the frequency rating, is related to indicators of good adjustment and morale (the life satisfaction index inventory developed by Neugarten, Havighurst and Tobin ('61) to measure Havighurst's concept

of good personal and social adjustment ('63)), to indicators of positive evaluation of the self, to subjective health evaluation in relation to others of the same age, and to longer expectation of life. But, interestingly, people with positive affect for reminiscence also tended to identify themselves as 'elderly' or 'old' rather than 'middle-aged'. Frequency of reminiscing did not show these relationships.

Of course it is difficult to interpret these relationships. To what extent could the 'reflecting' function of memory account for the positive 'affect' of reminiscing, in the wake of good personal-social adjustment? Also the life satisfaction measure is a measure of satisfaction with one's past as well as satisfaction with one's present, and thus it might be advantageous to analyse some of these interrelationships down further. Indeed, 'pleasant' reminiscing is itself not a simple dimension. For considering the following three sorts of possible people, those who do not 'believe' in reminiscing and so do not reminisce, those whose past contains much that is painful that they cannot avoid when they do reminisce, and those for whom the difficulties of the present become the harder to bear if contrasted with the memories of a once full and happy life.....all in fact would tend to score low on some parts of the Havighurst affect measure, though being three very distinct categories. Nevertheless it is true that for all three the 'experiencing' of the past is not associated with the pleasant feelings

it arouses for other old people, and this is the aim of the measure, i.e. to measure 'pleasant experiencing' of the past. The affect score in consequence is not so conceptually distinct from the measure of frequency of reminiscing as e.g. a measure of positive 'content' of memories (One man's mind may be full of memories of hardship since the telling and recall of it may be associated with a perceptibly enhanced sense of significance he draws from them, whereas another man with memories of a happily married life may avoid letting himself reminisce because of the sadness it brings on in the context of his present loneliness. i.e. frequency is related to 'affect', but not to 'content'), but it does seem that the affective meaning of reminiscing, the past as experienced now, is the important variable to monitor. It is included in this study as well as measures of the reminiscing 'functions' referred to in the previous section.

But these findings on reminiscence affect do not throw much extra light on the question of the adaptive significance of reminiscing. Does reminiscence in old age do more in general than reflect feelings of personal satisfaction and interest with life? Does it constitute one means of expressing that interest and satisfaction, a way in which some old people continue to enjoy life, while others might cultivate new present activities and interests? Further, does it have the adaptive implications discussed earlier? Is the capacity to reminisce to some

purpose really a significant asset in the face of the stresses of aging and of the awareness of the end of life?

Falk ('68), Lieberman and Falk ('71) performed a large study to try and assess whether this might be so in relation to the stresses incurred in institutionalisation. They considered whether there might be certain reminiscence differences which predicted who were subsequently found to be capable of adapting to such an environmental change. Measures were developed from noting the following variables as they arose in a non-clinical but semistructured interview: the extent of the 'life history' when provoked, the proportion of the total devoted to childhood and adolescence, the consistency of evaluations and interpretations made concerning their life history, the degree of dramatisation (e.g. of past figures), the proportional amount of positively-toned and negatively-toned information given, and the average intensity of negative affect of unpleasant incidents together with the average severity of the incidents themselves (parallel measures for the 'pleasant' could not be developed). A community-living aged group compared with a middle aged group showed more involvement in reminiscing and higher scores on the dramatisation measures, which is in accord with Revere's findings. Further the results on the adaptation study revealed that persons facing imminent institutionalisation talked significantly more about their lives and somewhat more about childhood, than did either the community or the institutional equated control groups,

the increase seeming to consist in the amount of neutral elaboration of events, though being a genuine reminiscence increase and not simply a function of verbosity. They also showed signs of significantly more 'cognitive restructuring' both on the consistency and dramatisation measures.

However, though these findings do indicate 'the influences of life context' on reminiscence (they support the view that heightened reminiscing could be directly related to the perception of major stresses and discontinuity of life), there was a striking absence in this study of any evidence in favour of the adaptive functions of reminiscence activity suggested by McMahon et al and others. Adaptation was rated by the absence of signs of marked decline one year after institutionalisation, and by an assessment of affective reactions 1-3 months after the move (changes in level of anxiety, depression and life satisfaction). None of the scores on the reminiscence indices indicated a significant relationship with either of these kinds of measures of adaptation (not even the 'affect' ratings, which Havighurst's study has indicated may be of adaptive significance.)

Of course, the reminiscing characteristics measured in this study were not observed but rather 'tested for' from responses to a life history interview, and further, as Falk remarks, the 'content' categories that were considered were defined only 'at the most general level'. Although it is important to define what may be the important characteristics of reminiscing in terms of such simple

empirical categories as Revere, Lieberman and Falk have drawn up in their studies, it is arguable that they did not pay attention directly to the more complexly defined categories of reminiscing about which Butler and McMahon et al have theorised. (In the present study this is attempted, and by means of observational measures.) But the importance of the kind of study that Lieberman and Falk report is that it assesses the significance of suggested adaptive characteristics (i.e. reminiscence) in relation to actual objective stresses of old age that necessarily require adaptive solutions (though institutionalisation is an extreme example of such stresses).

The study reported in this thesis is different from the previous studies on reminiscing and adaptation in old age in that it includes a wider consideration of losses to the individual, and was carried out in a more naturalistic context such that subjects were visited over a fairly long period of time (one to two years) and became acquainted with the author as a visitor before any specific questioning relevant to the study was carried out. This provided the opportunity from the beginning to monitor conversation occurring in an open ended situation and to note themes and particularly constancies in themes. It also stimulated the development of a rigorous and as standardised as suitable a methodology for measuring spontaneous conversation. The categories and actual measures used will be discussed in Chapter Two. In the rest of this chapter we shall elaborate further the theoretical background to the conceptual approach that was adopted to assessing adaptation in old age.

So far, the thesis of the adaptive significance of reminiscing has been investigated in relation to certain 'outcome' variables as life satisfaction (Havighurst, Lieberman et al), depression and anxiety (McMahon et al, Lieberman et al), and gross behavioural deterioration and death (Lieberman et al, McMahon et al). The only stress factor that has been looked at as a 'prior' variable has been institutionalisation, which usually does involve the old person in many losses to his or her own styles of life, but, as for instance only 4% of the elderly enter institutions in the U.S. (Shanas ('69)), is a rather severe representation of the losses inherent in old age in general.

What variables should we look at? To formulate satisfactory 'outcome' variables with which to evaluate growing old is recognised to be a much more difficult task than to perform the equivalent for the development of the child and adult. Biologically old age is a period of decline in cell reproductive ability, but psychologically and sociologically it can be many things. In Western societies at least, there is little to derive from the culture in the way of evaluative norms. Of course problems of value do arise in the applying of norms to a child's development, but one can see that a discussion of, for example, a person's coping with retirement, would occur in much more of an evaluative void than a similar discussion on a child's going to school for the first time or an adult's getting his first job. In the latter cases there

are implicit developmental contexts to be invoked, the acquisition of a possible set of desirable qualities as goals, e.g. independence, identity, competence.... But what should old age be? If it is a state of integrity of the self as Erikson characterises it, what does that really involve? Is old age indeed properly conceived of as a developmental period?

Admittedly Disengagement theory was put forward by Cumming et al ('61) as a genuine theory of normative development. The achievement of a state of harmonious mutual 'withdrawal' between the aging person and others in the social system to which he belongs, was regarded as reaching the natural objective of aging. It thus constitutes a goal in terms of which one can evaluate a person's behaviour in old age. However, both as a normative developmental theory and as a prescription for optimal aging this account has been heavily criticised (though it is not to the point to review the relevant literature here). Though disengagement in terms of lessened interaction undoubtedly does occur for very many old people and the theory may contain some important truths about internal personality development trends (as increased interiorisation and subtle changes in affective orientation towards others) which may be important features of aging adaptation, it could be allowed, if accepted too readily as a theory of adaptation to old age, to reinforce and perhaps even justify dubious trends in social policy, as increased segregation of the elderly. Further it masks the more

salient fact of old age, that the vast amount of decreased interaction is forced unwillingly upon the old by the physical, personal and social losses of aging, as is made clear in a number of studies (Tallmer & Kutner ('69), Lowenthal & Boler ('65)). Though one may want to preserve a developmental frame of reference (i.e. of purposes to be fulfilled peculiar to the end of life) within which to understand aging, the pressing social psychological viewpoint is to see that old age is a period of life when above all the person tends to be faced by a series of stresses affecting the continuation of his or her style of living. This approach emphasises the need for research both on the amelioration of these particular stresses, and on the processes of natural adjustment to them and the ways in which these processes can be facilitated. But from the point of view of making a global assessment in such a study as this, how are we to conceptualise the negative impact of old age?

The changes in the individual's 'environment' that occur in younger life are as a whole much more under the individual's control than the changes which older people undergo, and yet the life changes of younger adults in careers, dwellings etc have been shown, especially cumulatively, to be related to the subsequent onset of a large number of illnesses and physical and psychiatric disorders (e.g. Rahe ('67), ('70) etc.). Thus one would expect the largely detrimental life changes of elderly people to be even more important variables in health and

psychological well-being. One could classify the negative changes of old age in many ways, but the primary categories which suggest themselves are a) the decline in physical and intellectual capacities and the consequent limitations on everyday activities (together with feelings of anxiety and humiliation that may accompany this), b) the losses of the external emotional centres to a person's life through bereavements of those 'close' to him or her (especially the blow to the personal sense of self defined by existences in their thoughts and feelings), and the other less personal but not insignificant milieu losses resulting from changes of possessions, neighbourhood..... , c) the absence of structure in life with the loss of social and family roles through retirement and the disappearance of family responsibilities, resulting in a sense of uselessness at lack of significant contribution (heightened in our fast changing society, which especially threatens the older person's identity by lack of respect for his life's values and consequent absence of any possible contributory role for him). There are a number of studies which have indicated the negative results of individual variables included in these categories (e.g. Schwartz et al ('65) on illness, Spence ('66) on retirement, Lowenthal et al ('68) on intimacy, Aldrich et al ('63) on relocation). Thus one approach to studying adaptation in old age would involve attempting to assess such stresses as these over time and coming to some cumulative measure of gross 'change', in the context of which significant adaptive processes and circumstances could be revealed.

But another way of securing a global measure of contextual life change would be to assess not the stresses themselves but their consequences on the person's life considered as a whole. This allows one to relate the changes of old age to the problem to which reminiscing characteristics have been hypothesised to be directly associated, that is the preservation of identity, threatened by the discontinuities which old age brings. Though one would not want to assert, the extreme opposite viewpoint of disengagement theory, that it is absolute continuity of life style which is desired right into old age (cf Rosow ('63)) (for besides the possibility of genuine 'disengagement' changes in motivation, old age may offer opportunities for some for improving upon an earlier life which may have been over restricted by circumstances), the style of life of late middle age, say, offers a standard by which to assess what impact the losses of old age have made on the individual. (This, also, is not to deny that very critical crises of life continuity and identity may occur for many before late middle age, but is simply necessary for defining the period of losses of old age from a certain chronological age as e.g. sixty.) Having standards defined from the individual's own life allows for a much greater sensitivity in assessing and predicting the effects of changing people's circumstances. For example, Carp ('68) has shown in one study that the degree of beneficial effect resulting from moving elderly into new accommodation favouring greater engagement could be predicted from

measures of the old people's engagement tendencies in their previous unfavourable environments. Though analysis of retrospective data to secure estimates of baseline activity is of course more suspect, this may still be worth doing where a comparable longitudinal study is not feasible.

People, one is assuming, tend to arrive at a state of relative equilibrium between environmental demands and opportunities and personality needs and motivations, but in old age, particularly, the grip they hold on their own style of life is often prised away from them. For the purpose of making this present study of adaptation in old age, 'disengagement' in the sense of a voluntary or intrinsic decrease in areas of behaviour defining a person's style of life is neglected, and all negative life change is considered due to the losses of aging, in some the changes being gradual and easier to adapt to, in others more traumatic. Though there would seem to be an easily made distinction between this kind of 'enforced' disengagement and the more subtle, more interior wise determined processes due to the whole slow unfolding process of aging, they interact together in their effects, for the declining 'energy' level with age makes obstacles that much harder to overcome. For example, the 'input' required by society as the price of keeping up with it, may become too high to be maintained (Bortner ('67)), and the individual may have to cut down his expectations of what he can reasonably hope to achieve (though in a different society with lower demands he may well be able

to continue playing a more active role). And as Birren ('64) has noted, there is often a further interaction, on physiological events, as a result of psychological reactions to environmental events, also involved in this decline. But in short, from the point of view of this study, the end product of all these negative tendencies with age will be a level and quality of engagement which will be more or less congruent with the person's previous life style, more or less easy to come to terms with.

The advantages of this approach to measuring negative 'prior' variables, over that of simply enumerating life 'changes' or 'stresses', are that it takes into account positive supporting factors in the environment that may compensate for or at least lessen the negative effects of losses (e.g. the presence at hand of a close relative), and also as mentioned before that it more flexibly defines the intensity of experienced loss relative to the standards of the individual's own life. At the same time, it does tend to minimize the losses of those who have experienced the full impact of negative changes in their lives (e.g. the loss of old friends through relocation), but have through adaptive characteristics of their own personality compensated for them (e.g. made new close friends in their new locality), and thus no longer experience the same intensity of the loss in question. The fact that such people have adapted to real losses would be glossed over in a study which measured losses

in terms of a comparison in a person's life between a fixed past and present time. But it does seem a relatively sound general assumption that by far the vast amount of negative change experienced by the elderly is irreversible in its effects. Adaptation must proceed not by recovery or replacement but by other means.

Given that this conceptualisation can provide sufficient background variables (measures will be discussed in Chapter Two), in terms of which 'outcome' variables would it be most appropriate to assess the ameliorating influence or associations of, in this study, reminiscing characteristics? One theoretical structure which seems obviously applicable is that of self concept theory which relates mental 'health' to the stability (and appropriate growth and openness to experience) of the self concept (Rogers ('54) etc.). The preservation of identity and self esteem would seem to be of crucial importance in the face of the insults of aging, which militate against continuance of life style and eat away at feelings of social usefulness and even of simple personal competence (Mason ('54) Schwartz et al ('65)). Lowenthal ('68) has further evidence indicating that the interpretation put upon the blows of old age is the important factor in determining mental breakdown in old age (e.g. if retirement is seen as the death knell of aspired personal life goals which can no longer be attained, or if bereavement becomes associated with feelings of blame and self guilt). It is not hard to see how environmental

losses can force the facing of facts of failure which the ego would not face before, failures, for example, of social adjustment which the disabilities of old age now seem permanently to exclude, or failures in the past of inertia or wastefulness to which one can attribute one's present situation. Thus the losses of old age are experienced by some people as an often overwhelming threat to their integrity of self and sense of self esteem, rather than treated simply as the 'blows of an impartial fate'. Of course even for those with a well adjusted past the losses incurred in old age can be too great for the self to bear. If the people and activities for which one has lived are suddenly taken away, though one's integrity in the past may be assured, the present may no longer be 'worthwhile'.

It is in this context that it seems best to evaluate the view that McMahon et al, Lewis and others have suggested, that reminiscing could serve the function of reinforcing the self in the present by merging the person's identity with the self of the past, or could sustain the role of participating usefully in the continuation of society by the imparting of past knowledge and wisdom. The former 'boosting' function of memory will be dependent itself one would think on having a sense of worthwhileness and satisfaction about the past. But as the theories of Erikson and particularly Butler would argue, the achieving of 'integrity' by psychological reworking of the past, which may be a possibility even for those with a very troubling life, is another possible use of reminiscing

which may be directly related to this question of holding oneself together in the face of the losses of aging, seeing oneself as it were 'sub aeternitatis'.

How can this preservation of the 'self' be assessed?

Of the various severe emotional disorders in the elderly depression is said to be the most common (Busse ('59)('61), Zung ('67) ('70), Beck ('67)). The depressive symptoms that are most stressed in the literature as being pertinent to old age, are characteristics of apathy, disinterest and inert gloom, and even normal old people have been found to have more problems than younger people with what one might call recurrent depressive periods of feeling discouraged and troubled, and feeling no reason to live. Old people themselves are often aware of the negative changes associated with old age, as being the precipitating factors of this depression. Post ('68) in stressing that genetics is significantly less important a factor for late life depression, states that it does appear much more a reaction to environmental factors and less a personality predisposition.

Further, it seems a plausible hypothesis that loss of self esteem is very much more associated in the symptomatology and in the genesis of depressive states in the old. Zung ('67) in an investigation of elderly depressive symptomatology supported the view that it tends to take a form somewhat different from the more 'anxious' neurotic depression found in younger people. The major factor which emerged from factor analysis was one which could be called 'loss of self esteem', comprising items

on feelings of worthlessness, emptiness, hopelessness. Dovenmuehle ('68) also stresses the contrast between the hostile (inward turning of aggression) depression of the young and the feeling of loss of self worth found in depression in the old.... 'closely linked to the inability to perform previous activities.'

Though 'depression' as a clinical psychological disorder is more precisely defined in terms of specific somatic and psychological symptomatology, this should not inhibit an interest in similar but less severe states of mind. Further we must also be aware of the context (i.e. of old age) when considering such phenomena as depression. Mild depression in one sense is more 'natural' to old age, which may have no justifiable hope for the future and where life may not unreasonably no longer seem worth living. In a younger person such a depressed curtailment of the self is likely to be more pathological. He can get up and move forward towards something. Thus in devising or selecting a measure to assess the consequences of identity loss in old age we should be aware of the nature of the phenomenon we are expecting to find. McMahon and Rhudick in their study rated depression on the basis of 'the clinical criteria of prevailing affect of depression, evidence of loss of self-esteem, and expressed feelings of hopelessness and helplessness'. These seem to exemplify the right sort of criteria, and also do not artefactually reflect the biological deterioration of old age. (Further discussion will be left to Chapter Two.)

At the same time, we need a more general positive criterion of adaptation to aging than relative freedom from depression. As emphasised before, there is no real theory of old age to provide a criterion of successful aging. Neither the criteria of maintained activity nor the contradictory criteria of peaceful disengagement are sufficient to the manifold ways of growing old. There are indeed important external 'adjustment' characteristics as freedom from handicapping anxiety, from hypochondriasis and from grumbling, and sociometric characteristics.... (cf Kuhlen ('59)), but too often as Carp ('69) has argued there have been misleading comparisons of studies of 'adjustment' which in reality have been studies of quite disparate traits or global traits with elements variously included and not operating according to the same rules, (neither sufficiently well correlated together nor sufficiently similar in their individual relationships with the same determinants). None of such external criteria seem to deserve the exclusive right to be called the criterion of adjustment in old age. (Some, admittedly, as the dimensions proposed in Williams and Wirths ('65) balance theory do seem particularly relevant to the problem of adjustment in old age as it is conceptualised in this thesis. These two authors stress on the one hand the 'dependency' of the individual within his own social system, measuring broadly speaking to what extent the individual is or is not a 'burden' to those he depends on, and on the other the 'stability' of the individual's way of life and its natural development, a measure of how precarious it is

in the light of possible future exigencies. Both form an external view of adjustment, but also one which can be defined and measured relative to the individual's own style of life, unlike the other measures.)

Subjectively based criteria, however, seem to be a more popular source for adjustment measures since they avoid more of the ubiquitous problem of making value judgments. Responses to interviews, questionnaires and projective tests do have to be categorised according to some evaluative conception of an adjusted internal state, but if the person is given the opportunity to state his own evaluation of his state there is less likelihood of misbranding the exceptional personality. In this area, as Kuhlen ('59) points out, new problems arise of 'stimulus and response equivalence'. The key concepts people use in talking of their own happiness lack stable objective referents, and thus there is no guarantee that different personality and class groups mean very much the same by what they say, though they might make identical responses to the same questionnaire item. Other biasing factors as denial and self awareness, differing expectancies, norms and values, and differing perceptions of what is a right and acceptable answer, must all be taken into consideration in any sensitive use of such measures (e.g. Cavan et al ('47) happiness questionnaire, Kutner's ('56) morale scale, Srole's ('56) anomie scale). What is needed primarily is the type of social psychological situation where such concepts can be assessed reliably.

A set of concepts which seem particularly relevant to the present study are those devised by Havighurst and his co-workers (Neugarten et al ('61)). They have argued for the proposition that a subjective feeling of satisfaction with the present and the past is what constitutes successful aging, more precisely defined in terms of five interview scales; a contented mood tone, a zest for life as opposed to apathy, a congruence between what one has desired and achieved in life, resolute acceptance of life (integrity) versus a feeling of being passively overwhelmed, and a positive self concept. After reliable ratings were developed for each of these scales these authors found them to inter-correlate highly (.48 - .84), with the further suggestion that present zest and mood tone and positive self concept formed one tight cluster (.79, .84, .82), and past satisfaction and resolute acceptance and positive self concept another (.70, .73, .83), both closely related to one another. (One could not of course rule out these effects being explainable by consistent kinds of halo effects in person perception). This approach (actual measures are discussed in Chapter Two) seems especially of value to the study proposed here both because interviewers' judgments' measures using these scales, have been found sensitive to the impact of changes in subjects' level of interaction (Tobin and Neugarten ('61)), and more importantly because this measure specifically relates attitudes to the past with present adjustment. For one of the important questions that arises in this

thesis is whether the relationship between 'past' satisfaction and 'present' satisfaction, studied by Havighurst et al, is due to a causal association, and if so in which direction. Buhler ('61) has written of the importance to positive self regarding attitudes and to present mood of self assessment as to fulfillment (to positive self regarding attitudes and to present mood), and we know on the other side how depression in the present may colour past memories. Is the past useful to adaptation in old age or do the predominating memories reflect more the old person's present condition?

To conclude then, the research project described in the following pages consists in a study of reminiscing, together with attitudes to past life and to reminiscing itself. Reminiscing is measured as an observed activity from spontaneous conversation, and the reminiscing functions assessed, besides sheer frequency of reminiscing, are 'life reviewing', and the 'teaching' via use of the past function referred to in discussing the McMahon et al paper. It is hypothesised that each of these three reminiscing characteristics will appear adaptive factors (as well as past life satisfaction and positive reminiscing affect in accord with the Havighurst et al findings) in relation to the measures of incurred 'loss' and freedom from depression and present life satisfaction. It is further hypothesised that there may be particular circumstances where these features are markedly adaptive. For instance, though at certain levels of loss (for example, after 'institutionalisation' as in the Lieberman

et al study) quantity of reminiscing may not appear relevant to adaptation, there may be an optimum level of loss where it will be clearly related to adjustment. Also, it is hypothesised that life reviewing will appear especially salient as an adaptive feature when there is noticeable dissatisfaction with past life.

Chapter Two Methodology

Subjects and Procedure

The subjects in this study were all old people in council owned sheltered housing accommodation ('part three') in five London boroughs, one or two roomed flatlets in blocks of 15 to 50 residents, with a warden living on the premises and the presence of communal facilities as a lounge etc. Sheltered housing provided a suitable source of subjects for a number of reasons. One was the ease of access, via borough housing manager to the wardens of the individual schemes, and from the warden by personal introduction to the tenants. Secondly, the wardens themselves were able by their often considerable acquaintance with the subjects to provide a useful supporting source of validity for some of measures taken in the study. But the main reasons this study was pursued with sheltered housing subjects, were because they were found to be a sample of old people in whom the losses of old age were especially marked (physical disability, bereavement and separation from family and friends, loss of old environments), and at the same time were a sample much more amenable to study by virtue of their privacy in living arrangements and relative lack of mental deterioration than old people living in council 'home' accommodation ('part two'), which population has by now in some of the London boroughs at least come more to resemble that of geriatric wards (in part due to the provision of sheltered accommodation for the abler elderly).

Thus this sample cannot be considered representative of the whole aged population of these London boroughs. Such a sample would also include those living in their own former accommodation or no longer able to maintain themselves independently, living with their families or in institutions. It probably contains a larger proportion than normal of elderly without close family connections or somewhat neglected by them, though in another way this sample can be considered fortunate since the waiting list for sheltered accommodation is very long indeed. Nevertheless, it does seem to afford a good source to investigate the issues at stake in adaptation to the changing circumstances, which occur to a greater or lesser extent to all, in the last period of life.

Only single old persons were visited in these blocks, but it can be claimed that the selection of these was performed fairly randomly. It was realised after a few months that it was a mistake to visit too many old people dwelling close together because of their tendency to talk (!) about each other. Thus only a certain number were visited in any one scheme, spread out over the building (the numbers in fact were 8/6/7/5 in the four blocks in Kingston, 8/4/4/2 in Merton, 5/3/3/2 in Camden, 6/3 in Brent and 4 in Westminster). They were visited in the first place if the warden thought they might be in, the wardens being aware that a representative sample was required, the conditions being only that they should all be living alone and around seventy years and over, and

those who were visited once, were followed up with subsequent visits so far as this was possible. The aim at the outset was to secure data from about thirty men and thirty women, and as single men were considerably scarcer than women the number of blocks visited had gradually to be extended to build up this number. The visiting from which the data of this thesis was collected took place between November 1969 and January 1972, and in that time 38 women and 32 men in the relevant categories were visited. (Of these 3 women and 3 men died before sufficient data had been collected to include them in the analysis.) By January 1972 the full set of scores on the measures had been collected from 25 women and 23 men, which leaves 10 women and 6 men from whom for one reason or another (usually because the author felt the old person would not very willingly cooperate in some of the requests necessary to collect the data) the complete set of data was not obtained.

As has been mentioned earlier this study was intended as a 'naturalistic' one in which the author would be accepted by the old people as a friendly inquirer. (When there was failure to secure all the data this seemed often related to the fact that the initial interaction with an individual had been set off more in the manner of a formal questioning session.) 'Naturalism' was obviously easier to achieve in a study of old people living alone who by and large greatly appreciated having a young visitor to talk to. The wardens were introduced

to the author on the understanding that he was generally interested in changes in ways of life in old age especially in relation to sheltered housing, and they themselves introduced him to the old people unspecifically as 'someone come to talk to you!'.... etc. Obviously the question of role definition is an important one. Association with the 'housing' office was avoided from the start in favour of an image of being a university student interested in welfare, and there was an attempt to convey an open ended impression to 'what one wanted to know', centred round a general interest in the person's own life, reinforcing whatever he or she had to say, with a certain few cues dealing with thinking about the past/present activities, and attitudes to past and present. (A more detailed consideration of naturalising and standardising of the conversation setting will be given later in the section on conversation analysis.) Over the time period of visiting (mean number of total visits per person was 6.2) the author became quite 'accepted' by most of the old people and was able to judge suitable times to start collecting the data. In a few cases the original meeting was such that asking 'specific' questions had to begin from the start, but as said this usually bode ill for the completion of the project, particularly for collecting samples of natural conversation. A sequential programme of collecting data was not very rigorously kept to, relying more on subjective impressions of when was a suitable time (and no doubt the author became bolder with experience!). The obtaining of information on life changes, and 'life satisfaction'

questioning were usually carried out in the same session. A whole session was needed to collect the sample of conversation on tape (and a second for the purposes of making a reliability check in twelve cases), which was recorded on cassette tapes of one hour duration. A further session at least was usually needed to give depression and reminiscence questionnaires. More often in fact there were a considerable number of sessions in which the old person was just 'allowed' to talk without any special requests being made, particularly in the first period of the study. In fact no 'specific' formal questions were asked before January 1971, more than one year after the visiting began. Although hesitant at first about asking to make a tape recording, usually on the pretext of 'so I can remember and note down your views afterwards'....etc, the author in fact found little subsequent difficulty in getting their permission, at least with those majority of subjects with whom sufficient rapport had been established. (Discussion of questions of bias and standardisation arising from the need to secure tape recordings, and of other sources of bias, will be found in the later section.) Some were a bit shy initially, but on the whole more difficulty was found in getting people to 'stop talking' and attend to specific questions when the time came to give questionnaires!

Measures of Life Change and of Adaptation

In this section the general measures of life change and subsequent adaptation will be discussed, leaving the last section to the question of devising a scheme of conversation analysis suited to the categories outlined in Chapter One.

As was argued in the first chapter of this thesis, it is advisable to study adaptation in old age in the context of a careful consideration of the sequence of stresses impinging on the person during that time and of their effects on the total desired life style of that person. The approach of the present study was to attempt to develop measures of the latter kind, with the aim of giving some quantitative value to individual differences in background variables of 'unwanted' change in life, in reference to which one could assess whether features of the person's conversation were significantly related to adjustment or not.

Physical health was given especial attention as it is well known to be a simple factor most related to adjustment in old age (Birren et al ('63), Spence ('66) etc.). However, there was no attempt to measure the physical health of the person objectively by using some kind of detailed health index (as e.g. Kutner et al ('56), also used by Tallmer and Kutner ('69)), but a rough estimate of the extent of changes in disability was gauged from investigating how much physical activity was limited

in the present compared with at age sixty and five years previously. A number of measures of physical incapacity have been developed for use in surveys (e.g. Townsend ('57), Williams et al ('63), Shanas et al ('68)), but the one used in this study was derived from the relatively easy measure of perceived 'functional' health developed by Rosow ('66). He showed that six particular questions operated fairly well as a Guttman scale (cf Appendix A). (Thus whereas only c21% of his sample could still do heavy work around the house without help like shovelling snow or washing walls, a further c25% said there was no physical condition, illness or health problem that really bothered them, a further c23% still said they could walk half a mile etc....) These same questions were used in this investigation, but the scoring 'stages' were slightly altered to consist of only four stages which gave a fairer distribution of the sample. Thus at one end were those who were not substantially limited who could 'do all that they used to like to do', then those who mentioned things that they used to be able to do but couldn't now, then those who were very substantially limited as shown by doubts about walking half a mile or climbing stairs, and finally those who were so disabled they couldn't even walk out to go shopping. Intermediate scoring was allowed if it was unclear that the individual was at one or other stage (thus giving a final scale of seven). A fairly operational measure of disability resulted, on which although crude, people could compare themselves with previous standards, and measures of

differences between scores at sixty and now, and between five years ago and now, could be used as measures of 'physical loss'. (cf Appendix A for questions and scoring).

Physical ability to get about and perform more strenuous actions, though an important constituent to the person's continued maintenance of the usual habits of life, is not the only one. We have already mentioned the other environmental, cognitive, socio-emotional and social role losses that occur in old age. Can their effects be accumulated in a single measure? None has yet been devised. But the large chunks of losses in social contact can be classed together at least. From a consideration of the literature on quantitative assessments of an individual's social life (Havighurst ('57), Cumming and Henry ('61), Williams and Wirths ('65), Townsend ('57), Tunstall ('66) etc.) a number of variables emerge as possible constituents of such a measure: the amount of interaction per day, the number of discrete interactions, the number of active kinds of role relationships, i.e. attempts to assess absolute amount and variety of social contact. Further attempts have been made to assess the more qualitative dimension of social life (e.g. the degree of ego involvement, the nature of the familial role the old person holds, the degree of 'penetrance' within an organisation he may belong to or the quality of intimacy in personal relationships, Havighurst et al ('63), Carp ('68), Bortner ('67), Lowenthal et al ('68)). But, where we are concerned mainly with coming to some general

assessment of the changes over time in a person's social life, we can afford perhaps to merge both the quantitative and qualitative aspects in a global measure which takes into account both the various areas of social life which were important to the individual and the extent to which they have changed over time. In the present study the 'areas' which were distinguished were life within a ^{contact in relation to work and organization membership,} shared household,[↑] contacts with (non household) relatives especially children and siblings, and contacts with friends and ordinary neighbourhood contacts. Social life obviously could be defined by much finer distinctions, but in this present study it was decided after preliminary analysis, that an adequate analysis could be performed with these four 'area' categories so defined. A more tricky problem was the necessity of building into the measure some weighting of relative importance of the various categories (as in Townsend's measure etc), preferably again relative to the standards of the individual's own life and so varying between different individuals.

Ultimately the basis of the score derived at (cf Appendix B for details of format of interview and scoring of measure) of disturbance of social life since middle age and in the last five years, depended on the interviewer's own rating from the specific interview session, besides general material arising from other conversations, of the individual's social contact at sixty, five years ago and at the present time, and consequently of whether there has been substantial change or not in these various areas of social life.

There has to be a heavy reliance on retrospection for assessing the amount of social contact five years previously and at sixty. Problems necessarily arise here, because if for instance we are interested in establishing the degree of relationship between losses and life satisfaction etc, and the measure of losses is largely determined by the subject's own perception of degree of loss or change, which itself may be dependent upon how much he misses what he has lost, then we are heavily biasing the losses measure in the direction of this relationship. As we are relying on subjective retrospective data it would be probably nigh impossible to prevent this bias altogether, but it is as well to be aware of it in making the ratings if our aim is to obtain an objective measure of degree of change. The other problem of voluntary ('disengagement') changes in social contact did not arise in a difficult form as it turned out, for virtually all the ratings of 'substantial' change made could be attributed to one or other of the 'stresses' of aging elucidated earlier. The extent of social loss was scored 'absolutely' and 'relatively' (i.e. the score for loss expressed as a proportion of the total score for areas of social contact that had once been important). It was expected that 'relative social loss' would be the more important variable to adjustment.

The time factor was considered to be an important variable to take into consideration as well in this study of adaptation. The two time variables which after

consideration were decided upon for the measures of change in functional disability and social life, were firstly 'from sixty', assumed to represent the optimal period of middle age activity where the losses of aging have not yet begun to be felt, and secondly 'from five years' previously, where more the short term value of suggested adaptive features in meeting the traumas of aging can be investigated. For instance one may find that reminiscence does not appear as an adaptive feature of aging in the wake of substantial losses over the last five years but that it may do so over the longer time span of adapting to aging. A further time consideration that could be worth taking into account is whether there might be significant age differences in reaction to loss. (A priori one might expect the older elderly to be more 'prepared'.)

It should be stressed that these measures devised to assess the extent of negative change in physical ability and social interaction were not intended to form a complete measure of changes in way of life in old age, but only as measures inclusive of some important kinds of changes. (One could consider how to cover other aspects of life e.g. different kinds of negative effects resulting from bad health, mental deterioration, retirement, environmental changes etc, and activities concerning more non social interests as preparing food, housework, shopping, hobbies (walking, reading, T.V., gardening etc)).

Choosing suitable measures by which to assess adjustment per se is a difficult task. As emerged in the discussion in the first chapter of this thesis, the maintenance of identity is seen theoretically as at least one of the most important underlying issues. Though it was not felt able to include a specific measure of self concept or self esteem whether by projective testing or some item selection or rating method (e.g. Carp ('67), Mason ('54), Schwartz et al ('65), Preston et al ('66), Rosner ('68)), (as this might have been too puzzling and complex a task to ask the old people to perform in this particular study where a lot else was being requested of them), it was decided to include a straightforward questionnaire on depression, as this is a salient negative feature of old age which is also arguably associated with loss of self worth (cf refs. p61-2). A further more general rating of life satisfaction was also carried out with the intention of including a more differentiating measure. For the purposes of this study the Havighurst measure could also be usefully divided into past and present components. This seemed the most suitable set of concepts to use as a general criterion of adaptation in old age, of the various objective and more subjectively defined indices of successful aging suggested.

The questionnaire measure adopted for depression was Dempsey's unidimensional depression scale for the MMPI (Dempsey ('64,'65) comprising thirty items, which have been recommended for general use in lieu of the original

particularly for differentiating within a normal sample. (Appendix C). It was chosen for a number of reasons. Firstly it is relatively free of somatic items which could be reality based for the aged and which figure more largely for example in the Zung and Beck questionnaires (refs. p 61), and is not as disturbingly 'depressing' a questionnaire to administer as e.g. the 'thorough going' Beck one. Secondly, it contains a substantial number of items referring to self esteem and making comparison with the past self, which are conditions underlying the kind of depressive reactions we are interested in monitoring in this study. The questionnaire was administered, where possible, as one for the subject to fill in, but there were a number of cases where the interviewer had to fill the answers in for the old person. One check on the validity of this depression score was provided by the wardens' ratings (Appendix H).

For measuring 'life satisfaction', since the author had no experience in rating the five component categories (Neugarten et al ('61)), it was decided to employ a compromise method. The questions from the 20 item LSI-A devised by the same Chicago group, which as a self report questionnaire has been shown to approximate to life satisfaction ratings (Wood et al ('69)), were administered (Appendix D). But they were employed in a more flexible interview setting in which the author from his knowledge of the scale could if necessary enlarge upon the meaning of the questions and the subject upon the meaning of the answers, leaving the former with any necessary clarifying

rating decision on a three point scale for each item. Although it might seem methodologically unsound to use a questionnaire in this way, as the aim was to approximate more to a considered rating of life satisfaction like the original this method was thought justifiable, particularly as it was found that the subjects responded most positively to discussing the questions, wishing to give well thought out answers, which they could also enlarge upon, to what are after all potentially highly emotive questions, requiring evaluation of a person's entire life.

The resulting measure was also divided into two parts, for use in analysis, life satisfaction for the present and life satisfaction for the past. Two sorts of evidence, from the Chicago studies, were thought to justify this. As mentioned in Chapter One intercorrelations of the judges' ratings of the five theoretical components of life satisfaction were all high, but the clustering of mood tone of contentment with present, zest and positive self concept on the one hand, and of congruence between desired and achieved goals, resolute acceptance of the past and positive self concept on the other were also noticeable. In a factor analysis of the LSI-A questions (Adams ('69)) self concept did not appear to emerge as a separate factor, perhaps because it was inherent in all the four factors that did appear, which could be identified with the other four theoretical components. On the basis of this result it would have been justified to include all four as separate measures in the analysis,

but it was decided for the purposes of this study to class the 'mood tone' and 'zest for life' questions as measures of life satisfaction in the present and the 'congruence' and 'resolute acceptance' questions as measures of past life satisfaction. Questions 11 and 14 were missed out of Adams analysis because he did not consider them to have sufficient overall discriminative value, but they were included in the present and past categories respectively in this measure. As Adams points out, the number of items do not appear too representative of the original 'life satisfaction' theory and so the resulting two measures are unevenly balanced in content: life satisfaction in the present; 4,6,5,3,7,18 (mood tone 'factor') 9,16,15,1.8,10 (zest 'factor') + 11, past life satisfaction; 12,13,19 (congruence 'factor') 17,2 (resoluteness 'factor') + 14. (Item 20 was a member of the 'resoluteness' factor in Adams' study, but as not referring directly to the person's own past life was dropped from this division of life satisfaction items.) Obviously this division is not too neat, but it was considered justifiable to label the thirteen item measure 'life satisfaction in the present' and the six item measure 'past life satisfaction'. Nearly all the items were found suitable for this kind of study, judging by the degree of attention the old people gave to answering them and the apparent stability of their answers.

Categorization, Quantification and Validation of Measures of Conversation Characteristics

Little scientific consideration has been given by psychologists to the proposition that the content of natural conversation may be an important source for studying the nature of individual differences in personality functioning (ref. Holsti ('68)), but this is perhaps due to the fact that research which has been done, as on the content of therapeutic sessions, has been disappointing in the results it has yielded considering the cost in time of making adequate content analyses. The non lexical and expressive dimensions of verbal behaviour (e.g. hesitations, silences, disturbances, tone, pitch....) have been more fruitful sources of analysis of reliable individual differences (Mahl ('59), Matarazzo ('56) etc). And those who have maintained attention to lexical aspects as Gottschalk ('61, '63), as in his development of anxiety and hostility scales, have turned to more pragmatic methods of categorization. They have rejected the stresses upon manifest objectivity of criteria and have relied more upon clinical judgments at the time of analysis, requiring inferences on suppressed or repressed 'meaning' (refs. Marsden ('65)). Thus the present literature contains little of direct relevance to the devising and applying of rigorous and easily rated categories delineating the noteworthy characteristics of reminiscence. (The Rogerian analysis of 'experiencing' (Gendlin ('62) etc) in client centred therapy is one relevant source though). In this methodological section

some general points about making a study of natural conversation will be considered first, before turning to the defining of the categories to be studied and the devising of suitable methods for quantifying them. Finally the issue of validating these measures as measures of reliable individual differences in general conversation will be dealt with.

In the initial stages of this study the author took notes from memory of the main themes that suggested themselves from each person's conversation. General categories that emerged of importance were such as conversation on the old person's activities and interests, on those of his personal friends and relatives, on personal complaints especially concerning health and surrounding environmental circumstances, and on general attitudinal issues (such as politics, morality etc). All these topics could of course have reference more or less to the present, more or less to the past. The general introductory setting has been referred to earlier, and though it would be hard to systematically support the view that relatively few of the old people were inhibited by these circumstances, it does seem that given the right kind of supportive setting the content of observed conversation is a good indicator of the content of consciousness generally, and that old people especially tend to be more open about their views and feelings. What is important is providing the right circumstances. As Gutmann ('69) has said in discussing the value of naturalistic research generally... 'by and large people do want to talk to us about matters

that are vitally important and troubling to them', provided the right conditions are met.

For a more systematic and sufficiently accurate form of analysis it was necessary to seek recorded samples of the subjects' conversations as well as make ratings. This introduces a further potential problem for the representativeness of the setting. Perhaps surprisingly as it turned out, only a couple of subjects with whom sufficient rapport was established for them willingly to enter into long conversations with the author (the subsequent cassette tape recordings were of an hour length) refused the request to record their conversations, and the rest indeed showed little if any temporary apprehension of being recorded. (The only man (a marked 'life reviewer'!) who refused did so because he didn't want to 'go on record' in case it might be used against him....he had been 'let down' enough in his life, which included a long prison sentence.) But there is still the awkward problem of what the influence of the knowledge of being recorded may be (refs. Weick ('68)). There is clear evidence that subjects can still be aware (or can easily become aware again) of the presence of a recorder though they may have appeared to have forgotten about it by the absence of any comment in reference to it. Further some studies have shown systematic kinds of effects. For instance Roberts and Renzaglia ('65) in a study of the influence of tape recording on counselling, showed that subjects made less negative self references and more positive self references when the recorder was present, and counsellors also made

more interpretative comments in these circumstances. Obviously in an ideal study it would be necessary to find some way of accounting and correcting for effects of this kind.

Of course a factor which can and must be stabilized for is the structure which the 'interviewer' himself gives to the conversation both in introducing the conversation and in supporting it. Although as has been said the aim was to allow for a naturalistic and open ended conversation from the older person's point of view, conversation of its nature does not occur in a vacuum but in relation to the stimulation which the other provides. That this part of the setting should be 'controlled' does not necessarily mean that the old person's conversation data is not naturalistic. As Sechrest ('69) has defined it, a measure is naturalistic to the extent that it does not require the special cooperation of subjects and the awareness that their behaviour is being measured or treated in some special way, i.e. to the extent that it does not 'change' the phenomenon being measured. Thus in contrast to an ecological survey study where one would also need stimulation representativeness over time and consequently where any kind of special 'prodding' would be inappropriate, provocation of behaviour as Weick argues does not alter the naturalism of a setting provided it does not make the subject self conscious as in an experimental situation, but rather is used to allow the behaviour one wants to study to come into greater prominence and thus allow for greater differentiation. In a study of this kind where one is

paying attention to the subjects' conversation in general but especially to certain features of it, this is an important point to consider. Reminiscing, for instance, may need 'catalysing'. As this is not, say, an ecological study of the proportion of reminiscence in old people's conversation, but a study in which the aim is to compare the individuals' reminiscence among themselves in a quantitative and qualitative way, stimulating their reminiscence, provided this is done 'naturally' and 'equally' over all the subjects, is quite in order in serving to bring this behaviour 'into focus'. (The design of this structure which is imparted to the conversation is best considered later after definition of the categories which are to be analysed.)

Of course such a setting, even if natural, must be 'biased' in some ways because of the particular characteristics which the 'interviewer' brings to it..... age (e.g. the development of a paternalistic role can influence interaction patterns (Birren et al ('63))), sex and personality. On the 'subjects' part there may be differences in perceptions of the situation.... how open ended the situation is, what the 'visitor' wants to hear... Cognitive variables of this kind tend to be difficult problems in assessing the significance of social psychological experimentation generally, and much of course has to be learnt from experience in the way of minimising such differences. Gutmann ('69) in discussing his own crosscultural studies has come to a number of relevant conclusions on maximising open self revelation. The

student, he thinks, should avoid being enlisted into the external social systems of his informants (e.g. identification with the housing office might well have been a hindrance in this particular study), should allow his informants to express and test preconceived fears and suspicions about the student's purposes and allow questioning of his own motives, and should emphasise the psychological 'uniqueness' of the individual which is his motivating interest. In this particular study, to check the representativeness of the conversations, one would ideally need to sample the individual's interactions with various people in his life space. However one source of validity open to the author was to obtain the ratings of the wardens of the sheltered housing schemes, who generally had quite some experience of their tenants, on the conversation categories (Appendix H).

There is no sacrosanct method of content analysis. It is at most basic a systematic ordering of the content of communications so as to make clear the basis on which one attributes certain characteristics to it. The theoretical aim of the study will always be paramount, but very often the analysis will be determined as well by pragmatic considerations of economy and ease. For if the same results can be achieved with a simple as opposed to a complicated method, then the former is obviously preferable (as long as it is as understandable and as open to replication). Typically a content analysis involves a delineation of the communication into units, an assigning of these units into categories or positions on a metric

and a summarising of this process. From the discussion of the literature in Chapter One, three major types of use of the past were chosen for examination - reminiscence (simply in its quantitative aspect), life reviewing (of the individual's personal life), and the use of the past in conveying matters of general importance. The latter two notions, especially, have to be worked carefully into objective operationally defined categories for content analysis.

It should be remembered that in confronting language psychologists are not examining a behaviour which is being analysed for the first time, but one which has long been the object of philosophical conceptual discussion. Thus Soskin and John ('63) developed an interesting method of analysing spontaneous utterances according to their general functional characteristics following Morris's ('46) classification of talk into its modes: designative, appraisive, prescriptive, formative, and its uses: informative, valuative, incitive, systemic. As a result they were able to carry out a situational analysis of the kinds of factors influencing these various aspects of speech. (cf also Bales' Interaction process analysis ('50)). In comparison, an ethological categorisation of content units might be a painfully slow method of noting samenesses of function, which could be shortcircuited by our preknowledge of language as we are aware of using it. The acts which we perform 'in' using language (as referring to..... evaluating, seeking to inform of.... etc) (Austin ('62)) are one important aspect of the 'meaning' we give to our

utterances. To indicate this relation of intentional act and meaning helps to clarify the issue of objectivity in content analysis. For although one could imagine devising a system of categorising which relied entirely on the presence of overt criteria as individual words, often, as McClelland ('55) has pointed out from his research on need Achievement, one cannot rely on just surface criteria but must make some degree of subjective judgment about what the individual 'means' by what he says. (Of course attribution of such 'mental' states is part of what we are always doing in understanding each other's use of language.) Such a procedure, provided it does not make use of extra ordinary theoretically biased modes of inferencing from the presence of surface characteristics to inner 'meaning' (and has high reliability of naive judges' rating), does not detract from the aim of objectivity of content analysis.

'Reminiscing' offered little problem of definition considered simply as an 'illocutionary act' of referring to the remote past. Some difficulty arose in defining 'remote'. A suitable definition that suggested itself for this study was reference to the events of any time preceding the moving into the sheltered accommodation (and considerations surrounding this move), for this was a fairly short time interval of an average around five years. A time criterion of this number of years was also used with the above criterion to form a joint check on the use of this category.

In interpreting Butler and Erikson, Gorney and Revere have suggested as indices of successful 'life reviewing' the presence of a consistent synthesis of interpretations and evaluations on past events, and a consequent 'serene' acceptance of the past shown in a balanced appraisal of the good elements in one's life. In this study it was further assumed that the heightened reminiscing of those elderly engaged in life reviewing would be shown in the seeking of these consummatory stages of interpretations (i.e. not just narrations) and evaluations of the actions and events in their lives. Consequently these were thought to be the especial kinds of 'illocutionary acts' on which the method of categorising life reviewing should be based. Another way in which heightened involvement in the past would be revealed, it was also assumed, would be that the description of the past should contain a greater reference to the individual's experienced psychological states in the past. Gorney it will be remembered related 'experiencing' in general, defined as an ease in referring to one's own feelings and reactions when making personal narratives, to life reviewing in the elderly. Both of these assumptions then on suitable indices of life reviewing are broadly in consonance with previous viewpoints, but it should be noted that the resulting overall rating by amount of broadly speaking 'psychological' reference to the past, is different from Gorney's method of rating active life reviewing by amount of reference to past 'conflicts' and degree of affective involvement. It was preferred because it allowed for a much more rigorous form of definition of life reviewing.

The set of life reviewing categories became more precisely delineated after experience in rating conversation both from tape recordings and transcripts. Thus, the category of referring to experiencing came operationally to be inclusive of all inward references to experienced subjective life, as the presence of emotional states and the content of cognitions, but not of course inclusive of the use of psychological expressions as 'I think', 'I believe', 'I remember'....etc in a parenthetical sense or as a means of introducing an attitudinal statement (unless reference was also being made directly to an inner state of experiencing e.g. compare 'I think that...' with 'I often think to myself....'). Descriptions of psychological processes as behavioural tendencies and reactions, desires, and the dispositional uses of words as 'I like', 'I know'... etc where they did not refer to directly experienced states, were not included in this category, but might have found a place in the conjoint category of considered remarks to do with the self either interpretative or evaluative. This category was defined as inclusive of all commentary on the self which was judged to involve some later construction upon the simple narration of events. In practice psychological interpretations of the self were judged to include any explanation of the self and actions by reference to psychological processes as motivations, emotions, cognitions, reasons and personality dispositions, or any revealing description of the self in these terms, or any explanation of the self and actions where considered emphasis was put rather on external events as the source

of their causation (this latter criterion also required some observed stress on this fact of causation, not merely a causal narrative (e.g. suggesting rather why one had to do something)). All overt or clearly implied evaluations of the self and actions were also included (e.g. reference to the presence of negative or positive personality traits, admissions of regret on past actions, proper exercises of 'duty' etc). In all, the measure sought was of the degree of self conscious considered revelation of the kind of person the subject had been and why he had done the things he had. (In the first draft of this life review category, besides psychological interpretations and evaluations of the self and references to experiencing in the past, evaluations and considered interpretative remarks on the immediately surrounding and determining life situation around the self were also added, judged in a parallel way to psychological remarks about the self.)

The same 'psychological' categories were also applied to conversation about the present.

The other main reminiscence category considered was the use of the past in conveying matters of general importance. This involved two separate ratings. Firstly statements were defined as attitudinal if they were considered to refer to or directly express attitudes, beliefs, views, values or interpretations about general issues in the world, which appeared as personal expressions rather than as 'factual' statements of generally accepted

interpretations etc. This had to be more than the expression of a subjective state or cliché, rather the expression of an objective attitude on which the individual could be differentiated. Very often the distinguishing mark of this category was whether the remark in question was judged contentious (i.e. whether the question of agreeing or not arose on the hearer's side, in contrast to ordinary narrative remarks where one would normally be expected to accept the truth on the speaker's word). Secondly attitudinal remarks were classified as revealing use of the past if they contained a direct expression of attitude in relation to the past, or referred to the past in making an attitudinal statement about the present e.g. by way of comparison or example etc. An additional set of statements that was included with attitudinal statements in this general category, since its origin was the consideration that one of the functions of conversation and reminiscing in old age may be in fulfilling a 'teaching' role, was the stating of important historical facts in the past and also the stating of facts in the present of general importance which the subject conveyed in an authoritative manner (e.g. skills of technology etc).

Turning now to the question of structuring and standardising the conversation settings, particularly the one hour tape session(s), the character of the design was moulded by the categories which were to be analysed from the conversation. Standardising the structuring of a conversation of course can only be relative to the need

to maintain rapport, which in one sense is an advantage because it helps preserve the naturalness of the data and prevents overmuch manipulation by the interviewer of what is said. As by and large the old people liked talking and appeared very open about themselves, the most plausible kind of standardisation seemed to be for the author to influence the conversation relatively little and to supportively encourage the old person in what things he wanted to say. (It was possible for him to say very little during the tape session if he had established sufficient rapport in previous meetings.)

The tape session was introduced in fairly unspecific terms to the effect that the interviewer was interested in the old person's views about the past and present, and conversation was usually stimulated by the question whether the old person found as he got older that he thought more about the past. And a slightly directed input of this kind was maintained throughout the session where judged appropriate e.g. what kinds of things do you think about?.... regrets?.... do you try to make sense of it all?.... does it help?.... do you like to speak about old times?.... how does the past compare with the present?.... can one learn from it? etc.

Idiosyncratic questions arising from the author's knowledge of the subject's past history that had arisen in previous sessions were sometimes used as supporting cues. Of course where the subject did not appear eager to follow up reminiscing cues he was not pressed and the conversation was supported more by cues about the subject's personal present and his general attitude to things around.

Of course there were considerable individual differences among the subjects in their tendency to speak a lot without need for encouragement, but the author's interventions as regards all were by and large either contextually dependent or else of the fairly vague standard form as the reminiscing cues quoted above. In some cases less than a full hour of conversation was recorded on the tape because of interruptions or recorder malfunctioning, and a criterion of forty five minutes was chosen as acceptable. (The subject himself was not told for how long the tape would run and the cassette recorder's functioning could not be perceived by either the old person or the author.) In a few cases two lumps of separate conversations were put together to give an adequate sample of one individual's conversation.

Having collected adequate data in recorded and also transcribed form, the problem next arising was that of analysing it quantitatively for the various conversation categories. There are other possible methods of measuring 'intensity' of a content characteristic, but the primary method used in content analyses has been to count the frequency of occurrence of the characteristic within the data (Marsden ('65)). Where the occurrences of the characteristic of the given characteristic tend (as here) to be opaque as to where they begin and end, and consequently cannot be easily be enumerated as in a word count, the usual practice has been to divide the material into units and then classify each unit as to whether (or to what extent) it contains the relevant

characteristic, and finally to summate the number of units so classified into a total number which represents the intensity of the content characteristic within the material. The choice of the unit of analysis where it is not more or less determined by the structure of the material (as for example in Werner's et al ('61) categorising of answers of old people to focused interview questions), is largely determined by pragmatic questions of ease of analysis, and sensitivity and reliability of individual differentiation so achieved. No easily identifiable unit as a word, clause, sentence or paragraph is necessarily advantageous. Indeed as Holsti points out, the breakdown of sentences into 'themes' (i.e. assertions about a 'subject') has been shown to provide a more useful form of analysis than sentences themselves. Sentences indeed, particularly in transcripts of oral material can be of grossly differing length both within and between subjects. There are also individual 'style' differences in the length of units which are based purely on linguistic criteria of sense or oral phasing (i.e. pausing).

As in this analysis a large amount of material was being collected from each subject, and the aim was to derive a quantitative assessment of pervasive characteristics of the conversation (i.e. how much it was characterised by references to the past, evaluations and interpretations of the individual's life etc), it was thought justifiable to use fairly long, artificially standard units. Transcript space (i.e. number of words) rather than time was chosen

as the basis of the division into units for convenience's sake, and four lines of transcript of the subject's words became chosen after a period of practice, as the optimal length of unit, giving an average of 107 units per tape of average time 57 minutes. To cope with the problem of unnatural 'chopping' of units, they were divided at the most natural (interms of sense) stopping place (usually at the end of a clause) after between three and a half and four and a half lines' worth of the subject's speech, the transcript having been marked out into four line segments. Then each unit was classified according to the presence within it of criteria for one or more of the conversation categories defined above. This might be considered a rather over 'streamlined' procedure, but certainly relatively few problems arose in applying it, which at least is a good advertisement for the objectivity of a method.

As subjects spoke differing amount, the final score for the total number of reminiscence units an individual produced was expressed relative to the total number of units he produced overall. (It is unclear from McMahon's and Rhudick's account whether they also expressed proportionately the number of reminiscence 'units' as a measure of reminiscence. This is not unimportant. For instance, if it is the case that depressed people speak absolutely less as a whole then McMahon et al would have confounded their thesis to some extent by relating absolute amount of reminiscence with depression.) 'Life reviewing'

reminiscence was accordingly scored relative to the total number of reminiscence units, though it was realised that in a final categorising of life reviewing account must also be taken of the total amount of reminiscing as well. 'Attitudinal and informational' conversation was also scored relative to the total number of reminiscing units. Another way of coping with variable amounts, besides expressing the total proportionately or using a sampling method, would have been to have attributed to each individual the same fixed number of units per time (e.g. 100 units for 60 minutes) of correspondingly variable length between individuals, which would have certainly been a much more time consuming analysis and would have introduced the possibility of special biasing into subjects scores. The fixed length unit does this as well of course, but it is difficult to say a priori which method is more biased, that is whether it is more the case that those who speak a lot give less 'content' (as opposed to 'padding') per unit number of words, or more true that those who speak little have less opportunity to produce as much 'content' overall in the fixed time duration of the tape recording. Is the dimension of speaking slowly and not being inclined to say as much versus speaking quickly, without silences and not expecting much in the way of reply, a more important one in accounting for individual differences in conversation than that of speaking condensedly versus verbosely? The answer determines in part whether a unit based on amount of words or time is better. In this analysis the former was chosen

with the implication that those who spoke more had opportunity to express proportionately more 'real' content.

An advantage of this general kind of transcript analysis is that it can easily be extended to include quantitative analysis of other conversation characteristics as references to family and friends, evaluations of present circumstances, references to particular kinds of events in the past and present relating to oneself or others, comparisons between past and present, expressions of particular kinds of attitudes etc etc. A further measure of proportionate number of units with reference to family and close friends was included in this study, since it seemed to offer an interesting comparison with attitudinal conversation.

Besides these measure from transcript analysis, four general categories of conversation, reminiscence versus present conversation, attitudinal and informational conversation (as defined previously), self psychological conversation (i.e. conversation defined by the life review categories but applied both to past and present), and conversation about family and close friends, were also rated subjectively by the author. After each conversation with every individual (average total number per individual was six), he noted down salient features of the content of each person's conversation and by late 1970 was also giving a rating on each of the above categories for each conversation. In the analysis these were summated to

form a global rating - for reminiscence on a 7 point, for attitudinal on a 7 point, for self psychological on a 6 point, and for family on a 7 point scale.

The final and perhaps the most important questions concerning the measures of the conversation categories developed in this study concerns their validation - checking the extent to which they measure what they purport to. Four kinds of checks were performed in this study and all produced satisfactory results. They are reported in the Appendices, a measure of the reliability of category scores over time with twelve subjects who were recorded twice over a 2 - 6 month period (in Appendix F), an investigation into the reliability of judges' ratings of category criteria from the transcripts (in Addendix G), an investigation on the validity of the conversation ratings as representative of the subject's general conversation by obtaining wardens' ratings on certain categories of conversation (in Appendix H). Also the validity of the author's subjective conversation ratings was checked by correlating the rating of a single session which was also recorded with the 'objective' measure of the same material (Appendix I). In their turn of course, the global subjective ratings of conversation over the total number of sessions offer evidence on the representativeness of the single session recorded measure. (The relevant correlations are reported in the Results Chapter.) These constitute all the general types of validation to be achieved in such research, though obviously the important question of external validity or

representativeness of conversation analysed from a single kind of interaction, is only briefly touched upon in this study.

At the outset the most important question to settle was reliability of measure over time. The author noted down constancy of themes between conversations with each person which often seemed to be of a high degree. But of course, there is little hard evidence in the psychological literature to say whether in general there are any consistent individual differences or patterns of differences in conversation, let alone whether the categories devised in this particular study might reflect some of them. Further though the actual measures employed in this study seemed to have been well derived theoretically speaking and clearly defined as to practical content analysis procedure, it was still an important matter for empirical demonstration whether they were sufficiently sensitive and reliable in making differentiations between subjects. Therefore in the latter part of 1970 a pilot study on reliability of categorising from two one hour tape recordings, obtained from six subjects on two occasions at a couple of months interval, was analysed. The following categories were used: referring to the remote past (i.e. the subsequent 'reminiscence' measure), referring to the present, expressing attitudes or matters of general importance (i.e. the attitudinal and informational measure), and the 'life review' measures applied to past and present - i.e. referring to neutral cognitive, negative affective,

positive affective states of experiencing, interpreting the self psychologically or environmentally (with emphasis), and evaluating the self positively or negatively - additionally, interpreting and evaluating the life situation were also included in this category. On a Spearman rank correlation analysis, 'present' conversation was reliable at .01 level and 'past' conversation only just insignificant at the .05 level (with a correlation figure of .81). 'Attitudinal and informational' conversation was also reliable at the .01 level, and of the 'life review' subcategories four were significant and the whole set of seven together significant at the .01 level for the 'past' (and the .05 level for the 'present'). But including the 'life situation' categories led to the disappearance of this significance. Scores on the 'life review' subcategories tended to be small and so with only six subjects it became difficult to comment on what the reliability of each of them might be, but the low figures for the reliability of the 'life situation' interpretation and evaluation categories and their effect on the reliability of the whole category, suggested that it might be best to exclude them from the final 'life review' category. However, apart from this the degree of reliability achieved for the three major categories certainly supported a continuation of the same scoring methodology, and therefore these measures were used for the rest of the study.

7
n=6

A further source of external validity for the quantitative assessment of reminiscing was obtained by administering the Havighurst questionnaire (Appendix E for questions and key) on reminiscing frequency and reminiscence affect. There are other features of reminiscence, some of which were mentioned in the first chapter that are not covered by this analysis and could be imagined to form the subject matter of further categories e.g. storytelling, boosting the self, glorifying the past, cheering....etc. And there are other forms of thematic analysis besides the 'functional illocutionary act' form of linguistic analysis, e.g. the rating the presence of certain themes relating to the prevalence of affective states as anxiety or hostility or the experience of 'loss'. But the general quality of affective involvement in reminiscence was the only additional feature of reminiscence included in this analysis, since its relevance to adaptation has been particularly stressed. Besides the Havighurst questionnaire measure, 'affect' was also rated from the reminiscence sequences on the recordings. (Reliability over time and reliability of judges' ratings are reported in Appendices F and G.) The attempt was made to define 'affect' in similar terms to the questionnaire measure, taking account of the pleasantness or otherwise of the content as interpreted by the old person (and particularly the image of the self portrayed), the quality or style of affect surrounding the narration (e.g. whether laughs, sighs....), and the selectiveness of recall (i.e. whether

the emphasis is on the good or bad, or whether the one is used to counterbalance the other). The total score (on an 11 point scale) aimed at measuring 'pleasant experiencing of the past'.

Chapter Three Results

The statistical analyses on which this results chapter is based are firstly correlations between all the measures performed on the whole sample, and on men and women separately (Appendix L for full list), and secondly analyses of variance investigating in more detail the circumstances in which hypothesised variables have adaptive significance (Table 9 and Appendix M). In the latter, just one adjustment measure (with a score out of 20) was employed, being a straight summation of the 'life satisfaction with present' and 'depression' measures after both had been reduced to C scales (Guilford ('56)). These two independent measures were found to correlate well in this sample (.78) and to relate similarly to losses. Also in the analyses of variance, to achieve a greater economy, one global assessment (into three categories) for 'losses in the last five years', and another for 'losses since the age of sixty', were designed, by amalgamating the 'relative social loss' and 'physical loss' scores via ranking both and giving twice as much weight to the social loss outcome. The exact relationship between the loss measures is laid out in the first section of results, and their correlations with the other variables reported independently for each of them. Details of the distributions of all the single variables for men and women are given in Appendix K, and the scores for each subject in Appendix J.

Throughout this chapter -

*** signifies $p < .001$

** signifies $p < .01$

* signifies $p < .05$

Pearson Product Moment correlations have been used throughout.
The Significance Tests are two tailed.

1. Losses and Adjustment

Losses

Because of the nature of the social loss measures, men naturally scored much higher on both 'absolute social loss' and 'relative social loss'. Women in general had a lower 'peak' from which to 'fall' as they had partaken less often of the work role contact category. The mean and standard deviation of the various loss measures are shown in Table 1.

It was also found that the measures of physical loss were less highly correlated with the measures of social loss in men than in women, the correlations for women being .72*** and .56** with relative and absolute social loss since sixty, and .82*** and .70*** since five years, the corresponding figures in men being only .45* & .46*, and -.04 and -.16. This striking difference is worthy of further clarification.

Age was not found to be a significantly related variable except for a (expected) general correlation between age and amount of 'physical losses since sixty' of .34*, and negative correlations of -.44* and -.59** for men between age and 'relative' and 'absolute' social loss in the last five years (indicating the impact of retirement in 'young' old age).

Adjustment

The adjustment indices were found to intercorrelate highly, 'life satisfaction' with 'depression' .71*** (.69** in men and .76*** in women), and the major subscale of 'life satisfaction with present' with ^{freedom from} 'depression' .77*** (.78*** in men and .79*** in women). This latter correlation was thought strong enough to justify putting together these two independent measures to form one 'adjustment in present' score (having reduced both to C scales). There were no significant age correlations with the adjustment scores, and no sex differences of note. The main parameters of the distributions of scores are shown in Table 2.

Relationship Losses to Adjustment

The correlations found in the data are shown in Table 3. With the exception of score for men since sixty, 'relative' social loss seems to show greater relationship to 'adjustment' than ^{lack of} 'absolute' social loss. And the social loss measures generally are more important factors than the physical loss measures (which suggests that the relationship between social loss and adjustment cannot be

Table 1: Social and Physical Losses in Men and Women

| | men age $\left\{ \begin{array}{l} \bar{X} \\ S.D. \end{array} \right. \left. \begin{array}{l} 78.43 \\ 6.89 \end{array} \right.$ | | women age $\left\{ \begin{array}{l} \bar{X} \\ S.D. \end{array} \right. \left. \begin{array}{l} 80.92 \\ 6.18 \end{array} \right.$ | |
|--|--|-----------|--|-----------|
| 'relative' social loss since sixty (% score) | \bar{X} 64.7 | S.D. 12.2 | \bar{X} 49.8 | S.D. 18.4 |
| 'absolute' social loss since sixty (80 max) | \bar{X} 45.9 | S.D. 11.5 | \bar{X} 29.3 | S.D. 13.5 |
| physical loss since sixty (7 point scale) | \bar{X} 4.26 | S.D. 1.82 | \bar{X} 4.92 | S.D. 2.04 |
| 'relative' social loss in five years (% score) | \bar{X} 50.1 | S.D. 15.0 | \bar{X} 30.2 | S.D. 20.8 |
| 'absolute' social loss in five years (80 max) | \bar{X} 26.5 | S.D. 12.8 | \bar{X} 12.6 | S.D. 10.3 |
| physical loss in five years (7 point scale) | \bar{X} 3.65 | S.D. 1.52 | \bar{X} 3.76 | S.D. 1.68 |

Table 2: Adjustment Measures

| | men | | women | |
|--|-----------------|-----------|-----------------|-----------|
| Life satisfaction (with present and past) (20 max) | \bar{X} 11.28 | S.D. 3.34 | \bar{X} 12.50 | S.D. 3.98 |
| Life satisfaction with present | \bar{X} 6.83 | S.D. 2.49 | \bar{X} 7.40 | S.D. 3.02 |
| freedom from depression | \bar{X} 21.89 | S.D. 4.95 | \bar{X} 20.98 | S.D. 6.06 |
| global adjustment score | \bar{X} 10.61 | S.D. 3.61 | \bar{X} 10.44 | S.D. 3.24 |

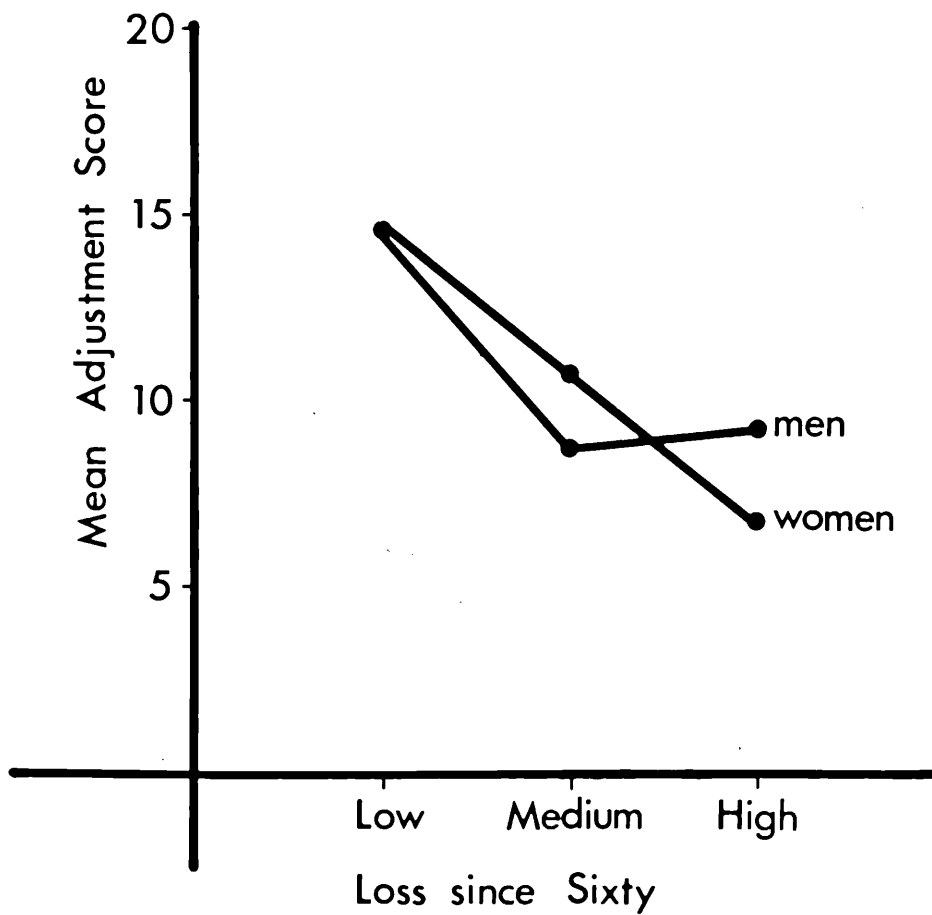
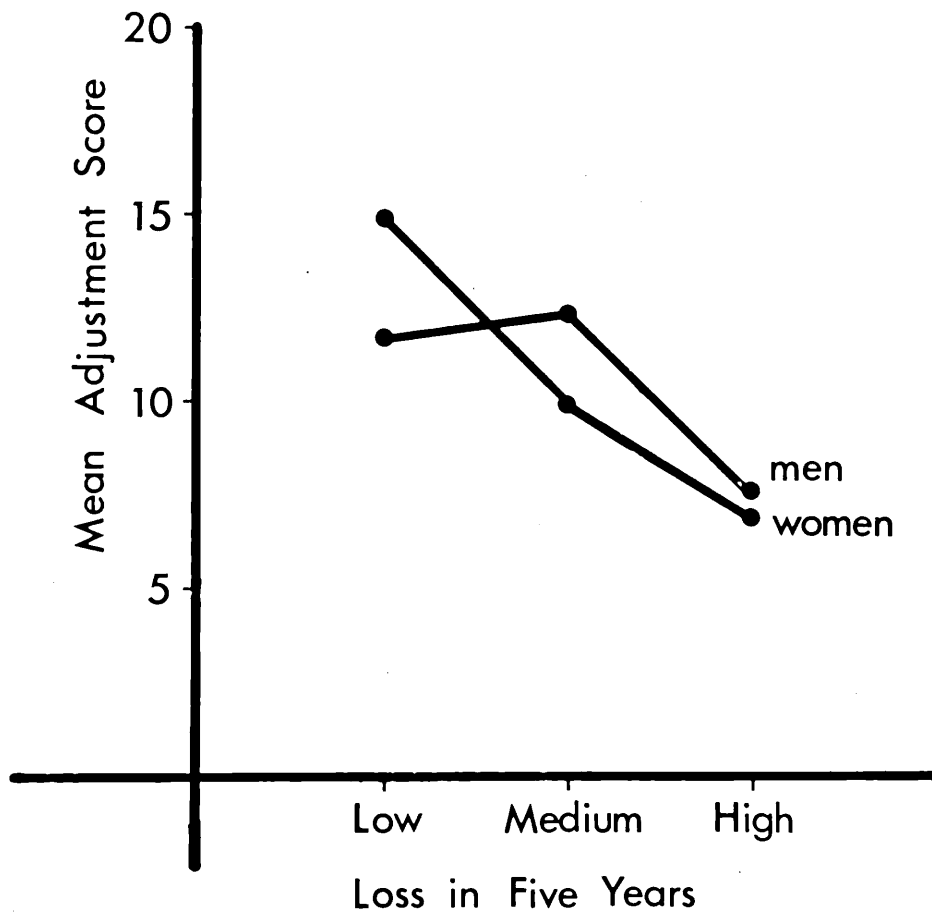
totally explained by the separate relationships between physical loss and social loss, and between physical loss and adjustment (though one must take into account differences in scaling between the social loss and physical loss measures)).

There is also the implication that losses in the last five year period may be a more important factor in the adjustment of women than losses since sixty, though rather the opposite is suggested by the data on the men. More significantly there seems a marked sex difference in the general relationship of loss to adjustment. This also emerged clearly in the subsequent analyses of variance where both losses and sex were included as factors and their contribution to adjustment assessed (Table 9 and Appendix M). The analyses were drawn up by dividing the sexes into equal groups of 'high', 'medium' and 'low' losses based on the range of scores within each sex separately. Consequently, the 'high' loss men group, for example, had much higher 'loss' scores than the 'high' loss women group (because of the differences in their social loss scores), but even so they show higher adjustment scores. Out of the 11 analyses carried out which involved 'losses during the last five years' as one variable, 6 showed a significant sex/loss interaction effect, and out of the 11 analyses with 'losses since sixty', 1 showed a similar effect. Plotting them produced graphs of the kind shown in Figure 1.

Perhaps these sex differences, the greater relationship between losses and adjustment in women, and the differences in relative importance of losses since sixty versus losses over the last five years between the two sexes, can be attributed to the greater salience of the 'retirement' factor in men. It forms a watershed for many men in 'young' old age in a way it cannot do for women who have not worked, and is much more than the contribution to changes in social contact assessed in this study. It was noted in the course of the survey, especially in the life change interviews, that men did indicate very differing reactions to the onset of retirement from 'welcoming' to extreme resentment, but the actual score taken did not differentiate between men in their reactions to retirement and thus for this reason alone one might expect that though the adjustment scores for both sexes are comparable there should be a higher correlation for women between social losses (as they are here assessed) and adjustment than for men. But since for the men, the 'losses since sixty' measure is more likely to take into account the effects of retirement than 'losses in the last five years', it is not perhaps surprising that it also shows a more definite relationship with 'adjustment'.

All in all it would seem very dubious to treat the sexes as one on the social loss measures here devised, and it was thought best for the purposes of this analysis to divide them into differing loss groups on the basis of intra sex standards. Men may indeed objectively suffer

Figure 1. Adjustment in Men and Women in relation to Loss



higher losses due to their possession more often of an outer world role as well as family role etc, but they also accordingly expect this greater loss in old age.

These questions of loss, sex and adjustment relationships deserve of course much greater consideration, but for the sake of this particular study of possible adaptive factors, it seems enough here merely to emphasise that the extent of the correlation between 'losses' of old age and 'adjustment', as here conceptualised and measured, seems sufficient for both sexes, to serve as a background against which to investigate the possible adaptive value of reminiscence and other variables.

But two further preassumptions should at least be mentioned before continuing with a consideration of these variables.

The first concerns the direction of the relationship between losses and adjustment. It is being assumed that the causality is predominantly in the one direction, but it should not be forgotten that further 'losses' may be caused by a person's own maladaptive characteristics (e.g. of withdrawal). Secondly, the relationship between 'losses' and 'adjustment' may be exaggerated by extrinsic factors, especially the extent to which subjective factors intervene in the assessment of objective social loss.

Though the attempt was made to assess this accurately on the basis of the subjects' references to objective changes in their circumstances, their self report was presumably affected to some unknown extent by their own reactions to the losses of old age, exaggerating or stressing changes which they still felt badly about.

2. Conversation Variables and their Interrelationships.

The reliability and validity studies on each of the conversation categories for both the objective measures from recordings and the author's ratings over the time period of visiting, are reported in the Appendices F - I. Here we are concerned simply with stating the measures' distribution characteristics and their correlations with one another.

Reminiscence

In fact three assessments of reminiscence were made, the tape recording measure, the author's subjective rating, and the questionnaire rating derived from Havighurst's study. Of course the latter measure is strictly a measure of interior reminiscing rather than of conversational reminiscing, and thus it is not surprising that whereas the correlation between the quantitative measure of conversational talking about the past and the author's rating of the same was found to be .82*** (.76*** for the men and .89*** for the women (these figures might be thought indeed excessively high, but it should be remembered that the tape session was part of the material rated, and might well have had a disproportionate biasing effect on perception of the other conversations)), the correlation between the questionnaire measure and the 'objective' measure was only .40** (.47* for the men and .36 for the women), and between the questionnaire measure and the 'subjective' rating .57*** (.65** for the men and .50** for the women).

The men did markedly more conversational reminiscing than the women as is indicated in Table 4. Reminiscing showed a trend of increasing with age, but none of the correlation figures were significant. The correlation figures did show, however, a significant relationship between conversational reminiscing and actual amount spoken by women (with the 'objective' measure .56**, the 'subjective' measure .48*), but this was not so with men.

Self 'Psychological' Conversation

The correlation between the single objective measure and the author's rating over time was .69*** (.81*** for the men and .58** for the women) and the parameters of the distributions as shown in Table 4. There were no significant age correlations or amount correlations.

As regards 'psychologizing' in the past or 'life reviewing' the correlations between this measure and the measure of total 'psychologizing' was as high as .66*** (.64** for the men and .69*** for the women), and with the author's rating of 'psychologizing' .56*** (.57** for the men and .57** for the women). (These correlations suggest a global personality characteristic concerning reference to the self both in the past and in the present). The mean and standard deviation of the life review measure are shown in Table 4. Again there were no significant age correlations (though some authors e.g. Gorney have suggested life reviewing to be more characteristic of younger old age) or amount correlations.

Table 4: Conversation Measures

| | men | | women | |
|--|-----------------|------------|-----------------|------------|
| reminiscence (questionnaire measure 16 max) | \bar{X} 9.65 | S.D. 3.07 | \bar{X} 9.24 | S.D. 3.58 |
| reminiscence (proportion of total recording) | \bar{X} 49.74 | S.D. 21.03 | \bar{X} 33.52 | S.D. 19.48 |
| reminiscence (rating 7 point scale) | \bar{X} 4.13 | S.D. 1.39 | \bar{X} 3.60 | S.D. 1.41 |
| self 'psychologizing' (proportion of total recording) | \bar{X} 21.91 | S.D. 10.30 | \bar{X} 22.48 | S.D. 9.54 |
| self 'psychologizing' (rating 6 point scale) | \bar{X} 3.26 | S.D. 1.22 | \bar{X} 2.92 | S.D. 1.09 |
| 'past' life reviewing (proportion of reminiscence) | \bar{X} 20.13 | S.D. 11.37 | \bar{X} 18.52 | S.D. 14.26 |
| attitudinal etc conversation (proportion of total recording) | \bar{X} 39.74 | S.D. 19.90 | \bar{X} 20.00 | S.D. 15.21 |
| attitudinal etc conversation (rating 7 point scale) | \bar{X} 4.96 | S.D. 1.63 | \bar{X} 3.44 | S.D. 1.70 |
| 'past' attitudinal etc conversation (proportion of reminiscence) | \bar{X} 35.48 | S.D. 21.83 | \bar{X} 18.28 | S.D. 14.85 |
| family etc conversation (proportion of total recording) | \bar{X} 14.04 | S.D. 11.04 | \bar{X} 37.04 | S.D. 17.62 |
| family etc conversation (rating 7 point scale) | \bar{X} 4.48 | S.D. 1.47 | \bar{X} 4.40 | S.D. 2.10 |
| family etc conversation (proportion of present conversation) | \bar{X} 17.74 | S.D. 19.75 | \bar{X} 32.96 | S.D. 19.99 |

Attitudinal and Informative Conversation

The correlation between the objective measure and the author's subjective rating of the proportion of attitudinal and informative conversational in the total was .78*** (.78*** for the men and .68** for the women). Men, as would be expected, tended to score much higher on this variable than the women. This is indicated in Table 4. Interestingly, for the women there was a significant negative age correlation with the objective measure of $-.52^{**}$ ($-.31$ with the author's rating), whereas there were indications of an opposite positive trend for the men with a figure of $.28$ ($.15$ with the author's rating).

As regards attitudinal and informative conversation where use of the past was judged to be present, the correlation with the overall category was very high being $.83^{***}$ ($.72^{***}$ for the men and $.93^{***}$ for the women). The mean and standard deviation of this measure are shown in Table 4. Again there was a significant negative correlation with age for the women of $-.55^{**}$ whereas there was a positive trend for the men of $.27$. There were no significant correlations for either of these measures with the total amount of conversation.

Conversation with reference to Family (and close friends)

The correlation between the author's rating and the objective measure was only .52**, but .66** for the men and .68*** for the women, indicating a discrepancy in aligning the two sexes on subjective rating. Women scored much higher on this category as is shown in Table 4. In contrast with the results in the last section there was a significant positive correlation with age for the women with the objective measure of .42* (.21 with the author's rating) and an almost significant negative correlation with age for the men with the objective measure of -.35 (-.24 with the subjective rating).

Proportion of present talk about family and friends followed the same pattern, correlating .84*** (.83*** for the men and .88***) for the women with the total measure of the same category, .55*** (.55** for the men and .63** for the women) with the author's rating, and with a positive age correlation for the women of .42* and a negative age trend for the men of -.20. The parameters of the distribution of talk in the present about family and close friends are shown in Table 4. There were no significant correlations for these measures with the total amount of conversation.

Relationships between Conversation Measures

The correlations observed in the data are reported in Table 5. From this table it can be seen that there is a positive relationship between 'reminiscence' and 'family' conversation, a negative one between 'reminiscence' and 'attitudinal and informative' conversation, and a negative one between 'attitudinal and informative' and 'family' conversation. This latter polarity stands out almost as a dimension and seems particularly interesting when taken in consideration with the sex differences and age correlations on these two variables reported earlier. None of these relationships stand out as clearly with the subjective ratings (indeed for the women the relationship between 'attitudinal' and 'family' conversation disappears completely), but this may be attributable to biases in the subjective perceiving of such relationships (for instance the noting of one salient feature of a conversation leading to the neglect of another).

3. Variables relating to attitudes and behaviour concerning the Past and their Interrelationships

The parameters of the 'past' variables not previously considered, namely 'affect' of reminiscence (both subjectively rated from the recordings and measured by questionnaire) and 'satisfaction with past life' are given in Table 6. It can be seen that men tend to indicate greater dissatisfaction with their past lives than women,

Table 5: Relationships between Conversation Measures

| | Between Objective Recorded Measures | | | Between Author's Ratings | | |
|-------------------------------------|--|-------|--------|-----------------------------|------|-------|
| | All | Men | Women | All | Men | Women |
| Reminiscence with 'Psych'. | .13 | .27 | .03 | .12 | .08 | .11 |
| with 'Life Reviewing' | .02 | -.04 | -.04 | - | - | - |
| Reminiscence with 'Att.' | -.18 | -.43* | -.47* | -.25 | -.38 | -.36 |
| with 'Past Att.' | -.26 | -.50* | -.51** | - | - | - |
| Reminiscence with 'Fam.' | .14 | .39 | .60** | .37** | .20 | .49* |
| with 'Present Fam.' | .30* | .39 | .60** | - | - | - |
| 'Self Psychological' with 'Att.' | -.12 | -.32 | .15 | .26 | .07 | .36 |
| with 'Past Att.' | -.13 | -.32 | .14 | - | - | - |
| 'Life Reviewing' with 'Att.' | .17 | .15 | .17 | - | - | - |
| with 'Past Att.' | .04 | -.18 | .22 | - | - | - |
| 'Self Psychological' with 'Fam.' | -.02 | .31 | -.28 | .11 | .37 | -.07 |
| with 'Present Fam.' | -.12 | -.04 | -.23 | - | - | - |
| 'Life Reviewing' with 'Fam.' | -.13 | .17 | -.25 | - | - | - |
| with 'Present Fam.' | -.16 | -.17 | -.14 | - | - | - |

Contd./

Table 5 (Continued)

| | Between Objective Recorded Measures | | | Between Author's Ratings | | |
|---------------------|--|--------|--------|-----------------------------|------|-------|
| | All | Men | Women | All | Men | Women |
| 'Attitudinal etc' | | | | | | |
| with 'Fam.' | -.69*** | -.56** | -.64** | -.12 | -.41 | .02 |
| with 'Present Fam.' | -.62*** | -.59** | -.49* | - | - | - |
| 'Past Att.' | | | | | | |
| with 'Fam.' | -.66*** | -.58** | -.65** | - | - | - |
| with 'Present Fam.' | -.55*** | -.50* | -.46* | - | - | - |

p < .001

**
p < .01

*
p < .05

perhaps reflecting sexual differences, at least in this generation, in perceptions and judgments of personal responsibility for what happens to the self. There were no significant age correlations on any measures to do with the past.

The intercorrelations between frequency of reminiscing, affect of reminiscing, and satisfaction with past life are shown in Table 7. None of these results are particularly surprising. The intercorrelations found between the reminiscence frequency measures, and those between the reminiscence affect measures serve as some validation of the Havighurst questionnaire measures, and the degree of relationship found between reminiscence frequency and affect is in line with the results already published by Havighurst et al ('71). The size of correlation between the set of six questions dealing with satisfaction with past life and reminiscence affect is high as one would expect, but that between reminiscence frequency and satisfaction with past life is rather small (particularly for men).

Consideration of other 'past' variables as 'life reviewing' is left to subsequent sections (but no significant correlations were found between them and any other 'past' measures).

Table 6: Satisfaction with Past Life and Affect of Reminiscing

| | men | women |
|--|---------------------------|---------------------------|
| satisfaction with past life (6 max) | \bar{X} 3.74 S.D. 1.83 | \bar{X} 4.60 S.D. 1.36 |
| affect of reminiscing (questionnaire measure 19 max) | \bar{X} 10.74 S.D. 3.25 | \bar{X} 11.56 S.D. 4.22 |
| affect of reminiscing (author's rating: 11 max) | \bar{X} 6.35 S.D. 2.63 | \bar{X} 6.04 S.D. 2.42 |

Table 7: Intercorrelations Frequency of Reminiscing, Affect of Reminiscing, and Satisfaction with Past Life.

| | Frequency (objective measure) | | | Frequency (author's subjective rating) | | | Frequency (questionnaire measure) | | | Affect (author's rating from tape) | | | Affect (questionnaire measure) | | |
|--|-------------------------------|--------|--------|--|-------|-------|-----------------------------------|-----|--------|------------------------------------|-------|--------|--------------------------------|-----|-------|
| | all | men | women | all | men | women | all | men | women | all | men | women | all | men | women |
| *** p < .001 | | | | | | | | | | | | | | | |
| ** p < .01 | | | | | | | | | | | | | | | |
| * p < .05 | | | | | | | | | | | | | | | |
| frequency (author's subjective rating) | .82*** | .76*** | .89*** | | | | | | | | | | | | |
| frequency (questionnaire measure) | .40** | .47* | .36 | .57*** | .65** | .50** | | | | | | | | | |
| affect (author's rating from tape) | .23 | .18 | .27 | .38** | .45* | .30 | .37* | .21 | .50** | | | | | | |
| affect (questionnaire measure) | .13 | .22 | .17 | .33* | .48* | .28 | .59*** | .33 | .76*** | .70*** | .65** | .78*** | | | |
| satisfaction with past life | .11 | .13 | .36 | .14 | .12 | .30 | .18 | .07 | .36 | .61*** | .59** | .74*** | .47** | .37 | .58** |

4. Evidence on the Adaptive Value of Reminiscence Frequency

The results will now be considered which bear on the hypotheses concerning the adaptive role of the past and other variables. The form of the presentation will be to take each of the variables in turn and to set out the correlations firstly between the given variable and the various 'loss' measures (for evidence whether it appears as a 'response' to losses), secondly between it and the adjustment indices, and subsequently to present the results of analyses of variance investigating 'circumstances' where the variable is hypothesised to have adaptive relevance.

The correlations for reminiscence frequency are reported in Table 8. These results might be construed as giving some slight support to the view that reminiscing may appear as a consequence of environmental change or the threat of environmental change in old age (Lieberman ('71)); but, in the same way as Lieberman's data, they give little if any support to the hypothesis that reminiscing is a markedly adaptive response.

Nevertheless it has been hypothesised that there may be an optimum level of 'loss' where the capacity of the individual to reminisce may show itself as a valuable characteristic. Taking consideration of the number of subjects involved, it was thought best to divide them into three equal groups of 'high', 'medium' and 'low' loss on the basis of the 'since sixty' loss measures, and the

same on the basis of the 'last five years' loss measures, treating the sexes differently in each case (cf p 111). Then analyses of variance were calculated on the effects of 'losses' and of the hypothesised adaptive variable (also divided into three groups but on a sex independent criterion) i.e. reminiscence frequency upon the global present adjustment measure (cf p 106). Three kinds of grouping were used to investigate reminiscence, one on the basis of the objective measure and the author's rating of conversation (which correlated together .82), one on the basis of the questionnaire measure of interior reminiscing, and one on a combination of the two, rating people as high who were in the top half on all, and low who were in the bottom half on all.

From the results (cf Table 9 for summary and Appendix M for full list of Analysis of Variance tables) the only new finding of significance was that 'medium' reminiscers in the conversation situation emerged as significantly the most adjusted of the three reminiscing groups ($\bar{X} = 12.3$), with 'high' next ($\bar{X} = 10.0$) and 'low' least ($\bar{X} = 8.7$). Nothing similar occurred with the questionnaire reminiscence groups (though the same pattern did appear insignificantly with the 'combined' reminiscing groups). This result raises difficult problems of interpretation, but it should be remembered that the conversation setting was one in which reminiscing to some extent was being encouraged. Those who did 'oblige' but did not reminisce to a very large extent appeared as the most adjusted group.

Table 8: Correlations Reminiscence with Losses and Adjustment

| | 'relative' social loss since sixty | 'absolute' social loss since sixty | physical loss since sixty | 'relative' social loss in five years | 'absolute' social loss in five years | physical loss in five years | Freedom from depression | present life satisfaction | total life satisfaction |
|---|------------------------------------|------------------------------------|---------------------------|--------------------------------------|--------------------------------------|-----------------------------|-------------------------|---------------------------|-------------------------|
| reminiscence frequency objective recorded measure | all | .15 | .21 | .28 | .27 | .17 | .07 | -.00 | .06 |
| | men | .19 | .09 | .24 | .04 | .28 | -.01 | -.02 | .05 |
| | women | -.14 | -.05 | .23 | .04 | .13 | .09 | .09 | .19 |
| author's subjective rating | all | .03 | .03 | .16 | .13 | .16 | .11 | .05 | .09 |
| | men | -.06 | -.08 | .31 | -.02 | .21 | .23 | .14 | .16 |
| | women | -.06 | -.09 | .31 | .11 | .14 | .00 | .02 | .10 |
| questionnaire measure | all | .05 | .02 | .29* | .12 | .18 | -.15 | -.05 | .03 |
| | men | -.05 | -.05 | .39 | .03 | .26 | -.17 | -.18 | -.10 |
| | women | .07 | .01 | .25 | .16 | .12 | -.15 | .04 | .13 |

*p < .05

That the 'medium' reminiscers on the subjects' own rating of interior reminiscing, do not appear in the same light is not perhaps so surprising, since though a correlated variable it would not be expected to react in the same way.

As regards the hypothesised interaction between level of 'loss' and reminiscing nothing significant emerged, though the results were in the expected direction inasmuch as the high loss/low reminiscing cell was always the lowest scoring on adjustment of all the nine cells, in each of the analyses of variance concerned. Perhaps there is a range of loss within which the adaptive significance of reminiscing can be looked at further.

5. Evidence of the Adaptive Significance of Satisfaction with Past Life and Affect of Reminiscing

The relevant correlations are reported in Table 10. Though the figures are small the overall picture seems to be one of a slight though definite relationship between losses in the present and satisfaction with past life (and affect of reminiscing), and a more marked relationship between adjustment in the present and satisfaction with past life (and affect of reminiscing). This relationship between affect of reminiscing and total life satisfaction has already been reported by Havighurst ('71), and the relationship between past life satisfaction and present life satisfaction is inherent in the intercorrelations

Table 9: Summary of Analysis of Variance Results on Adaptive Significance of Hypothesised Variables
performed on the global present adjustment measure

cf. Appendix M for details

| | losses | variable | sex | loss/v. | loss/sex | v./sex | loss/sex/v. |
|------------------------------|----------|----------|------|---------|----------|--------|-------------|
| | F ratios | | | | | | |
| *** p < .001 | | | | | | | |
| ** p < .01 | | | | | | | |
| * p < .05 | | | | | | | |
| 1. losses 5/Rem. Convers. | 13.87*** | 4.86* | .37 | .91 | 1.61 | .14 | .81 |
| 2. losses 60/Rem. Convers. | 15.37*** | 3.36* | .08 | .27 | 3.09 | .43 | .55 |
| 3. losses 5/Rem. Quest. | 12.26*** | .12 | .00 | .95 | 4.06* | .26 | 1.14 |
| 4. losses 60/Rem. Quest. | 15.56*** | .46 | .34 | .32 | 1.92 | .53 | .47 |
| 5. losses 5/Rem. C. + Q. | 13.19*** | 1.95 | .09 | .45 | 4.09* | .12 | 1.63 |
| 6. losses 60/Rem. C. + Q. | 17.86*** | .35 | .05 | .99 | 2.85 | .20 | .93 |
| 7. losses 5/Past Satisf. | 12.54*** | 3.67* | .03 | 1.01 | 4.54* | .32 | 1.10 |
| 8. losses 60/Past Satisf. | 16.74*** | 1.95 | .85 | .85 | 7.29** | .36 | 2.23 |
| 9. losses 5/Affect of Rem. | 16.48*** | 12.26*** | 3.85 | 1.43 | 2.96 | 6.22** | 1.52 |
| 10. losses 60/Affect of Rem. | 10.60*** | 12.87*** | 1.09 | 1.77 | 1.65 | 3.98* | 2.34 |
| 11. losses 5/Self Psych. | 11.78*** | .25 | .06 | .48 | 1.60 | .14 | .74 |
| 12. losses 60/Self Psych. | 15.58*** | .25 | .01 | .95 | 2.02 | .25 | .48 |
| 13. losses 5/Life Review | 8.70** | 1.19 | 1.03 | .35 | 2.34 | 1.49 | 1.07 |
| 14. losses 60/Life Review | 11.33*** | 1.88 | .06 | .89 | 1.32 | .57 | .65 |

between the components in Havighurst's et al conceptualisation of the life satisfaction measure of adjustment in old age.

The relationships between losses and adjustment and measures of attitudes to the past and of memories of the past raises to the forefront the question of the reflective function of memory (Tobin ('70)). But a fuller evaluation of its importance is best left to a later discussion when these results can be judged in a larger context, one in which the view that the past and memory can also have a more directive role in adjustment will be evaluated as well. Some immediate light though is thrown on this question by the results of analyses of variance (Table 9 lines 7-10, 15-17 and Appendix M) which show that satisfaction with past life and affect of reminiscing (two affect measures used together since correlated .70) still appear as significant adaptive factors in an orthodox direction without the presence of interaction effect with loss, even where controlled against loss, and thus appear not merely to reflect the better adjustment of those with small levels of loss. The results are in accord with the hypothesis that with high satisfaction with past life there should be a better reaction to losses at all levels.

The significance of the interaction effect between 'Sex'/'Affect of Reminiscing' upon the adjustment scores is shown in Table 11.

Table 10: Correlations Past Life Satisfaction and Affect of Reminiscing with Losses and Adjustment

*** p < .001

** p < .01

* p < .05

| | 'relative' social loss since sixty | 'absolute' social loss since sixty | physical loss since sixty | 'relative' social loss in five years | 'absolute' social loss in five years | physical loss in five years | freedom from depression | present life satisfaction | total life satisfaction |
|---|------------------------------------|------------------------------------|---------------------------|--------------------------------------|--------------------------------------|-----------------------------|-------------------------|---------------------------|-------------------------|
| satisfaction with past life | | | | | | | | | |
| affect of reminiscing rated from recording | | | | | | | | | |
| affect of reminiscing questionnaire measure | | | | | | | | | |
| all | -.31* | -.28 | -.10 | -.34* | -.30* | -.18 | .24 | .34* | (.68***) |
| men | -.21 | -.38 | -.23 | -.29 | -.32 | -.17 | .18 | .14 | (.64**) |
| women | -.27 | .04 | -.08 | -.24 | -.01 | -.22 | .38 | .53** | (.74***) |
| all | -.35* | -.22 | -.22 | -.18 | -.04 | -.35* | .40** | .44** | .59*** |
| men | -.42* | -.42* | -.26 | -.12 | .00 | -.36 | .38 | .31 | .52** |
| women | -.44* | -.22 | -.16 | -.34 | -.20 | -.33 | .43* | .57** | .69*** |
| all | -.21 | -.12 | -.06 | -.18 | -.15 | -.30* | .29* | .42** | .50** |
| men | -.16 | -.27 | -.14 | -.13 | -.22 | -.34 | .43* | .44* | .48* |
| women | -.20 | .04 | -.04 | -.15 | -.02 | -.28 | .23 | .41* | .49* |

Table 11: Interaction Sex/Affect of Reminiscing
upon Adjustment

| | Positive | Medium | Negative | Affect of Reminiscing |
|-------|-----------------|----------------|----------------|-----------------------|
| Men | \bar{X} 13.43 | \bar{X} 9.8 | \bar{X} 8.67 | |
| Women | \bar{X} 11.22 | \bar{X} 12.0 | \bar{X} 4.0 | |

6. Evidence on the Adaptive Role of Life Reviewing

It will be remembered that we are here concerned with a more complicated set of hypotheses than in the preceding sections. In the first place it is difficult to investigate in a survey study what is essentially a theory about longitudinal process, namely concerning the relationships between a prior state, a period of 'life reviewing' or psychological reworking of the past, and a subsequent state. Secondly, although we are interested in the proposition (of the same structure as those investigated in the two preceding sections) that 'life reviewing' is a normative adaptive characteristic of old age, we are also interested in the proposition that this may be particularly so where there is greater initial dissatisfaction with past life.

Considering the former proposition, the relevant correlations are reported in Table 12. Perhaps the only results here worthy of note are the puzzling sex differences in the relationship between life reviewing and losses and adjustment, which will be referred again to later. None of the overall figures approach significance, but there are not perhaps adequate theoretical grounds for expecting

that those who show signs of life reviewing at a particular point in time should be better or worse adjusted than those who do not show the same signs.

But on the results of analyses of variance (Table 9 and Appendix M) investigating the possible circumstances where life reviewing might have adaptive significance, though the measure of life reviewing (divided into three groups) does not contribute significantly to adjustment in the presence of losses alone, a test of the second proposition on the interaction between life reviewing and past life satisfaction does produce significant results in the direction hypothesised (Figure 2).

The measure of life reviewing used had been shown to be as high as .81 reliable over separate recording sessions (Appendix F). But to find a criterion point for the measure to classify those considered to show distinct signs of life reviewing versus those who did not, the notes the author had taken on all occasions of conversing with the subjects were consulted for general content signs of life reviewing, and this served as a basis for classifying cases who were borderline on the basic measure. In the end result, all those with a score of 17% or over on the measure were classified as 'life reviewers' with the exception of one woman who hardly reminisced but had a % score of 20, and all those with a score below 17 classified as 'non life reviewers' with the exception of one man with a score of only 13% but whose conversation was almost entirely reminiscing. This left eleven women who were

Table 12: Correlations Self Psychological Conversation with Losses and Adjustment

| | 'relative' social loss since sixty | 'absolute' social loss since sixty | physical loss since sixty | 'relative' social loss in five years | 'absolute' social loss in five years | Physical loss in five years | Freedom from depression | present life satisfaction | total life satisfaction | past life satisfaction |
|-------|------------------------------------|------------------------------------|---------------------------|--------------------------------------|--------------------------------------|-----------------------------|-------------------------|---------------------------|-------------------------|------------------------|
| all | -.09 | -.04 | -.06 | -.15 | -.04 | -.16 | .07 | .12 | .04 | -.17 |
| men | -.01 | .11 | -.04 | .08 | .25 | -.15 | -.33 | -.21 | -.32 | -.24 |
| women | -.19 | -.22 | -.05 | -.35 | -.40* | -.16 | .30 | .34 | .28 | -.09 |
| all | .07 | .08 | .05 | .04 | .07 | -.06 | -.16 | -.03 | .00 | .00 |
| men | .03 | .15 | -.09 | .17 | .23 | -.28 | -.29 | -.11 | -.08 | .01 |
| women | .14 | .09 | .16 | -.02 | -.06 | .13 | -.05 | .03 | .07 | -.02 |
| all | -.02 | -.05 | -.09 | .06 | .15 | -.13 | -.01 | .11 | .03 | -.13 |
| men | -.21 | -.11 | -.32 | .18 | .35 | -.35 | -.05 | .07 | -.01 | -.10 |
| women | -.01 | -.19 | .16 | -.15 | -.26 | .08 | .00 | .18 | .12 | -.09 |

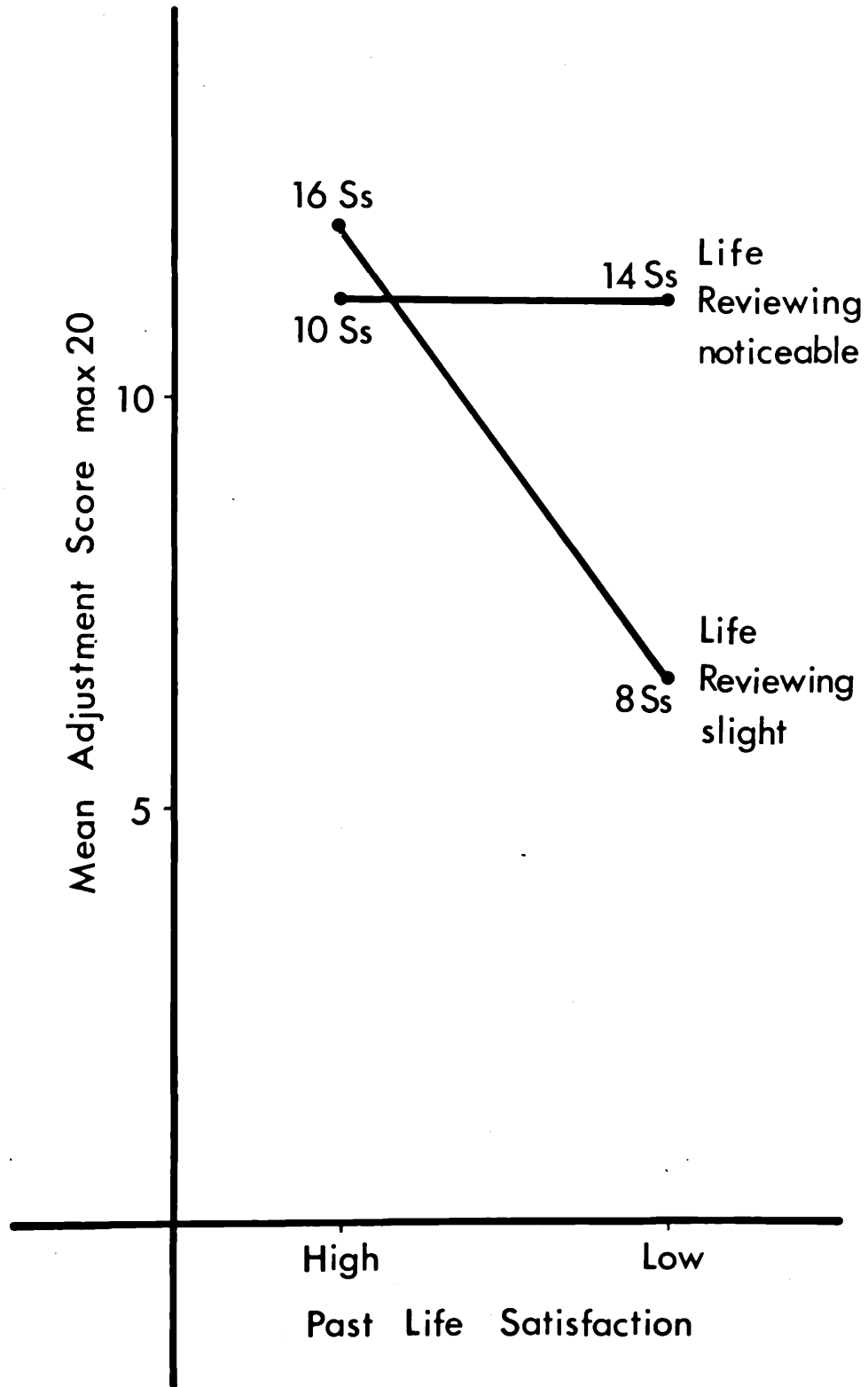
'life reviewing' (proportion of reminiscence)

total self psychological conversation past and present objective recorded measure

author's subjective rating

* p < .05

Figure 2. Interaction of Life Reviewing and Satisfaction with Past Life upon Adjustment



classified as life reviewers, fourteen who were not, thirteen men who were classified as life reviewers, ten who were not. It was also thought best to divide the satisfaction with past scores into just two groups since as many as twenty six out of the forty eight subjects indicated no real dissatisfaction with past lives, with no more than one clear negative response out of six. Of those twenty two who on this criterion were judged to express dissatisfaction with their lives, twelve were men and ten were women. The resulting distribution of subjects for the analysis of variance, shown in Figure 2, has an almost significant chi square in favour of the thesis of a relationship between dissatisfaction with past life and life reviewing, though this correlation does not reach significance with the actual scores (cf Table 12).

Besides past life satisfaction and the interaction between past life satisfaction and life reviewing, the interaction between sex and life reviewing was also a significant factor upon the adjustment scores, its form in accord with the difference in direction of the correlations between life reviewing and the adjustment indices noted earlier. This last finding raised the question whether the maladjustment of the low past life satisfaction non life reviewing group might be an artefact of all these characteristics being related to losses in the women subjects. Therefore further four way (sixteen cell) analyses of variance were carried out including losses as well as life reviewing, satisfaction with past

life and sex. It can be seen from Table 9 (also Appendix M) that in support of the theoretical interpretation of the results, the same factors emerged as significant as in the analysis exclusive of the loss factor, with the surprising addition this time of life reviewing on its own. Further theoretical discussion will be left to the next chapter.

7. Evidence on the Adaptive Value of 'Attitudinal and Informative' and 'Family' Conversation

Because of the marked negative correlation between these two variables it was thought best to analyse the results bearing on their adaptive significance in the same section. The relevant correlations are laid out in Tables 13 and 14. They indicate that attitudinal etc conversation may well be an adaptive sign in men, whereas the opposite seems true of family conversation in this sample. For women neither set of correlations show any trend (thus bringing an end to the train of inverse parallel relationships for men and women between 'attitudinal' and 'family' conversation!). Losses generally may have an inhibiting effect on attitudinal conversation. This seems clearest for the women. As regards family conversation, the picture appears more complicated, with a positive relationship between physical losses and family conversation which does not appear for social losses.

From the results of analyses of variance (Table 9 and Appendix M) there is further evidence supporting attitudinal conversation as an adaptive characteristic. This is not clear from first inspection of the results. However, the trend for attitudinal conversation which is in the hypothesised direction seems disturbed by the presence of two women subjects scoring lowest of the whole sample on adjustment (0 & 4), the first being a 'high' scorer on attitudinal conversation and 'high' on loss, the second a 'medium' scorer and 'medium' on loss. They are both very low scorers on satisfaction with past life and non life reviewers. They also seem to 'cause' a strangely formed interaction effect of 'losses in five years'/'Attitudinal etc conversation' on adjustment, the figures for which are given in Table 15 and which do not seem amenable to any theoretical interpretation.

Table 15: Interaction Losses 5 years/Attitudinal

| | <u>Conversation upon Adjustment</u> | | |
|-------------|-------------------------------------|-----------------|-----------------|
| | High Loss | Medium Loss | Low Loss |
| High Att. | \bar{X} 5.5 | \bar{X} 12.29 | \bar{X} 14.33 |
| Medium Att. | \bar{X} 9.5 | \bar{X} 8.0 | \bar{X} 14.71 |
| Low Att. | \bar{X} 7.1 | \bar{X} 11.0 | \bar{X} 8.0 |

There are no significant results for family conversation.

Table 13: Correlations Attitudinal and Informative Conversation with Losses and Adjustment

* p < .05

| | 'relative' social loss since sixty | 'absolute' social loss since sixty | physical loss since sixty | 'relative' social loss in five years | 'absolute' social loss in five years | physical loss in five years | Freedom from depression | present life satisfaction | total life satisfaction |
|--|------------------------------------|------------------------------------|---------------------------|--------------------------------------|--------------------------------------|-----------------------------|-------------------------|---------------------------|-------------------------|
| 'attitudinal etc conversation objective recorded measure | | | | | | | | | |
| all | .19 | .16 | -.16 | .07 | .06 | -.03 | .16 | .11 | -.03 |
| men | -.02 | -.10 | .02 | -.25 | -.19 | .01 | .29 | .37 | .19 |
| women | -.03 | -.20 | -.23 | -.21 | -.35 | -.05 | .01 | .01 | -.07 |
| author's subjective rating | | | | | | | | | |
| all | -.03 | .02 | -.36* | -.06 | .02 | -.22 | .17 | .22 | .05 |
| men | -.15 | -.14 | -.22 | -.18 | -.06 | -.16 | .42* | .46* | .20 |
| women | -.32 | -.36 | -.41* | -.41* | -.46* | -.27 | -.05 | .17 | .06 |
| past attitudinal etc conversation | | | | | | | | | |
| all | .21 | .23 | -.14 | -.02 | -.06 | -.05 | .19 | .08 | -.01 |
| men | .24 | .17 | .09 | -.26 | -.33 | .04 | .26 | .20 | .14 |
| women | -.14 | -.21 | -.30 | -.32 | -.39 | -.12 | .08 | .07 | -.02 |

Table 14: Correlations Family Conversation with Losses and Adjustment

| | 'relative' social loss since sixty | 'absolute' social loss since sixty | physical loss since sixty | 'relative' social loss in five years | 'absolute' social loss in five years | physical loss in five years | freedom from depression | present life satisfaction | total life satisfaction |
|--|--|--|------------------------------|--|--|--------------------------------|----------------------------|------------------------------|----------------------------|
| family etc conversation objective recorded measure | | | | | | | | | |
| all | -.23 | -.28 | .30* | -.16 | -.18 | .16 | -.14 | -.03 | .08 |
| men | .08 | .01 | .17 | .15 | .11 | .13 | -.49* | -.30 | -.13 |
| women | .03 | .11 | .31 | .20 | .29 | .21 | .05 | -.03 | .02 |
| author's subjective rating | | | | | | | | | |
| all | -.12 | -.04 | .16 | .02 | .12 | .06 | -.04 | .06 | .06 |
| men | -.22 | -.02 | .08 | .01 | .22 | .07 | -.27 | -.00 | -.00 |
| women | -.11 | -.08 | .22 | .02 | .06 | .05 | .08 | .09 | .11 |
| present family etc conversation | | | | | | | | | |
| all | -.19 | -.21 | .30 | -.10 | -.09 | .23 | -.07 | -.08 | .04 |
| men | -.02 | -.01 | .21 | .01 | .07 | .24 | -.24 | -.25 | -.09 |
| women | -.05 | -.02 | .29 | .14 | .18 | .23 | .10 | -.03 | .03 |

Chapter Four Discussion

'Disengagement' is perhaps the richest conceptual acquisition of the recent social gerontological literature. Despite severe criticism it may have considerable value, particularly as descriptive of interior processes the personality may undergo in old age. But it has been shown wanting for the superficial notions it contains about the desirability or voluntariness of the older person's declining relation with his social world. Many old people accept the breaking of links at work and in the community calmly enough, as many old people also accept mild biological deterioration. But there are many old people who are the subjects of a heavier fate both in the losses of those around them and the losses of their skills and faculties. Winter is acceptable as a completion of the seasonal cycle and indeed is beautiful in its own way, but some if not most winters contain especially harsh moments.

Perhaps the study of interior personality processes is more important to the total picture we may one day want to build up of a psychology of old age, but we also need concepts relating the experience of the old person to the kinds of environmental changes that are particularly characteristic of old age. Disengagement theory was too ambitious in trying to relate at once both kinds of concepts, with the result that it glossed over some major difficulties by claiming a total harmony between interior psychology and external social reality. The concept of 'loss' as

the extrinsic factor does seem a very important one to appreciating the old age situation. For, clearly old age is more than other periods of life a time when the individual is likely to be faced with a large number of involuntary changes both in himself, his circumstances and others around him. And as old age therapists have emphasised, one of the most salient facets of loss is that of 'role loss' and the related issue that of preservation of identity and self esteem. Thus for instance it is conceivable that a man's whole identity could be largely defined by his work role. It would follow that for this man retirement should be a much greater crisis than for another whose life did not so revolve around his work.

When one considers what positive factors there could be involved in the old person's adaptation to the losses of age, for example the support of family and community, the compensations from maintenance of old interests and the development of new ones, and the suitability of previous experience and personality formation for facing the kind of crises involved in old age, it is interesting to evaluate the proposal that there are personal characteristics to be developed especially pertinent to the old stage of the life cycle (Butler ('68)). And it is in this context that one can imagine that the past may have a special role to play in old age - in the face of the challenge to identity that the losses of old age bring. On the one hand it is possible that 'reminiscing'

is the response of a particular kind of personality to old age, the 'reminiscer', as 'disengagement', to take another example, may be a particular type reaction to old age (cf Reichard et al ('62), Neugarten et al ('64)). But it is also possible that the use of the past in old age may have normative aspects.

This study has been of a select groups of old people - forty eight single persons living alone between 68 and 92 yrs with a mean age of 80, in sheltered housing. Any attempt to generalise this study must bear the characteristics of this group in mind. Certainly one fact that struck the author was the large extent to which the majority of them had had their lives disturbed since middle age. This became particularly apparent in the categorization of loss groups on the basis of the various objective criteria noted. The threefold division resulted in some being labelled as belonging to the 'low loss' group who on any ordinary categorization would be considered hard hit. Even so, the extent of the correlations between the devised measures of 'loss' and the adjustment indices was larger than expected. And it is in relation to these two sets of measures and the correlations between them that adaptation is here assessed.

To discuss the significance of the results bearing on the hypotheses, we will consider first reminiscence in its quantitative aspect. Previous literature on this topic has proposed both negative and positive viewpoints. The earlier studies on 'time orientation' conceived dwelling

on the past as a negative sign which reinforced negative trends in old age. For example, it was against this background that Fink ('57) discussed his results indicating a negative relation between past time orientation and activities in the present for an institutionalised group (though his results did not show this same to be true for a non-institutionalised group!). Of course the fact that increased reminiscing should be associated with negative features of aging does not mean that in itself it is a maladaptive factor. Indeed as the subsequent literature has pointed out, it may be more a kind of healthy or at least one type of positive reaction to stressful old age. The more recent studies have given prominence to the notion that reminiscing may be of value to maintaining the self concept and self continuity. Thus Costa and Kastenbaum ('67) remark in a study of the centenarian and his past memories that 'the reservoirs of memories help sustain his present moment of existence and also aid him in creating a perspective in preparation for his eventual death'.

So far as this study is concerned, no marked evidence appeared on the adaptive value of amount of reminiscing. There was the slight appearance of a relationship between losses and amount of reminiscing both on the interior questionnaire and objective conversation measures (especially as regards physical loss), and the high loss group who did not reminisce seemed to be the most highly depressed group. But above this level amount of reminiscing did not appear to make a difference. Those who could be

encouraged to speak somewhat about the past in the conversation setting, whether they claimed to dwell much on the past or not otherwise, were significantly better adjusted than if they did not. This perhaps may be the crucial fact. It is the inability or refusal to reminisce in old age which may be a maladaptive sign, rather than reminiscing a lot being adaptive. This point suggests further study and is related to the later discussion of reminiscing in its qualitative aspect.

Reminiscing which contains linkage to the general world in terms of attitudinal remarks may also appear as an adaptive characteristic. This too of course provides a sense of continuity. A number of other further sources of study are suggested for the future. As Lewis ('71) has suggested there may be a particular kind of personality which responds to aging with marked reminiscing. He suggested from his own study that the 'reminiscer' may be less flexible in changing his opinions and also less complaining of old age. Also, reminiscing in its 'distancing' aspect fits into the disengagement view of old age, and Havighurst et al ('71) have indicated their interest in investigating it in this connection. Longitudinal study is of course desirable. But the most salient issue seems to the present author to be to absorb studies of reminiscing and the use of the past into studies on the maintenance and development of identity and self concept in old age (cf Rosner ('68)). For, identity seems to be the crucial issue of personality at the end of

adulthood as it is at the beginning. It is of interest, though, to see how far these considerations on reminiscing may apply to all other age groups, and also as regards mental reviewing of the past, to the significance of which in old age we shall now give our attention.

It is much more interesting and important, perhaps, to look at the old person's reminiscing to see what standpoint or attitude he or she takes up in relation to his or her own past. It has been Butler above all in the psychological literature who has drawn attention to this in what he calls the process of life reviewing in old age, the accomplishing of a task in relation to one's past life, a creative and developmental task particular to old age but related to the more general theme of reviewing as a natural healing process (the word meditation is derived from the Latin word to heal 'mederi'), a process assumed in psychotherapy but little understood. What is to be achieved, if I interpret this view correctly, is not simply a maintaining of the self as was discussed in the first few pages of this chapter, but an interior securing of the self through recreating and coming to terms with one's life and self's role in it. Perhaps there will be opportunity also to make amends, but more importantly the individual, if he faces what he has done and has become, will be better prepared for and more integrated in the face of death. Perhaps we who look at old age nowadays fear so greatly for the old and for our future selves the biological and social

circumstances of deterioration that surround old age, that we do not see enough of how the old do survive in remarkable ways despite severe changes, and consequently do not do justice to the states that can be achieved in the last stage of life. Erikson at least in his short portrait of the goal of old age as 'integrity' has not surrendered to pessimism. And what we need to look at more in old age are positive processes not merely of adaptation, with the restricted connotations of that word, but true development. In the concept of the 'life review' Butler has pointed to one such process. This study has attempted an operational assessment of this activity. Has it born fruitful results?

In the first place many other writers besides Butler (Buhler, Von Vischer, Erikson, Havighurst ..) have claimed consideration of the life a person has led, and not only present circumstances, to be important to well being in old age. And no doubt there is a relationship between adjustment and satisfaction with past life, as this data shows (though not to any very marked degree), but is there any hard evidence that past life satisfaction is any more than a symptom of adjustment? A pressing viewpoint in the psychological literature on memory as discussed in Chapter One has been to show how extrinsic motivational influences can affect recall. Thus a negative affective response to the past may be due to present negative circumstances (Tobin ('70)). This view is supported by the findings of this study which indicate at least the appearance of a relationship between 'losses'

incurred in old age, and satisfaction with past life and affect of reminiscing (but again not very marked). This finding in itself might make one think that satisfaction with past life may have purely a reflective function.

But the situation is unlikely to be as simple as this. For one thing, as Lowenthal ('68) has emphasised, the negative changes of old age may themselves bring home to the self the failures and inadequacies of one's own life. In such a situation dissatisfaction with past life is not simply reflecting an unsatisfactory present, but is directly fomented by the experiences of old age. To take a small example, it was noticeable to the author in the present study how many of the men subjects in conversation would relate their dissatisfaction with their present circumstances to criticism of their planning and foresight in the past. But, as against both these views, it seems fair to emphasis the finding that on an analysis of variance, satisfaction with past life came out as a significant factor in adjustment without any sign of an interaction effect with losses, which does indeed seem to suggest that satisfaction with the past per se is an adaptive factor, not dependent for its relationship with adjustment on the low life satisfaction of those hard hit by losses. Rather satisfaction with past life seems an adaptive factor at all levels of loss in old age.

One would not of course want to claim that one had thereby controlled completely for the reflective function of losses upon memory and demonstrated that the causal

direction must be the other way. For that, a more sensitive approach still, to classifying the negative impact of old age than could be encompassed in this small study would be necessary. Further even if the satisfaction with past life did not reflect losses incurred, it might still be a symptom of relative adaptation in old age, or even reflect a 'positive' response disposition factor. (Its relationship with present life satisfaction is not so high as to make this proposition very unlikely). But there is additional evidence besides the above analysis of variance result for looking more favourably at the view of those who see satisfaction with past life, acceptance of and sense of fulfillment with same as important contributory factors to well being in old age, and further as states which are in some sense to be 'achieved' in old age. It is not hard to imagine that those who cannot accept easily what their lives have been will react in a depressed fashion to the blows of old age. But it would need a very long and imaginatively designed longitudinal study to sort out alternative explanations of the facts. Nevertheless the demonstration of an interaction effect between 'life reviewing' and satisfaction with past life in this study, though a rather superficial study in some ways and with a limited number of subjects, points in the direction of looking for a more dynamic account of the significance of attitudes to past life in old age.

It is possible that many old people look back on their lives evaluatively and analytically. Certainly a number of subjects in this study were well aware of this when asked. Some of them were surprised to be asked. They thought they were unusual in this respect. For others the past was something best avoided and especially any dwelling on their part in it. For others it was a source of pleasant or absorbing memories but personally totally undisturbing. For others still the past was an irrelevance to their present, and reminiscing something 'other' old people indulged in.

The simplest interpretation of the findings on the significance of reminiscing which has the quality of 'life reviewing', is that while those who are well satisfied with their past lives have no need to 'review', those whose past is not so easily accepted are better adjusted for being prepared to look now at their lives in this considered way. The majority of those who did indicate dissatisfaction with their lives did seem to show life reviewing, assessed here by incidences of evaluating, interpreting and experiencing themselves in the past, but some did not reminisce and these in particular seemed to show particular resistance to reminiscing. There were also a few who did reminisce but in a simple narrative way without the making of judgments about themselves. This total group of subjects who were dissatisfied with their lives but did not 'review', were markedly less content with their present and more depressed than the rest of the sample. Only one of the eight of them

had an adjustment score higher than average and since this man was a persistent reminiscer on personal experiences in the first world war which by the affective way he described them were still disturbing to him ('the army changes a man...'), it could be argued that on a different measure or criterion of 'life reviewing' he would have been included (though he didn't make enough 'judgments' about himself to be included on the measure as defined in this study).

This example incidentally raises the whole question of the nature of life reviewing and the most appropriate measures thereof. If one considers the most general criteria mentioned in previous discussions of life reviewing; involvement in the past, a dwelling on conflicts especially those that still arouse emotion, and a facing up to an integrated consideration of the self, it is only really the last that is being used in the present study's measure. As the categories defining this 'consideration of the self' were fully delineated and related to other uses in the literature of the 'life review' concept in Chapter Two, and as they have born predicted results, we will not discuss them further here, but obviously future studies of the nature of life reviewing should consider in more detail the relationship between and relative importance of such subcategories, as well as including other categories, such as those pertaining to the 'self's life situation' that were unfortunately abandoned for lack of reliability in the small initial pilot study to this thesis. But perhaps one point should be made that

arises from a post consideration of the measure, namely that it mixes signs of involved active reviewing with signs of having passed this stage to what Gorney calls 'resolution', the display of a settled view of the past. From the author's subjective judgment there are a number of subjects in this sample who do display characteristics of a 'post life reviewer', with a happy, integrated, more detached view of their past, and who are not classified by the 'life review' measure as life reviewers, but there are also some of the former who are so classified because they make a sufficient number of past 'judgments' about themselves in the course of their conversation. Of course the very fact that they do this so frequently may be taken to mean that they are not so 'detached' as to be beyond the stage of life reviewing.

Despite limitations of the situation and the measures, the interaction effect between life reviewing and past life satisfaction still emerges as significant and is not dwarfed by the large losses/adjustment relationship. But it would not be surprising if the actual experiences of old age and their degree of severity were related to the process of life reviewing. All that can be said from this data is that the presence of losses seems to have an inhibiting effect upon life reviewing in the women but for the men there is no such sign of this. Thus the man with the highest degree of 'loss' in the whole sample, a man whose life had revolved entirely around his wife and work, with no other relatives or friends, and who had lost

both these pivots of his life and was virtually housebound as well, was depressed enough to have made more than one attempt at suicide but was markedly life reviewing in his conversation of why he had isolated himself from his family, of his pride in his achievements, of his regrets etc.

Although numbers are perhaps too small to generalise, and the sample of single men and women living in sheltered housing schemes not equally representative of elderly men and women generally, there are a number of other hints of related sex differences. Past life satisfaction is less for men and life reviewing and reminiscing more, which is perhaps what one might expect given that these men had experienced more areas of command over their lives. At the same time actual satisfaction with past life seemed less of an adjustment factor on its own with men than with the women (only the high scorers on past life satisfaction are discriminable from the rest of the men in terms of adjustment), but then men with low past life satisfaction seemed more likely to engage in the hypothesised adaptive factor of life reviewing. In women life reviewing seemed more clearly related to adjustment. But the divergence in correlations may be explainable in terms of the other sex differences, namely that men were more likely to engage in life reviewing in the presence of high negative factors of 'loss' (and also 'low past life satisfaction').

The overall theory which is here proposed to encompass these results is that life reviewing is an adaptive response in old age to the presence of dissatisfaction with one's past life. The past has its denouement in the present and its proper resolution. It is possible that this response could be markedly inhibited by the presence of severe losses especially of accustomed social support (which may be true of the women in this sample, who seemed to have reacted noticeably worse than the men to losses of social contact). Both environmental losses and life satisfaction contribute to adjustment in old age and they both may have a cumulative effect in relation to each other. Obviously further studies would be needed to support and amplify this theory. It asserts above all that though memory recall may reflect a number of functions one of its motivations is for a 'final true judgment'. And when freed from other extrinsic motivational pressures realistic appraisal is more likely. Butler may be right in stressing that in old age the pressures for this realistic self appraisal are particularly salient with the approach of death and the fading of social engagement (and it should be remembered that this sample was of old people living alone). At least this view should be considered along with the contradictory pessimistic view stemming in psychoanalysis from Freud of the rigidity of old age.

What are the prospects for future research in this area? What should they be? If the use of the past is to be studied both as a normative and adaptive characteristic

of old age, particular attention should be paid to characteristics shown relating to life reviewing (though of course researchers should also look at its use in other ways as in boosting and maintaining the self, storytelling, reviewing the world and life in general). We should also need to know more about the precise nature of this phenomenon of life reviewing, as was mentioned earlier. But the prime desire for all gerontological research is for longitudinal study. This is particularly so as regards the theory of the life review and Gorney has shown some positive results on age differences, although no age differences were discovered in this study. Analysing changes in mental attitudes over time would be fascinating. To take questions that immediately arise in the context of the results of this study, does life reviewing lead to an increased satisfaction/acceptance of the past? What are the precursors of life reviewing? What kinds of outcomes does it lead to? Primarily of course it needs to be demonstrated to exist as a process in time.

Further research is suggested by looking for other related 'consummatory' characteristics of old age, whatever they might be, characteristics of personality as openness, detachment, spirituality... With such research we might with more empirical evidence be able to talk about the 'purpose' of old age, as for instance Jung has done. Such research is necessary for all our sakes. We shatter the self confidence of so many sensitive old people by the condescending way we treat them. They may

be alone and disabled but worse still may be the humiliation we cause them and the powerlessness we reduce them to by recognising no power in them.

Nothing conclusive in the way of theory can be derived from such a small study as this, but it does, I think, show that such phenomena are amenable to study in this way, that they are not totally 'private' or open only to the probing of psychoanalytic techniques. Obviously some spontaneous interior reminiscence is difficult to articulate (Tobin ('70)), but natural conversation given the right setting is a rich source of material. Further the old person may himself be helped by the presence of a sympathetic listener (Birren ('64)), whether just to 'convince' or from whom he can obtain more constructive comments if required. There must be many possibilities for structuring conversations to some extent while still preserving their naturalness.

Conversation analysis of the kind practised in this study is a painstaking process, but seemed justified here by the level of reliability of results it produced. (However it must be admitted, this level of reliability, which is not usually reported in other studies using objective content criteria, may be a mark of the constancy of character in the old and the facility for repeating (conversational) situations with them.) It can be extended to include many kinds of categories, and can be related to other measures of personality type.

Psychologists could do well to pay more attention to old people. They provide an open and easily accessible source of rich material. The benefit could be in both directions.

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APPENDICES

Appendix A: Measure of Physical Loss

questions (Rosow ('66)):

a) Is there any physical condition, illness, or health problem that bothers you now? (5)

b) Which of these things are you still healthy enough to do without help?

Heavy work around the house, like shovelling snow or washing walls? (6)

Work at a full time job/Do the ordinary work around the house yourself

Walk half a mile (about eight ordinary blocks)? (3)

Go out to a movie, to church or a meeting, or to visit friends (1)

Walk up and down stairs to the second floor (2)

c) Which of these statements fits you best?

I cannot work (keep house) at all now because of my health.

I have to limit some of the work or other things that I do.

I am not limited in any of my activities. (4)

(numerals in brackets indicate order in Rosow's Guttman's scale)

Stages used in this study:

1. (score 1) not (very) limited - can do all that likes to do.
2. (score 3) limited - mentions things would like to do but can't.
3. (score 5) substantially limited - doubtful as regards ability to walk half a mile or climb stairs.
4. (score 7) very disabled - can't even walk out to go shopping, has to be taken out.

Appendix B: Measures of Social Loss

interview schedule:

ask for each of six categories (where appropriate) -

sharing household

work (contacts)

other roles in organisation - church, clubs etc

children

brothers, sister etc

friends

- a) how much contact? (who? how many? alot/often/
sometimes/seldom) at age sixty, five years ago and now
- b) how often visits (of each person) - more than once a
week/once a week/once a month/less
- c) when did change take place - how ...
- d) attitudes to change

then, considering four areas of social life -

sharing household

contact in relation to work and organisation membership

contact with relatives

contact with friends and ordinary others

score 20/10/0 according as each area is substantial/not so

substantial/very minor part of life at sixty (max sum 80).

- from this score (X), minus whole score for areas if complete
loss up to five years ago, and halve score if loss somewhat.

- from the altered score (Y), do same for losses in last five
years to obtain Z score for present.

then, 'absolute' social loss since sixty= $X - Z$

in five years= $Y - Z$

'relative' social loss since sixty= $\frac{(X - Z)}{X} \times 100$

X

in five years= $\frac{(Y - Z)}{Y} \times 100$

Y

Appendix C: Measure of DepressionAgree or
Disagree

- 1) My daily life is full of things that keep me interested.
- 2) I am about as able to work as I ever was
- 3) I find it hard to keep my mind on a task or job
- 4) At times I feel like smashing things
- 5) I have had periods of days, weeks, or months when I couldn't take care of things because I couldn't "get going"
- 6) My sleep is fitful and disturbed
- 7) I prefer to pass by school friends, or people I know but have not seen for a long time, unless they speak to me first.
- 8) I am a good mixer
- 9) I wish I could be as happy as others seem to be
- 10) I am certainly lacking in self confidence
- 11) I usually feel that life is worthwhile
- 12) I don't seem to care what happens to me
- 13) I am happy most of the time
- 14) I seem to be about as capable and smart as most others around me
- 15) I do not worry about catching diseases
- 16) Criticism or scolding hurts me terribly
- 17) I certainly feel useless at times
- 18) Most nights I go to sleep without thoughts or ideas bothering me

Agree or
Disagree

- 19) During the past few years I have been well most
of the time
- 20) I cry easily
- 21) I cannot understand what I read as well as I used
to
- 22) I have never felt better in my life than I do now
- 23) My memory seems to be all right
- 24) I am afraid of losing my mind
- 25) I feel weak all over much of the time
- 26) I enjoy many different kinds of play and recreation
- 27) I brood a great deal
- 28) I believe I am no more nervous than most others
- 29) I have difficulty in starting to do things
- 30) I work under a great deal of tension

Appendix D: Measure of Life SatisfactionAgree or
Disagree

- 1) As I grow older, things seem better than I thought they would be
- 2) I have gotten more of the breaks in life than most of the people I know
- 3) This is the dreariest time of my life
- 4) I am just as happy as when I was younger
- 5) My life could be happier than it is now
- 6) These are the best years of my life
- 7) Most of the things I do are boring or monotonous
- 8) I expect some interesting and pleasant things to happen to me in the future
- 9) The things I do are as interesting to me as they ever were
- 10) I feel old and somewhat tired
- 11) I feel my age, but it does not bother me
- 12) As I look back on my life, I am fairly well satisfied
- 13) I would not change my past life even if I could
- 14) Compared to other people my age, I've made a lot of foolish decisions in my life
- 15) Compared to other people my age, I make a good appearance
- 16) I have made plans for things I'll be doing a month or a year from now
- 17) When I think back over my life, I didn't get most of the important things I wanted

Agree or
Disagree

- 18) Compared to other people, I get down in
the dumps too often
- 19) I've gotten pretty much what I expected
out of life
- 20) In spite of what some people say, the lot of
the average man is getting worse, not better

Appendix E: Measures of Reminiscence Frequency and Affect

Reminiscence

All of us from time to time look back over our lives, recalling people and events, thoughts and feelings. Sometimes such recall comes unbidden, as idle thoughts or daydreams. Sometimes we purposely think back, trying to remember and reconstruct. Such retrospection, both purposive and spontaneous, may be called reminiscence.

In your answers to the following questions, define reminiscence as indicated here. Omit only the process of recalling or marshalling facts in order to make a decision. Also, daydreaming about the future is excluded. But daydreaming about the past is included as an aspect of reminiscence.

1. Some of us reminisce more than others. Looking back over the last couple of weeks how much reminiscing would you say you have done?

A great deal _____

Some _____

Very little _____

Has anything occurred during the past year (such as illness or tragedy or increased responsibility) to make you reminisce more or less than usual?

Yes, tendency to reminisce more _____ No _____

Yes, tendency to reminisce less _____

2. As well as you can remember, did you do such retrospective thinking:

| <u>At age</u> | <u>Very little</u> | <u>Some</u> | <u>A good deal</u> |
|---------------|--------------------|-------------|--------------------|
| a. 30 - 40 | _____ | _____ | _____ |
| b. 40 - 50 | _____ | _____ | _____ |
| c. 50 - 60 | _____ | _____ | _____ |
| d. 60 - 70 | _____ | _____ | _____ |
| e. 70 plus | _____ | _____ | _____ |

Under what circumstances would you say you are inclined to reminisce. Check as many as apply to you.

| | <u>Often</u> | <u>Occasionally</u> |
|--|--------------|---------------------|
| a. When you are alone..... | _____ | _____ |
| When you are with: | | |
| b. Your wife or husband..... | _____ | _____ |
| c. Old acquaintances..... | _____ | _____ |
| d. New acquaintances..... | _____ | _____ |
| People of your own generation | | |
| e. Friends..... | _____ | _____ |
| f. Relatives..... | _____ | _____ |
| A younger generation | | |
| g. Friends..... | _____ | _____ |
| h. Relatives..... | _____ | _____ |
| People older than your generation..... | _____ | _____ |

3. In what ways does reminiscence serve you?

| | <u>Often</u> | <u>Occasionally</u> |
|---|--------------|---------------------|
| a. Gives me a good feeling..... | _____ | _____ |
| b. Helps me to understand myself better..... | _____ | _____ |

| | | |
|--|--------------|---------------------|
| 3. (Contd.) | <u>Often</u> | <u>Occasionally</u> |
| c. Helps me to get over a serious loss | _____ | _____ |
| d. Helps me to understand young people better..... | _____ | _____ |
| e. Helps me to re-live a pleasant experience..... | _____ | _____ |
| f. Gives something to talk about..... | _____ | _____ |
| g. Gives relief from boredom..... | _____ | _____ |

4. Events or experiences you recall during reminiscence may be unpleasant, pleasant, or neutral in affect. Try to think how often these occur, and fill in the table following.

| | | | |
|---------------------------------------|--------------|------------------|---------------------|
| | <u>Often</u> | <u>Sometimes</u> | <u>Almost never</u> |
| a. Pleasant events or experiences.... | _____ | _____ | _____ |
| b. Unpleasant events or experiences.. | _____ | _____ | _____ |
| c. Neutral events or experiences..... | _____ | _____ | _____ |

Consider a typical day during the current month. You dwelt mainly on the present, we suppose. But you also thought about the future, made plans for the future, and you thought about the past. Comparing the past with the future, which did you spend more time on?

Check only one answer. Past _____ Future _____

5. Do you like to sit quietly and think about the past?

Yes _____ No _____ No particular feeling _____

When your reminiscence is unpleasant, what are its affects on you?

- | | <u>Often</u> | <u>Occasionally</u> |
|---|--------------|---------------------|
| a. Keeps me awake at night..... | _____ | _____ |
| b. Makes it hard for me to keep my self-respect..... | _____ | _____ |
| c. Makes it harder for me to adjust to my present situation..... | _____ | _____ |
| d. Makes it harder for me to get along with people..... | _____ | _____ |

6. Is there any difference between your retrospective thinking now and in the past? Check ONE response.

With more experience behind me, I enjoy reminiscing more than I did formerly..... _____

I don't enjoy it so much now. It seems to worry me..... _____

There's no difference. It does the same for me now that it did in the past..... _____

What do your reminiscences usually focus around?

Check as many as apply:

a. Your early childhood..... _____

b. College life, when you were a student.. _____

c. About the first fifteen years of your adult life..... _____

d. Your early work career..... _____

e. Events of your middle adulthood..... _____

f. The latest five years of your work career _____

7. What do you think reminiscence does for you now?

Check each response, YES or NO. YES NO

a. Helps to give me a greater appreciation of my life..... _____

b. Makes me feel badly about myself..... _____

c. Helps to balance the good and the bad in my life..... _____

Can you remember reminiscing when you were the following ages?

| | <u>Yes</u> | <u>No</u> |
|--------------|------------|-----------|
| 20 - 30..... | _____ | _____ |
| 40 - 50..... | _____ | _____ |
| 60 - 70..... | _____ | _____ |

8. If you responded yes, were your reminiscences

| | <u>Pleasant</u> | <u>Unpleasant</u> | <u>Neutral</u> |
|--------------|-----------------|-------------------|----------------|
| 20 - 30..... | _____ | _____ | _____ |
| 40 - 50..... | _____ | _____ | _____ |
| 60 - 70..... | _____ | _____ | _____ |

Key

Score Frequency of out 16:

Q.1: 6/4/2

Q.2: 2/1/0 according as whether pattern increases with age.

: '3', '2', '1' for each 'good deal', 'some', 'very little' -

Sum - then '5' = 1/'6', '7' = 2/'8', '9' = 3/'10' - '12'

= 4/'13' - '15' = 5

Q.3: '2', '1' for each 'often', 'occasionally' -

Sum - then '0' - '2' = 0/'3' - '5' = 1/

'6' - '9' = 2/'10' - '14' = 3.

Score Affect out of 19:

Q.3a: 2/1/0

Q.7: Yes to a alone or a & C = 3

Q.4a: 3/2/1

Yes to b alone = 0

Q.4b: 0/1/2

All other responses = 1

Q.5 : 3/0/1

Q.8: 3/2/1/0 according as all pleasant

Q.6 : 3/0/1

responses, more pleasant than unpleasant,
equal, more unpleasant.

Appendix F: Reliability of Conversation Scores over Time

Spearman rank correlations were performed on the measures for each conversation category with the data from 12 subjects, each of whose conversations had been recorded on two separate occasions at two to six months interval. Amount of Conversation and rated Affect of Reminiscing were also correlated over time. The correlation coefficients are reported in Table 16.

Table 16: Reliability Coefficients over Time
for Conversation Measures.

| | |
|---|-----|
| reminiscence | .79 |
| self psychological conversation | .75 |
| life reviewing (proportion of reminiscence) | .81 |
| *life reviewing (proportion of total) | .69 |
| attitudinal and informative conversation | .75 |
| past attitudinal (proportion of reminiscence) | .58 |
| *past attitudinal etc (proportion of total) | .70 |
| family conversation | .84 |
| present family conversation (proportion of present conversation) | .83 |
| *present family conversation (proportion of total) | .76 |
| affect of reminiscing | .98 |
| amount of conversation spoken (per minute) | .91 |

(* measures not used in analysis)

For 12 subjects, a correlation of .71 is significant at the .01 level, and .51 at the .05 level.

Appendix G: Reliability of Judges' Ratings of Criteria
for Conversation Categories.

The second judge (B) approached his task by first reading the category 'instructions', written out in the same form as they are on pages 90-94. He then rated 164 'units', on 25 pages of transcript chosen from different subjects. Thereby his ratings could be compared with the author's. The results are set out in Table 17.

Table 17: Reliability of Judges' Conversation Ratings.

1. reminiscence

| | | A rates | | | | |
|------------------------|----|---------|---|----|----|-----|
| | | + | - | | | |
| % of total agreement | 96 | B rates | + | 80 | 0 | 80 |
| % of agreement when | 93 | | | 6 | 78 | 84 |
| unit rated + by A or B | | | | 86 | 78 | 164 |

2. self psychological conversation

| | | A rates | | | | |
|------------------------|----|---------|---|----|-----|-----|
| | | + | - | | | |
| % of total agreement | 93 | B rates | + | 42 | 9 | 51 |
| % of agreement when | 79 | | | 2 | 111 | 113 |
| unit rated + by A or B | | | | 44 | 120 | 164 |

3. life reviewing

| | | A rates | | | | |
|-----------------------|----|---------|---|----|-----|-----|
| | | + | - | | | |
| % of total agreement | 97 | B rates | + | 26 | 2 | 28 |
| % of agreement when | 84 | | | 3 | 133 | 136 |
| unit rated+ by A or B | | | | 29 | 135 | 164 |

4. attitudinal and informative conversation

| | | A rates | | | | | | |
|------------------------|----|---------|--|--------|----|---|----|----|
| | | + | - | | | | | |
| % of total agreement | 88 | B rates | <table border="1"> <tr> <td>70</td> <td>10</td> </tr> <tr> <td>9</td> <td>75</td> </tr> </table> | 70 | 10 | 9 | 75 | 80 |
| 70 | 10 | | | | | | | |
| 9 | 75 | | | | | | | |
| % of agreement when | 79 | - | | 84 | | | | |
| unit rated + by A or B | | | 79 | 85 164 | | | | |

5. past attitudinal etc

| | | A rates | | | | | | |
|------------------------|-----|---------|---|---------|----|---|-----|----|
| | | + | - | | | | | |
| % of total agreement | 90 | B rates | <table border="1"> <tr> <td>41</td> <td>13</td> </tr> <tr> <td>3</td> <td>107</td> </tr> </table> | 41 | 13 | 3 | 107 | 54 |
| 41 | 13 | | | | | | | |
| 3 | 107 | | | | | | | |
| % of agreement when | 72 | - | | 110 | | | | |
| unit rated + by A or B | | | 44 | 120 164 | | | | |

6. family conversation

| | | A rates | | | | | | |
|------------------------|-----|---------|--|---------|---|---|-----|----|
| | | + | - | | | | | |
| % of total agreement | 98 | B rates | <table border="1"> <tr> <td>39</td> <td>2</td> </tr> <tr> <td>2</td> <td>121</td> </tr> </table> | 39 | 2 | 2 | 121 | 41 |
| 39 | 2 | | | | | | | |
| 2 | 121 | | | | | | | |
| % of agreement when | 91 | - | | 123 | | | | |
| unit rated + by A or B | | | 41 | 123 164 | | | | |

7. present family conversation

| | | A rates | | | | | | |
|------------------------|-----|---------|--|---------|---|---|-----|----|
| | | + | - | | | | | |
| % of total agreement | 100 | B rates | <table border="1"> <tr> <td>13</td> <td>0</td> </tr> <tr> <td>0</td> <td>151</td> </tr> </table> | 13 | 0 | 0 | 151 | 13 |
| 13 | 0 | | | | | | | |
| 0 | 151 | | | | | | | |
| % of agreement when | 100 | - | | 151 | | | | |
| unit rated + by A or B | | | 13 | 151 164 | | | | |

Agreement, it can be seen, was good apart from 'past attitudinal etc.' This can be probably be attributed to the fact that it was not clarified to Judge B that units should only be so classified if they contained objective criteria of use of the past. Judge B seemed to classify substantially more attitudinal and informative units as containing use of the past where the reference to the past was only implicit.

Judge B also rated in rank order the reminiscence affect (having read the instructions on pages 104-105) of ten subjects after reading the entire transcripts of their conversations. The resulting agreement was as high as .88.

Appendix H: Wardens' Ratings of Conversation and Depression.

Three wardens were asked to make ratings, wardens of blocks where the full set of data had been collected from five or more old people. It seemed relatively easy for them to give ratings on the extent to which each individual talked about the past, was interested to talk about matters of general concern, and talked about family and friends. They also had no difficulty in deciding who were depressed or by contrast markedly happy.

Thus, in one block with seven subjects (nos '4', '24', '28', '39', '44', '47' and '48' in Appendix J), the warden rated '44' and '47', who were the highest past conversation scorers, as reminiscers and '4' and '39', who were two of the three lowest, as non reminiscers. For the other three the ratings were discrepant, but the warden also classed two of them, '24' and '28', who on this study's measures were categorised both as 'reminiscers' and 'life reviewers', as 'secretive', i.e. they did not talk about the past to him. As regards general interest conversation, the ratings were in almost complete agreement with the 'attitudinal and informative' conversation scores - '4' was said to have considerable interest in what was going on, '28', '39' and '48' somewhat, and '22', '44' and '47' very little. The agreement was also good for conversation about family and friends. '24', '44' and '48' were said to talk a lot about them, '4', '28' and '39' to do little or none of this. The one discrepancy was '47' who the warden said talked little about family. None of these subjects had noticeably high depression scores, and the warden did not rate any of them as more than only a little sad or depressed. But he did

remark on the admirable mood of '39', who was the only one of the seven to score highly on freedom from depression and present life satisfaction.

In the next block with six subjects, the agreement on reminiscence was quite high, the warden rating '8', '11' and '21' as reminiscers, '2' as a non reminiscer and '1' and '38' in between. The agreement on talking about matters of general interest was good ('2', '11' and '21' being noticeable, '1' and '8' not so much) apart from for '38', whom the warden did not rate high on this conversation. The agreement on family conversation was also good ('1', '8' and '38' being rated high, '21' medium and '11' low) apart from for '2', whom the warden rated low. None of these subjects had above average depression or maladjustment scores and warden did not rate any of them as depressed, but did remark favourably on the happiness of '2' and '38' who had high adjustment scores.

In the last block with five subjects (nos '12', '30', '31', '40' and '46') three of them did have noticeably high depression scores. The warden also rated these three as in difficulties, though whereas '46''s depression was seen as a reaction to recent disablement preventing her from continuing the very active social life she had been used to, '40''s tearfulness had seemed to have been with her since middle age. The agreement on conversation was satisfactory, none of the five seeming marked conversational reminiscers to either, '12' alone being interested in the general world, and none being rated very low, but '30' and '40' high, on family conversation.

Appendix I: Validation of Subjective Ratings of
Conversation Categories by Correlating
with Objective Measures of Same Material.

To provide some evidence on the reliability of the author's global ratings of the conversation categories cumulated from the total number of visits, the objective measures of the conversations with the 48 subjects which were recorded and analysed, were correlated with the subjective ratings for those conversations. The figures are presented in Table 18.

Table 18: Correlations Subjective Ratings and
Objective Measures of same Conversation
Material.

| | men | women | all |
|---|-----|-------|-----|
| reminiscence | .78 | .90 | .86 |
| self psychological conversation | .83 | .64 | .63 |
| attitudinal and informative conversation | .85 | .81 | .87 |
| family conversation | .80 | .82 | .80 |

Appendix J: Scores

| | Age | Relative Social Loss since Sixty | Absolute Social Loss since Sixty | Physical Loss since Sixty | Relative Social Loss in Five Years | Absolute Social Loss in Five Years | Physical Loss in Five Years |
|---------------|-----|-------------------------------------|-------------------------------------|------------------------------|---------------------------------------|---------------------------------------|--------------------------------|
| Subject 1 man | 72 | 75 | 60 | 5 | 60 | 30 | 3 |
| 2 | 68 | 50 | 30 | 1 | 50 | 30 | 1 |
| 3 | 88 | 69 | 55 | 7 | 25 | 10 | 5 |
| 4 | 91 | 81 | 65 | 5 | 40 | 10 | 3 |
| 5 | 75 | 64 | 45 | 3 | 29 | 10 | 3 |
| 6 | 85 | 69 | 55 | 7 | 54 | 35 | 4 |
| 7 | 88 | 50 | 25 | 1 | 29 | 10 | 1 |
| 8 | 77 | 50 | 40 | 3 | 50 | 40 | 3 |
| 9 | 76 | 75 | 60 | 7 | 67 | 40 | 5 |
| 10 | 72 | 63 | 50 | 5 | 58 | 35 | 5 |
| 11 | 88 | 67 | 50 | 5 | 44 | 20 | 5 |
| 12 | 73 | 50 | 30 | 4 | 50 | 30 | 4 |
| 13 | 71 | 69 | 55 | 1 | 69 | 55 | 1 |
| 14 | 72 | 63 | 50 | 5 | 63 | 50 | 5 |
| 15 | 84 | 92 | 55 | 5 | 83 | 25 | 3 |
| 16 | 72 | 75 | 60 | 3 | 67 | 40 | 3 |
| 17 | 88 | 50 | 40 | 5 | 33 | 20 | 5 |
| 18 | 75 | 70 | 35 | 3 | 67 | 30 | 3 |
| 19 | 82 | 71 | 50 | 5 | 50 | 20 | 5 |
| 20 | 74 | 67 | 40 | 7 | 43 | 15 | 7 |
| 21 | 82 | 38 | 30 | 3 | 29 | 20 | 2 |
| 22 | 80 | 75 | 30 | 5 | 50 | 10 | 5 |
| 23 | 71 | 56 | 45 | 3 | 42 | 25 | 3 |

| Subject | | Age (1971) | Relative Social Loss since Sixty | Absolute Social Loss since Sixty | Physical Loss since Sixty | Relative Social Loss in Five Years | Absolute Social Loss in Five Years | Physical Loss in Five Years |
|---------|-------|------------|-------------------------------------|-------------------------------------|------------------------------|---------------------------------------|---------------------------------------|--------------------------------|
| 24 | woman | 84 | 50 | 25 | 7 | 29 | 10 | 3 |
| 25 | | 86 | 69 | 55 | 5 | 50 | 25 | 3 |
| 26 | | 89 | 10 | 5 | 1 | 0 | 0 | 1 |
| 27 | | 80 | 58 | 35 | 5 | 45 | 23 | 4 |
| 28 | | 81 | 25 | 15 | 5 | 10 | 5 | 3 |
| 29 | | 80 | 25 | 15 | 1 | 0 | 0 | 1 |
| 30 | | 74 | 64 | 45 | 7 | 50 | 25 | 5 |
| 31 | | 84 | 67 | 40 | 5 | 50 | 20 | 5 |
| 32 | | 78 | 60 | 30 | 5 | 33 | 10 | 5 |
| 33 | | 87 | 43 | 30 | 5 | 13 | 5 | 3 |
| 34 | | 78 | 66 | 40 | 5 | 25 | 8 | 4 |
| 35 | | 69 | 75 | 15 | 6 | 63 | 13 | 6 |
| 36 | | 69 | 17 | 10 | 1 | 0 | 0 | 1 |
| 37 | | 74 | 33 | 20 | 1 | 0 | 0 | 1 |
| 38 | | 86 | 43 | 30 | 7 | 17 | 8 | 4 |
| 39 | | 73 | 29 | 20 | 2 | 0 | 0 | 1 |
| 40 | | 78 | 63 | 50 | 7 | 54 | 35 | 5 |
| 41 | | 92 | 75 | 30 | 7 | 50 | 10 | 4 |
| 42 | | 78 | 50 | 30 | 5 | 25 | 10 | 3 |
| 43 | | 86 | 50 | 20 | 5 | 33 | 10 | 5 |
| 44 | | 86 | 38 | 15 | 7 | 29 | 10 | 5 |
| 45 | | 79 | 69 | 55 | 7 | 55 | 30 | 7 |
| 46 | | 88 | 69 | 45 | 6 | 60 | 30 | 5 |
| 47 | | 88 | 50 | 30 | 6 | 44 | 20 | 5 |
| 48 | | 76 | 46 | 28 | 5 | 19 | 8 | 5 |

| | | life satisfaction | life satisfaction with present | freedom from depression | general adjustment score | past life satisfaction | affect of reminiscence (rated) | affect of reminiscence (questionnaire) |
|-----------|-----|-------------------|-----------------------------------|-------------------------|--------------------------|------------------------|-----------------------------------|---|
| Subject 1 | man | 9.5 | 7.5 | 21.0 | 10 | 1.0 | 2 | 10 |
| | 2 | 17.5 | 10.5 | 27.5 | 17 | 6.0 | 10 | 12 |
| | 3 | 14.5 | 9.0 | 21.0 | 11 | 5.0 | 5 | 10 |
| | 4 | 8.5 | 6.0 | 24.0 | 10 | 2.0 | 4 | 8 |
| | 5 | 9.0 | 2.5 | 18.5 | 6 | 6.0 | 6 | 8 |
| | 6 | 9.0 | 6.0 | 21.5 | 9 | 3.0 | 9 | 16 |
| | 7 | 16.0 | 10.5 | 29.0 | 18 | 4.5 | 8 | 18 |
| | 8 | 12.0 | 6.5 | 24.5 | 11 | 4.5 | 10 | 8 |
| | 9 | 8.0 | 5.5 | 19.0 | 8 | 2.0 | 7 | 11 |
| | 10 | 11.5 | 5.5 | 17.5 | 8 | 5.0 | 6 | 9 |
| | 11 | 11.0 | 5.5 | 28.0 | 12 | 5.5 | 8 | 15 |
| | 12 | 10.5 | 9.0 | 24.5 | 12 | 1.0 | 7 | 12 |
| | 13 | 9.0 | 6.0 | 17.0 | 8 | 3.0 | 7 | 11 |
| | 14 | 7.5 | 3.5 | 13.0 | 6 | 3.0 | 4 | 5 |
| | 15 | 10.0 | 4.0 | 12.5 | 6 | 5.5 | 10 | 15 |
| | 16 | 6.5 | 4.0 | 16.0 | 7 | 1.5 | 1 | 6 |
| | 17 | 8.5 | 6.0 | 25.0 | 11 | 1.5 | 7 | 9 |
| | 18 | 11.5 | 7.5 | 20.5 | 9 | 3.0 | 4 | 9 |
| | 19 | 11.5 | 9.5 | 26.0 | 13 | 1.0 | 3 | 8 |
| | 20 | 8.0 | 3.0 | 15.5 | 6 | 4.0 | 3 | 9 |
| | 21 | 17.5 | 10.5 | 27.0 | 16 | 6.0 | 10 | 13 |
| | 22 | 15.5 | 8.5 | 27.0 | 14 | 6.0 | 7 | 10 |
| | 23 | 17.0 | 10.5 | 28.0 | 16 | 6.0 | 8 | 15 |

| | | life satisfaction | life satisfaction with present | freedom from depression | general adjustment score | past life satisfaction | affect of reminiscence (rated) | affect of reminiscence (questionnaire) |
|------------|-------|-------------------|-----------------------------------|-------------------------|--------------------------|------------------------|-----------------------------------|---|
| Subject 24 | woman | 11.0 | 6.0 | 25.0 | 10 | 5.0 | 5 | 10 |
| 25 | | 6.0 | 2.5 | 18.0 | 6 | 3.0 | 5 | 12 |
| 26 | | 18.0 | 12.0 | 23.5 | 15 | 6.0 | 11 | 18 |
| 27 | | 9.0 | 5.0 | 13.0 | 7 | 3.5 | 1 | 4 |
| 28 | | 14.5 | 8.5 | 21.0 | 11 | 5.0 | 9 | 14 |
| 29 | | 16.0 | 11.0 | 27.0 | 15 | 5.0 | 6 | 9 |
| 30 | | 12.5 | 6.5 | 23.0 | 10 | 6.0 | 7 | 18 |
| 31 | | 10.5 | 5.5 | 12.0 | 6 | 5.0 | 6 | 15 |
| 32 | | 5.0 | 2.0 | 11.5 | 4 | 2.0 | 3 | 7 |
| 33 | | 13.5 | 9.5 | 25.5 | 12 | 3.5 | 5 | 12 |
| 34 | | 13.0 | 7.5 | 19.0 | 9 | 4.5 | 3 | 12 |
| 35 | | 1.5 | 1.0 | 9.0 | 0 | 0.5 | 1 | 4 |
| 36 | | 15.0 | 10.5 | 29.5 | 19 | 3.5 | 5 | 10 |
| 37 | | 17.0 | 10.0 | 26.0 | 14 | 6.0 | 7 | 8 |
| 38 | | 15.0 | 11.0 | 27.0 | 15 | 4.0 | 5 | 10 |
| 39 | | 18.0 | 11.5 | 27.0 | 18 | 5.5 | 8 | 18 |
| 40 | | 12.5 | 7.0 | 11.0 | 7 | 5.5 | 9 | 18 |
| 41 | | 15.0 | 8.5 | 22.0 | 11 | 5.5 | 9 | 14 |
| 42 | | 13.0 | 7.5 | 25.0 | 11 | 5.5 | 9 | 18 |
| 43 | | 16.0 | 10.5 | 26.0 | 15 | 4.5 | 6 | 10 |
| 44 | | 15.0 | 8.0 | 25.5 | 12 | 6.0 | 8 | 13 |
| 45 | | 8.5 | 3.0 | 15.5 | 5 | 5.0 | 5 | 6 |
| 46 | | 11.5 | 5.5 | 13.5 | 7 | 6.0 | 5 | 11 |
| 47 | | 11.0 | 6.5 | 24.0 | 10 | 3.5 | 6 | 10 |
| 48 | | 14.5 | 8.5 | 25.0 | 12 | 5.5 | 7 | 8 |

| Subject | Amount (units per minute) | Reminiscence % conversation | Reminiscence (questionnaire) | Reminiscence cumulative subjective rating | Self Psychological % conversation | Self Psychological etc cumulative subjective rating | Life Reviewing % reminiscence |
|---------|------------------------------|--------------------------------|---------------------------------|--|--------------------------------------|---|----------------------------------|
| 1 man | 1.47 | 75 | 12 | 6 | 38 | 5 | 26 |
| 2 | 2.85 | 52 | 5 | 3 | 34 | 6 | 10 |
| 3 | 1.23 | 53 | 10 | 4 | 30 | 3 | 30 |
| 4 | 1.49 | 8 | 7 | 2 | 7 | 1 | 14 |
| 5 | 1.35 | 36 | 8 | 2 | 35 | 4 | 38 |
| 6 | 1.49 | 66 | 13 | 5 | 23 | 3 | 24 |
| 7 | 2.22 | 28 | 12 | 4 | 13 | 3 | 12 |
| 8 | 1.87 | 71 | 13 | 6 | 13 | 2 | 13 |
| 9 | 1.08 | 64 | 12 | 5 | 30 | 4 | 24 |
| 10 | 1.98 | 39 | 12 | 4 | 7 | 2 | 7 |
| 11 | 2.37 | 89 | 11 | 7 | 19 | 4 | 13 |
| 12 | 2.24 | 26 | 10 | 4 | 13 | 4 | 29 |
| 13 | 2.43 | 25 | 5 | 3 | 21 | 4 | 39 |
| 14 | 2.28 | 45 | 9 | 3 | 31 | 4 | 31 |
| 15 | 2.08 | 80 | 13 | 6 | 30 | 3 | 21 |
| 16 | 1.42 | 20 | 4 | 1 | 24 | 3 | 7 |
| 17 | 2.46 | 34 | 10 | 5 | 26 | 4 | 32 |
| 18 | 2.23 | 63 | 13 | 4 | 37 | 5 | 42 |
| 19 | 1.95 | 79 | 5 | 4 | 10 | 2 | 8 |
| 20 | 1.34 | 59 | 14 | 4 | 11 | 2 | 9 |
| 21 | 2.04 | 51 | 10 | 5 | 27 | 3 | 20 |
| 22 | 2.28 | 39 | 5 | 4 | 3 | 1 | 2 |
| 23 | 1.68 | 42 | 9 | 4 | 22 | 3 | 12 |

| Subject | Amount (units per minute) | Reminiscence % conversation | Reminiscence (questionnaire) | Reminiscence cumulative subjective rating | Self Psychological % conversation | Self Psychological etc cumulative subjective rating | Life Reviewing % reminiscence |
|----------|------------------------------|--------------------------------|---------------------------------|--|--------------------------------------|---|----------------------------------|
| 24 women | 1.98 | 40 | 10 | 5 | 26 | 3 | 17 |
| 25 | 1.59 | 13 | 5 | 2 | 18 | 1 | 0 |
| 26 | 2.18 | 49 | 14 | 6 | 14 | 3 | 11 |
| 27 | 2.98 | 62 | 5 | 5 | 9 | 3 | 10 |
| 28 | 2.72 | 40 | 13 | 4 | 36 | 4 | 34 |
| 29 | 1.53 | 32 | 4 | 3 | 10 | 3 | 7 |
| 30 | 1.14 | 22 | 14 | 3 | 16 | 2 | 14 |
| 31 | 1.35 | 14 | 12 | 3 | 17 | 1 | 0 |
| 32 | 1.74 | 10 | 9 | 2 | 24 | 3 | 20 |
| 33 | 1.57 | 17 | 6 | 3 | 25 | 3 | 28 |
| 34 | 1.79 | 41 | 12 | 4 | 57 | 6 | 64 |
| 35 | 1.77 | 11 | 9 | 3 | 21 | 4 | 11 |
| 36 | 1.53 | 13 | 4 | 2 | 17 | 1 | 44 |
| 37 | 1.42 | 14 | 4 | 1 | 19 | 3 | 8 |
| 38 | 2.72 | 23 | 6 | 3 | 17 | 5 | 33 |
| 39 | 2.42 | 29 | 14 | 3 | 30 | 3 | 31 |
| 40 | 2.15 | 46 | 14 | 4 | 29 | 3 | 7 |
| 41 | 1.96 | 25 | 10 | 4 | 20 | 3 | 26 |
| 42 | 2.11 | 62 | 14 | 6 | 16 | 2 | 5 |
| 43 | 2.65 | 32 | 9 | 3 | 33 | 3 | 22 |
| 44 | 3.08 | 88 | 12 | 7 | 20 | 3 | 18 |
| 45 | 1.75 | 51 | 6 | 5 | 19 | 2 | 12 |
| 46 | 2.90 | 27 | 10 | 3 | 24 | 3 | 15 |
| 47 | 1.84 | 57 | 10 | 4 | 26 | 3 | 17 |
| 48 | 1.78 | 20 | 5 | 2 | 19 | 3 | 9 |

| Subject | | Attitudinal and informative % conversation | Attitudinal etc cumulative subjective rating | Past Attitudinal etc % reminiscence | Family % conversation | Family etc cumulative subjective rating | Present family etc % present conversation |
|---------|-----|--|--|--|-----------------------|--|--|
| 1 | man | 14 | 3 | 12 | 24 | 6 | 21 |
| 2 | | 27 | 7 | 38 | 20 | 6 | 34 |
| 3 | | 67 | 6 | 68 | 21 | 7 | 27 |
| 4 | | 66 | 7 | 85 | 0 | 2 | 0 |
| 5 | | 37 | 4 | 45 | 17 | 3 | 10 |
| 6 | | 48 | 4 | 46 | 15 | 5 | 25 |
| 7 | | 58 | 7 | 29 | 5 | 3 | 6 |
| 8 | | 10 | 3 | 9 | 22 | 5 | 56 |
| 9 | | 41 | 6 | 32 | 14 | 2 | 17 |
| 10 | | 50 | 5 | 40 | 10 | 5 | 6 |
| 11 | | 30 | 5 | 22 | 4 | 4 | 19 |
| 12 | | 65 | 7 | 29 | 5 | 5 | 5 |
| 13 | | 53 | 5 | 33 | 19 | 5 | 22 |
| 14 | | 47 | 6 | 25 | 14 | 5 | 12 |
| 15 | | 6 | 2 | 3 | 23 | 5 | 24 |
| 16 | | 17 | 5 | 50 | 6 | 4 | 5 |
| 17 | | 33 | 5 | 30 | 1 | 5 | 1 |
| 18 | | 51 | 5 | 28 | 22 | 5 | 2 |
| 19 | | 58 | 7 | 49 | 6 | 4 | 8 |
| 20 | | 3 | 1 | 0 | 51 | 7 | 88 |
| 21 | | 33 | 4 | 18 | 16 | 5 | 6 |
| 22 | | 69 | 6 | 85 | 0 | 1 | 0 |
| 23 | | 31 | 4 | 40 | 8 | 4 | 14 |

| Subject | Attitudinal and informative % conversation | Attitudinal etc cumulative subjective rating | Past Attitudinal etc % reminiscence | Family % conversation | Family etc cumulative subjective rating | Present family etc % present conversation |
|----------|--|--|--|-----------------------|--|--|
| 24 woman | 4 | 1 | 2 | 66 | 7 | 59 |
| 25 | 15 | 2 | 16 | 37 | 2 | 39 |
| 26 | 25 | 6 | 19 | 60 | 7 | 60 |
| 27 | 4 | 3 | 3 | 58 | 7 | 51 |
| 28 | 12 | 5 | 14 | 10 | 2 | 10 |
| 29 | 15 | 4 | 7 | 24 | 2 | 13 |
| 30 | 25 | 3 | 21 | 30 | 3 | 22 |
| 31 | 6 | 3 | 10 | 33 | 3 | 25 |
| 32 | 26 | 4 | 30 | 34 | 6 | 33 |
| 33 | 22 | 3 | 15 | 27 | 2 | 17 |
| 34 | 38 | 4 | 34 | 17 | 1 | 13 |
| 35 | 58 | 5 | 44 | 9 | 2 | 7 |
| 36 | 13 | 3 | 22 | 38 | 5 | 38 |
| 37 | 41 | 4 | 50 | 6 | 2 | 7 |
| 38 | 30 | 5 | 37 | 39 | 7 | 36 |
| 39 | 40 | 6 | 34 | 17 | 5 | 13 |
| 40 | 8 | 3 | 7 | 49 | 7 | 36 |
| 41 | 13 | 3 | 4 | 38 | 7 | 39 |
| 42 | 6 | 2 | 3 | 55 | 6 | 24 |
| 43 | 6 | 1 | 4 | 60 | 3 | 52 |
| 44 | 6 | 1 | 6 | 61 | 6 | 88 |
| 45 | 15 | 1 | 9 | 61 | 5 | 61 |
| 46 | 9 | 2 | 4 | 28 | 2 | 15 |
| 47 | 10 | 3 | 14 | 41 | 6 | 38 |
| 48 | 53 | 6 | 48 | 28 | 5 | 28 |

| | | | | | | | | | | | |
|----|-------------------------------------|---------|-------|------|-------|-----------|---|---|---|---|---|
| 5. | relative social loss in five years: | 0 - 100 | | | | | | | | | |
| | men | mean | 50.09 | S.D. | 14.97 | | | | | | |
| | 0 | 1 | 4 | 2 | 7 | \bar{X} | 1 | 3 | 4 | 0 | 1 |
| | women | mean | 30.16 | S.D. | 20.75 | | | | | | |
| | 0 | 0 | 5 | 4 | 4 | \bar{X} | 2 | 6 | 3 | 1 | 0 |
| 6. | absolute social loss in five years: | 0 - 80 | | | | | | | | | |
| | men | mean | 26.52 | S.D. | 12.81 | | | | | | |
| | 0 | 0 | 5 | 5 | 2 | \bar{X} | 4 | 2 | 3 | 1 | 1 |
| | women | mean | 12.60 | S.D. | 10.29 | | | | | | |
| | 0 | 0 | 5 | 2 | 9 | \bar{X} | 1 | 2 | 3 | 2 | 1 |
| 7. | physical loss in five years: | 1 - 7 | | | | | | | | | |
| | men | mean | 3.65 | S.D. | 1.52 | | | | | | |
| | 0 | 3 | 1 | 0 | 8 | \bar{X} | 2 | 8 | 0 | 0 | 1 |
| | women | mean | 3.76 | S.D. | 1.68 | | | | | | |
| | 0 | 5 | 0 | 0 | 5 | \bar{X} | 4 | 9 | 1 | 1 | 0 |
| 8. | life satisfaction: | 0 - 20 | | | | | | | | | |
| | men | mean | 11.28 | S.D. | 3.34 | | | | | | |
| | 0 | 0 | 2 | 8 | 3 | \bar{X} | 4 | 1 | 2 | 3 | 0 |
| | women | mean | 12.50 | S.D. | 3.98 | | | | | | |
| | 1 | 2 | 1 | 2 | 3 | \bar{X} | 5 | 8 | 3 | 0 | 0 |
| 9. | life satisfaction with present: | 0 - 13 | | | | | | | | | |
| | men | mean | 6.83 | S.D. | 2.49 | | | | | | |
| | 0 | 2 | 3 | 3 | 5 | \bar{X} | 2 | 3 | 5 | 0 | 0 |
| | women | mean | 7.40 | S.D. | 3.02 | | | | | | |
| | 1 | 2 | 1 | 3 | 4 | \bar{X} | 6 | 2 | 5 | 1 | 0 |

| | | | | | | | | | | | |
|-----|-----------------------------------|------|---------|------|------|-----------|---|----|---|---|---|
| 10. | freedom from depression | : | 0 - 30 | | | | | | | | |
| | men | mean | 21.89 | S.D. | 4.95 | | | | | | |
| | 0 | 2 | 2 | 4 | 4 | \bar{X} | 1 | 4 | 6 | 0 | 0 |
| | women | mean | 20.98 | S.D. | 6.06 | | | | | | |
| | 0 | 3 | 3 | 1 | 2 | \bar{X} | 5 | 10 | 1 | 0 | 0 |
| 11. | past life satisfaction | : | 0 - 6 | | | | | | | | |
| | men | mean | 3.74 | S.D. | 1.83 | | | | | | |
| | 0 | 0 | 5 | 2 | 4 | \bar{X} | 3 | 4 | 5 | 0 | 0 |
| | women | mean | 4.60 | S.D. | 1.36 | | | | | | |
| | 1 | 1 | 1 | 4 | 3 | \bar{X} | 5 | 5 | 5 | 0 | 0 |
| 12. | rated reminiscence affect | : | 1 - 11 | | | | | | | | |
| | men | mean | 6.35 | S.D. | 2.63 | | | | | | |
| | 1 | 1 | 2 | 4 | 2 | \bar{X} | 5 | 3 | 5 | 0 | 0 |
| | women | mean | 6.04 | S.D. | 2.42 | | | | | | |
| | 2 | 0 | 2 | 0 | 11 | \bar{X} | 3 | 2 | 4 | 0 | 1 |
| 13. | questionnaire reminiscence affect | : | 1 - 19 | | | | | | | | |
| | men | mean | 9.65 | S.D. | 3.07 | | | | | | |
| | 0 | 5 | 0 | 2 | 2 | \bar{X} | 5 | 4 | 5 | 0 | 0 |
| | women | mean | 9.24 | S.D. | 3.58 | | | | | | |
| | 0 | 0 | 6 | 3 | 3 | \bar{X} | 4 | 3 | 6 | 0 | 0 |
| 14. | amount spoken (units per minute) | : | 0 - ... | | | | | | | | |
| | men | mean | 1.91 | S.D. | .46 | | | | | | |
| | 0 | 1 | 4 | 3 | 2 | \bar{X} | 4 | 5 | 3 | 0 | 1 |
| | women | mean | 2.03 | S.D. | .54 | | | | | | |
| | 0 | 1 | 2 | 6 | 6 | \bar{X} | 3 | 1 | 3 | 3 | 0 |

| | | | | | | | | | | | |
|-----|---|------|-------|------|-------|-----------|----|---|---|---|---|
| 15. | reminiscence % conversation: 0 - 100 | | | | | | | | | | |
| | men | mean | 49.74 | S.D. | 21.03 | | | | | | |
| | 0 | 1 | 4 | 4 | 2 | \bar{X} | 4 | 3 | 4 | 1 | 0 |
| | women | mean | 33.52 | S.D. | 19.48 | | | | | | |
| | 0 | 0 | 6 | 4 | 5 | \bar{X} | 3 | 3 | 3 | 0 | 1 |
| 16. | reminiscence questionnaire measure: 3 - 16 | | | | | | | | | | |
| | men | mean | 9.65 | S.D. | 3.07 | | | | | | |
| | 0 | 5 | 0 | 2 | 2 | \bar{X} | 5 | 4 | 5 | 0 | 0 |
| | women | mean | 9.24 | S.D. | 3.58 | | | | | | |
| | 0 | 0 | 6 | 3 | 3 | \bar{X} | 4 | 3 | 6 | 0 | 0 |
| 17. | reminiscence subjective rating: 1 - 7 | | | | | | | | | | |
| | men | mean | 4.13 | S.D. | 1.39 | | | | | | |
| | 1 | 2 | 0 | 3 | 9 | \bar{X} | 0 | 4 | 3 | 0 | 1 |
| | women | mean | 3.60 | S.D. | 1.41 | | | | | | |
| | 0 | 1 | 4 | 0 | 9 | \bar{X} | 5 | 3 | 0 | 2 | 1 |
| 18. | self psychological % conversation: 0 - 100 | | | | | | | | | | |
| | men | mean | 21.91 | S.D. | 10.30 | | | | | | |
| | 0 | 1 | 4 | 3 | 2 | \bar{X} | 5 | 4 | 3 | 1 | 0 |
| | women | mean | 22.48 | S.D. | 9.54 | | | | | | |
| | 0 | 0 | 2 | 6 | 7 | \bar{X} | 5 | 2 | 2 | 0 | 1 |
| 19. | self psychological subjective rating: 1 - 6 | | | | | | | | | | |
| | men | mean | 3.26 | S.D. | 1.22 | | | | | | |
| | 0 | 2 | 4 | 0 | 7 | \bar{X} | 0 | 7 | 2 | 0 | 1 |
| | women | mean | 2.92 | S.D. | 1.09 | | | | | | |
| | 0 | 3 | 0 | 3 | 0 | \bar{X} | 15 | 2 | 0 | 1 | 1 |

20. life reviewing % reminiscence: 0 - 100

| | | | | | | | | | | |
|---|-------|------|-------|------|-----------|---|---|---|---|---|
| | men | mean | 20.13 | S.D. | 11.37 | | | | | |
| 0 | 1 | 3 | 7 | 1 | \bar{X} | 3 | 4 | 1 | 3 | 0 |
| | women | mean | 18.52 | S.D. | 14.26 | | | | | |
| 0 | 0 | 2 | 8 | 6 | \bar{X} | 2 | 3 | 2 | 1 | 1 |

21. attitudinal and informative % conversation: 0 - 100

| | | | | | | | | | | |
|---|-------|------|-------|------|-----------|---|---|---|---|---|
| | men | mean | 39.74 | S.D. | 19.90 | | | | | |
| 0 | 2 | 3 | 1 | 5 | \bar{X} | 3 | 5 | 4 | 0 | 0 |
| | women | mean | 20.00 | S.D. | 15.21 | | | | | |
| 0 | 0 | 2 | 8 | 5 | \bar{X} | 4 | 1 | 3 | 0 | 2 |

22. attitudinal etc subjective rating: 1 - 7

| | | | | | | | | | | |
|---|-------|------|------|------|-----------|---|---|---|---|---|
| | men | mean | 4.96 | S.D. | 1.63 | | | | | |
| 1 | 1 | 2 | 4 | 0 | \bar{X} | 6 | 4 | 5 | 0 | 0 |
| | women | mean | 3.44 | S.D. | 1.70 | | | | | |
| 0 | 0 | 4 | 3 | 8 | \bar{X} | 3 | 3 | 0 | 3 | 1 |

23. past attitudinal etc % reminiscence: 0 - 100

| | | | | | | | | | | |
|---|-------|------|-------|------|-----------|---|---|---|---|---|
| | men | mean | 35.48 | S.D. | 21.83 | | | | | |
| 0 | 1 | 3 | 2 | 7 | \bar{X} | 5 | 2 | 1 | 0 | 2 |
| | women | mean | 18.28 | S.D. | 14.85 | | | | | |
| 0 | 0 | 3 | 8 | 4 | \bar{X} | 3 | 1 | 3 | 1 | 2 |

24. family % conversation: 0 - 100

| | | | | | | | | | | |
|---|-------|------|-------|------|-----------|---|---|---|---|---|
| | men | mean | 14.04 | S.D. | 11.04 | | | | | |
| 0 | 0 | 3 | 6 | 3 | \bar{X} | 4 | 6 | 0 | 0 | 1 |
| | women | mean | 37.04 | S.D. | 17.62 | | | | | |
| 0 | 3 | 2 | 4 | 4 | \bar{X} | 4 | 1 | 6 | 1 | 0 |

25. family etc subjective rating: 1 - 7

| | | | | | | | | | | |
|---|-------|---|------|------|-----------|------|---|---|---|---|
| | men | | mean | 4.48 | S.D. | 1.47 | | | | |
| 1 | 2 | 2 | 0 | 4 | \bar{X} | 10 | 0 | 2 | 2 | 0 |
| | women | | mean | 4.40 | S.D. | 2.10 | | | | |
| 0 | 1 | 7 | 3 | 0 | \bar{X} | 4 | 4 | 6 | 0 | 0 |

26. present family etc % present conversation: 0 - 100

| | | | | | | | | | | |
|---|-------|---|------|-------|-----------|-------|---|---|---|---|
| | men | | mean | 17.74 | S.D. | 19.75 | | | | |
| 0 | 0 | 0 | 9 | 5 | \bar{X} | 6 | 1 | 0 | 1 | 1 |
| | women | | mean | 32.96 | S.D. | 19.99 | | | | |
| 0 | 0 | 3 | 6 | 3 | \bar{X} | 7 | 2 | 3 | 0 | 1 |

Appendix L: Intercorrelations between Measuresfor Men, Women and All

Measures numbered as in Appendix K

| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|----|------|------|------|------|------|------|------|------|
| 1 | 1.00 | | | | | | | |
| 2 | .12 | 1.00 | | | | | | |
| 3 | .08 | .71 | 1.00 | | | | | |
| 4 | .33 | .45 | .46 | 1.00 | | | | |
| 5 | -.44 | .57 | .39 | .03 | 1.00 | | | |
| 6 | -.59 | .01 | .29 | -.17 | .70 | 1.00 | | |
| 7 | .14 | .25 | .19 | .85 | -.04 | -.16 | 1.00 | |
| 8 | .05 | -.51 | -.63 | -.40 | -.44 | -.37 | -.38 | 1.00 |
| 9 | .09 | -.49 | -.50 | -.35 | -.36 | -.24 | -.39 | .84 |
| 10 | .33 | -.54 | -.52 | -.30 | -.60 | -.45 | -.24 | .69 |
| 11 | .02 | -.21 | -.38 | -.23 | -.29 | -.32 | -.17 | .64 |
| 12 | .18 | -.42 | -.42 | -.26 | -.12 | -.00 | -.36 | .52 |
| 13 | .32 | -.16 | -.27 | -.14 | -.13 | -.22 | -.34 | .48 |
| 14 | -.07 | -.38 | -.57 | -.55 | .10 | .16 | -.33 | .36 |
| 15 | .08 | .19 | .09 | .36 | .24 | .04 | .28 | .05 |
| 16 | .18 | -.05 | -.05 | .39 | .03 | -.03 | .26 | -.10 |
| 17 | .30 | -.06 | -.08 | .31 | .06 | -.02 | .21 | .16 |
| 18 | -.24 | .03 | .15 | -.09 | .17 | .23 | -.28 | -.08 |
| 19 | -.40 | -.21 | -.11 | -.32 | .18 | .35 | -.35 | -.01 |
| 20 | -.06 | -.01 | .11 | -.04 | .08 | .25 | -.15 | -.32 |
| 21 | .28 | -.02 | -.10 | .02 | -.25 | -.19 | .01 | .19 |
| 22 | .15 | -.15 | -.14 | -.22 | -.18 | -.06 | -.16 | .22 |
| 23 | .27 | .24 | .17 | .09 | -.26 | -.33 | .04 | .14 |
| 24 | -.35 | .08 | .01 | .17 | .15 | .11 | .13 | -.13 |
| 25 | -.24 | -.22 | -.02 | .08 | .01 | .22 | .07 | -.00 |
| 26 | -.20 | -.02 | -.01 | .21 | .01 | .07 | .24 | -.09 |

| | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 |
|----|------|------|------|------|------|------|------|------|------|
| 9 | 1.00 | | | | | | | | |
| 10 | .78 | 1.00 | | | | | | | |
| 11 | .14 | .18 | 1.00 | | | | | | |
| 12 | .31 | .38 | .59 | 1.00 | | | | | |
| 13 | .44 | .43 | .37 | .65 | 1.00 | | | | |
| 14 | .32 | .32 | .18 | .41 | .18 | 1.00 | | | |
| 15 | -.02 | -.01 | .13 | .18 | .22 | -.04 | 1.00 | | |
| 16 | -.18 | -.17 | .07 | .21 | .33 | -.24 | .47 | 1.00 | |
| 17 | .14 | .23 | .12 | .45 | .48 | .12 | .76 | .65 | 1.00 |
| 18 | -.11 | -.29 | .01 | -.01 | -.01 | -.07 | .27 | .13 | .05 |
| 19 | .07 | -.05 | -.10 | .08 | .12 | .31 | .19 | .05 | .08 |
| 20 | -.21 | -.33 | -.24 | -.04 | -.11 | .00 | -.04 | .19 | -.02 |
| 21 | .37 | .29 | -.13 | -.07 | .00 | .13 | -.43 | -.32 | -.31 |
| 22 | .46 | .42 | -.23 | -.06 | -.05 | .31 | -.41 | -.53 | -.38 |
| 23 | .20 | .26 | -.01 | -.21 | -.19 | -.14 | -.50 | -.61 | -.53 |
| 24 | -.30 | -.49 | .15 | -.09 | -.09 | -.27 | .39 | .46 | .14 |
| 25 | -.00 | -.27 | -.02 | -.05 | -.04 | .06 | .31 | .34 | .20 |
| 26 | -.25 | -.24 | .18 | .07 | -.01 | -.22 | .39 | .39 | .24 |
| | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 |
| 18 | 1.00 | | | | | | | | |
| 19 | .81 | 1.00 | | | | | | | |
| 20 | .64 | .57 | 1.00 | | | | | | |
| 21 | -.32 | -.20 | .15 | 1.00 | | | | | |
| 22 | -.19 | .07 | -.04 | .78 | 1.00 | | | | |
| 23 | -.32 | .57 | -.18 | .72 | .62 | 1.00 | | | |
| 24 | .31 | .17 | .17 | -.56 | -.69 | -.58 | 1.00 | | |
| 25 | .35 | .37 | .24 | -.39 | -.41 | -.53 | .66 | 1.00 | |
| 26 | -.04 | -.05 | -.17 | -.59 | -.61 | -.50 | .83 | .55 | 1.00 |

Men (23 Ss) .41 signif. .05

.52 signif. .01

.70 signif. .001

| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
|----|------|------|------|------|------|---------------|------|-------------|------|------|
| 1 | 1.00 | | | | | | | | | |
| 2 | .09 | 1.00 | | | | Women (25 Ss) | | .40 signif. | .05 | |
| 3 | .13 | .76 | 1.00 | | | | | .50 signif. | .01 | |
| 4 | .31 | .72 | .56 | 1.00 | | | | .68 signif. | .001 | |
| 5 | .17 | .91 | .68 | .75 | 1.00 | | | | | |
| 6 | .14 | .74 | .84 | .66 | .87 | 1.00 | | | | |
| 7 | .11 | .76 | .54 | .82 | .82 | .70 | 1.00 | | | |
| 8 | .17 | -.69 | -.43 | -.44 | -.71 | -.54 | -.59 | 1.00 | | |
| 9 | .11 | -.76 | -.55 | -.52 | -.79 | -.65 | -.66 | .96 | 1.00 | |
| 10 | .07 | -.69 | -.51 | -.38 | -.74 | -.67 | -.60 | .76 | .79 | 1.00 |
| 11 | .23 | -.27 | .04 | -.08 | -.24 | -.01 | -.22 | .74 | .53 | .38 |
| 12 | .27 | -.44 | -.22 | -.16 | -.34 | -.20 | -.33 | .69 | .57 | .43 |
| 13 | .18 | -.20 | .04 | -.04 | -.15 | -.02 | -.28 | .49 | .41 | .23 |
| 14 | .35 | -.13 | -.18 | .23 | .01 | .05 | .10 | .20 | .17 | -.01 |
| 15 | .27 | -.14 | -.05 | .23 | .04 | .16 | .13 | .19 | .09 | .09 |
| 16 | .10 | .07 | .01 | .25 | .16 | .14 | .12 | .13 | .04 | -.15 |
| 17 | .35 | -.06 | -.09 | .31 | .11 | .12 | .14 | .10 | .02 | .00 |
| 18 | -.02 | .14 | .09 | .16 | -.02 | -.06 | .13 | .07 | .03 | -.05 |
| 19 | .05 | -.01 | -.19 | .16 | -.15 | -.26 | .08 | .12 | .18 | .00 |
| 20 | -.10 | -.19 | -.22 | -.05 | -.35 | -.40 | -.16 | .28 | .34 | .30 |
| 21 | -.52 | -.03 | -.20 | -.23 | -.21 | -.35 | -.05 | -.07 | .01 | .01 |
| 22 | -.31 | -.32 | -.36 | -.41 | -.41 | -.46 | -.27 | .06 | .17 | -.05 |
| 23 | -.55 | -.14 | -.21 | -.30 | -.32 | -.39 | -.12 | -.02 | .07 | .08 |
| 24 | .42 | .03 | .11 | .31 | .20 | .29 | .21 | .02 | -.03 | .05 |
| 25 | .21 | -.11 | -.08 | .22 | .02 | .06 | .05 | .11 | .09 | .08 |
| 26 | .42 | -.05 | -.02 | .29 | .14 | .18 | .23 | .03 | -.03 | .10 |

| | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 |
|----|------|------|------|------|------|------|------|------|------|------|
| 11 | 1.00 | | | | | | | | | |
| 12 | .74 | 1.00 | | | | | | | | |
| 13 | .58 | .78 | 1.00 | | | | | | | |
| 14 | .16 | .08 | -.00 | 1.00 | | | | | | |
| 15 | .36 | .27 | .17 | .56 | 1.00 | | | | | |
| 16 | .36 | .50 | .76 | .21 | .36 | 1.00 | | | | |
| 17 | .30 | .30 | .28 | .48 | .89 | .50 | 1.00 | | | |
| 18 | -.02 | -.06 | .14 | .11 | .03 | .37 | -.02 | 1.00 | | |
| 19 | -.09 | -.18 | -.16 | .37 | .14 | .13 | .11 | .58 | 1.00 | |
| 20 | -.09 | -.14 | .03 | .14 | .48 | .29 | .41 | .69 | .63 | 1.00 |
| 21 | -.25 | -.19 | -.22 | -.30 | -.47 | -.15 | -.46 | .15 | .41 | .17 |
| 22 | -.22 | .02 | -.01 | -.11 | -.39 | .04 | -.36 | .04 | .36 | .18 |
| 23 | -.25 | -.19 | -.24 | -.31 | -.51 | -.23 | -.57 | .14 | .35 | .22 |
| 24 | .18 | .15 | .07 | .33 | .60 | .11 | .66 | -.28 | -.29 | -.25 |
| 25 | .13 | .26 | .11 | .33 | .44 | .16 | .49 | -.33 | -.07 | -.12 |
| 26 | .15 | .13 | -.04 | .37 | .60 | .02 | .62 | -.23 | -.21 | -.14 |

| | 21 | 22 | 23 | 24 | 25 | 26 |
|----|------|------|------|------|------|------|
| 21 | 1.00 | | | | | |
| 22 | .68 | 1.00 | | | | |
| 23 | .93 | .69 | 1.00 | | | |
| 24 | -.64 | -.55 | -.65 | 1.00 | | |
| 25 | -.28 | .02 | -.24 | .68 | 1.00 | |
| 26 | -.49 | -.46 | -.46 | .88 | .63 | 1.00 |

Women (25 Ss) .40 signif. .05
.50 signif. .01
.68 signif. .001

| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | | | |
|----|------|------|------|------|------|------|------|------|------|-------------|------------|------|
| 1 | 1.00 | | | | | | | | | All (48 Ss) | .28 signf. | .05 |
| 2 | .01 | 1.00 | | | | | | | | | .37 signf. | .01 |
| 3 | -.02 | .79 | 1.00 | | | | | | | | .53 signf. | .001 |
| 4 | .34 | .48 | .34 | 1.00 | | | | | | | | |
| 5 | -.17 | .84 | .69 | .34 | 1.00 | | | | | | | |
| 6 | -.32 | .53 | .68 | .11 | .83 | 1.00 | | | | | | |
| 7 | .13 | .50 | .31 | .83 | .42 | .21 | 1.00 | | | | | |
| 8 | .14 | -.63 | -.51 | -.39 | -.60 | -.46 | -.49 | 1.00 | | | | |
| 9 | .12 | -.64 | -.50 | -.43 | -.60 | -.43 | -.54 | .91 | 1.00 | | | |
| 10 | .16 | -.54 | -.38 | -.36 | -.56 | -.43 | -.45 | .71 | .77 | | | |
| 11 | .15 | -.31 | -.28 | -.10 | -.34 | -.30 | -.18 | .68 | .34 | | | |
| 12 | .20 | -.35 | -.22 | -.22 | -.18 | -.04 | -.35 | .59 | .44 | | | |
| 13 | .25 | -.21 | -.12 | -.06 | -.18 | -.15 | -.30 | .50 | .42 | | | |
| 14 | .17 | -.25 | -.34 | -.07 | -.02 | .03 | -.07 | .27 | .24 | | | |
| 15 | .09 | .15 | .21 | .21 | .28 | .27 | .17 | .06 | -.00 | | | |
| 16 | .12 | .05 | .02 | .29 | .12 | .08 | .18 | .03 | -.05 | | | |
| 17 | .28 | .03 | .03 | .27 | .16 | .13 | .16 | .09 | .05 | | | |
| 18 | -.13 | .07 | .08 | .05 | .04 | .07 | -.06 | .00 | -.03 | | | |
| 19 | -.21 | -.02 | -.05 | -.09 | .06 | .15 | -.13 | .03 | -.11 | 1 | | |
| 20 | -.09 | -.09 | -.04 | -.06 | -.15 | -.04 | -.16 | .04 | .12 | 12 | | |
| 21 | -.14 | .19 | .16 | -.16 | .07 | .06 | -.03 | -.03 | .11 | 11 | | |
| 22 | -.15 | -.03 | .02 | -.36 | -.06 | .02 | -.22 | .05 | .22 | 22 | | |
| 23 | -.13 | .21 | .23 | -.14 | -.02 | -.06 | -.05 | -.01 | .08 | 08 | | |
| 24 | .20 | -.23 | -.28 | .30 | -.16 | -.18 | .16 | .08 | -.03 | 03 | | |
| 25 | .02 | -.12 | -.04 | .16 | .02 | .12 | .06 | .06 | .06 | | | |
| 26 | .16 | -.19 | -.21 | .30 | -.10 | -.09 | .23 | .04 | -.08 | | | |

| | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 |
|----|------|------|------|------|------|------|------|------|------|
| 10 | 1.00 | | | | | | | | |
| 11 | .24 | 1.00 | | | | | | | |
| 12 | .40 | .61 | 1.00 | | | | | | |
| 13 | .29 | .47 | .70 | 1.00 | | | | | |
| 14 | .11 | .19 | .22 | .08 | 1.00 | | | | |
| 15 | .07 | .11 | .23 | .13 | .22 | 1.00 | | | |
| 16 | -.15 | .18 | .37 | .59 | .02 | .40 | 1.00 | | |
| 17 | .11 | .14 | .38 | .33 | .29 | .82 | .57 | 1.00 | |
| 18 | -.16 | .00 | -.03 | .08 | .03 | .13 | .26 | .01 | 1.00 |
| 19 | -.01 | -.13 | -.03 | -.05 | .32 | .20 | .10 | .12 | .69 |
| 20 | .07 | -.17 | -.09 | -.03 | .08 | -.02 | .12 | -.02 | .66 |
| 21 | .16 | -.28 | -.08 | -.15 | -.13 | -.18 | -.17 | -.23 | -.12 |
| 22 | .17 | -.30 | .01 | -.07 | .02 | -.19 | -.16 | -.25 | -.08 |
| 23 | .19 | -.19 | -.15 | -.23 | -.24 | -.26 | -.35 | -.40 | -.13 |
| 24 | -.14 | .28 | .00 | .08 | .17 | .14 | .13 | .24 | -.02 |
| 25 | -.04 | .05 | .13 | .06 | .22 | .36 | .22 | .37 | -.05 |
| 26 | -.07 | .24 | .07 | .02 | .14 | .30 | .15 | .34 | -.12 |

| | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 |
|----|------|------|------|------|------|------|------|------|
| 19 | 1.00 | | | | | | | |
| 20 | .56 | 1.00 | | | | | | |
| 21 | .12 | .17 | 1.00 | | | | | |
| 22 | .26 | .10 | .78 | 1.00 | | | | |
| 23 | -.03 | .04 | .83 | .70 | 1.00 | | | |
| 24 | -.17 | -.13 | -.69 | -.68 | -.66 | 1.00 | | |
| 25 | .11 | .00 | -.27 | -.12 | -.31 | .52 | 1.00 | |
| 26 | -.18 | -.16 | -.62 | -.60 | -.55 | .84 | .55 | 1.00 |

Appendix M: Tables of Analyses of Variance performed
on the global present adjustment measure

| 1. | Sum of Squares | df | Variance Estimate | F | Sig. |
|----------------|----------------|----|-------------------|-------|----------|
| losses 5 years | 248.80 | 2 | 124.40 | 13.87 | p < .001 |
| Rem. convers. | 87.25 | 2 | 43.62 | 4.86 | p < .025 |
| sex | 3.30 | 1 | 3.30 | .37 | |
| loss/rem. | 32.48 | 4 | 8.12 | .91 | |
| loss/sex | 28.95 | 2 | 14.48 | 1.61 | |
| rem/sex | 2.53 | 2 | 1.27 | .14 | |
| loss/rem/sex | 28.92 | 4 | 7.23 | .81 | |
| Error | 269.17 | 30 | 8.97 | | |

| 2. | Sum of Squares | df | Variance Estimate | F | Sig. |
|-----------------|----------------|----|-------------------|-------|----------|
| losses since 60 | 272.52 | 2 | 136.26 | 15.37 | p < .001 |
| Rem. convers. | 59.60 | 2 | 29.80 | 3.36 | p < .05 |
| sex | .71 | 1 | .71 | .08 | |
| loss/rem. | 9.62 | 4 | 2.41 | .27 | |
| loss/sex | 54.71 | 2 | 27.36 | 3.09 | |
| rem/sex | 7.62 | 2 | 3.81 | .43 | |
| loss/rem/sex | 19.58 | 4 | 4.90 | .55 | |
| Error | 265.88 | 30 | 8.86 | | |

| 3. | Sum of Squares | df | Variance Estimate | F | Sig. |
|----------------|----------------|----|-------------------|-------|----------|
| losses 5 years | 240.30 | 2 | 120.15 | 12.26 | p < .001 |
| Rem. quest. | 2.30 | 2 | 1.15 | .12 | |
| sex | .00 | 1 | .00 | .00 | p < .05 |
| loss/rem. | 37.10 | 4 | 9.28 | .95 | |
| loss/sex | 79.48 | 2 | 39.74 | 4.06 | |
| rem/sex | 5.14 | 2 | 2.57 | .26 | |
| loss/rem/sex | 44.72 | 4 | 11.18 | 1.14 | |
| Error | 293.97 | 30 | 9.80 | | |

| 4. | Sum of Squares | df | Variance Estimate | F | Sig. |
|-----------------|----------------|----|-------------------|-------|----------|
| losses since 60 | 314.07 | 2 | 157.04 | 15.56 | p < .001 |
| Rem. quest. | 9.20 | 2 | 4.60 | .46 | |
| sex | 3.46 | 1 | 3.46 | .34 | |
| loss/rem. | 13.07 | 4 | 3.27 | .32 | |
| loss/sex | 38.81 | 2 | 19.41 | 1.92 | |
| rem/sex | 10.77 | 2 | 5.39 | .53 | |
| loss/rem/sex | 18.88 | 4 | 4.72 | .47 | |
| Error | 302.83 | 30 | 10.09 | | |

| 5. | Sum of Squares | df | Variance Estimate | F | Sig. |
|--------------------------|----------------|----|-------------------|-------|----------|
| losses 5 years | 258.19 | 2 | 129.10 | 13.19 | p < .001 |
| Rem. quest + convers. | 38.26 | 2 | 19.13 | 1.95 | |
| sex | .84 | 1 | .84 | .09 | |
| loss/rem. | 17.67 | 4 | 4.42 | .45 | |
| loss/sex | 79.99 | 2 | 40.00 | 4.09 | p < .05 |
| rem/sex | 2.42 | 2 | 1.21 | .12 | |
| loss/rem/sex | 63.79 | 4 | 15.95 | 1.63 | |
| Error | 293.55 | 30 | 9.79 | | |

| 6. | Sum of Squares | df | Variance Estimate | F | Sig. |
|---------------------------|----------------|----|-------------------|-------|----------|
| losses since 60 | 351.04 | 2 | 175.52 | 17.86 | p < .001 |
| Rem. quest. + convers. | 6.80 | 2 | 3.40 | .35 | |
| sex | .51 | 1 | .51 | .05 | |
| loss/rem. | 38.87 | 4 | 9.72 | .99 | |
| loss/sex | 56.07 | 2 | 28.04 | 2.85 | |
| rem/sex | 3.89 | 2 | 1.95 | .20 | |
| loss/rem/sex | 36.53 | 4 | 9.13 | .93 | |
| Error | 294.80 | 30 | 9.83 | | |

| 7. | Sum of Squares | df | Variance Estimate | F | Sig. |
|------------------|----------------|----|-------------------|-------|----------|
| losses 5 years | 220.80 | 2 | 110.40 | 12.54 | p < .001 |
| Past Life Satis. | 64.60 | 2 | 32.30 | 3.67 | p < .05 |
| sex | .23 | 1 | .23 | .03 | |
| loss/life satis. | 35.71 | 4 | 8.93 | 1.01 | |
| loss/sex | 79.97 | 2 | 39.99 | 4.54 | p < .025 |
| life satis/sex | 5.61 | 2 | 2.81 | .32 | |
| loss/life satis. | 38.75 | 4 | 9.69 | 1.10 | |
| Error | 264.22 | 30 | 8.81 | | |

| 8. | Sum of Squares | df | Variance Estimate | F | Sig. |
|------------------|----------------|----|-------------------|-------|----------|
| losses since 60 | 261.26 | 2 | 130.63 | 16.74 | p < .001 |
| Past Life Satis. | 30.47 | 2 | 15.24 | 1.95 | |
| sex | 6.65 | 1 | 6.65 | .85 | |
| loss/life satis. | 26.67 | 4 | 6.67 | .85 | |
| loss/sex | 113.84 | 2 | 56.92 | 7.29 | p < .01 |
| life satis/sex | 5.67 | 2 | 2.84 | .36 | |
| loss/life satis. | 69.64 | 4 | 17.41 | 2.23 | |
| Error | 234.15 | 30 | 7.81 | | |

| 9. | Sum of Squares | df | Variance Estimate | F | Sig. |
|-----------------|----------------|----|-------------------|-------|----------|
| losses 5 years | 193.83 | 2 | 96.92 | 16.48 | p < .001 |
| Affect of Rem. | 144.12 | 2 | 72.06 | 12.26 | p < .001 |
| sex | 22.65 | 1 | 22.65 | 3.85 | |
| loss/affect | 33.55 | 4 | 8.39 | 1.43 | |
| loss/sex | 34.86 | 2 | 17.43 | 2.96 | |
| affect/sex | 73.14 | 2 | 36.57 | 6.22 | p < .01 |
| loss/affect/sex | 35.77 | 4 | 8.94 | 1.52 | |
| Error | 176.33 | 30 | 5.88 | | |

| 10. | Sum of Squares | df | Variance Estimate | F | Sig. |
|-----------------|----------------|----|-------------------|-------|----------|
| losses since 60 | 128.86 | 2 | 64.43 | 10.60 | p < .001 |
| Affect of Rem. | 156.44 | 2 | 78.22 | 12.87 | p < .001 |
| sex | 6.63 | 1 | 6.63 | 1.09 | |
| loss/affect | 43.01 | 4 | 10.75 | 1.77 | |
| loss/sex | 20.06 | 2 | 10.03 | 1.65 | |
| affect/sex | 48.41 | 2 | 24.21 | 3.98 | p < .05 |
| loss/affect/sex | 56.91 | 4 | 14.23 | 2.34 | |
| Error | 182.42 | 30 | 6.08 | | |

| 11. | Sum of Squares | df | Variance Estimate | F | Sig. |
|----------------|----------------|----|-------------------|-------|----------|
| losses 5 years | 284.20 | 2 | 142.10 | 11.78 | p < .001 |
| Self Psych. | | | | | |
| Convers. | 6.06 | 2 | 3.03 | .25 | |
| sex | .73 | 1 | .73 | .06 | |
| loss/psych. | 23.14 | 4 | 5.79 | .48 | |
| loss/sex | 38.57 | 2 | 19.29 | 1.60 | |
| psych/sex | 3.39 | 2 | 1.70 | .14 | |
| loss/psych/sex | 35.55 | 4 | 8.89 | .74 | |
| Error | 361.92 | 30 | 12.06 | | |

| 12. | Sum of Squares | df | Variance Estimate | F | Sig. |
|-----------------|----------------|----|-------------------|-------|----------|
| losses since 60 | 328.60 | 2 | 164.30 | 15.58 | p < .001 |
| Self Psych. | | | | | |
| Convers. | 5.26 | 2 | 2.63 | .25 | |
| sex | .10 | 1 | .10 | .01 | |
| loss/psych. | 40.08 | 4 | 10.02 | .95 | |
| loss/sex | 42.69 | 2 | 21.35 | 2.02 | |
| psych/sex | 5.34 | 2 | 2.67 | .25 | |
| loss/psych/sex | 20.26 | 4 | 5.07 | .48 | |
| Error | 316.30 | 30 | 10.54 | | |

| 13. | Sum of Squares | df | Variance Estimate | F | Sig. |
|---------------------|----------------|----|-------------------|------|---------|
| losses 5 years | 174.00 | 2 | 87.00 | 8.70 | p < .01 |
| Life Reviewing | 23.71 | 2 | 11.86 | 1.19 | |
| sex | 10.31 | 1 | 10.31 | 1.03 | |
| loss/review | 13.96 | 4 | 3.49 | .35 | |
| loss/sex | 46.82 | 2 | 23.41 | 2.34 | |
| review/sex | 29.87 | 2 | 14.94 | 1.49 | |
| loss/review/ sex | 42.79 | 4 | 10.70 | 1.07 | |
| Error | 299.94 | 30 | 10.00 | | |

| 14. | Sum of Squares | df | Variance Estimate | F | Sig. |
|---------------------|----------------|----|-------------------|-------|----------|
| losses since 60 | 209.04 | 2 | 104.52 | 11.33 | p < .001 |
| Life Reviewing | 34.72 | 2 | 17.36 | 1.88 | |
| sex | .51 | 1 | .51 | .06 | |
| loss/review | 32.90 | 4 | 8.23 | .89 | |
| loss/sex | 24.37 | 2 | 12.19 | 1.32 | |
| review/sex | 10.57 | 2 | 5.29 | .57 | |
| loss/review/ sex | 24.04 | 4 | 6.01 | .65 | |
| Error | 276.69 | 30 | 9.22 | | |

| 15. | Sum of Squares | df | Variance Estimate | F | Sig. |
|---------------------------|----------------|----|-------------------|-------|----------|
| Past Life Satis | 84.23 | 1 | 84.23 | 7.16 | p < .025 |
| Life Review | 39.66 | 1 | 39.66 | 3.37 | |
| sex | 3.15 | 1 | 3.15 | .27 | |
| life satis/ review | 80.01 | 1 | 80.01 | 6.80 | p < .025 |
| life satis/sex | .75 | 1 | .75 | .06 | |
| review/sex | 153.07 | 1 | 153.07 | 13.02 | p < .001 |
| life satis/ review/sex | 6.03 | 1 | 6.03 | .51 | |
| Error | 470.56 | 40 | 11.76 | | |

| 16. | Sum of Squares | df | Variance Estimate | F | Sig. |
|--------------------------------|----------------|----|-------------------|------|----------|
| losses 5 years | 83.88 | 1 | 83.88 | 9.79 | p < .01 |
| Past Life Satisfaction | 49.17 | 1 | 49.17 | 5.74 | p < .025 |
| Life Review | 48.75 | 1 | 48.75 | 5.69 | p < .025 |
| sex | 1.19 | 1 | 1.19 | .14 | |
| loss/life satis | 24.41 | 1 | 24.41 | 2.85 | |
| loss/review | 5.03 | 1 | 5.03 | .59 | |
| loss/sex | 2.06 | 1 | 2.06 | .24 | |
| life satis/ review | 73.37 | 1 | 73.37 | 8.56 | p < .01 |
| life satis/sex | .11 | 1 | .11 | .01 | |
| review/sex | 80.88 | 1 | 80.88 | 9.44 | p < .01 |
| loss/life satis/ review | 9.16 | 1 | 9.16 | 1.07 | |
| loss/life satis/ sex | 2.06 | 1 | 2.06 | .24 | |
| loss/review/sex | 1.06 | 1 | 1.06 | .12 | |
| life satis/ review/sex | 3.40 | 1 | 3.40 | .40 | |
| loss/life satis/ review/sex | .24 | 1 | .24 | .03 | |
| Error | 274.22 | 32 | 8.57 | | |

| 17. | Sum of Squares | df | Variance Estimate | F | Sig. |
|--------------------------------|----------------|----|-------------------|-------|----------|
| losses since 60 | 38.11 | 1 | 38.11 | 4.21 | p < .05 |
| Past Life Satisfaction | 74.45 | 1 | 74.45 | 8.23 | p < .01 |
| Life Review | 52.68 | 1 | 52.68 | 5.83 | p < .025 |
| sex | .65 | 1 | .65 | .07 | |
| loss/life satis. | 33.14 | 1 | 33.14 | 3.66 | |
| loss/review | 1.18 | 1 | 1.18 | .13 | |
| loss/sex | 16.66 | 1 | 16.66 | 1.84 | |
| life satis/ review | 78.41 | 1 | 78.41 | 8.67 | p < .01 |
| life satis/sex | 1.46 | 1 | 1.46 | .16 | |
| review/sex | 97.22 | 1 | 97.22 | 10.75 | p < .01 |
| loss/life satis./ review | 36.48 | 1 | 36.48 | 4.04 | |
| loss/life satis/ sex | 1.39 | 1 | 1.39 | .15 | |
| loss/review/sex | .07 | 1 | .07 | .01 | |
| life satis/review/ sex | 5.88 | 1 | 5.88 | .65 | |
| loss/life satis/ review/sex | .26 | 1 | .26 | .03 | |
| Error | 289.35 | 32 | 9.04 | | |

| 18. | Sum of Squares | df | Variance Estimate | F | Sig. |
|----------------|----------------|----|-------------------|-------|----------|
| losses 5 years | 223.00 | 2 | 111.5 | 17.15 | p < .001 |
| Att. convers. | 14.28 | 2 | 7.14 | 1.10 | |
| sex | 5.67 | 1 | 5.67 | .87 | |
| loss/att. | 127.06 | 4 | 31.77 | 4.89 | p < .01 |
| loss/sex | 71.13 | 2 | 35.57 | 5.47 | p < .01 |
| att/sex | 28.66 | 2 | 14.33 | 2.20 | |
| loss/att/sex | 56.16 | 4 | 14.04 | 2.16 | |
| Error | 195.00 | 30 | 6.50 | | |

| 19. | Sum of Squares | df | Variance Estimate | F | Sig. |
|-----------------|----------------|----|-------------------|-------|----------|
| losses since 60 | 230.91 | 2 | 115.46 | 15.40 | p < .001 |
| Att. convers. | 44.64 | 2 | 22.32 | 2.98 | |
| sex | .09 | 1 | .09 | .01 | |
| loss/att. | 47.81 | 4 | 11.95 | 1.60 | |
| loss/sex | 16.97 | 2 | 8.49 | 1.13 | |
| att/sex | 10.83 | 2 | 5.42 | .72 | |
| loss/att/sex | 75.31 | 4 | 18.83 | 2.51 | |
| Error | 224.88 | 30 | 7.49 | | |

| 20. | Sum of Squares | df | Variance Estimate | F | Sig. |
|--------------------|----------------|----|-------------------|-------|----------|
| losses 5 years | 198.37 | 2 | 99.19 | 13.00 | p < .001 |
| Past Att. convers. | 12.85 | 2 | 6.43 | .84 | |
| sex | .25 | 1 | .25 | .03 | |
| loss/past att. | 77.82 | 4 | 19.46 | 2.55 | |
| loss/sex | 65.07 | 2 | 32.54 | 4.26 | p < .025 |
| past att./sex | 37.53 | 2 | 18.77 | 2.46 | |
| loss/past att./sex | 57.30 | 4 | 14.33 | 1.88 | |
| Error | 228.83 | 30 | 7.63 | | |

| 21. | Sum of Squares | df | Variance Estimate | F | Sig. |
|--------------------|----------------|----|-------------------|-------|----------|
| losses since 60 | 229.45 | 2 | 114.73 | 13.28 | p < .001 |
| Past Att. convers. | 50.81 | 2 | 25.41 | 2.94 | |
| sex | .32 | 1 | .32 | .04 | |
| loss/past att. | 62.61 | 4 | 15.65 | 1.81 | |
| loss/sex | 17.63 | 2 | 8.82 | 1.02 | |
| past att./sex | 24.47 | 2 | 12.24 | 1.42 | |
| loss/past att./sex | 21.53 | 4 | 5.38 | .62 | |
| Error | 259.05 | 30 | 8.64 | | |

| 22. | Sum of Squares | df | Variance Estimate | F | Sig. |
|-----------------|----------------|----|-------------------|-------|----------|
| losses 5 years | 223.90 | 2 | 111.95 | 11.08 | p < .001 |
| Family convers. | 18.88 | 2 | 9.44 | .93 | |
| sex | 1.38 | 1 | 1.38 | .14 | |
| loss/family | 41.62 | 4 | 10.41 | 1.03 | |
| loss/sex | 81.05 | 2 | 40.53 | 4.01 | p < .05 |
| family/sex | 11.65 | 2 | 5.83 | .58 | |
| loss/family/sex | 30.98 | 4 | 7.75 | .77 | |
| Error | 303.08 | 30 | 10.10 | | |

| 23. | Sum of Squares | df | Variance Estimate | F | Sig. |
|-----------------|----------------|----|-------------------|-------|----------|
| losses since 60 | 333.17 | 2 | 166.59 | 16.69 | p < .001 |
| Family convers. | 4.96 | 2 | 2.48 | .25 | |
| sex | .00 | 1 | .00 | .00 | |
| loss/family | 24.64 | 4 | 6.16 | .62 | |
| loss/sex | 51.09 | 2 | 25.55 | 2.56 | |
| family/sex | 31.07 | 2 | 15.54 | 1.56 | |
| loss/family/sex | 27.15 | 4 | 6.79 | .68 | |
| Error | 299.45 | 30 | 9.98 | | |