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THE BIRTH OF THE FIRST GRANDCHILD:
A LONGITUDINAL STUDY OF THE TRANSITION TO GRANDPARENTHOOD

By
Cathleen Erin McGreal

A DISSERTATION

Submitted to
Michigan State University
in partial fulfillment of the requirements
for the degree of

DOCTOR OF PHILOSOPHY

Department of Psychology

1984

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ABSTRACT

THE BIRTH OF THE FIRST GRANDCHILD: A LONGITUDINAL STUDY OF THE TRANSITION TO GRANDPARENTHOOD

By

Cathleen Erin McGreal

This study examined grandparents' expectations for the grandparenting role before and after the birth of the first grandchild. The hypotheses investigated considered whether (1) the timing of this event has an impact on perceptions of the role; (2) feelings of biological renewal are stronger for maternal grandmothers and paternal grandfathers than for paternal grandmothers and maternal grandfathers; (3) there are sex differences in the anticipation of this role. Research questions addressed issues of age differences, lineage differences, grandparent-grandchild interactions during infancy and expectations for later interactions. Since previous research has attempted to differentiate four distinct grandparental role types, a replication of this research was performed.

One-hundred-forty-six expectant grandparents completed questionnaires about grandparenthood. Eighty-six percent of the subjects continued participation after the birth. In general, the sample was white, middle-class and well educated.

The results of the study suggested that: (1) timing influenced expectations for interactions with the grandchild but was not related to difficulty perceiving oneself as a grandparent; (2) the significance of biological renewal followed same-sexed lineage patterns prenatally but conflicting results were obtained after the birth; (3) women began anticipating the grandparental role earlier than men and reported expectations for involvement when assessed prenatally. Men were more distant from the role until after the birth.

Contrary to previous research, there were no age differences regarding styles of grandparenting. It is suggested that the developmental level of the grandchild is a more important determinant of grandparental style than the chronological age of the grandparent. Assumption of the grandparental role increased subjects' perceived age statuses. Maternal grandparents were more likely than paternal grandparents to see the grandchild first, but there were no lineage differences in terms of visits during infancy. Women were more likely to help the new family after the birth than were men.

Replication of four types of grandparents occurred as predicted but the types could not be predicted from life style variables before the grandchild's birth and were not consistent longitudinally. Statistical arguments are presented which suggest a need to reconsider the value of grandparental types.

THIS DISSERTATION IS DEDICATED TO
MY MOTHER
PATRICIA CAROL MCGREAL

AND

TO THE MEMORIES OF
JOSEPH EUGENE MCGREAL
CATHERINE MCGREAL
DE ESTA MCFARLAND

ACKNOWLEDGMENTS

I would like to thank the members of my dissertation committee, Dr. Hiram Fitzgerald, Dr. Ellen Strommen, Dr. Albert Rabin, and Dr. Jane Oyer for the support they gave me in conducting this research. I also would like to thank Dr. Elaine Donelson for her willingness to serve as a committee member during my oral defense. In particular, I wish to thank Hi Fitzgerald who served as the chairperson of my committee and as my advisor. Through the years of comps and courses, teaching and research, he has always been willing to answer the "one quick question" that I needed to ask. His assistance throughout my graduate career has always been appreciated though rarely acknowledged.

The statistical advice provided by Dr. John Hunter and by the statistical consultants in the Department of Education was greatly appreciated.

I also wish to express my gratitude to the Association for Shared Childbirth, the Expectant Parents' Organization and Lansing General Hospital for allowing me to attend their childbirth preparation classes in order to recruit subjects.

I appreciate the willingness of all the grandparents in my study to share their family experiences with me. After sharing their experiences as "expectant" grandparents I found myself eagerly scanning the birth announcements awaiting the births of their new family members.

I am grateful for having the opportunity to share my graduate years with Esther Dienstag. She is the sister I wanted throughout my childhood and finally found as an adult.

I wish to thank my family, Patty, Tim, Michael, Natalie, and Patrick McGreal for their love and encouragement. I also wish to thank the family I've grown to love and call my own, Bud, Gary, Gloria, Frances and Marilou Miller, Gloria and Dale Vertz, and Ann Moore.

Special thanks to my daughters, Erin and Kaiti. Without them my graduate career would have been shorter but not nearly as much fun! I thank them for the smiles and kisses that made the days of deleted computer files and lost data seem insignificant.

Finally, I want to express my special appreciation for the love and support provided by Kerry Miller. He has continued to be as "conscious of my development as he was of his own"! I thank him for sharing his life with me and look forward to all the "transitions" we have ahead of us.

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CHAPTER 1

INTRODUCTION

Statement of the Problem

Prior to this decade the grandparental role was one that generated considerable discussion but very little research. In 1980, Troll pointed out that there were less than a dozen studies in this area. Opinions on the subject have ranged from viewing the grandmother as a "pernicious influence" on grandchildren (Vollmer, 1937) to the notion that problems in families occur not because the family has lost its "moral fiber, " but because it has lost its grandmother (Mead, 1947). It is often suggested that since many roles are reduced or lost as a person ages, the grandparental role emerges as an important aspect of the aging person's life. Havighurst (1954), for example, states that it is the outstanding new role for older people and is often a source of great satisfaction. Richardson (1964, page 51) goes so far as to suggest that, "...being a grandparent can be a profession in itself. If wisely handled it can be the greatest happiness in the senior years." The purpose of the current study was to examine expectations for the grandparenting role before and after the birth of the first grandchild.

In order to gain an understanding of the significance of the grandparental role to first-time grandparents, the following hypotheses were addressed:

- (1) Parents who become grandparents "off-time" in terms of their expected time-table for this event have greater difficulty considering themselves as grandparents than do parents who become grandparents "on-schedule";
- (2) Feelings of biological renewal and continuity through the grandchild are stronger for maternal grandmothers and paternal grandfathers than for paternal grandmothers and paternal grandfathers;
- (3) Women begin to imagine themselves as grandparents at an earlier age than do men.

Since the topic of grandparenthood has received limited research attention, several exploratory research questions also were addressed:

- (1) Do grandparents of different chronological ages report different expectations for the role? Research on experienced grandparents suggested that older grandparents assume a more formal style of grandparenting than do younger grandparents (Neugarten and Weinstein, 1964). However, other evidence suggested that the developmental level of the grandchild has implications for appropriate grandparental styles (Kahana and Kahana, 1970b).

Since in the present study the ages of the grandparents vary but the grandchildren are of the same age, it is possible to assess whether differences are found for grandparents of different ages.

- (2) Does lineage affect expectations for grandparenting behaviors? Research has suggested that stronger relationships occur between maternal grandparents and their grandchildren than between paternal grandparents and their grandchildren (Kahana and Kahana, 1970a). Therefore, the interactions between maternal and paternal grandparents and their grandchildren were compared to assess differences in behaviors due to lineage.
- (3) Do grandparental expectations and interactions vary as a function of the grandparents' sex? It has been assumed that the grandparental role is a maternal role for men as well as for women (Boyd, 1969). However, men's attitudes concerning this role have received little attention.
- (4) Can four distinct grandparental role meaning types be distinguished before the birth of the first grandchild? Robertson (1977) suggested that there are four types of grandparents that vary in their interactions with grandchildren. Replication of this conceptualization is important before it is accepted as a reliable way to investigate the meaning of grandparenthood.

- (5) Can grandparental role meaning types be predicted from life style variables before the grandchild is born? Research on experienced grandmothers and great-grandmothers suggested that life style variables differ for different types of grandparents (Robertson, 1977). However, the significance levels used to determine these relationships were liberal. Therefore, investigation of whether life style variables do predict role meaning types (when traditional levels of significance are used) is warranted.
- (6) Do expectant grandparents anticipate engaging in the same behaviors that are actually performed by experienced grandparents?
- (7) What aspects of grandparenthood are considered to be the most and the least satisfying to men and women who have just assumed the grandparental role?

Through the answers to these research questions more detailed hypotheses can be generated concerning the transition to grandparenthood.

Review of the Literature

The purpose of this review is to evaluate the literature on the grandparental role and thus provide a framework for an investigation of the transition into grandparenthood. One difficulty in the literature on grandparenting has involved the definition of a grandparent. Presumably one might consider a grandparent as someone whose child has given birth to (or adopted) a child. However, Fischer (1983) points out that there are four meanings commonly ascribed to the term: (1) an older person; (2) a particular generation (e.g., a generation might be called the "grandparent" generation in order to make intergenerational comparisons when the "parent" generation consists of adults in their 40's or 50's some of whom are also grandparents); (3) prescribed behaviors; (4) a social status in society. Throughout this paper the term will be used as a "relational term", which is Fisher's alternative to the above definitions. Thus a person is considered to be a grandparent through a relationship with a grandchild.

Grandparents: An Historical Overview

Early theoretical articles on grandparenthood often stressed the influence of the grandparent on problems in child-rearing. Abraham (1913/1955) reported that in his psychoanalytic treatment of neurotics and psychotics a theme that many patients would continue to return to

involved their relationships with their grandparents. He reached the conclusion that "the special emphasis given to the grandfather or grandmother was always rooted in a violent rejection of the father or the mother (Abraham, 1913/1955, page 44). Ferenczi (1927) supported Abraham's interpretation of a "grandfather complex". Rappaport noted that the grandchild's identification with a grandparent rather than with a parent led to "patterns of distorted, even grotesque, behavior ..." (Rappaport, 1958, page 518).

Vollmer (1937) viewed the grandmother as a detrimental influence on grandchildren. He did not think that difficulties existed in particular grandmother-grandchild relationships due to the dynamics in the individual relationship. Instead he suggested that there is a problem in the very nature of the relationship: "The difficulty, then, arises not so much from the personality of the individual as from something inherent in being a grandmother" (Vollmer, 1937, page 379).

In an article entitled, "Grandma made Johnny delinquent", Strauss (1943) detailed the cases of two boys who had appeared in Juvenile Court. He explained how the cause of each boy's behavior problem could be explained from "a psychiatric point of view" involving the grandmothers. Bordon (1946) also discussed several cases in which she determined that the grandparents' involvement with the grandchild led to the behavior problems displayed

by the child. In particular, she perceived the mother-adult daughter relationship as having a central role in the behavioral problems of the child.

Although the majority of early articles concerning grandparenthood suggested that grandparents did have a negative influence on child development there were conflicting opinions. During the same time period, for example, there were those who suggested that grandmothers should be used to prevent children from spending too much time with other family members who could negatively affect the child's development. The child's father was sometimes viewed as one of the negative influences! VonHentig (1945-46) cited rules concerning the mental health of the unemployed given in the book Morale by Dr. George K. Pratt: "It has been said that 'stability and mental health of the family under present social conditions depend to a considerable degree on father's not being at home too much. Since the unemployed can not be asked to stay away from home all the time, the same appeasing effect will be produced by removing the children to the grandmother's home" (VonHentig, 1945-46, page 391). In this respect the grandmother was viewed as one who rescued the younger generation when unfortunate circumstances (such as those caused by the Depression and World War II) affect family life.

LaBarre, Jessner and Ussery (1960) reviewed forty-one cases of children who had received treatment in the

psychiatric unit of a university hospital. They found that the quality of the grandparent-grandchild relationship and the characteristics of the grandparent's personality were central in determining the role the grandparent played in the child's disturbance. Although negative influences on grandchildren such as those described above were found, the authors also indicated cases in which the presence of a grandmother exerted a positive influence on a grandchild.

In discussing the early literature on grandparenting Hader (1965) points out that it can be divided into authors who feel that the influence of a grandparent on a grandchild is negative and those who feel that this influence is positive. Hader argued that it is the absence of a relationship with a grandparent that is deleterious to child development. Actually the entire nature of this debate seems somewhat odd due to the vast differences between individuals performing the same role. For example, could one say that parental influence on a child is either negative or positive? The acceptance of this debate as a legitimate issue for discussion may have been due, therefore, to the assumption that the problems involved were inherent in grandparenthood regardless of individual personality development. Streib and Thompson (1960) noted that the studies in this area were based primarily on clinical populations and therefore generalization would not be possible without study of grandparent-grandchild

relationships in the general population. It has also been suggested that many of the early studies were not typical in that grandparents were acting as surrogate parents to their grandchildren which is not a typical grandparental role (Kahana and Kahana, 1971). Although there appears to have been no resolution of this matter, discussion of grandparents in terms of children's behavior problems gradually waned in the 1960's as more systematic investigations began to be pursued.

Despite the numerous theoretical opinions on grandparenthood, there were few early research investigations on the subject. Noting that much of the literature pertaining to grandparents involved clinical evidence, Staples and Smith (1954) conducted a study comparing how mothers and grandmothers actually interacted with grandchildren in a non-clinical population. The research questions concerned child rearing practices. It was hypothesized that grandmothers would be stricter and more authoritative than would mothers. Each mother had a child under the age of 12 living at home. Assessment was through the Wiley Scales for determining adult attitudes concerning child behaviors. These scales were used to obtain information on the women's attitudes toward general home standards, verbal standards, the amount of hostility that is considered appropriate to express, techniques for feeding and weaning children, approaches to thumbsucking

and toilet-training, information given regarding sex, sex-role differences in appropriate rearing, and responses to crying. The results confirmed the authors' hypothesis that grandmothers would be stricter. Grandmothers who lived in separate households scored more permissively than did those living with the grandchildren. Mothers and grandmothers with higher educational levels tended to be more permissive. There was a significant correlation between mother and daughter concerning these childrearing attitudes but only when they lived apart. The relationship between mothers' and daughters' attitudes was not significant when the women lived in the same household. Failure to find a relationship between the attitudes held by a woman and her daughter-in-law was not surprising. Recent research indicated that the attitudes of mother and grandmother were not related to whether they had joint or separate residences (Cohler and Grunebaum, 1981). However, the investigators pointed out that they did not use the same scale for measuring attitudes as was used by Staples and Smith (1954). Staples and Smith (1954) contributed to the understanding of grandparenthood by investigating the topic in a more objective manner than had been typical in the past.

Duvall (1954) studied the grandmother role in the context of a study on in-laws. Her method of studying grandparenthood, however, was one that could lead to a positive bias in terms of the perception of the role.

There were two procedures for collecting data. First, data were collected from 1,337 subjects concerning which in-law relationship they felt was the most difficult one, what made it difficult, and what in-laws did to contribute to family harmony. Second, the content of 3,683 letters from a national radio contest ("December Bride" show) were analyzed by two social scientists to determine the predominant responses of people to the question, "Why I think mothers-in-law are wonderful people". Thus, although both samples were large, there is a methodological problem due to the biased sampling procedures followed. One of the categories used to code responses was "Mother-in-law is the children's grandmother". This was the predominant sentiment for very few subjects (7 of the 1,337 and 48 of the 3,683). But many subjects mentioned this as a secondary topic especially in terms of indicating that in-laws could always be counted on to babysit their grandchildren. Duvall concluded that the responses in this area were so casual that the babysitting function of the grandmother was basically taken for granted by the young parents. Comments also showed that parents see grandparents as providing a fullness and breadth to a child's life that parents often don't provide. Parents viewed grandparents as those who could step in and rear the children in cases where the mother died. Very little

friction was indicated concerning the grandparent-parent-grandchild relationship but this would not be expected given the nature of data collection. The major contribution of this study does not appear to be in the results it obtained but rather in the research questions that Duvall proposed as a result of her findings. Among the questions she suggested for investigation were the following (many of which are currently being considered): "Just what is expected of grandmother in American families? Who is a good grandmother and what does she do?... How much do grandparents feel 'out in the cold' as far as satisfying interactions with other members of their families is concerned? In what kinds of families is respect for elders practiced? In what ways?...What roles may grandmothers play in the rearing of their grandchildren? Which are mutually satisfying and why? Which are stressful, and how may they be avoided?".

Research Investigations of Grandparenthood

Several of the questions posed by Duvall (1954) were investigated in a classic study conducted by Neugarten and Weinstein (1964). In this study 70 middle-class couples were studied to determine (1) their degree of comfort in the role; (2) the significance of the role to each person, and (3) the style with which each person enacted the role. The majority of the grandparents (59% of the grandmothers and 61% of the grandfathers) were found to express comfort

and pleasure in their role. Those who were not comfortable in the role seemed to indicate either that the role was foreign to their self-image, that they were in conflict with the parents over the grandchild, or that they were simply indifferent to any responsibility associated with the grandchildren. When determining the primary significance of grandparenthood for each subject, the authors found that the responses could be broken down into 5 categories: (1) Biological renewal and biological continuity with the future; (2) Emotional self fulfillment since the person can succeed in a new emotional role; (3) Acting in the role of a resource person; (4) Achieving vicariously through the grandchild; (5) Little significance attached to the role and the grandparent feels remote from the grandchildren.

Neugarten and Weinstein also differentiated five major styles of grandparenting: (1) Formal grandparents who have a constant interest in the grandchildren but maintain their proper roles; (2) Funseeking grandparents who are informal and playful in their relationships with grandchildren; (3) Surrogate parents who assume caretaking responsibilities for their grandchildren; (4) Grandparents who are considered to be the reservoir of family wisdom and who dispense special skills and resources; (5) Grandparents who are distant figures in the grandchildren's lives and who emerge for holidays but ordinarily have little contact with their grandchildren.

The formal, funseeking, and distant figure grandparents were found to be the most common styles. The formal style frequently occurred in those over age 65, whereas the funseeking and distant styles occurred more in younger grandparents (under age 65). Whether these differences were due to cohort effects, due to the age of the grandparent, or due to the ages of the grandchildren cannot be determined from these data. Crawford (1981) interviewed grandparents with 9-month-old grandchildren to determine which of these five styles would be endorsed. Once again the most common style endorsed by both grandfathers and grandmothers was that of the funseeker. But in contrast to the findings reported above (Neugarten and Weinstein, 1964), the style of teacher (similar to Neugarten and Weinstein's style of resource person) was the next most common style. The distant figure was the least common style.

Boyd (1969) studied four-generation families and reported the roles played by the grandparents. She hypothesized that the role that would be valued in today's society would be different from what a valued grandparental role was in the past. Furthermore she suggested that at the current time the grandparent role is one that is earned by the person rather than automatically acquired. Her results showed that the valued grandparent was a person who listened and was available but withheld advice until it was requested. Boyd (1969) described the grandparent as an

indulgent person. She also concluded that the grandparental role has changed in today's society by becoming one that is maternal (both for grandmothers and grandfathers) and it also has become an extended parent role rather than a surrogate parent role. By this she meant that the grandparent functioned in terms of extending help to the parents rather than substituting for them. Thus grandparenthood was viewed as a supplement to the role of parent rather than as a competing role.

Kahana and Coe (1969) investigated grandparents living in the community and those who were institutionalized to determine if the grandparent role takes on added importance as other roles are lost. Grandparents who still lived in the community met with their grandchildren more often and had longer visits with grandchildren than did the institutionalized group. Those grandparents in the community, however, evidently had higher expectations for involvement since 47% of them reported that their grandchildren did not have enough time for them as compared to only 26% of the institutionalized group who reported this. Fifty-nine percent of the institutionalized group reported that there was little importance in being a grandparent and that the role had little salience for them. In comparison, only 21% of the community sample felt this way. Care must be taken in interpreting these results since most older people are not institutionalized. It

could be that institutionalization does not lead to disengagement from social roles, but instead that another factor is involved in both (for example, if a person has had many conflicts with her/his adult children this may mean that there is no alternative to institutionalization and that there has been no opportunity to establish an affectionate relationship with a grandchild).

Information on the involvement of grandparents and their grandchildren has been obtained in research investigations that are concerned primarily with family relationships in later life rather than the grandparent-grandchild relationship in particular. In 1937, Morgan studied factors which contributed to the happiness of men and women who were receiving old age assistance. Forty-three percent of the subjects who had grandchildren reported seeing them very often. Many mentioned that helping out in the daily care of the grandchildren was one of their regular activities and that playing with grandchildren was a major form of recreation. Yet these grandparents did not seem to prefer a surrogate parent role. They felt the ideal arrangement was for an older person to live close enough to the children so that grandchildren could be seen frequently for "a little visit" but then the person had his or her own home and life to return to.

Research involving 252 family groups revealed that grandparents frequently developed family rituals that formed bonds with the grandchildren (Albrecht, 1962). Usually a couple was the center of the ritual rather than a single grandparent. Sussman (1954) found that family continuity was most frequently found when the young adults chose marriage partners from similar cultural, religious, educational and social-class backgrounds. In these cases the development and maintenance of family rituals such as those found by Albrecht (1962) was possible. The grandparents provided help to the young parents, usually in the form of major purchases (house, car) and in return expected to receive affection and "the right to exercise the grandparental role" (Sussman, 1954, page 120). Exactly what rights this entailed was not specified.

Research in other countries has investigated grandparental attitudes. These studies indicate that there is considerable variation in the role cross-culturally. Townsend (1957) found that older people in England preferred living close to their children but not in the same home. The grandparents reported a high level of interaction with grandchildren. Sixty-three percent of the grandmothers and 20% of the grandfathers cared for their grandchildren in some way on a regular basis. This care included taking children to the park, preparing meals, baby-sitting, picking them up from school, etc. Rosenmayer and Kockeis (1962), however, found a much lower level of

involvement with only 10% of the Viennese grandparents in their study seeing a grandchild daily and 24% seeing a grandchild on a weekly basis. Research conducted in collective settlements in Israel showed that as older members began to withdraw from occupations in the collective, relationships with the grandchildren became a primary concern, especially for women (Talmon-Garber, 1962). Olsen (1976) studied three-generational Taiwanese families. The grandmothers had stricter attitudes toward childrearing than did the mothers, but they were more indulgent in terms of grandchildren's behaviors. Differences were found between widowed and non-widowed grandmothers such that the widows were more involved in nurturant aspects of childcare and the non-widows had more impact on their daughters-in-laws childrearing attitudes.

Grandfathers

In the past, the role of men in family relationships often received limited attention by researchers and theorists. To shed more light on the role of the grandfather the significance of the role to men as well as to women was considered in this investigation. Less than a decade ago fathers were still being conceptualized as "forgotten contributors to child development" (Lamb, 1975). In recent years there has been a surge of interest in the role of fathers (for example, a bibliography on materials on fatherhood published in the United States

between 1975 and 1980 contains over 500 references! - see Price-Bonham, Pittman, and Welch, 1981). Currently, however, it appears that the "grandfather is a forgotten man in research on intergenerational relations (Hagestad and Speicher, 1981). Therefore, men's expectations for the grandparental role and their interactions with infant grandchildren were considered in the current study.

Clavan (1978) suggested that one reason grandfathers have been neglected by researchers can be attributed to the difficulties lower socio-economic middle-aged and older men have performing parenting activities. Furthermore, she suggested that by the time the grandfather retired and was able to devote time to grandparenting, the grandchildren no longer needed this type of extended parenting. Cavan (1962) suggested that men may have difficulty with the role at first because as a social role it seems maternal in nature. Boyd (1969) supported the view of a maternal role for grandfathers. However, Hagestad and Speicher (1981) argued that this assumption has not been tested.

Another assumption concerning grandfathers that remains to be tested is that men are proud of grandchildren when they are middle-aged grandfathers but that they don't savor the role until they have retired (Cavan, 1962). A study of older men living in rural areas, however, revealed that men who were working full time actually had a greater number of face-to-face contacts with their grandchildren

than did men who were working part-time or who were retired (Powers and Brubaker, 1977). Deutscher (1962), commenting on socialization for the postparental period, suggested that Americans are socialized to think that change is good which leads to a matter-of-fact acceptance of changes in the family. For example, he cited the following reaction of a father who was asked how it felt to become a grandfather: "like most things in my life, it's just a matter of course. Things can be expected, like you expect changes in jobs and expect children to be married. Natural events come afterward and you take those things as a matter of course" (Deutscher, 1962, page 511). Other writers, however, portray grandfatherhood in idealistic terms: "Why is it that when Mom comes into the room carrying the baby, the little tyke reaches out his arms for Grandpa to take him? Somehow or other he seems to feel the man's strength, and goes to him at once, snuggling contentedly in his arms without squirming or fussing, while his mother goes about her duties" (Richardson, 1964).

Vollmer (1937) considered the grandmother to be a major problem in raising healthy children but suggested that grandfathers do not cause problems in childrearing because they remain remote and do not get involved with grandchildren. Hence they cause no problems.

Anecdotal evidence suggested that men may show more active involvement with grandchildren than would be expected based on their interactions with their own

children. Fried and Stern (1948) interviewed 75 older persons in order to determine the situations with which aged family members must deal. Three women who reported that their husbands were more involved with grandchildren than they had ever been with their own children speculated that the grandfathers were attempting to provide the grandchildren with the attention that they had failed to give to their own children. Research conducted in England (Townsend, 1957) suggested that grandchildren become more important to men whose spouses have died. Although older men, in general, were less involved in regular care and activities with grandchildren than were grandmothers, several of those who were widowers expressed the fact that they derived extreme pleasure from the grandfather-grandchild relationship. One man remarked that "...Playing with my grandchildren is my greatest pleasure" , while another stated that, "I'm a grandfather and that's the only goodness I get out of life" (Townsend, 1957, page 174).

One of the few studies directly assessing the relationship between grandfathers and grandchildren was investigated from the point of view of the grandchildren. Pihlblad and Habenstein (1965) studied salient kinship patterns by asking high school seniors whether they knew their grandfathers' occupations. It was assumed that knowledge of the occupation meant a closer tie between grandfather and grandchild. Their sample was equally

composed of boys and girls; 10% of the subjects were black, 90% of the subjects were white. Although there were no sex differences in knowledge of grandfathers' occupations there were racial differences: 49% of the white students and 21% of the black students knew the occupations of both grandfathers; 32% of the white students and 29% of the black students knew the occupation of one grandfather; 19% of the white students and 50% of the black students did not know either grandfather's occupation. When the authors looked at which grandfather's occupation was known (when only one was reported) 61% of the white students knew the paternal grandfather's occupation whereas 70% of the blacks knew the maternal grandfather's occupation. Pihlblad and Habenstein also considered the social class of the students and found that knowledge of the occupation of one grandparent was not related to social class but that knowing the occupations of both grandfathers decreased from the high social class to the middle and then to the lower social class. The results of this study suggest that findings concerning lineage patterns have a strong likelihood of being influenced by race and thus the race of the sample should be considered when generalizing results.

Grandfathers have proven to be a difficult group to study even for those who have an interest in including them in studies of the family life cycle. Feldman, Biringen, and Nash (1981) assessed fluctuations in sex differences for several life stages: adolescents, single adults,

married-childless, expectant parents, young parents, mature parents, empty nesters and grandparents. Although most of their groups had a high acceptance rate for participation in the study (80-95%) the acceptance rate for the grandfathers was only 50%.

In the current study efforts were made to include enough men that an analysis of the significance of the grandfather role would be possible. In this way the assumption that women have a wider range of meaningful grandparental activities associated with their role than do men (Thompson and Streib, 1962) can be considered.

Biological Renewal:
A Significant Aspect of Grandparenthood?

"No one wants to be a footstep planted in the sand near the rushing sea, a footprint to be washed away into eternal waters, a sign seen for an instant and then erased forever" (B. K. Smith, 1973, page 27). Is the continuity of the family line through a grandchild viewed by grandparents as significant? In 1937, Morgan asked older individuals listed in Who's Who what they felt were the chief causes of unhappiness in the aged. A noted geneticist responded that lack of descendants led many to feel futile in old age. Benedek (1970) discussed the depression and frustration experienced by those whose married children did not have children. Based on her psychoanalysis of these cases she hypothesized that the reason for the depression may be "the wish to survive in

the grandchild" (Benedek, 1970, page 200). Results from a study on family relationships in which subjects were encouraged to free associate revealed that grandparents were "pleased to see their physical lives continued in their grandchildren, so to speak..." (Fried and Stern, 1948).

Neugarten and Weinstein (1964) reported that 42% of the grandmothers and 23% of the grandfathers in their study stressed biological renewal as of primary significance in being a grandparent. This finding suggested that biological renewal may be more important to women than to men. This view was supported by research by Crawford (1981) in which 42% of the women and 26% of the men who were interviewed when their first grandchild was 9-months-old stated that the most significant aspect of grandparenthood was biological renewal. However, in considering these data it is necessary to note that in both studies (Neugarten & Weinstein, 1964 and Crawford, 1981) more of the grandparental couples were maternal grandparents than paternal grandparents. In Neugarten and Weinstein's research 46 of the grandparental couples were maternal whereas 24 of the couples were related to the grandchild through their son. In Crawford's study 68 of the grandparents were maternal grandparents and only 39 were paternal grandparents. Furthermore, Crawford reported that 18 subjects were not asked the question about

biological renewal due to difficulties in the interview. Thus, the exact number of maternal and paternal grandparents responding to the question cannot be determined.

An alternate interpretation to the view that women emphasize the importance of biological renewal through the grandchildren more than do men would be that this significance is also affected by lineage. Since the samples in the studies by Neugarten and Weinstein (1964) and Crawford (1981) both consisted of more maternal grandparents than paternal grandparents the obtained sex differences may have been due to the fact that women perceived biological continuity through their daughters whereas men tended to view it as occurring through their sons. Research conducted with three generations of 148 families revealed that there were closer bonds between paternal grandfathers and their grandsons and between maternal grandmothers and their granddaughters (Hagestad and Speicher, 1981). Further support for this interpretation comes from the fact that similarity between one's children and one's grandchildren was indicated by 58% of the maternal grandmothers but only 20% of the paternal grandmothers in a study of family structure (Kahana and Kahana, 1969). This study also found that paternal grandfathers indicated more involvement with grandchildren than did maternal grandfathers. Results conflicting with those of Neugarten and Weinstein (1964) were found in a

study of grandparents with divorced children. It was reported that grandparents with divorced sons reported more feelings of continuity through their grandchildren than did the grandparents with divorced daughters (Kahana and Kahana, 1980). In the current study, perception of biological renewal and continuity of the family line were obtained from maternal and paternal grandparents in order to investigate this issue.

Whether other differences in the perception of grandparenthood also occur as a result of lineage was considered in the current study. Parsons (1943) suggested that the terminology used in American society to describe grandparents reflects the kinship structure. That is, whether one is on the paternal side of the family or on the maternal side of the family, the person is called a "grandparent". This lack of distinction in referring to lineage implies an equality between grandparents. Others, however, do suggest stronger relationships based on lineage (Kahana and Kahana, 1970a), especially between mothers and daughters (Kahana and Kahana, 1969).

The Grandparental Role

Breen (1960, page 158) pointed out that throughout people's lives they assume roles that "reflect the social judgments of the larger society within which the individual lives and acts". Roles have been defined as expectations that are associated with certain positions in society

(Wahl, 1968). A certain amount of flexibility is involved in the assumption of new roles. Donahue, Orbach, and Pollak (1960) noted that "a given role is characterized by a series of potentially varying interpretations of the appropriate role behavior from the different perspectives and behavioral sources of expectations of the others in the functional situations wherein the role is performed". Although some have suggested that American society has no social role for older individuals (eg, Clavan and Vatter, 1972) other authors (eg, Havighurst, 1954; Breen, 1960), have emphasized the grandparental role as appropriate in the later years. Although this role has usually been discussed as one of old age, the assumption of the role is usually a middle-aged occurrence as will be noted below.

Winch (1963) suggested that the grandparental role is one marked by ambivalence since people have both the satisfaction of being released from parental responsibility now that the children have become adults and yet they also must deal with the fact that they have begun their "declining years". Perhaps an even more salient reason suggesting ambivalence in this role would be the fact that there are not clear expectations for behaviors as a grandparent. Friedmann (1960), in a discussion of how role expectations have changed in the past century, pointed out that there has been a loss of functioning as an elder and as an instructor to the young. However, he also emphasized

the fact that a century ago there actually were few families that included a grandparent in their home. It has been noted that the functions involved in the grandparental role represent reductions from the parental functions since the grandparent is not expected to socialize the young children and in this respect the new role may not be valued as highly by society (Riley, Foner, Hess, and Toby, 1969).

Kahana and Kahana (1971) suggested that when the person has been able to shape the grandparental role, more enjoyment has been derived from it. This is a role, however, that is defined in many respects, by the young parents rather than the grandparent (Thompson and Streib, 1962; Robertson, 1975). If discrepancies are found between persons' conceptualization of the grandparental role and their actual role behaviors, therefore, it may be due to the range of behaviors considered appropriate by the grandchild's parents. In her study of widowhood, Lopata (1973) found that grandmothers who were close to their grandchildren usually had many opportunities to see the grandchildren alone, without the parents. The mediational role of the parents also may explain, in part, why involvement with friends has been found to be more closely related to life satisfaction in grandparents than has involvement with grandchildren (Wood and Robertson, 1976). The individual has more opportunity to shape the role of friend than the role of grandparent.

Grandparental Role-Meaning Types. The role of the grandparent has been examined in order to develop a typology of grandparents (Wood and Robertson, 1976; Robertson, 1977). Two dimensions were considered in this typology: a personal dimension (expectations toward grandparenthood that stem from personal forces) and a social dimension (expectations about grandparenthood that are determined by society). High and low scoring of each dimension led to 4 role-meaning types: Apportioned, Symbolic, Individualized, Remote. Robertson (1977) found that these role types could be predicted by various life style variables such as education and life satisfaction. Robertson's sample included grandmothers and great-grandmothers. Therefore, there was considerable variation in terms of subjects' experiences as grandmothers. Since Robertson stated that "Role meaning is a product of anticipatory socialization, and an individual assumes the grandparent role with a host of preconceived attitudes and expectations regarding the role" (Robertson, 1977, page 167), it was felt that a replication of Robertson's analysis using subjects assuming the grandparental role would yield information on the usefulness of her scale for other groups of grandparents. Therefore, an additional purpose of the current investigation was to replicate the factor analysis used to develop Robertson's typology and, if replicated, to determine if the grandparental role

meaning types could be predicted from life style variables before the birth of the first grandchild.

Robertson determined the four roles types through factor analytic techniques. After administering 20 Likert-type items to 125 grandmothers, a factor analysis was performed. From this initial pool of items, 12 items were found to be significant at the .05 level. Six items loaded high on Factor I which Robertson labelled the Social Dimension. The other six items loaded high on Factor II, which was called the Personal Dimension. Subjects were assigned scores for each of the 12 items creating a personal dimension score and a social dimension score. A mean split was used to dichotomize subjects into high scorers and low scorers for each dimension. Thus the four groups were created.

Robertson studied six life style variables (age of grandmother, education, number of grandchildren, satisfaction with life, friendship associations, and community associations) in order to see if the grandparental role meaning types were associated with particular life styles. One difficulty with this study has been the liberal setting of significance levels. Within the article each type of grandparent is described in terms of characteristic behaviors on each of these life style variables. Confidence in the value of these comparisons is lessened, however, when one considers the significance levels. Only two of the six variables, education and

satisfaction with life, would be considered significant at the traditional level of significance (probability = .05). Therefore, in the current study, conservative levels of significance were used to determine whether there were indeed, differences in life style variables among the four grandparental role meaning types.

In addition to her research on grandmothers, Robertson also collected information from 132 grandfathers in order to determine their role meaning types (Wood and Robertson, 1976). Once the men were divided into four groups their scores on several life style variables were combined with the grandmothers' scores reported above. For the entire group of grandparents four variables were found to be significantly different: the person's age, his or her educational level, the number of grandchildren, and the number of activities the grandparent engaged in with the grandchildren. However, it is difficult to evaluate these data due to the fact that levels for determining the significance of these variables were not reported.

Grandparental Role Behaviors. One of the research questions addressed in the current study concerned whether expectant grandparents anticipated engaging in the behaviors that experienced grandparents perform. Robertson (1977) studied role behaviors which grandmothers reported engaging in with grandchildren. The behaviors that the majority of the experienced grandmothers reported included

providing gifts, babysitting the grandchild, engaging in home-recreational activities and dropping in to visit the grandchild. A comparison was made to determine whether expectant grandparents anticipated engaging in these behaviors.

The Timing of First Grandparenthood

Another aspect of grandparenthood to be considered concerns when a person becomes a grandparent. It was hypothesized that the timing of grandparenthood influences persons' reactions to this event. In particular, parents who become grandparents "off-time" were hypothesized to have greater difficulty assuming this role. In determining the significance of grandparenthood, Neugarten and Weinstein (1964) found that 27% of the grandmothers and 29% of the grandfathers attached little significance to the role. Research would be useful to determine whether this remoteness is due to role strain (as may occur, for example, if someone becomes a grandparent at an earlier age than had been anticipated) or if it evolved after conflicts with the parents and nonrewarding interactions with the grandchild.

It has been noted that American society has definite expectations that are based on chronological age for the assumption of roles (Tibbitts, 1960; Neugarten and Datan, 1973). Neugarten, Moore and Lowe (1965) called this a "prescriptive timetable for the ordering of major life

events". Individuals in our society are aware of whether they are early, on-time, or late in regard to this timetable (Neugarten and Datan, 1973). In research conducted with a middle-aged sample, subjects reported that the best ages to become grandparents were from 45 to 50 years of age (Neugarten, Moore and Lowe, 1965). Other writers have speculated that these ages are actually too early to assume this role. Cavan (1962) suggested that grandparent self-conceptions become part of people's personalities when the persons reach their 50's and early 60's. Waller and Hill (1951) felt that when parents are in their late 40's they may still consider the role inappropriate and resist it because it is an overt sign of their chronological maturity. It also has been noted that the current middle-aged cohort is overcommitted in terms of roles (Hess and Waring, 1978) which may also have an effect on their feelings toward assuming another role.

However, life events, rather than chronological age, may be the relevant factors in terms of a person's expectations for timing of grandparenthood. Neugarten and Weinstein (1964) suggested that there is a preparatory period for grandparenthood that occurs (especially for women) before children are married. During this time people begin to visualize themselves as grandparents. Mead (1970) also considered the marriage of one's child to be a key time to begin conceptualizing oneself as a grandparent. She pointed out that at that time one becomes aware of the

new elements that will be brought into the line of descent through the daughter- or son-in-law. Richardson (1964) stated that a joy to many parents at the marriage of their children is the anticipation of grandchildren.

The concept of an expected life-history (Bortner, 1978/79) is useful in considering the significance of the timing of grandparenthood. An expected life-history is a scenario that most adults develop concerning their expectations for the future. Some people may have a very general expected life-history while others have a minutely detailed plan for the future. Culture, social class, family background, career and individual family events all may play a role in the development of the expected life-history. Family life histories are, by their very nature, intertwined. A child has tremendous impact on the lives of the parents. The parents envision a life-history for their children. One part of this scenario for one's children's future would most likely include marriage and children. This, in turn, makes grandchildren part of the expected life-history of the parents. As family life cycle changes take place many parents may find that they do not become grandparents at the time they anticipated in their expected life-histories. It would be useful to determine when parents begin to imagine themselves as grandparents to clarify issues involved in the timing of becoming a grandparent.

F. Cottrell (1960) discussed family obligations in low-energy versus high-energy societies. A low energy society was defined as one that secured its energy from plants, animals and humans (less than 5 horsepower-hours per day per person). A high energy society used the above sources of energy plus additional sources (more than 5 horsepower-hours per day per person). Cottrell pointed out that in low-energy societies decisions concerning conception do not belong exclusively to the husband and wife. In some societies a woman may not be accepted as a member of a man's family until she has already borne his child (and in some cases the child must be a male!). Other groups require young couples to practice sexual intercourse taboos and infanticide in order to decrease fertility during periods when the older family members decide that there are already enough people attempting to live off the land. In high-energy, technological societies, however, older parents no longer can determine when a couple has children and how many they will have. Furthermore, the younger generation has come to expect complete fertility control due to technological advances in contraception (Poston and Gotard, 1977). Thus, in American society, the timing of grandparenthood is out of the control of the grandparents themselves.

When the timing of grandparenthood does not occur according to society's timetable or within the bounds of the person's expected life history, there may be more

difficulty for the person assuming this role. When an event occurs earlier than is anticipated then one is out of phase (Schneidman, 1967) and the ability to derive satisfaction from the role may be reduced. Late assumption of the role also may cause difficulties especially if the person no longer has the health to perform those role behaviors that had been anticipated as part of the grandparental role.

Changes in the family life cycle reveal that there are discontinuities from one generation to the next. These changes may make it difficult to anticipate when various life events will occur. Two striking achievements of civilization have been the lengthening of the family life cycle and the changes to the adult life cycle (Tibbitts, 1965). By reviewing what changes the family life cycle has undergone in this century it may be possible to determine what expectations individuals may have formed concerning their futures. Of particular interest are the marriage and birth patterns during the 1950's because today's grandparents may have formed their expectations during these years as they were becoming parents. Glick (1955, 1977) found several trends in the family life cycle that have implications for older members of the family. In reviewing the time period from 1880 to 1950, Glick found that the average median age at first marriage for women was 20.9 years. The lowest level was found during the 1950's

when the median age was 20.0 years. Men's ages at first marriage declined from 25.4 years of age in 1880 to 23.6 years in 1950. Those marrying in the 1950's, therefore, were marrying earlier than the generations before them. In addition to earlier marriages, couples of this decade also had a shorter interval between marriage and the birth of the first child. The median age of a woman giving birth to her first child has ranged from 21.5 years in the 1950's to 23.5 years in the 1930's. Women during the 1950's not only had their first child earlier, they also stopped having children earlier than had the generations before them. In fact, Glick estimated that half of these women had borne their last child by the time they were 26-years-old. This reduction in the span of the childbearing years has made family roles more distinct. That is, the likelihood that a person would become a grandparent while still parenting young children has been greatly reduced. In this respect the grandparent role has become more distinct.

Longer life expectancies and changes in the family life cycle indicate a longer postparental period for many couples (Glick, 1955, 1977). The average married couple in 1890 did not survive jointly to see their last child married. By 1950 the average couple could expect 41 years of married life before one died (as compared to 31 years in 1890) and the last 14 of these years would be postparental years when the couple is once again alone. These postparental years represent the possibility of extended

grandparent-grandchild interactions which were not possible a century ago. In fact, Hareven (1977) noted that it has only been in the twentieth century that this meaningful overlap in the lives of grandparents and their grandchildren has occurred. Those who have considered this "empty nest" period as a time of strain for the couple have suggested that grandparenthood eases the strain (Blau, 1973). However, the strain of this period is questionable. Treas and Bengtson (1982) stated that these postparental years may be viewed in a more positive manner than in the past due to the increased affluence in American society. Today, parents may be relieved because they have lost a dependent; in the past parents often lost a contributor to the family's income (whether in terms of actual earnings or as a source of farm labor) when a child left. This positive view of the postparental years has been supported by research on marital satisfaction during this period. After reviewing studies on the relationship between marital satisfaction and family transitions, Rollins and Galligan (1978, page 81) concluded that "general marital satisfaction decreases during marriage simultaneously with the arrival and development of the oldest child in the family until about adolescence, and then as children mature and leave home, it increases".

Changes in the family life cycle affect roles older people can assume. These life cycle changes occur quickly

when compared to the changes in societal values. Habits and values are slow to change which places large numbers of people in ambiguous positions. This is the case with many older people of today (Tibbitts, 1965). Havighurst (1954) pointed out that appropriate roles change with age. As some roles are reduced (for example: parent, spouse, employee) other roles are intensified (for example: citizen, neighbor, friend). Role categorizations by age are useful to a society in that they "perform an 'integrative function' to the extent that they lend continuity through the recruitment and training of younger persons in the major institutional roles to which they will succeed" (Friedmann, 1960, page 121). Yet in our discontinuous society these role categorizations may not be applicable to many individuals. This places these individuals in a difficult situation since society has a lag in providing alternate role expectations. According to Tibbitts (1960), middle age and old age are both functions determined, in part, by how society defines age itself and by the assignment of various roles to different age categories. A traditional role assigned to older people has often been that of grandparent but the timing of this role is dependent on changes in the family life cycle. Although it has been predicted that the 4 and 5 generation family will become the norm by the year 2000 (Beattie, 1975) it seems that there may actually be many alternate family styles by that year due to the increased acceptance

of delayed parenthood. Considerable variation in timing of the transition to grandparenthood was expected in the current study due to present trends which have shown an increase in the median age at first marriage and an increase in the number of first births to women in their late 20's and 30's (O'Rand and Henretta, 1982).

Research on the timing of grandparenthood has been conducted in an indirect manner in the context of adolescent pregnancy. Bacon (1974) discussed the stressful effects of accelerated role transitions in terms of teenage mothers who deviated from the prescribed timetable for becoming a parent. This event also would lead to accelerated transition to grandparenthood on the part of the adolescent's parents since it is at variance with society's norms and probably with the person's expected life history.

According to Neugarten and Datan (1973, page 62) age deviancy in terms of being "off-time" is "always of psychological significance to the individual". Few studies in this area focus directly on the grandparents. Mothers have been shown to react to their teenage daughter's pregnancy as a crisis which indicates their own inadequacy as parents (Bryan-Logan and Dancy, 1974). The mothers usually are themselves young and have begun to anticipate freedom from the responsibilities of their own children (E. W. Smith, 1975). When the baby is born there is often

conflict because the adolescent mother does not assume full responsibility of the baby, leaving the grandmother in the position where it is inappropriate to assume the traditional mother role or the traditional grandmother role (Bryan-Logan and Dancy, 1974). The grandmother role is not welcomed because it means the assumption of more responsibility for her child and grandchild, as well as implying her own aging process (Smith, 1975).

Research in this area has emphasized the assumption of the grandmother role by the maternal grandmother because she has traditionally provided the familial support to the adolescent mother who is unmarried. Comparable research on the grandfather and the paternal grandparents has not been conducted. The timing of grandparenthood in terms of late transition to the role also has not been a focus of research.

Grandparenthood: A Middle-Aged Transition

The transition to grandparenthood is usually a middle-aged occurrence. However, as Troll (1971, page 276) pointed out, when the focus has been on the nuclear family "all grandparents tend to be described as old". The stereotype of a grandparent is often of a person who is out of the mainstream of contemporary life and out-of-date (Mead, 1966). Even when they do appear in children's literature and films they are generally one-dimensional characters (Davis, 1977). In contrast to this stereotype

of an aged person, most parents become grandparents long before they are aged. In pointing out the differences between the stereotypical grandmother and a more accurate version Brandt (1968, page 26) emphasized that the role is "one of the rich bonuses of middle age".

Borland (1978) cited a need for research which focuses on middle age. In particular she suggested that research should be designed to determine the "biological, psychological, and social transition points in the adult years where middle age begins and ends" (Borland, 1978). In discussing the awareness of middle age, Neugarten (1968) suggested that women defined their status in terms of family events whereas men used career and health events in their definitions of middle age. Although commonly considered a role of the aged, becoming a grandparent may actually be one of these transition points which emphasizes a beginning to middle age. It has been noted that the birth of the first grandchild denotes another social age with accompanying alterations in relationships with others (Neugarten and Datan, 1973). Therefore, in the current investigation the subject's perceptions of age status was assessed before and after the birth of the first grandchild.

Tibbitts (1965) pointed out that in many other societies there were only 3 stages in life: childhood, adulthood and old age. Today, he suggests, there are two

additional stages that have been inserted before old age: middle age and late maturity. Neugarten and Datan (1973) pointed out how historical changes such as the delineation of a stage of middle age directly influences the life cycle of the individual. Jackson (1974) studied the perceptions of middle age as held by adults between 75 and 85 years of age. It was found that 66% felt that middle age occurred from 40 to 50 with women's responses clustering at the younger end of the range. Drevenstedt (1976), however, found in a sample of senior citizens and university students that women tended to judge the transition to middle-age as occurring later than did men.

Given the ambiguity that exists utilizing only chronological age as a means of classification, it may be useful to also consider the roles that the person is currently enacting in order to determine their perception of their own age classification.

Objective of the Study

The objective of this study was to examine the impact of grandparenthood on grandparents at the time of their transition to grandparenthood. In order to assess this transition comparisons were made in prenatal and postnatal conceptualizations of grandparenthood among first-time grandparents. The following hypotheses were investigated:

- Hypothesis 1. Individuals who become grandparents "off-time", will have greater difficulty considering themselves as grandparents than those individual becoming grandparents "on-schedule".
- Hypothesis 2. Feelings of biological renewal will be indicated more strongly for maternal grandmothers and for paternal grandfathers than for paternal grandmothers and for maternal grandfathers.
- Hypothesis 3. Women begin to imagine themselves as grandparents at an earlier age than do men.

In addition, the following research questions were addressed:

1. Are there age differences in terms of response to grandparenthood such that those of different ages report different expectations? Although some researchers have found that age of the grandparents affects their grandparenting roles (eg, Robertson, 1977), others have suggested that the age differences may be a result of the developmental level of the grandchild (Kahana and Kahana, 1970b). These contrasting views can be compared by assessing whether age differences exist before the first grandchild's birth.
2. Are there lineage differences in expectations for grandparenting behaviors and in the significance of grandparenthood? Anecdotal evidence suggests that maternal grandparents have priority over the paternal grandparents in caring for the new parents and grandchild. Whether there is more information flow through the maternal side also will be investigated.
3. Are there sex differences in regard to expectations for grandparenthood? Anecdotal evidence would suggest differences in terms of whether grandfathers and grandmothers plan to help out at the time of birth.

Whether men and women are equally likely to be aware of their children's plans for a family also will be explored.

4. Can four distinct grandparental role meaning types be distinguished through a replication of Robertson's (1977) factor analytic techniques?
5. If the above replication occurs as predicted, can the grandparental role meaning types be predicted from life style variables before the birth of the first grandchild?
6. Do expectant grandparents anticipate engaging in role behaviors that experienced grandparents report engaging in?
7. What aspects of grandparenthood are considered the most satisfying after the first grandchild's birth? What aspects are considered to be the least satisfying?

Since the topic of grandparenthood has received limited research attention, several aspects of this research are exploratory in nature. It is hoped that by addressing these issues, it will be possible to generate further hypotheses concerning the grandparental role.

CHAPTER 2

METHODS

Subject Recruitment

Due to the need to obtain subjects who were in the process of becoming grandparents, the majority of subjects were recruited from childbirth preparation classes. The Association for Shared Childbirth and the Expectant Parents' Organization allowed the investigator to attend their prenatal classes. After the study was explained to the expectant parents they were requested to provide the names and addresses of their parents. The expectant parents were assured that the involvement of their own parents in the study would be strictly voluntary. If an address was provided then a questionnaire was mailed to the expectant grandparents with a letter inviting them to participate.

Other participants were recruited from a newspaper article describing the study. Readers made telephone contact with the the department of psychology. They were then contacted by the investigator who explained the study, and if they were still interested, mailed them a questionnaire. Finally, business-reply postcards were placed in the obstetricians' offices so that pregnant women

could pass them on to their parents or in-laws. When a postcard was received the expectant grandparents were mailed a letter inviting them to participate in the study. Samples of the letters mailed to prospective subjects can be found in Appendix A. Informed consent forms (also found in Appendix A) were mailed to and returned by subjects with their questionnaires in business-reply envelopes.

Subjects

Full Sample. Sixty-seven percent of the 218 expectant grandparents invited to participate in the study agreed to do so. The Full Sample included 146 parents (66 men, 80 women) whose adult children were expecting the first grandchild. Subjects ranged in age from 27- to 77-years-old ($\bar{x} = 53$). 90% were married, 7% were divorced, and 1% were widowed (2% of the subjects did not answer this question). Six of the subjects were becoming step-grandparents. There was considerable variation in the ages of the subjects' children. In fact, some of the expectant parents (ages 17 to 39) were older than some of the expectant grandparents in the study! The majority of grandparents (80%) reported a family income of over \$20,000. The average level of education was 14 years (range: 8 to 20 years, mode: 12 years). There were 80 maternal grandparents, 63 paternal grandparents, and 3 grandparents who would soon become maternal and paternal grandparents.

Selected Sample. In several cases it was deemed appropriate to utilize a subsample of the subjects for statistical analysis. This subsample (referred to hereafter as the Selected Sample) consisted of 132 respondents. Excluded from the Selected Sample were: those who lived outside the United States; those who were becoming grandparents through a step-child; those whose children - the expectant parents - were single at the time the grandparent was contacted. The expectant grandfathers in the Selected Sample ($n = 61$) ranged in age from 40- to 77-years-old ($\bar{x} = 53$ years). Ages of the expectant grandmothers ($n = 71$) ranged from 37 to 71 years ($\bar{x} = 53$). Twenty-eight of the men and 30 of the women were becoming paternal grandparents; 32 of the men and 40 of the women were becoming maternal grandparents. One couple reported that since a son and a daughter both were expecting children at the same time they were about to become maternal and paternal grandparents. The number of children in the subjects' families ranged from 1 to 8 ($\bar{x} = 3.1$; mode = 3.0). Their youngest children ranged in age from 12 to 36 years ($\bar{x} = 22$); age of the oldest child ranged from 20 to 40 years ($\bar{x} = 28.2$). Women's ages at the time of marriage ranged from 14 to 38 years ($\bar{x} = 21.8$; mode = 19); men's ages at marriage ranged from 18 to 34 years ($\bar{x} = 23.9$; mode = 23). Ages at the time of the birth of the first child ranged from 16 to 39 years for the women ($\bar{x} =$

24.4) and from 19 to 44 years for the men ($\bar{x}$ = 26.2). There was also considerable variation in terms of the educational level of the subjects. The highest grade completed by the women ranged from 9 to 20 ($\bar{x}$ = 13.8; mode = 12); the highest grade completed by the men ranged from 8 to 20 ($\bar{x}$ = 14.8; mode = 12). Of the 129 subjects who provided information on their families' income the majority reported incomes over \$20,000. per year whereas only 15.5% earned less than \$20,000. The majority of the subjects reported that they were white (n = 100), 2 were black, 1 was hispanic, and 4 reported other racial or ethnic categories (e.g., American). Twenty-five subjects declined to respond to this question.

Longitudinal Full Sample. Subjects who completed a prenatal questionnaire were mailed a letter and a postnatal questionnaire requesting their continued participation after the birth of their first grandchild. Eighty-six percent of the subjects in the Full Sample continued participation in the project by returning the postnatal questionnaire. (One grandmother indicated that her grandchild was stillborn and that was the reason she was dropping out of the study). These 126 subjects are referred to as the Longitudinal Full Sample. This group of 70 grandmothers and 56 grandfathers ranged in age from 27 to 77 years ($\bar{x}$ = 54). Of these, 120 were white, 1 was black, 1 was hispanic, 2 were oriental and 1 reported other racial categories (1 declined to answer). A more detailed

assessment of subject income was obtained on the postnatal questionnaire than on the prenatal questionnaire. It revealed the following income distribution:

Under \$5,000	n = 4	3.2%
\$5,000 - \$10,000	n = 1	.8%
\$10,000 - \$15,000	n = 9	7.1%
\$15,000 - \$20,000	n = 7	5.6%
\$20,000 - \$25,000	n = 12	9.5%
\$25,000 - \$30,000	n = 20	15.9%
\$30,000 - \$35,000	n = 16	12.7%
\$35,000 - \$40,000	n = 15	11.9%
Over \$40,000	n = 34	27.0%
No Response	n = 8	6.3%

All but one of the grandparents indicated their current marital status: 114 were married; 8 were divorced; 2 were widowed; 1 was separated. Most of the grandparents indicated that the parents of their grandchild were married (n = 123); one indicated that the parent was single; one indicated that the grandchild's parents had an "Other" type of relationship; one grandparent declined to answer this question.

The grandchildren of the subjects in the study were born between the summer of 1982 and the summer of 1983.

Subjects were once again asked how far they lived from their grandchild. It was found that 3.2% lived in the same

household, 4.8% lived within walking distance, 56.3% lived within daily driving distance, 27% lived over 100 miles away and 7.9% lived over 1,000 miles away.

Longitudinal Selected Sample. A Longitudinal Selected Sample (LSS) was formed by excluding from the Longitudinal Full Sample those subjects who lived outside the United States, those who were step-grandparents, and those who reported that the parent of their grandchild was single. The 117 subjects comprising this sample were 52 men and 65 women. They ranged in age from 37 to 77 ($\bar{x} = 54$). 90.6% were married, 6% were divorced; 1.7% were widowed, and .9% were separated (.9% declined to answer). No grandparent in the LSS reported a grandchild living in the same household, 5.1% lived within walking distance, 59.8% lived within daily driving distance, 28.2% lived over 100 miles away and 6.0% lived over 1,000 miles away.

Instruments

Research was conducted through paper-and-pencil questionnaires (see Appendix B for sample questionnaires). Although most of the expectant parents lived within the immediate vicinity it was anticipated that many grandparents might live at distances that would make interviews difficult. This indeed proved to be the case as indicated in the description of subjects above.

The questionnaire was constructed using items based on: themes of biological renewal, serving as a resource

person, emotional self-fulfillment, achieving vicariously through a grandchild, and remoteness from the grandparental role (based on Neugarten and Weinstein's categorization of the significance of the role); themes concerning formal, fun-seeking, surrogate-parent, reservoir of family wisdom and distant styles of grandparenting (based on those described by Neugarten and Weinstein, 1964); the personal and social dimensions of grandparental role meaning (items constructed by Robertson, 1977). Assessment of the importance of daily involvement with the grandchild was based on questions devised by Kornhaber and Woodward (1981). These items were presented in a multiple-choice format in which the subject indicated degree of agreement or disagreement on a four-point scale. Original questions were developed based on anecdotal evidence in the literature and from interviews with grandparents and expectant grandparents about intergenerational relationships (see Appendix C for keys to prenatal and postnatal questionnaires). These open-ended questions were designed to elicit information to be used in generating future hypotheses and in revising the questionnaire for future studies. This section also was intended to provide information that might be salient at the time of the transition to grandparenthood but which might not have been expressed by participants in previous studies who were already accustomed to the grandparental role.

Data Coding

Methods of coding the fixed response data were decided upon before the questionnaires were printed and computer coding information was then placed on each questionnaire. Changes were made when the questionnaires were returned, however, due to the manner in which many subjects answered questions 40 to 51 which requested age norms for various roles. Instead of giving a particular age many subjects listed an age range. In part, this may have been due to the presence of the computer column coding beside each question. For example, Question 40 asked the subject to fill in the best age to become a father and near the question were the numbers "(52-53)" indicating the columns this question referred to on the computer. Subjects may have used this information as an indication that a range was to be given. Therefore, the computer codebook was revised to allow 4 columns for each of these questions replacing the coding on the questionnaires. The revised computer codebooks are found in Appendix D. These codebooks also provide a key showing how each fixed response was coded for each item, and the method used for coding missing data.

Babbie (1973) suggested that when the researcher is not sure of the variety of responses that an open ended question will produce the coding scheme can be devised after the questionnaire has been given. This is done by preparing a list of the first responses, reviewing the

list, and then deciding on the kinds of categories that are appropriate based not only on the aims of the questionnaire but on the nature of the responses themselves. Therefore, in order to categorize the open ended data all the responses to an individual item were transcribed so that patterns in responses would be easier to detect. In categorizing the prenatal data two experimenters developed a classification system independently and then the systems were combined and duplications eliminated. Two raters then categorized each response according to the classification system. The statistic, kappa, was used to assess the reliability. Those categories that led to lower reliabilities were redefined for each question and a second classification system was developed. Three raters then categorized each response for every question and three kappa statistics were determined. Those questions for which the mean reliability between the raters remained below .7 after the revision were not categorized.

In categorizing the postnatal data the investigator formed a classification system and 3 raters categorized the responses of the first 98 postnatal questionnaires that were returned. The classification of questions for which the mean reliability was below .7 was then redone in an attempt to reduce the ambiguity between categories. Reliabilities between 3 raters were once again obtained and

only those above .7 were categorized. The prenatal and postnatal reliabilities are located in Appendix E.

Any open-ended questions that did not lead to a mutually exclusive category system were summarized.

Prenatal data were coded from the questionnaires onto coding sheets by the experimenter and then professionally key punched onto cards. Random spot checks revealed no errors. Postnatal data were coded on the questionnaires by the investigator and transcribed onto coding sheets by an undergraduate research assistant. It was then entered into the computer interactively by two research assistants. Random spot checks of 20% of the subjects revealed approximately one error per subject. Therefore, the responses of every postnatal questionnaire were compared to the responses on the computer and corrections were made.

Analyses

The chi square statistic was chosen as the appropriate statistical test for the open-ended questions because the variables were categorical (Runyon and Haber, 1972). Since the chi square statistic requires a mutually exclusive category system (Hays, 1973, page 719), the classification scheme used for coding the open-ended questions allowed a subject's response to fall into one and only one category. A second assumption for appropriate use of the chi square test is that "the outcomes for the N respective observations in the sample are independent" (Hays, 1973).

Therefore, chi square analyses were performed only in those situations in which each response could be categorized independent of the other responses (e.g., this statistic was not used in repeated measures involving the same subject so that only one entry appeared per subject in the joint frequency table). The final assumption, the requirement that the number of subjects in the sample be large, has been called, "the stickiest question of all..." in chi square tests for association. Since statisticians do not agree on what constitutes a large enough sample size the conservative position advocated by Hays was used as a standard in this study:

"...we will simply state a rule that is at least current, fairly widely endorsed, and generally conservative. For tables with more than a single degree of freedom, a minimum expected frequency of 5 can be regarded as adequate, although when there is only a single degree of freedom a minimum expected frequency of 10 is much safer. This rule-of-thumb is ordinarily conservative, however, and circumstances may arise where smaller expected frequencies can be tolerated. In particular, if the number of degrees of freedom is large, then it is fairly safe to use the chi square test for association even if the minimum expected frequency is as small as 1, provided that there are only a few cells with small expected frequencies (such as one out of five or fewer)" (Hays, 1973, page 736).

By following this standard, the chi square analyses reported in this study were based only on the major classifications for each question; the most frequent result was the elimination of the "Other" category in these analyses. Table 1 illustrates why this was necessary. It can be seen that expected frequencies are adequate except

in the final category, "Other person". Although these low frequency categories are informative in a descriptive sense their inclusion in a statistical test of significance would result in a high level of significance that would not reflect a real difference. Although it is not unusual to pool categories in order to increase the expected frequency per cell this procedure was not followed since:

"The whole rationale for the chi square approximation rests on the randomness of the sample, and that the categories into which observations may fall are chosen in advance. When one starts pooling the categories after the data are seen, he is doing something to the randomness of the sample, with unknown consequences for his inferences. The manner in which categories are pooled can have an important effect on the inferences one draws" (Hays, 1973, page 736).

Table 1: Joint Frequency Table. Illustration of expected frequencies per cell. Question: Who told you that you would be a grandparent?

Category Label	Sex		Total
	Male	Female	
Father-to-be	13 (11)	12 (14)	25
Mother-to-be	23 (27)	37 (33)	60
Both expectant parents	13 (15)	20 (18)	33
Spouse	9 (5)	1 (6)	10
Other person	1 (1)	1 (1)	2
	59	71	130

Note: Expected frequency, reported in parentheses is determined by multiplying column frequency times row frequency divided by the total number of subjects. Full Sample.

In those analyses in which there was only 1 degree of freedom Yates' corrected chi square was used. Hays (1973, pages 724-725) points out that this correction improves the Pearson chi square test. In this correction "the absolute value of the difference between observed and expected frequencies is reduced by .5 for each category before the squaring is carried out" (Hays, 1973, page 725). For example, in an analysis to determine whether there were sex differences in regard to whether the expectant parents had discussed the grandchild's name with the grandparent, the raw chi square = 9.42. After the Yates' correction, the corrected chi square = 8.34.

Multivariate analysis of variance techniques were used to examine the forced-choice questions. Cluster analysis (PACKAGE program developed by John Hunter) reduced the number of dependent variables from 31 to 9. In order to determine a cluster score each item was weighted according to its loading on the cluster. For example, 5 items contributed to the "Advisor" cluster. Their loadings on the cluster were: Q22: 61; Q19: 59; Q9: 50; Q26: 44; Q2: 38. The sum of the loadings on this cluster was 252. Therefore, each loading was divided by 252 in order to determine its weighting (eg, $61/252 = .24$). The equation used to produce a score on the Advisor cluster for each individual was therefore:

$$(.24)(Q22) + (.23)(Q19) + (.20)(Q9) + (.18)(Q26) + (.15)(Q2).$$

The remaining clusters were computed in the same manner. Postnatal cluster score were computed with the same weighting as the prenatal clusters due to the fact that the prenatal analysis, based on a larger sample size, was less prone to sampling error. This also allowed prenatal-postnatal comparisons to be made.

Unless otherwise reported, multivariate analysis of variance procedures were performed using the Wilks test statistic.

Data obtained from the Selected Sample were used in most analyses. Foreign subjects were excluded due to the fact that many grandparental role behaviors are likely to be culturally-specific. Grandparents whose children were unmarried were not included because the grandparental role was being assumed in a non-normative manner according to society's ordering of events. Finally, since perceptions of step-grandparenthood are likely to differ from perceptions of the role by those whose children are becoming parents, step-grandparents were also excluded. Data from the Full Sample were used in analyses in which a description of a wider range of grandparenting behaviors was appropriate (e.g., cluster analyses).

The preset level of significance in this study was .05. Significance levels higher than this value are not reported.

CHAPTER 3

RESULTS

EXPECTANT GRANDPARENTS: AN OVERVIEW

Anticipating Grandparenthood

In order to determine whether subjects had begun to anticipate the grandparental role they were asked when they first began to imagine being a grandparent. There was considerable variation in their responses as can be seen by the 9 categories found in Table 2. It is interesting to note that many subjects began to imagine this role either when their children got married or after they learned of the pregnancy. For others, it was based upon their own age or stage of life as they reached a particular age or saw peers becoming grandparents. Given the emphasis in the literature on anticipatory socialization it is interesting to point out that over 14% of the subjects had not begun to imagine themselves in this role or only had done so as a result of being asked specific questions about grandparenthood through this project.

Table 2: When did you first imagine what it would be like to be a grandparent?

Category Label	Number of Subjects	Frequency	Sample Response
When I was a child	2	1.6%	"When I was a child" (#252)
When I was raising my own children	4	3.2%	"I guess as I raised my family (as little children) I looked forward to when they had their's. But I never put it into perspective until I knew I was going to be a grandparent (#244)
When my children began to get married	38	30.6%	"I'm not sure - probably when my son was married - I projected the idea of a grandchild and conjured up all sorts of ideas of involvement with him (or her)" (#173)
During the pregnancy	39	31.5%	"When I first heard from my son and his wife that we were to be grandparents" (#329)
When I saw peers becoming grandparents	13	9.8%	"When people I work with became grandparents - they were very happy about the event and showed pictures, bought presents, etc. (#276)

Table 2 (continued)

Category Label	Number	Frequency	Sample Response
When I reached a particular age	4	3.0%	"When I was in my early 40's and began to care for the young children in our church school" (#222)
When I filled out this questionnaire	3	2.3%	"Your questionnaire stimulated my thinking and other than a pleasant personal feeling about the pending event it wasn't until this project was sent to me that I really began to do some personal searching" (#152)
Have not begun to imagine it yet	16	12.1%	"I'll be honest - I never did" (#133)
Other response	5	3.8%	"Can't say - But I am looking forward to our first grand-child. Know he or she will be a beautiful baby because our son and daughter-in-law are" (#273)

(based on N = 124)

Information about the pregnancy

Parents were asked, if the pregnancy had been planned did the adult children let them know they were planning to have a baby. Of the 123 subjects who responded to this question, 19.5% (n = 24) stated that the pregnancy was not planned and 5.7% (n = 7) did not know whether or not it was a planned pregnancy. 42.4% stated that their children let them know of their plans and 32.5% had not known that the couple was planning to have a child. When subjects were aware that a pregnancy was being planned most often the children told them directly of their plans. Other children told their parents that they were no longer using any birth control methods but did not state that they were planning to have a baby. Some parents learned that their children had been planning to have a baby for some time when their children informed them of fertility problems. Finally, some parents suspected that their children might be planning to have a baby because the children implied a strong interest in babies, (eg, "If this was a planned pregnancy did your children let you know they were planning to have a baby? How did they let you know?" "No, But I kinda (sic) guessed! Because of their reaction to the children of others." #215)

One hundred thirty subjects reported who told them that they were going to be grandparents. Of these, 46.2% were told by the mother-to-be, 19.2% were told by the

father-to-be, and 25.4% were told by both the expectant parents together. 7.7% learned of the news from their spouse and 1.5% learned from one of their other children. There was a great deal of variation in how the expectant grandparents were told the news: phone calls, letters, telegrams, visits, etc. Some were given gifts that were symbolic of their new role. For example, one grandfather reported the clever way by which he received the news:

"...My children were here with Father's day gifts and well wishes. After dinner, I opened my presents one by one. The last one handed to me was a small, light weight, wrapped package. Second present from my daughter and son-in-law. I opened the package - it contained a tiny pair of baby booties. I then looked at my daughter and said "you're pregnant?" and kissed her and congratulated both parents-to-be..." (#134)

Another grandfather reports that he and his wife learned the news on Mother's Day. They found "Place cards on the dinner table saying Grandma and Grandpa." Although some expectant parents did wait for a particular occasion to share the news others told their parents as soon as they learned that the pregnancy was confirmed. In fact, one grandmother shared this experience with her daughter.

"I learned about it when my daughter was late on her period and confided in me. We did her pregnancy test together and it was exciting to be the first to know along with her." (#288)

Although most grandparents did respond to the news in a positive manner, there was variation in reactions. Table 3 shows the frequencies of different responses.

Table 3: What was your first reaction when you found out that you were going to be a grandparent?

Category Label	Frequency	Sample Response
Positive	81.4%	"Elation, gratitude + a sense awe and well being" (GF)
Neutral	3.1%	"No great emotional feeling - it happens everyday to a lot of people" (GF)
Negative	9.3%	"Somewhat reserved. I didn't feel I was ready for the sweater rocking chair set. I felt somewhat disappointed" (GF)
Mixed	3.9%	"Delight - also worry and concern - our daughter is a bit old to be having her first child" (GM)
Other	2.3%	"I was stunned" (GF)

Names

Although many grandparents (59.8%) reported that their children discussed possible names for the grandchild with them, only 22.7% suggested a name. An additional 2.3% made general suggestions to be considered but did not suggest a specific name. Only 12.9% of the grandparents suggested that the baby be named after someone.

Sex Preferences

The majority of subjects (78.8%) stated that they had no preference in regard to the sex of their grandchild. In part, this may be due to the way the question was worded. Asking a person, "Do you have a preference as to the sex of the baby? If so, do you prefer a boy or a girl" often leads to the socially acceptable response "Not really just so the baby is healthy" (Grandmother #424). In future studies, a question regarding sex preference with a less obvious socially desirable response, such as "Given that your grandchild is a healthy baby, which sex would you prefer?", would probably yield more useful information. This also would probably reduce the number of subjects who stated that they did not have a preference but then indicated a tendency to prefer a grandson or granddaughter: "No - however a girl would be nice because we are short on girls in our family" (Grandmother #420).

Plans to help during the neonatal period

Subjects were asked whether they had any plans to help out when the baby was born. 65.2% did plan to help out and an additional 21.2% planned to help if needed or if an emergency arose. Plans were being made to assist in many activities including: taking care of the mother and baby, providing information on childcare, providing gifts and furniture for the baby, helping out financially, doing household chores, shopping, running errands, and providing

emotional support. Many grandparents expressed the idea that they would be willing to do whatever was needed: "I'll do anything I'm asked if it is legal" (#133). When asked whether their own plans to help depended on what their child's in-laws (the other set of grandparents) were planning only 20.5% agreed that they did. 68.9% stated that their plans did not depend on the in-laws' plans. The remaining subjects felt that their plans might be influenced, or gave another response (4 subjects did not answer this question).

GRANDPARENTING DURING THE NEWBORN PERIOD: AN OVERVIEW

Information about the birth

The majority of subjects (85%) learned that they had become grandparents either through a telephone call (62%) or because they were at the hospital for the birth (23%). Table 4 reveals that the new father most often relayed the news. Twenty-six percent of the grandparents were at the hospital at the time of birth. The initial reaction upon learning that they had become grandparents was usually positive (91.5%) and rarely negative (.9%). Several subjects (7.7%) reported "other reactions" such as "No great feeling one way or the other" (#148) or "None" (#218).

Table 4: Learning of the Grandchild's Birth
Who told the grandparent of the baby's birth?

Category Label	Number	Frequency
New mother	9	7.7%
New father	78	66.7%
Both new parents	2	1.7%
My spouse	14	12.0%
Other person (eg, hospital personnel)	4	3.4%
Saw or heard birth	5	4.3%
Cannot be determined	5	4.3%

N = 117

(Longitudinal Selected Sample)

Table 5: Age of grandchild when first seen by grandparent

Category Label	Number	Frequency
1 day old or less	72	61.5%
First week	22	18.8%
First month	16	13.7%
Second month	4	3.4%
Third month	1	.9%

N = 115

(Longitudinal Selected Sample: 2 grandparents had not seen the grandchild at the time that the postnatal questionnaire was completed)

Table 6: Frequency of grandparent-grandchild visits

	Present Level		Expected Level	
Reports seeing grandchild	N	Freq	N	Freq
Daily	4	3.4%	2	1.7%
3 - 6 times per week	5	4.3%	4	3.4%
1 - 2 times per week	44	37.6%	39	33.3%
1 - 2 times per month	36	30.8%	32	27.4%
Bimonthly	3	2.6%	3	2.6%
Quarterly	8	6.8%	12	10.3%
Twice a year	0	0.0%	4	3.4%
Other	15	12.8%	21	17.9%
Has not seen grandchild (Does not expect to see)	2	1.7%	0	0.0%
	N = 117		N = 117	

Longitudinal Selected Sample. "Other" includes responses such as "We see her as often as possible" (#205) and "Whenever possible - due to geograph. distance may not be too often" (#130)

Most subjects had seen their grandchild by the time the baby was 1-week-old. In fact, over half saw the baby within the first days. As can be seen in Table 5, all but 2 subjects had seen their grandchildren by the time the infants were 3-months-old. This result was unexpected given the distances between several grandparents and grandchildren. Those that had not yet seen their grandchildren indicated that it was ill health rather than distance that had kept them away. Table 6 shows the continued involvement between grandparent and grandchild and the expectations for involvement during the first year of life. It can be seen that most of the grandparents see their grandchildren at least monthly and that they expect this pattern to continue.

Names

In general, subjects reacted positively (74.4%) to the names chosen for their grandchildren: "Very happy with the name" (#102); "Great -- (my first name given)" (#121); "very good name. I like it" (#216); I think it its beautiful" (#402). Several subjects (13.7%) gave neutral responses: "The parent's business - all right" (#111); "OK - named after a departed grandmother" (#125); "Okay" (#212); "O.K." (#252). Negative reactions to the name were reported by 3.4% of the subjects: "Little odd" (#103); "Lousy" (#141); "I have reservations. Sounds like the name of a soap opera participant/heroine" (#239); I am not

overly fond of it but didn't tell anyone that" (#421). Other reactions, that reflect a change in the attitude toward the name or an ambiguous reaction to the name, were reported by 8.5% of the subjects: "Didn't like it at first but I'm beginning to like it better." (#110); "Surprised" (#311); "Not used to the name but now I like it Better (capitalization by subject)" (#203); "At first I was disappointed. I thought they might use my father's name. After I realized it was a combination of his father's and uncle's name I felt it was fine." (#222).

Sex Preferences

Subjects were asked if their grandchild was the sex that they had hoped for. In the prenatal overview it was reported that 78.8% of the subjects had no preference in regard to sex. Yet postnatally only 50.4% reported that they had not had a preference. It may be that the wording of the postnatal question, "Is the baby the sex you had hoped it would be?" does not indicate a socially desirable answer as much as the prenatal question, "Do you have a preference as to the sex of the baby?". It also may be that these preferences were formed after the prenatal questionnaire had been completed. Forty percent of the subjects (n = 47) indicated that the baby was indeed the hoped for sex and 8.5% (n = 10) revealed that it was not. The fact that so many grandparents reported a grandchild of the preferred sex leads to a third possible explanation of

the prenatal-postnatal discrepancy in preferences. It may be that subjects who initially have no preference retrospectively report a preference after satisfactory interactions with a grandchild of a particular sex.

Help patterns in the neonatal period

Many of the subjects (65.8%) reported helping out after the birth. There was a significant association between reporting plans to help out prenatally and actually helping after the birth, $\chi^2(2, N=107) = 12.58, p < .01$. Of those who had plans to help, 78.4% did so after the baby was born; 22.2% of those who did not plan to help eventually did so. Approximately two-thirds (66.7%) of the grandparents who had stated that they would help if they were needed or if an emergency arose also helped during the neonatal period. Those who helped reported providing financial assistance, baby gifts, emotional support, routine errands, meal preparation, care for the baby and mother, shopping, housework, laundry, information on child care, etc.

CLUSTER ANALYSIS

As mentioned above, expectations for the grandparental role were assessed through a questionnaire consisting of items based on the conceptual typologies developed by Neugarten and Weinstein (1964) and by Robertson (1977). The purpose of this section is to report the results of a

cluster analysis integrating the conceptualizations noted above based on data obtained from 142 expectant grandparents (Full Sample). (Note: cluster analysis is based on the data of 142 subjects rather than 146 due to the delayed return of four of the questionnaires).

Cluster analysis was performed to reduce the number of dependent variables from the 31 fixed response questions. Items were clustered based on a priori conceptualizations based on the work of Neugarten and Weinstein (1964) and Robertson (1977). The original cluster analysis led to violations of the principles of parallelism and internal consistency. Therefore it was necessary to divide clusters. The final cluster analysis of the prenatal data generated 9 clusters which are reported in Table 7. Correlations between clusters reveal relationships between these variables. Based on Neugarten and Weinstein's (1964) conceptualization of biological renewal it had been expected that items regarding continuation of the family line and items regarding feeling young once again through a grandchild would be part of the same cluster. For example, one of the statements coded by Neugarten and Weinstein as a statement of biological renewal was "It's through my grandchildren that I feel young again" (Neugarten and Weinstein, 1964, page 201). Attempts to include these items within one cluster, however, led to violations of the principle of parallelism in the cluster analysis. In order

to maintain external consistency it was necessary to consider these as two clusters rather than as one. As can be seen in Table 7, the two traits are correlated ($r=.53$). The highest intercorrelation was between Youthfulness and Funseeker ($r=.77$), with high intercorrelations also found between Youthfulness and Involved ($r=.45$) and Youthfulness and Surrogate Parent ($r=.47$). Surrogate Parent also was positively correlated with Emotional Satisfaction ($r=.43$). Emotional Satisfaction correlated with Biological Renewal ($r = .48$), Youthfulness ($r = .58$), and Funseeker ($r=.64$). The highest negative correlation was found between Funseeker and Distant Figure ($r= -.46$). Advisor stood as the most independent cluster with correlations ranging from $r=.30$ (Involved) to $r=0$ (Emotional Satisfaction). These clusters were used as dependent variables in the multivariate analyses reported later in the paper.

The postnatal correlation matrix, formed with the above 9 clusters, was replicated within sampling error limits. Table 7 shows intercorrelations between clusters found postnatally. By averaging the prenatal and postnatal intercorrelations sampling error is reduced. Therefore, Table 7 also shows an averaged matrix. This matrix, which is less susceptible to error, can be used in order to generate hypotheses concerning causal relationships between these variables in order to generate a path model for testing in future research. However, it should be noted that in the Average matrix areas of major discrepancy

between the prenatal and postnatal matrices are not evident but should be considered in any path model which explains the significance of the grandparental role.

In order to compare subjects on prenatal and postnatal cluster scores a matched-pairs t-test was performed on each cluster (Longitudinal Selected Sample). In order to maintain a .05 significance level for the overall analysis the significance level for the individual comparisons was set to .005. None of the 9 comparisons was significant at this level: Involved, $t(116) = .75$; Surrogate Parent, $t(116) = 1.58$; Advisor, $t(117) = .82$; Distant Figure, $t(117) = -1.55$; Biological Renewal, $t(116) = -1.52$; Youthfulness, $t(115) = -.59$; Funseeker, $t(117) = -.65$; Emotional Satisfaction, $t(117) = -.43$; Vicarious Achievement, $t(116) = 2.67$. Therefore, subjects were consistent prenatally and postnatally in their assessments of the meaning of the grandparental role.

Table 7: Intercorrelations between clusters

Prenatal Correlation Matrix

		I	SP	A	DF	BR	Y	F	VA
Involved	.54								
SurrogateParent	.60	32							
Advisor	.63	30	22						
Distant Figure	.65	-5	34	-12					
Bio. Ren.	.78	15	27	4	15				
Youthfulness	.50	45	47	13	-13	53			
Funseeker	.43	40	15	-6	-46	22	77		
Emo. Sat.	.58	11	43	0	-15	48	58	64	
Vic. Ach.	*	36	41	2	30	42	48	11	36

Postnatal Correlation Matrix

		I	SP	A	DF	BR	Y	F	VA
Involved	.61								
SurrogateParent	.57	27							
Advisor	.67	21	43						
Distant Figure	.66	-22	11	2					
Bio. Ren.	.77	-7	31	12	12				
Youthfulness	.62	17	74	27	-10	46			
Funseeker	.32	76	-19	-10	-59	6	29		
Emo. Sat.	.52	56	73	18	-10	33	88	54	
Vic. Ach.	*	-1	40	18	21	29	61	-10	51

Averaged Correlation Matrix**

		I	SP	A	DF	BR	Y	F	VA
Involved	.57								
SurrogateParent	.58	30							
Advisor	.65	26	32						
Distant Figure	.65	-13	23	-5					
Bio. Ren.	.78	4	29	8	14				
Youthfulness	.56	31	60	20	-12	50			
Funseeker	.38	58	-2	-8	-52	14	53		
Emo. Sat.	.55	33	58	9	-13	41	73	59	
Vic. Ach.	*	18	41	10	26	36	54	1	43

*1 item cluster (alpha equals 1.00 by definition)

**Averaged correlations rounded toward larger sample size.

AGE DIFFERENCES

In order to determine whether there are age differences in expectations for the grandparental role it had been proposed that subjects be classified according to three groups: those 45-years-old and younger, those 46 to 55 years of age, and those 56-years-old and older . This categorization, however, led to difficulties since cell sizes in the youngest group were too small for statistical analysis (see Table 8). Therefore, analyses of age differences are based upon 2 age groups rather than three.

Table 8: Subject distribution by sex and age*

Age	Males	Females
45 years and younger	6	6
46 through 55 years	26	36
56 years and older	27	27
52 years and younger	26	34
53 years and older	33	35

*Table 8 is based on (available) selected sample distribution for MANOVA of cluster by sex and age.
4 subjects are not included due to missing data.

Multivariate tests of significance analyzing each of the clusters by sex and age revealed that there were no significant age differences in either the prenatal data, $F(9,116) = 1.05$, or the postnatal data, $F(9,105) = .93$. MANOVA also revealed no significant age differences when the 2-choice fixed response questions (not included in the clusters) assessing expectations for role behaviors were analyzed by sex and age, $F(6,118) = 1.57$.

There were age differences in the two remaining fixed response questions. A 2 X 2 ANOVA (sex by age level) revealed that there were significant age differences in terms of whether persons were becoming grandparents at the expected age, $F(1,122) = 28.4$, $p < .01$, and whether they perceived themselves as young, middle-aged, or old, $F(1,127) = 17.8$, $p < .01$. (There were no sex differences on either question). Figure 1 illustrates the age differences. As one would predict, subjects in the younger age group (52 years and under) reported on the average that they were becoming grandparents at about the time they had expected. Those in the older group (53 and older) were becoming grandparents (on the average) a little later than expected. These findings were consistent in the postnatal data. Once again there were no sex differences but the age difference was significant, $F(1,110) = 21.26$, $p < .01$.

Figure 2 shows the postnatal means for timing of grandparenthood. Comparison of Figures 1 and 2 shows that the means essentially remained the same. Prenatal-postnatal comparisons for each subject revealed no changes in perception of timing, $t(109) = -1.1$.

In order to assess subjects' self-perceived age status they were asked to indicate whether they considered themselves to be young, middle-aged, or old. However, in coding these responses it was determined that a 5-choice category scale would have to be used since some subjects checked between two of the boxes, as shown in Table 9. As can be seen in Figure 3, those in the younger age group tended to see themselves as somewhere between being young and being middle-aged. Those in the older group tended to see themselves as having reached middle age. The postnatal data, shown in Table 10, reveals that more subjects remained within the choices as offered on the questionnaire. This would be an interesting topic to explore in future research: Was it the pending event of grandparenthood that led several subjects to consider themselves somewhere between youth and middle-age? Did this event help them "become" middle-aged in their own perceptions of aging? A 2 X 2 ANOVA (sex by age level) revealed that those in the younger age group still

considered themselves to have a younger perceived age status than those in the older group did postnatally, $F(1,113) = 10.8$, $p < .01$. However, it can be seen in Figure 4 that the means of both groups increased. In order to determine if this prenatal-postnatal change was significant a t-test for matched pairs was analyzed. It revealed that there was a significant increase in the means such that the postnatal scores reflected an older age status than did prenatal scores, $t(115) = - 3.08$, $p < .01$.

Later than I had expected (3)

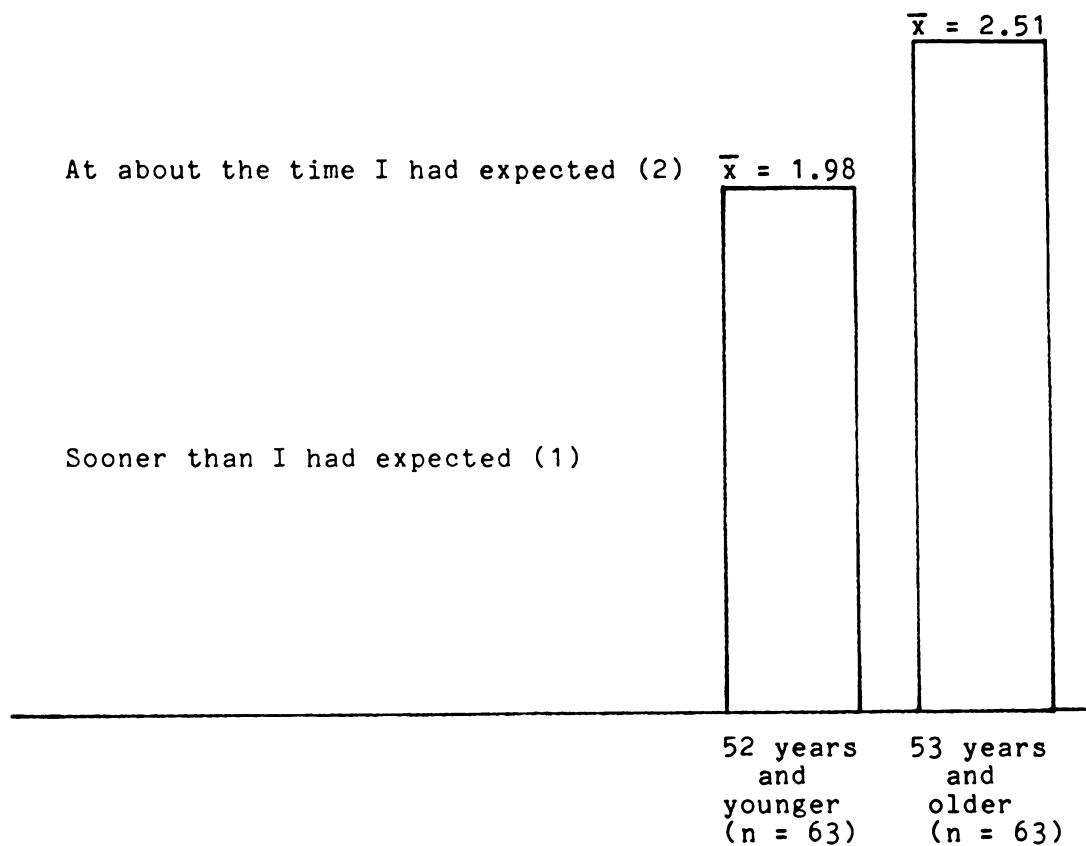


Figure 1: Prenatal Expectations for Timing of Grandparenthood
Cell means for Question 32
When I think about the age I expected to be when I became a grandparent I realize that I will become one:
(Selected Sample - 6 missing observations)

Later than I had expected (3)

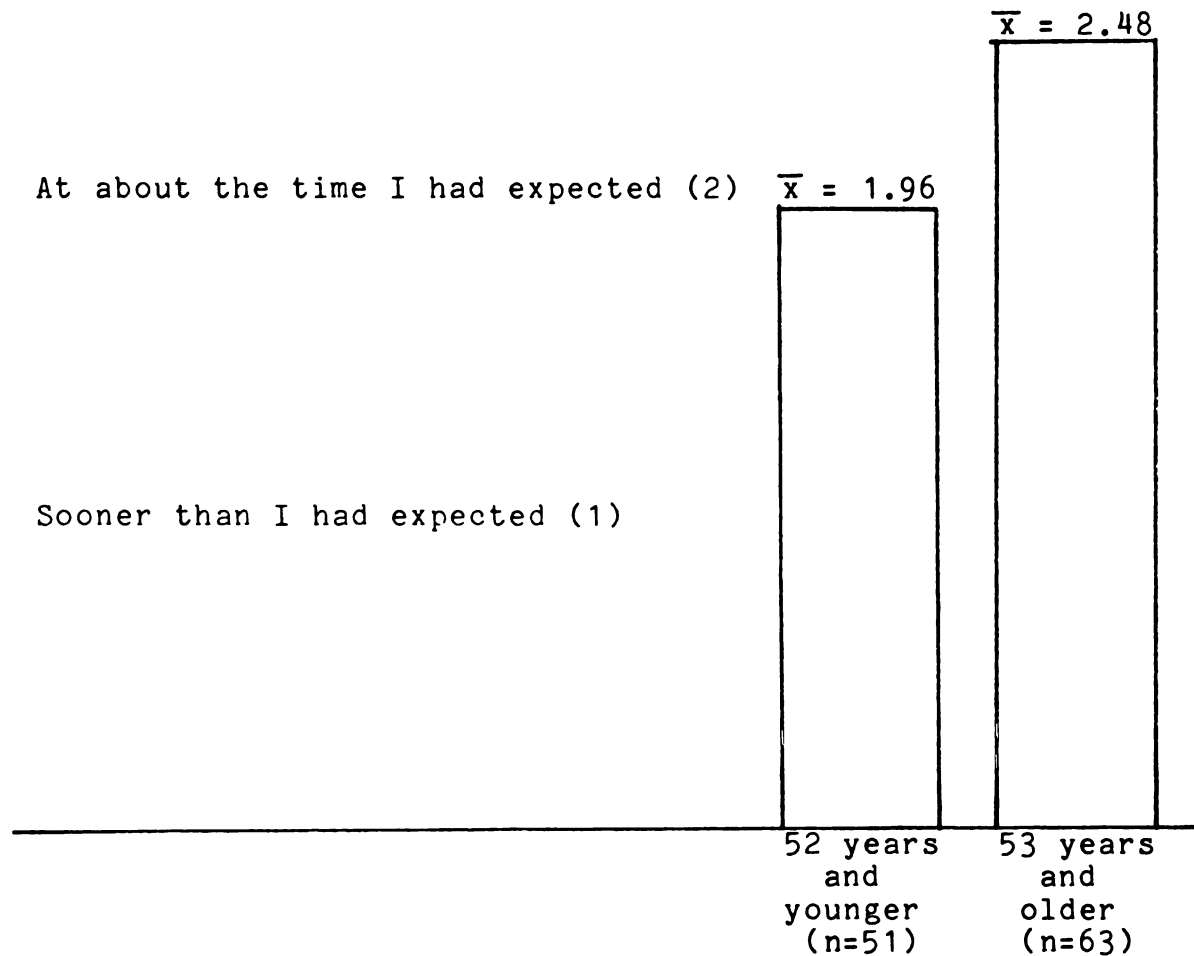


Figure 2: Postnatal Perceptions for Timing of Grandparenthood
Cell means for Question 32
When I think about the age I expected to be when I became a grandparent I realize that I became one:
(Longitudinal Selected Sample:
3 missing observations)

Old (5)

Between Middle Aged and Old (4)

Middle Aged (3)

Between Young and Middle Aged (2)

Young (1)

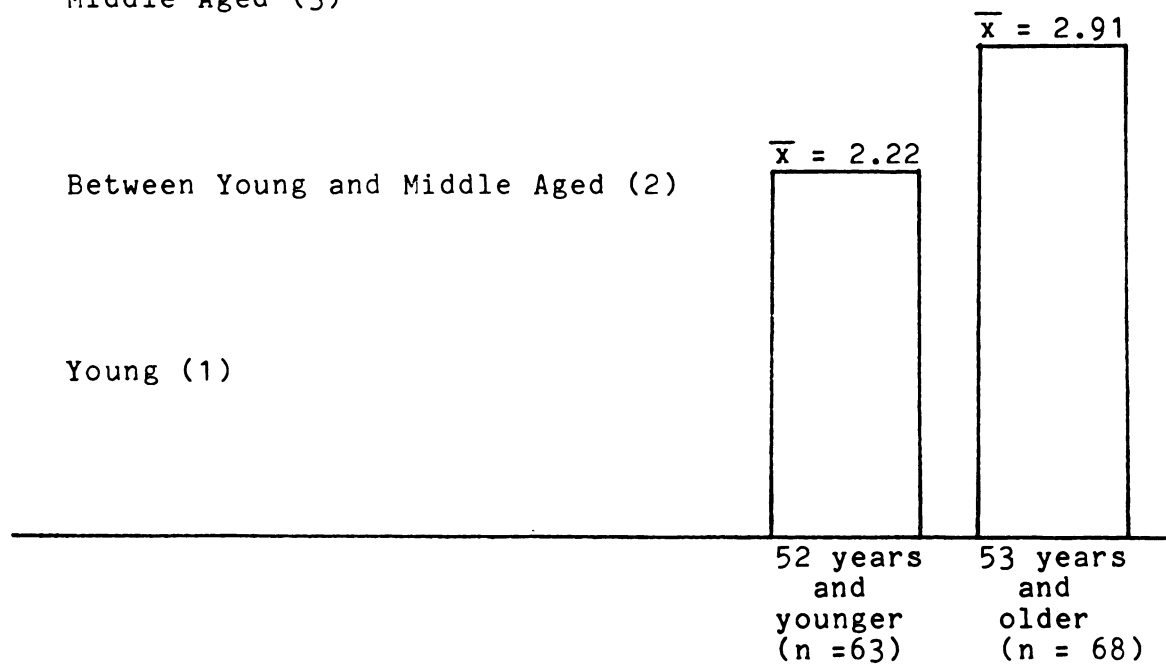


Figure 3: Prenatal Perceived Age Status
Cell means for question 33
I consider myself to be:
(Selected Sample - 1 missing observation)

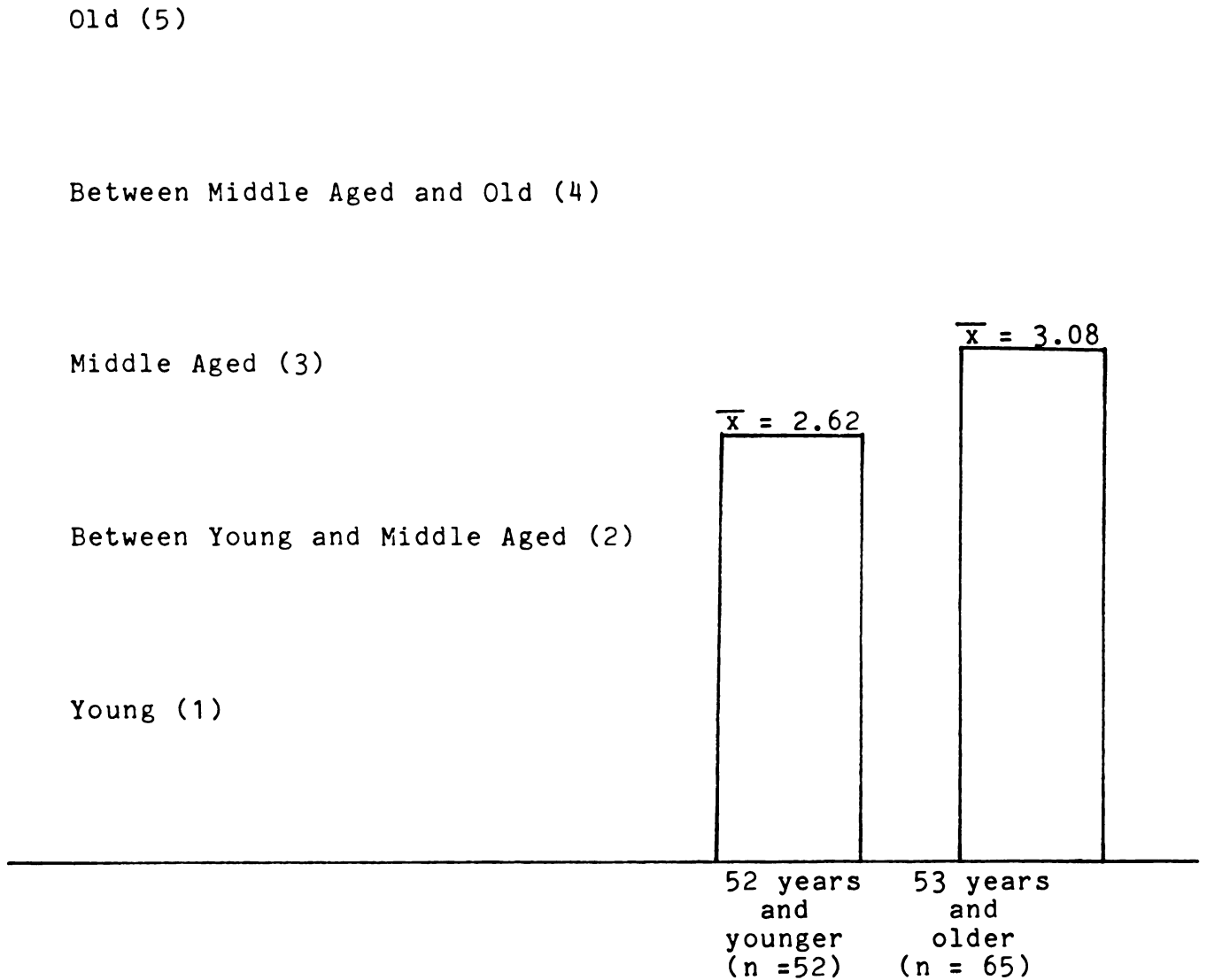


Figure 4: Postnatal Perceived Age Status
Cell means for question 33
I consider myself to be:
(Longitudinal Selected Sample)

Table 9: Prenatal Frequencies for Perceived Age Status
(Question 33)

Category Label:	Code	Frequency
I consider myself to be		
Young	1	20.6%
Between Young and Middle Aged	2	12.2%
Middle Aged	3	61.1%
Between Middle Aged and Old	4	.8%
Old	5	5.3%
(based on N = 131)		

Table 10: Postnatal Frequencies for Perceived Age Status
(Question 33)

Category Label:	Code	Frequency
I consider myself to be		
Young	1	11%
Between Young and Middle Aged	2	0%
Middle Aged	3	83.3%
Between Middle Aged and Old	4	.9%
Old	5	4.3%
(based on N =117)		

Expected timing of grandparenthood

The selected sample was used to determine whether there were differences between subjects who reported different perceptions in terms of the timing of grandparenthood. Although most of the subjects indicated that they were becoming grandparents at the anticipated age (49% - men; 58% women), others indicated that it was occurring sooner (13% - men; 6% - women) or later (31% - men; 34% - women) than expected. There was considerable variation in the chronological ages within each of the groups. Those becoming grandparents sooner than expected ranged in age from 42- to 52-years-old ($\bar{x} = 47.4$); those becoming grandparents at the expected age ranged from 37- to 77-years-old ($\bar{x} = 52.5$); those becoming grandparents later than expected ranged from 45 to 68 years of age ($\bar{x} = 56.8$). Those reporting that they were becoming grandparents earlier than anticipated tended to have younger children (age of youngest child ranged from 12 to 22 years, $\bar{x} = 17.75$) than those at the anticipated age (range: 12 years - 33 years; $\bar{x} = 20.56$) and those who were becoming grandparents later than expected (range: 13 to 36 years; $\bar{x} = 25.86$).

Since there was no relationship between sex and perceived timing of grandparenthood, $\chi^2(2, N=126) = 2.49$, $p = .287$, both sexes were combined in analyses to determine if the timing of grandparenthood was related to the person's anticipated interactions with the grandchild. The majority of subjects reported expectations for frequent interactions

with the grandchild, indicating comfort in the role regardless of timing. For example, subjects anticipated babysitting (79% - men; 93% women), engaging in home recreational activities with the grandchild (90% - men; 100% - women), relating family history (67% - men; 90% women) and teaching skills to the grandchild (59% - men; 80% - women). An association was found between persons' perceptions of when they expected to become grandparents and whether they had plans to babysit the grandchild, $\chi^2(2, N=126) = 7.69$, $p < .05$, such that those who were becoming grandparents at the expected time were more likely to have these plans. There was also a relationship between perceived timing and plans to teach the grandchild special skills, $\chi^2(2, N=124) = 9.42$, $p < .01$. Only 33% of those becoming grandparents sooner than expected planned to teach various skills whereas most (77% of those becoming grandparents at the expected time, 72% of those becoming grandparents later than expected) of the other grandparents had these plans. No differences were found between perceived timing and plans to relate family history, $\chi^2(2, N=124) = 1.8$, or plans to engage in home recreational activities, $\chi^2(2, N=126) = .57$.

It had been hypothesized that there would be a relationship between the perceived timing of grandparenthood and persons' reports of difficulty thinking of themselves as grandparents. This hypothesis approached the preset level of significance, $\chi^2(6, N=125) = 12.0$, $p = .06$. The fact that

many subjects (33% - men; 14% - women) found it difficult to think of themselves as grandparents also may be due to the fact that the grandchildren had not yet been born. However, even after the birth of the grandchild 25% of the grandfathers and 15% of the grandmothers had difficulty thinking of themselves in this role.

Ideal age to become a grandparent

Neugarten, Moore and Lowe (1965) reported that major life events occur in a prescriptive timetable and that events in most persons lives follow this timetable. They found that a middle-aged, middle-class sample reported that the best age to become grandparents would be between 45 and 50 years of age. In the current study this issue was addressed to determine what expectant grandparents consider to be the best age to become a grandparent. Comparisons were then made with the person's actual chronological age to determine how many were becoming grandparents at what they considered to be the ideal age. (These analyses are based only on those respondents who gave an exact age or age range, eg. 45 to 60 years, rather than a range with no end point, eg. 45 years and up. When a range was given the average of the range was used in the computations reported below).

When asked the best age to become a grandfather the responses of the expectant grandparents ranged from 40-years-old to 62-years-old with a mean age of 50.3 years (n

= 106). The modal response, 50-years-old, was given by 30.2% of the subjects. When men's and women's responses were analyzed separately they were found to be similar: men reported a mean best age as 50.0 years (n = 50) and women reported a mean best age of 50.7 years (n = 56).

When asked the best age for a woman to become a grandmother the responses from both sexes ranged from 37-years-old to 60-years-old with a mean of 49.2 years. Once again the modal response was 50 years of age, suggested by 25.5% of the subjects. When analyzed separately, men (n = 50) reported a best age of 48.9 years for women to become grandmothers; women reported a best age of 49.4 years (n = 56).

Similar results were found in the postnatal data, however, the upper limits of the ranges were extended. The grandparents reported that the best age to become a grandfather ranged from 40- to 75-years-old with a mean age of 50.4 years (n=98). The modal response, which remained at 50-years-old, was given by 31.6% of the subjects. When responses were analyzed by sex both men and women reported a mean best age of 50.4 years (men's responses ranged from 40 years to 75 years; women's responses ranged from 40 years to 65 years).

Postnatally, subjects indicated that the best age to become a grandmother ranged from 40 to 69 years of age with a mean age of 49.0 years. The modal response, 50 years of age, was given by 20.4% of the subjects. Men's responses

(n=45) ranged from 40- to 69-years-old with a mean age of 48.8 years. Women's responses (n=53) ranged from 40 to 65 years of age with a mean age of 49.2 years.

Each subject's ideal age was compared to his or her chronological age (thus creating an age differential variable) resulting in three groups: (1) those becoming a grandparent before the best age to become one (chronological age less than best age); (2) those becoming grandparents at the best age to become one (chronological age equals best age); (3) those becoming grandparents after the best age to become one (chronological age greater than best age). Table 11 shows the frequencies for each group.

There were no sex differences in comparisons of chronological age to best age at first grandparenthood, $\chi^2(2, N = 105) = .845$. A comparison of the age differential for subjects with their responses for expected timing led to a significant relationship, $\chi^2(4, N = 102) = 26.03, p < .01$. Table 12 illustrates this relationship. (Note: These analyses could not be performed in the postnatal data due to low expected frequencies; only 3 subjects were becoming grandparents at the best age which leads to extremely small expected frequency cell sizes.)

Of those subjects who were becoming grandparents before what they considered to be the best age, 26.9% were becoming grandparents sooner than expected and 73.1% were becoming grandparents at about the time they had expected.

76.9% of those whose chronological age was equal to their best age for first grandparenthood reported that they were becoming grandparents at about the time they had expected, whereas 15.4% were becoming grandparents later than expected and 7.7% were becoming grandparents sooner than expected. Finally, among those subjects who were older than what they considered to be the best age to become a grandparent, 47.6% were becoming grandparents later than expected and 47.6% were becoming grandparents at the expected time with only 4.8% becoming grandparents sooner than expected. These differences are provocative in that they indicate that the persons involved in the study are not relying only on their own chronological age or what they see as an ideal age to become a grandparent when they determine their expected age at first grandparenthood and decide whether this pregnancy was sooner, at the expected time, or later than expected. An obvious area for follow-up in future studies would be to determine whether certain aspects of their child's development (eg, chronological age, number of years married, assessment of maturity, completion of education, career plans, etc.) lead them to a particular expected age for first grandparenthood. The particular norms followed by individuals of different cultural backgrounds also would be interesting to explore.

Table 11: Age Differential:
Comparison of Chronological Age and
Best Age to Become Grandparent

Category Label	N	Freq.
Becoming Grandparent Before Best Age	26	24.8%
Becoming Grandparent at the Best Age	13	12.4%
Becoming Grandparent After Best Age	66	62.9%

(based on n = 105)
Selected Sample

Table 12: Q32 (Expected Age for Grandparenthood)
by Age Differential

	Before Best Age	At Best Age	After Best Age
Sooner than expected	n = 7 63.6% 26.9%	n = 1 9.1% 7.7%	n = 3 27.3% 4.8%
At expected time	n = 19 32.2% 73.1%	n = 10 16.9% 76.9%	n = 30 50.8% 47.6%
Later than expected	n = 0 0% 0%	n = 2 6.3% 15.4%	n = 30 93.8% 47.6%

(based on n = 102)

First percentage in each cell represents the row
percentage; second percentage in each cell
represents the column percentage.
Selected Sample.

LINEAGE

Anticipating Grandparenthood

It was not expected that there would be differences in when maternal and paternal grandparents began to imagine themselves in the grandparental role. One reason for this expectation was due to the fact that most of the subjects had other children besides the expectant parent and so they may have imagined themselves as maternal and paternal grandparents. (In fact, in future research it would be interesting to ask each subject, "Is this the child that you expected to have your first grandchild" and follow up on the responses given). Chi square tests of significance did not reveal an association between lineage and when the person imagined the grandparental role, $\chi^2(7, N=118)=5.51$. When they learned that they were to become grandparents both maternal and paternal grandparents most often reported a positive reaction (88.2% of maternal; 77.2% of paternal).

Information about the pregnancy

A 2 X 4 Chi Square analysis of lineage by who-told-the-subject-of-the-pregnancy was performed to determine if grandparents were informed of the pregnancy by their own children. A significant association was found, $\chi^2(3, N=127)=51.6$, $p < .01$. Table 13 shows the pattern of responses. It is interesting to note that none of the

maternal grandparents became aware of the pregnancy through their sons-in-law. As would be expected, most learned from their daughters. Although paternal grandparents were most often told of the pregnancy by their sons, 17.9% received the news from their daughters-in-law. It seems that news of pregnancy is considered either the adult child's news or the expectant mother's news. Although it had been anticipated that maternal grandparents (especially the grandmother) may have been more aware of whether or not a pregnancy was being planned this was not the case. There was no association between lineage and whether the children had let the parents know a pregnancy was being planned, $\chi^2(3, N=122)=5.02$, or between lineage and how the parents became aware that their children planned to have a baby, $\chi^2(3, N=54)=.97$.

Table 13: Lineage differences regarding the person by whom the subject was told of the pregnancy

Informed of Pregnancy by:	Lineage	
	Maternal	Paternal
Father to be	n = 0 0%	n = 25 44.6%
Mother to be	n = 49 69%	n = 10 17.9%
Both expectant parents	n = 15 21.1%	n = 18 32.1%
Spouse	n = 7 9.9%	n = 3 5.4%

% = column percentages

Information about the birth

There was a significant association in terms of how maternal grandparents compared with paternal grandparents learned that the grandchild had been born, $\chi^2(1, N=97) = 10.05$, $p < .01$. Table 14 reveals the nature of this association. It can be seen that the maternal grandparents learned the news at the hospital more frequently than did the paternal grandparents. When asked if they were at the hospital during the birth, maternal grandparents were more likely to report that they were, $\chi^2(1, N=115) = 7.86$, $p < .01$.

Expected frequencies were too low in several cells for statistical analyses of lineage in terms of who told the grandparent that the grandchild had been born. Table 15, however, shows interesting patterns to pursue in future research. For example, only maternal grandparents actually saw or heard their grandchildren being born (of these 4 were maternal grandmothers and 1 was a maternal grandfather). Although information about the pregnancy was most often relayed by the person's child or by the expectant mother, information about the birth is most often conveyed to maternal and paternal grandparents by the new father.

Since all but 7 subjects had seen their grandchild within the first month, statistical analyses for lineage differences in terms of the age of the grandchild when

first seen were performed using only the first three time periods (see Table 5 for comparison). There was a significant association between these variables, $\chi^2(2, N=110) = 14.27$, $p < .01$. As seen in Table 16, maternal grandparents tended to see the grandchild earlier than did paternal grandparents.

Maternal and paternal grandparents were compared to determine if there was a difference in how often they saw their grandchildren. No association was found, $\chi^2(5, N=100) = 4.82$, when the categories "Daily" to "Quarterly" visits were compared (see Table 6 for detail of categories). Since this analysis involved cells with low expected frequencies and since 76% of the subjects reported seeing their grandchildren at least once a month, an analysis was performed to determine if there was a difference among the subjects seeing their grandchildren frequently. Again, no association was found, $\chi^2(3, N=89) = 6.9$. There were also no differences in how frequently maternal and paternal grandparents expected to see their grandchildren in the first year, $\chi^2(6, N=96) = 11.18$.

Table 14: Lineage differences in learning
of the grandchild's birth

Grandparent learned of birth	Lineage	
	Maternal	Paternal
At hospital for birth	n = 23 41.1%	n = 4 9.8%
Through phone call	n = 33 58.9%	n = 37 90.2%

Longitudinal Selected Sample. N = 97. Categories "Learned in person after birth" and "Other" could not be included due to low expected frequencies per cell. Column percentages.

Table 15: Lineage differences in who told the
grandparents of the grandchild's birth
Lineage

Category Label	Maternal	Paternal
New mother	n = 6 85.7%	n = 1 14.3%
New father	n = 35 44.9%	n = 43 55.1%
Both new parents	n = 2 100%	n = 0 0.0%
My spouse	n = 9 64.3%	n = 5 35.7%
Other person	n = 3 75.0%	n = 1 25.0%
Saw or heard birth	n = 5 100%	n = 0 0.0%

(Longitudinal Selected Sample)

Table 16: Lineage differences in age of grandchild
when first seen by grandparent

Age Seen	Lineage	
	Maternal	Paternal
1 day old or less	n = 49 68.1%	n = 23 31.9%
First week	n = 10 45.5%	n = 12 54.5%
First month	n = 3 18.8%	n = 13 81.3%

(Longitudinal Selected Sample)

Names

There were no associations between lineage and whether the expectant parents had discussed names for the grandchild, $\chi^2(1, N=127) = 0$, whether the grandparents had suggested names, $\chi^2(2, N=127) = 1.2$, whether the grandparents had suggested that the baby be named after anyone, $\chi^2(1, N=125) = 1.13$, or whether the expectant grandparents own parents or in-laws had suggested names, $\chi^2(1, N=124) = .009$. There were also no associations between lineage and reactions to the name given to the grandchild, $\chi^2(2, N=105) = .60$.

Sex Preferences

Only 25 subjects expressed a preference for a particular sexed grandchild before the birth. Of these, 17 were maternal grandparents and 8 were paternal grandparents. Although cell sizes are too small for statistical analysis, Table 17 shows the response pattern. No association was found between sex preference and lineage in the postnatal data, $\chi^2(1, N=55) = .75$.

Table 17: Lineage and sex preferences

	Maternal		Paternal	
	GF	GM	GF	GM
Preference for Girl	n=2	n=10	n=1	n=2
Preference for Boy	n=3	n=2	n=5	n=0

(GF = Grandfather; GM = Grandmother) Selected Sample.

Plans to Help During the Neonatal Period

Hypothesis 3 stated that anecdotal evidence suggests that help patterns during the neonatal period are influenced by lineage. In particular, the maternal grandparents may consider themselves to have priority over the paternal grandparents in terms of aiding the new parents. An association was found between lineage and whether the grandparents planned to help the new parents around the time of birth, $\chi^2(2, N=124)=8.24, p < .05$. Table 18 reveals a pattern of responses in which maternal grandparents were more likely to indicate that they were planning to help - 79.4% of the expectant mothers' parents had these plans as compared to 55.4% of the expectant fathers' parents. Paternal grandparents were more likely to respond that they would be helping out if needed or if an emergency arose than were maternal grandparents (paternal grandparents, 32.1%; maternal grandparents, 14.7%). Subjects also were asked whether their own plans depended upon their childrens' in-laws plans. Once again, a relationship was found when this variable was examined by lineage, $\chi^2(2, N=121)=11.87, p < .01$. In Table 19, it can be seen that more paternal grandparents than maternal grandparents indicated that their plans are tied to the plans of the other set of grandparents.

Table 18: Lineage difference in plans to help out during the neonatal period

	Maternal Grandparents	Paternal Grandparents
Yes, planning to help	n = 54 79.4%	n = 31 55.4%
No, not planning to help	n = 4 5.9%	n = 7 12.5%
Planning to help if needed or if an emergency arises	n = 10 14.7%	n = 18 32.1%
(% = column percentages)		

Table 19: Lineage differences in whether plans to help out the expectant parents are dependent on the other set of grandparents' plans

	Maternal Grandparents	Paternal Grandparents	
Yes, subject's plans depend on child's in-law's plans	n = 7 10.3%	n = 19 35.8%	n=26
No, subject's plans do not depend on child's in-law's plans	n = 59 86.8%	n = 32 60.4%	n=91
Perhaps, subject's plans may depend on child's in-law's plans	n = 2 2.9%	n = 2 3.8%	n=4
	n = 68	n = 53	
(% = column percent)			

Help Patterns in the Neonatal Period

Given the expectations of more maternal grandparents that they would help out after the birth an analysis of lineage by actual helping behavior during the neonatal period was performed. Contrary to expectations, no significant association was found, $\chi^2 (1, N=111) = .15$.

Biological Renewal

Hypothesis 4 predicted that the meaning of grandparenthood in terms of biological renewal may be influenced by lineage. That is, there may be differences between those becoming grandparents through sons and those becoming grandparents through daughters. Furthermore, it was hypothesized that this lineage effect would occur among same-sexed parents and adult children. Maternal and paternal grandparents were compared to determine if they held different opinions on feelings of biological renewal in regard to the birth of the grandchild. Biological renewal scores were computed by averaging a subject's responses on questions pertaining to the importance of the grandchild in that he or she will be carrying on the family line and the importance of seeing the blood line continued for another generation. A 2 X 2 analysis of variance (sex by lineage) indicated the possibility of an interaction between sex and lineage $F(1, 123) = 3.66$, $p = .058$. Figure 5 illustrates this interaction. It can be seen that maternal grandmothers and paternal grandfathers have lower

mean scores indicating stronger feelings of biological renewal. In order to investigate this issue further an analysis of the postnatal data (2 X 2 ANOVA) for biological renewal and maternal/paternal lineage was performed. The interaction was not significant, $F(1,110) = 1.61$. This could have been due to the fact that the same-sexed lineage pattern was not continued in the next generation (example: a woman's daughter gave birth to a son thereby reducing feelings of biological renewal).

Therefore, to further explore this issue postnatal scores on biological renewal were analyzed by 3-generational lineage patterns. Figure 6 illustrates the sex patterns found once the grandchildren had been born. As can be seen, cell sizes were too small to permit statistical analysis of each of the 8 possible lineage combinations. Therefore, in order to determine whether stronger indications of biological renewal would be obtained for same-sexed lineage patterns Groups 1 and 8 were combined (Group 1: Grandparent-Male; Parent-Male; Grandchild-Male; Group 8: Grandparent-Female; Parent-Female; Grandchild-Female) and compared to the remaining six groups. It was hypothesized that the mean in the same-sexed lineage patterns would be lower (indicating higher biological renewal) than the mean for the other patterns. Statistical analysis, however, revealed no significant differences, $t(112) = -1.17$.

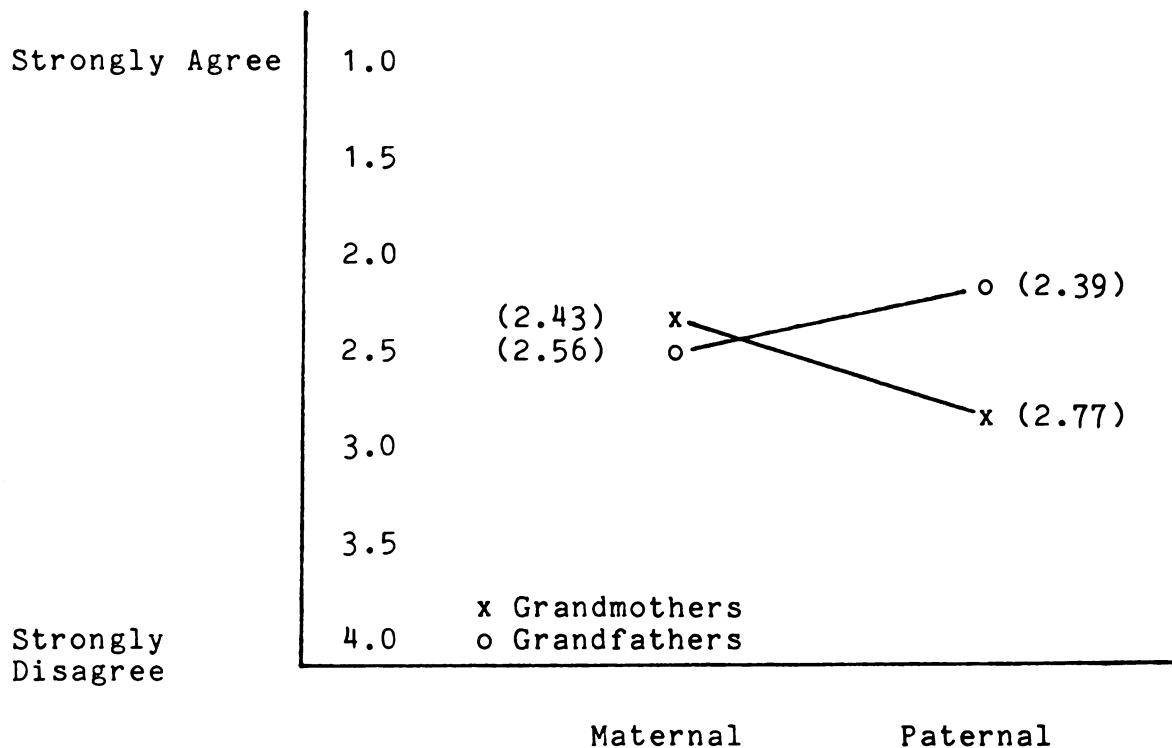


Figure 5: Interaction between sex and lineage on feelings of biological renewal. Selected Sample.

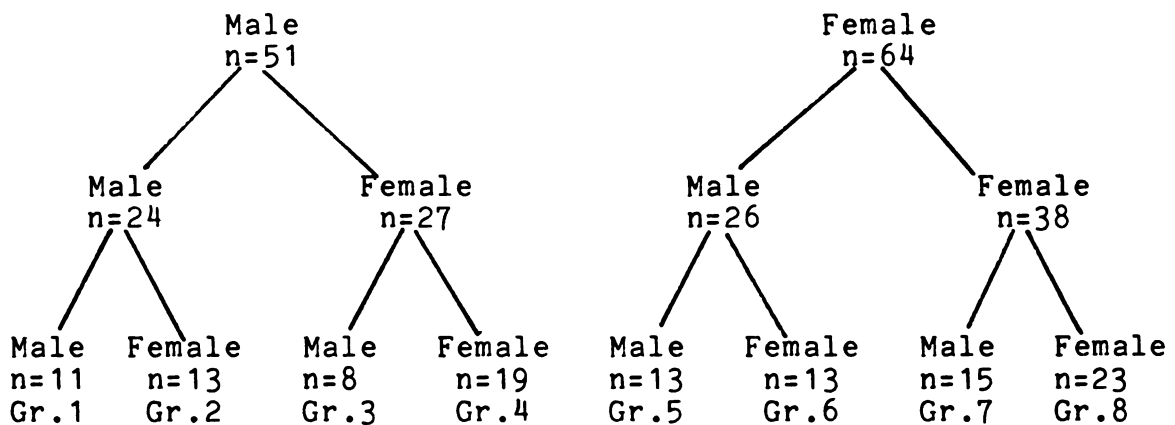


Figure 6: Sex patterns in lineage. Longitudinal Selected Sample. 2 subjects missing - becoming maternal and paternal grandparents at the same time.

SEX DIFFERENCES

Multivariate analysis of variance techniques (Clusters x Sex x Lineage) were performed on the Selected Sample in order to investigate whether there were sex or lineage differences for each of the 9 dependent variables identified through the cluster analysis (selected sample used for analysis). Since the interaction effect (Sex x Lineage) was not significant, $F(9,13) = .95$, the main effects were explored. Lineage also was not significant, $F(9,113) = 1.26$, however there was a significant sex difference, $F(9,113) = 3.63$, $p < .001$. Univariate F-tests revealed that two clusters showed a significant sex difference: Involved, $F(1,121) = 11.3$, $p < .001$; Distant, $F(1,121) = 15.2$, $p < .001$. Comparisons of the means of each sex show that women tend to score higher in terms of involvement with the grandchild and men tend to score higher on the Distant cluster.

A multivariate analysis of variance on the Longitudinal Selected Sample did not confirm the above findings in the postnatal data. Once again the interaction was not significant, $F(9,103) = .76$, but when the main effects were explored it was found that lineage and sex also were not significant, $F(9,103) = .66$ for lineage and $F(9,103) = 1.68$ for sex.

Anticipating Grandparenthood

Since it was hypothesized that there may be sex differences in regard to variables addressed in the open ended questions, chi square tests of significance were used to assess associations between sex and other qualitative variables. Men and women differed in regard to when they first began to imagine themselves as grandparents, $\chi^2(7, N=119) = 19.7, p < .01$. Table 20 shows these responses. It can be seen that women report imagining themselves as grandparents earlier than do men. For example, almost twice as many of the women (48.5% to 23.6%) reported that they began to imagine themselves in this role either when they were children, when they were raising their children, or when their children began to get married. 29.1% of the men but only 4.7% of the women either had not yet begun to imagine themselves as grandparents or had only begun to do so after they had agreed to participate in this project and had started filling out this questionnaire. When asked to describe their first reactions to the news of impending grandparenthood most subjects reported a positive reaction (79.3% of the men; 83.1% of the women). It is interesting to note that those who did not respond in a positive manner had varying reactions that differed by sex. For example, 6.9% of the men had neutral reactions whereas none of the women did. Seven percent of the women had mixed reactions, but no men did.

Table 20: Sex differences in imagining oneself as a grandparent.

	Male	Female	
When I was a child	n = 1 1.8%	n = 1 1.6%	2
When I was raising my children	n = 0 0%	n = 4 6.3%	4
When my children started to get married	n = 12 21.8%	n = 26 40.6%	38
During the pregnancy itself	n = 20 36.4%	n = 19 29.7%	39
When I was peers becoming grandparents	n = 4 7.3%	n = 9 14.1%	13
When I reached a particular age	n = 2 3.6%	n = 2 3.1%	4
When I began filling out this questionnaire	n = 3 5.5%	n = 0 0%	3
Haven't begun to imagine it yet	n = 13 23.6%	n = 3 4.7%	16
	55	64	119

Information about the Pregnancy

There were no sex differences regarding the knowledge of whether or not the pregnancy was planned, $\chi^2 (3, N=123) = 6.9$, or in the cases of planned pregnancies, in how the parents became aware that their adult children were planning a pregnancy, $\chi^2 (3, N=55) = 1.9$. There were sex differences in regard to the person by whom they were told about the actual pregnancy, $\chi^2 (3, N=128) = 10.2$, $p < .05$. Table 21 reveals the pattern of sex differences. It can be seen that a major difference lies in the number of men who are told the news by their spouses. Although nine men report that they learned that they were about to become grandfathers from their wives, only one woman reported learning the news from her husband. Furthermore, although she was told of the news by her spouse her remarks indicate that it was a family experience:

"Our daughter and her husband came to visit and after they had been there for a while we decided to have some drinks. My husband said to me - 'I don't know if I should mix a drink for a grandmother or not!' It didn't register for a few seconds but then I realized what he meant. Our son-in-law had taken him aside and told him the good news." (Subject #250)

Table 21: Sex differences: Who told the subjects that they would be grandparents

Category Label	Sex		
	Male	Female	
Father-to-be	n = 13 22.4%	n = 12 17.1%	25
Mother-to-be	n = 23 39.7%	n = 37 52.9%	60
Both expectant parents	n = 13 22.4%	n = 20 28.6%	33
Spouse	n = 9 15.5%	n = 1 1.4%	10
	58	70	128

(% = column percent)

Information about the Birth

There were no sex differences in terms of whether subjects were at the hospital during the birth, $\chi^2(1, N=117) = 2.67$, nor were there differences among those who saw their grandchildren within the first month in regard to the age of the grandchild when first seen, $\chi^2(2, N=110) = 3.0$. Among those who reported continued visits with the grandchildren on at least a monthly basis no association was found between sex and involvement, $\chi^2(3, N=89) = 1.23$.

Names

There were sex differences in regard to whether the expectant parents had discussed the grandchild's name with the grandparent, $\chi^2(1, N=128) = 8.34$, $p < .01$. 73.9% of the women reported that they had discussed names with their children whereas only 47.5% of the men stated that they had these discussions. Given this information it is not surprising, therefore, that there is also a sex difference in regard to whether the grandparent had suggested a name, $\chi^2(2, N=128) = 13.65$, $p < .01$. 34.3% of the women but only 10.3% of the men had suggested a name. An additional 4.3% of the women (but no men) did not suggest a specific name but did make general suggestions (eg, recommended that a short first name be chosen due to a long last name).

It is interesting to note that women were more likely than men to report that their own parents and in-laws had suggested names when they were expecting children, $\chi^2(1, N=125) = 4.66$, $p < .05$. Of the 17 subjects reporting that their parents had made suggestions 82.4% were women. However, it should be emphasized that the majority of both sexes did not report that their parents had made suggestions. When asked how they felt about the name that was eventually given to their grandchildren there were no sex differences, $\chi^2(2, N=107) = 1.07$.

Sex Preferences

As noted earlier the majority of subjects did not express a preference for the sex of their grandchild when questioned prenatally. Therefore, differences between grandfathers and grandmothers in their report of a preferred sex were not statistically analyzed. Instead, they are presented in tabular form (see Table 22). Of those subjects who preferred a granddaughter, 80% were women and 20% were men; of those who preferred grandsons, 80% were men and 20% were women. A tendency to prefer same-sexed grandchildren could be assessed in future studies to determine if this is a reliable difference and if so, what reasons grandparents give for this preference (eg, having skills that would be of particular interest to a same-sexed grandchild, etc.).

Table 22: Subject's sex by preference for grandchild's sex

	Male	Female	
Preference for Girl	n = 3	n = 12	15
Preference for Boy	n = 8	n = 2	10
	11	14	25

Since more subjects did indicate that they had preferred a grandchild of a particular sex in the postnatal responses, a chi square analysis was performed to see if there was an association between subject's sex and the preferred sex of the grandchild. The association was not

significant, $\chi^2 (1, N=55) = .29$. However, this issue should be explored in future studies before and after the birth of the first grandchild. It could be that the postnatal preference actually was not indicative of a preference before the birth, especially since there was a significant association between a postnatal report that the subject had been hoping that the grandchild was of a particular sex and having a grandchild of that sex, $\chi^2 (1, N=55) = 19.22$, $p < .01$.

Plans to Help During the Neonatal Period

Chi square tests (Sex x Plans-to-help-out) revealed a significant association between grandparents' sex and their intentions to help out at the time of birth, $\chi^2 (2, N=125) = 10.49$, $p < .01$. Women more frequently report plans to help than do men (79.7% of women vs. 55.4% of men). An additional 28.6% of the women and 17.4% of the men reported that they would help if needed or if an emergency arose. When asked whether their plans depended on the plans of the in-laws, no sex difference was found, $\chi^2 (2, N=122) = 4.35$.

There was a relationship between sex and whether plans to help had been discussed with the expectant parents, $\chi^2 (2, N=122) = 6.96$, $p < .05$. Table 23 shows that women were more likely to report discussing plans for helping out at the time of birth with their children.

Table 23: Subject's sex by discussion of plans with children

	Male	Female	
Yes, plans have been discussed	n = 22 40.7%	n = 44 64.7%	66
No, plans have not been discussed	n = 28 51.9%	n = 21 30.9%	49
General discussion but no specifics	n = 4 7.4%	n = 3 4.4%	7
	54	68	122

(2 categories "Subject hasn't discussed plans, but spouse has" and "Other response" were not included in the analyses due to low expected frequencies)

Help Patterns in the Neonatal Period

A significant association was found between sex and whether the grandparent actually did help out during the neonatal period, $\chi^2(1, N=113) = 10.33, p < .01$. Of the 77 subjects who reported helping out 67.5% were women and 32.5% were men. Furthermore, there were differences in the ways men and women described what they did to help. Women generally wrote extended answers to describe what they had done; men's answers were usually brief. Table 24 details the responses of men and women who indicated that they had helped out. This information may prove useful in eliciting more detailed explanations of sex differences in help patterns in future research.

Table 24: Description of help patterns during neonatal period

Grandmothers

Subject No.	What did you do to help out?
201	yes- Stayed & helped with Mother & Baby Made Meals & Did Housework helped with baby
202	Yes - 1) shopped for the family -- and for things for the baby. 2) Helped with housework 3) Helped care for the baby
203	Went dayly to give support (sic)
204	I took Care the baby and my daughter
205	Yes we help after baby was born anyway possible
207	YES. MOTHER HAD TO BE ON FOR SURGERY TWO WEEKS AFTER THE BABY WAS BORN. I TOOK CARE OF THE BABY DURING HER HOSPITAL STAY (capitalization by subject)
211	Yes - I spent 2 weeks in my daughter's home keeping to care for her, her husband & child --I cooked, was baby nurse & advised my daughter about her new role as parent -- she was eager for direction from me & wanted my companionship
212	phone call from mother -- I offered support, advice reassurance
214	Stopped in to see the baby--did dishes, bring in food--tidied up the house
215	Helped with meals, laundry, care of baby
216	Managed the house, errands, meals etc. Helped the mother and baby when asked.
217	Yes, after my daughter came home from the hospital I went out to their home and helped my daughter w/the baby and housework for about a week.
219	did laundry, cooked meals, helped with baby when mother slept
221	financially
222	Yes. I did the laundry, cooked and kept house. I kept the baby in my room at night so that my daughter and son-in-law could get some sleep.
228	Yes--meals, wash, cleaning.
229	Yes--helped with some household chores--laundry & taking care of the baby.

Table 24 (cont)

230 yes Baby 2: Feed, change & bathe baby, hug
& cuddle. Took care of meals, laundry, etc.
232 Provided diaper service for a month. "Baby
sat" when she was 2 weeks old while the
parents went house hunting
237 Helped with cooking, cleaning, laundry--we
went shopping together
238 The husband was laid off work, but I did go
over to stay and clean house. I did her
washing for a few days. Checked to see if
she needed anything. They always know if
they need us we're there.
239 diapered, rocked, attempted to feed water;
cooked; talked to/with new parents
240 Yes; took food over; offered to go on errands
or do laundry etc. They didn't need help
since her husband was on vacation and a BIG
help at home.
241 Yes, bought some needed items had parents
over to dinner sent food home for them.
Our younger daughter did the laundry for the
new parents
242 I went over every noon hour & on the first
weekend took the baby home with me so our
daughter could rest.
244 I stayed at their house and helped with
household, and mother and baby care for 5
days.
245 Went over the Next Day After they Came Home,
just fed and Held her. (sic)
248 #1 With the 1st born child--I went after 10
days and stayed with them to help out with
infant care and housework. I cared for the
baby for two weeks after the mother had to
go back to work. #2 I did not help out with
the baby.
250 Yes--got the meals, did some laundry. Had
my daughter care for the baby but managed to
hold her & rock her quite a bit.
252 Brought food.
256 part time one week
257 Yes--Got meals
258 Yes, I cleaned the house did the washing
changed & made the bed, help settle the
baby's room & spent several days helping out
and still help out whenever needed
259 Stayed with mother & baby, cooked some
meals, did laundry--gave support to a
nervous new mother.

Table 24 (cont)

260 did what I was asked to. Helped in kitchen,
fed guests, did dishes, made beds, helped
the mother

262 Somewhat Brought some meals in. Got some
necessary items. Brought flowers

267 Yes--I helped taking care of the baby and
did most of the household work.

269 Yes-cooking-laundry (sic)--etc. Mother and
baby came home 36 hours after birth.

273 Took gifts to the hospital and brought our
daughter-in-law and grand daughter home from
the hospital stayed until our son got home
from work--visited often or brought meals
in--Our daughter in law did everything
herself.

276 Yes. Helped figure out formula
requirements, sterilizing bottles, etc.
Also, I got up at night a few times so
Melissa could get some rest.

287 Yes, fed him and changed diapers

291 Bought some groceries for them, fixed some
meals. Talked daughter-in-law into staying
in hospital a few days--she wanted to come
home in 24 hours (financial reasons).

402 Yes. I helped a little around the house,I
helped prepare meals at times after they got
home. We had our son eat with us until the
mother got home. I responded as needed when
they needed some advice about the baby.
Anything I could to help them get
established in their routine.

404 Yes--DIAPERED & CHANGED HIM HELPED HIS
MOTHER ABOUT THE HOUSE (capitalized by
subject)

412 Yes, Helped take care of them for 1st 4
days.

413 Mother had Caesarean delivery. Her husband
stayed home & cared for them first week
after she left hospital, Her mother came &
stayed with the next week & I stayed the
third week so the Mother & baby had help for
first month.

416 Yes--washing, cooking, cleaning.

418 I took care of the House & Meals & Laundry

Table 24 (cont)

419	Yes. Stayed 1 day with daughter-in-law. Did laundry, cleaned house, prepared for meal preparation for few days. Had food at home when baby & daughter-in-law came home from hospital.
421	Did household chores, changed baby, rocked baby, fixed food and meals, cleaned house - laundry.
424	I helped my daughter daily for about six weeks mainly with household duties such as laundry, cleaning, shopping.
427	Sent clothing - called more often - purposely did not come immediately to eliminate too much company problem for the new family

Table 24 (cont)

Grandfathers

Subject No.	What did you do to help out?
101	Yes. Bought Crib, clothes, etc.
105	Yes in any way that they needed us
111	Phone calls--Emotional help & stability
114	Yes. What ever was needed
118	Yes--babysat--bought a few things
129	just general support
130	I sent a gift
132	Yes. We visited, held her, took in meals, provided diaper service, a crib and changing table. Most important--show showed our love and genuine concern.
141	Yes--got Things parents needed
142	Yes help buy a lot of baby things
145	I baby sit
150	I believe so. I believe I was of help in caring for Routine errands and "baby sitting" for "a few" days while the parents regrouped their routine life.
152	Giving supplies, gifts, bed, blankets, clothes
157	Meals & cooking etc
158	Yes--get settled in
159	counsel to my son--he called
160	Yes, whatever I was asked to do.
165	Financially-Moral support (I hope)
173	Yes. Brought things to the hospital. Took both daughter-in-law and granddaughter home. Having previously visited them whenever possible. Our independent daughter-in-law handled everything herself, and very well. We made suggestions when solicited, but that's all.
306	Yes! Meals & Baby sitting
313	Yes--in a way--I stayed at our own Home to care for things while my wife helped care for baby the 2nd wk mother & baby was home from the hospital.
321	Some chores around the house
323	Yes-Babysat for 2 hours
327	Yes. Helped out in re-arranging the furniture at home - brought up by trailer additional furniture for the parents comfort. Went food shopping.

Daily Involvement with the Grandchild

Grandparents indicated that they had little interest in assuming a surrogate parent role. All the grandfathers and all but one grandmother agreed that parenting should be left strictly to the parents. Eighty percent of the grandfathers and 92% of the grandmothers did not feel that grandparents have an obligation to help care for the grandchildren on a regular basis. However, 98% of the men and all of the women stated that they would help out in family emergencies.

Men and women differed in regard to whether or not they felt grandparents and grandchildren should live near one another $t(127) = 4.59, p < .001$, and in their indication that there should be daily involvement with the grandchild, $t(129) = 3.03, p < .05$. Few grandfathers (16%) indicated that it was important for grandparents to live close to their grandchildren and fewer still (5%) felt that grandparents should be involved in the daily lives of their grandchildren. However, 51% of the women agreed that grandparents should live nearby with 14% stating that they should be involved in their grandchildren's daily lives. It is interesting to note that although there is a strong relationship between reporting that grandparents should live close to their grandchildren and reporting that grandparents should be involved in their grandchildren's daily lives, $\chi^2 (9, N=131) = 38.9, p < .001$, in terms of actual living styles these variables were not strongly

related to the geographical distance between grandchild and grandparent (importance of living close and actual geographical distance: $\chi^2(9, N=131) = 16.3, p = .06$; need for daily involvement and geographical distance: $\chi^2(9, N=130) = 3.3, p = .95$).

GRANDPARENTAL ROLE MEANING TYPES

Replication of Robertson's Factor Analysis

Robertson (1977) identified four grandparental role meaning types. These types were determined through factor analytic techniques. From a pool of 20 Likert-type items her analysis revealed that 12 were significant ($p < .05$). Table 25 (adapted from Robertson, 1977, page 168) shows the items (and factor loadings) used by Robertson to assess role meaning and the corresponding items from the present study. Table 26 lists those items used in the replication analysis. It can be seen that 3 items were not included (33, 38, 44). It was felt that these items (concerning advice on successful marriages, choosing occupations, and taking a pleasure trip around the world) were too far in the future to be meaningful to a sample that did not yet have grandchildren. Therefore the replication included 4 items for the Social Dimension and 5 items for the Personal Dimension. Minor changes were made in the wording of these items to make them applicable to an expectant grandparent.

Table 25: Role meaning items and factor loadings*

McGreal Item #	Robertson Item #	Item	I	II
NA	33	I would tell my grandchildren to always remember that love and companionship are more important to a successful marriage than money.	.701	.056
20	30	Going to visit a friend for Christmas is more enjoyable than having Christmas with one's family.	.606	.090
25	29	The greatest happiness is found in a family where all members work together as a group.	.562	.119
23	37	I feel that I should do what is morally right to set a good example for my grandchildren.	.499	.186
28	31	One of the most important things I want from my grandchildren is for them to "respect their elders".	.456	.250
NA	38	I feel that my grandchildren should be encouraged to choose their own occupation whether their parents agree or disagree with their choice.	.426	.113
18	34	Life would be very lonely for me without my grandchildren.	.267	.543
27	43	The most important thing about having grandchildren is that they have brought a deep sense of emotional satisfaction to my life.	.222	.526
3	41	One of the most important things about having grandchildren for me is that they make me feel young again.	.118	.455

Table 25 (continued)

McGreal Item #	Robertson Item #	Item	I	II
NA	44	If one of my grandchildren had the opportunity to take a pleasure trip around the world, I think he should take the trip first and see life while he is still young and worry about going to college and getting a job later.	-.075	.412
21	40	I think I should be able to give my grandchildren whatever I can and not be worried about spoiling them.	-.002	.349
16	26	One of the most important things about having grandchildren is that they provide me with a way to see my blood line carried on for another generation.	-.009	.393

*Adapted from Robertson, 1977, Table 1.

I = Factor I: Social Dimension Factor

II = Factor II: Personal Dimension Factor

Since Robertson specified the use of a rotated factor matrix but did not specify the type of rotation, the most widely used rotation method (Varimax) was chosen (Nie, Hull, Jenkins, Steinbrenner and Bent, 1975) and creation of 2 factors was specified.

Table 26 shows the factor loadings for each variable. It can be seen that the variables loading on each factor are as predicted from Robertson's analysis in both the prenatal and the postnatal analyses: Q3, Q16, Q18, Q21, and Q27 loaded highest on the Personal Dimension; Q20, Q23, Q25, and Q28 loaded highest on the Social Dimension.

Robertson reported that the Personal Dimension Factor and the Social Dimension Factor explained approximately 84% of the variance. In the prenatal replication they explained 41.4% of the total variance; in the postnatal replication they explained 40.9% of the total variance. The differences between Robertson's results and those found in the current investigation may be due, in part, to differences in sample characteristics. Whereas Robertson's sample included subjects with considerable experience with the grandparental role, the replication sample needed to anticipate and speculate about the role they were about to assume when assessed prenatally and they remained relatively inexperienced as grandparents in the postnatal analysis. Also, Robertson's sample consisted of women

whereas this sample included responses from both sexes. Finally, Robertson's analysis was based on 12 items whereas in the present study only 9 were used.

The factor loadings presented in Table 26 are based on computations using a correlation matrix with unities in the diagonal (since this appears to be the definition of the factors in Robertson's analysis). Hunter and Gerbing (1982) point out that "the choice of the diagonal elements is not arbitrary, but determines the definition of the factors to be defined in the analysis". They note that the use of unities in the diagonal lead to "correlations between the items and the observed cluster score rather than its underlying trait. The correlation of an item with its own cluster score is the item-total correlation, and is greatly inflated by a spurious common error term." However, when communalities are placed in the diagonal then the "item-factor correlations are the estimated correlations between items and cluster true scores (eg, the underlying trait scores).

Table 27 presents factor loadings based on a correlational matrix with communalities on the diagonal. Comparison of Tables 26 and 27 reveals that the items on the personal dimension retain higher factor loadings than

do those items on the Social Dimension when communalities are used. The artificial inflation due to error scores on the Social Dimension may be due to the small number of items (4) assessing that trait. Therefore, although factor analysis confirms the two factors defined by Robertson, further research should include an additional battery of items which would be hypothesized to intercorrelate with the Social Dimension Factor.

Table 26: Factor Loadings: Principle Components Solution

Item # and Description	Factor I (Social)		Factor II (Personal)	
	Pre	Post	Pre	Post
25. Family members work together	.703*	.633*	-.064	.207
23. Set a good example	.576*	.718*	.066	.031
20. Visit friend for holidays	-.501*	-.641*	.037	.067
28. Respect for elders	.492*	.583*	.340	.210
27. Bring emotional satisfaction	.194	.048	.781*	.757*
18. Lonely without grandchildren	.176	.103	.648*	.613*
16. Blood line carried on	-.139	.197	.643*	.578*
3. Make me feel young again	.139	-.121	.625*	.724*
21. Give without worry of spoiling	-.196	.076	.550*	.215*

Table 27: Factor Loadings: Principle Factor Solution

Item # and Description	Factor I		Factor II	
	Pre	Post	Pre	Post
25. Family members work together	.683*	.490*	-.124	.193
23. Set a good example	.235*	.581*	.091	.053
20. Visit friend for holidays	-.176*	.434*	-.013	.006
28. Respect for elders	.415*	.433*	.240	.187
27. Bring emotional satisfaction	.250	.071	.763*	.671*
18. Lonely without grandchildren	.157	.123	.527*	.455*
16. Blood line carried on	-.018	.183	.509*	.432*
3. Make me feel young again	.171	-.053	.486*	.579*
21. Give without worry of spoiling	-.044	.068	.386*	.127*

Principle components solution places unities on the diagonals. Principle factor solution places communalities on the diagonals. * indicates the factor on which the item has the highest loading.

Role Meaning Types

In order to categorize subjects according to typologies, subjects received a score of 1 (strongly agree) to 4 (strongly disagree) for each of the 5 personal dimension items and for each of the 4 social dimension items. (Subjects who did not answer all questions pertaining to a dimension were not included in the analyses reported below.) The possible range of scores on the personal dimension was from 5 (indicating strong agreement on all the questions) to 20 (indicating strong disagreement on all the questions). The actual range was from 6 to 18 ($\bar{x} = 13$) in the prenatal data and from 6 to 20 ($\bar{x} = 13$) in the postnatal data. The possible range for the social dimension scores was 4 to 16. The actual range was from 5 to 13 ($\bar{x} = 9$) in the prenatal data and from 4 to 12 ($\bar{x} = 9$) in the postnatal data. A mean split was used on the prenatal data to dichotomize subjects into a high-agreement group and a low-agreement group on each dimension. Those subjects with a mean score were randomly assigned into a group (as assigned by Robertson, 1977). Sixty-nine subjects were classified as high scorers and 71 as low scorers on the personal dimension. The higher scoring group on the social dimension was composed of 67 subjects; the low scoring group had 72 subjects. The two dimensions were combined in order to categorize subjects according to Robertson's (1977) four grandparental role meaning groups.

Table 28 compares the distribution of grandmothers obtained by Robertson with the distribution of grandparents found in the current study. In both studies, the most common types of grandparental roles are the apportioned role type and the remote role type. Robertson (1977) found that these types varied on several life style variables. However, the significance levels used in her study were liberal. Therefore, traditional levels of significance were used in the current investigation in order to determine the usefulness of this typology.

Table 28: Comparison of grandparental role meaning types.

		Personal Dimension	
		High	Low
High		Apportioned	Symbolic
		Robertson n = 36	Robertson n = 33
		McGreal n = 38	McGreal n = 28
Social Dimension			
Low		Individualized	Remote
		Robertson n = 21	Robertson n = 35
		McGreal n = 29	McGreal n = 41

Robertson's data adapted from Robertson, 1977, Table 2.
McGreal data based on Full Sample.

There was no relationship between grandparental role type and sex, $\chi^2(3, N=136) = 3.41$. Therefore, men's and women's scores were analyzed together in the procedures reported above. Although the association between lineage (maternal vs. paternal) and role types approached the preset level of significance, $\chi^2(3, N=133) = 7.03$, $p = .07$, it was not significant. There also were no differences in terms of when the different role types first began to imagine themselves as grandparents, $\chi^2(24, N=128) = 26.05$, or in their first reaction to the news that they were about to become grandparents, $\chi^2(12, N=133) = 6.23$. Analysis of variance revealed no differences between role types and chronological age $F(3, 130) = .63$, or between role types and the highest grade level completed by the subject, $F(3, 129) = 1.02$. In order to determine if role behavior was related to role meaning type a multivariate analysis of variance test (Wilks procedure) was performed using 11 role behaviors and the four role meaning types. No significant differences were found, $F(33, 337) = 1.22$.

Given this lack of association between the grandparental role meaning types and various life style variables it was decided that an analysis based on consistent types (prenatal and postnatal consistency) would be performed. Differences, such as those obtained by Robertson, could arise among those subjects who consistently indicated a particular role meaning type. For example, a person would have to be categorized as

"Apportioned" both prenatally and postnatally in order to be considered an "Apportioned" role type. To further strengthen the robustness of each type, subjects with mean scores on either the personal or the social dimension, either prenatally or postnatally (means were the same on both occasions) were not included. There was a significant association between prenatal and postnatal role meaning types under these conditions, $\chi^2 (9, N=41) = 55.9, p < .01$. Table 29 shows the pattern of prenatal-postnatal types.

As can be seen in Table 29 only 31 of the subjects can actually be classified as consistent role types. Table 30 provides a description of these consistent role types but cell sizes are too small for statistical analysis of life style variables by consistent role types.

Table 29: Consistent Role Types

		Postnatal Role Types				
		App.	Ind.	Rem.	Sym.	
Prenatal Role Types	App.	n=8	n=1	n=0	n=0	9
	Ind.	n=1	n=5	n=2	n=0	8
	Rem.	n=0	n=1	n=13	n=1	15
	Sym.	n=2	n=0	n=2	n=5	9
		11	7	17	6	41

(App. = Apportioned role type; Ind. = Individualized role type; Rem. = Remote role type; Sym. = Symbolic role type)

Table 30: Description of consistent role types

Apportioned	Symbolic
n = 8	n = 5
3 men	2 men
5 women	3 women
5 maternal	3 maternal
3 paternal	2 paternal
6 younger*	2 younger
2 older**	3 older
Individualized	Remote
n = 5	n = 13
2 men	7 men
3 women	6 women
1 maternal	8 maternal
4 paternal	5 paternal
2 younger	6 younger
3 older	7 older
* 52 years and under	
** 53 years and older	

ROLE BEHAVIORS

Particular role behaviors anticipated by the grandparents were assessed prenatally and postnatally. Table 31 shows the percentages of grandparents anticipating each behavior. It also shows the actual frequency of the occurrence of each behavior as reported by Robertson (1977). Although a direct comparison cannot be made between the two studies due to the differences in the nature of the samples studied, the differences are provocative. It can be seen that the grandparents in this study anticipate greater involvement with their grandchildren than is reported in the actual behaviors by the subjects in Robertson's study. Subjects in the current study anticipate taking their grandchildren on vacations and relating family history much more frequently than Robertson's subjects engaged in these behaviors. They are anticipating being advisors to their grandchildren much more frequently than might be predicted given the responses of Robertson's subjects. Overall, when the expected role behaviors for subjects in this study are compared to the actual role behaviors as reported by Robertson's grandmothers, the expectant grandparents anticipate greater interaction.

Table 31: Frequency of anticipated role behaviors.

Role Behavior	Pre	Post	Robertson's
Provide gifts	97.7%	98.3%	97.6%
Babysit grandchild	86.4%	89.7%	92.0%
Engage in home-recreational activities	95.5%	97.4%	79.2%
Drop-in to visit grandchild	53.8%	54.7%	64.8%
Relate family history	79.5%	82.1%	47.2%
Teach special skills	70.5%	66.7%	42.4%*
Help out with family emergencies	99.2%	99.1%	39.2%
Take grandchild on vacations	68.9%	72.7%	28.4%
Advise grandchild on personal problems	43.2%	47.9%	29.6%
Advise grandchild regarding work	42.4%	41.0%	24.0%
Advise grandchild regarding religion	27.2%	31.7%	13.6%

Information concerning the grandmothers in Robertson's study is adapted from Table 5: Role behaviors with grandchildren (N = 125) from Robertson, 1977.

Percentages indicate percentage of subjects anticipating this activity (McGreal) or reporting this activity (Robertson). Prenatal percentages based on Selected Sample (n = 132). Postnatal percentages based on Longitudinal Selected Sample (n = 117).

* Robertson's role behavior for this item was labelled "Teach sewing". The wording was changed in the present study to "Teach Special Skills" due to the inclusion of men in the study.

SATISFACTION WITH GRANDPARENTHOOD

There was considerable variation in what grandparents felt was the most satisfying aspect of grandparenthood; 90.6% of the subjects did specify a particular aspect that they felt was especially satisfying; 3.4% did not know which aspect was most satisfying (the remaining subjects did not list a satisfying aspect of grandparenthood). Many subjects indicated that observing the baby grow and learn was very satisfying and several stressed the enjoyment of this growth process from the standpoint of someone not directly responsible for the child.

"Watching his responses to his environment, watching him grow and develop. Knowing that I am not responsible for him to the degree I was as a parent". (Grandmother)

"Loving without going through the trauma of giving birth. Appreciating the wonder of a new human being & the changes that take place. Age gives me the distance to see what I didn't necessarily see (sic) or appreciate at a younger age". (Grandmother)

"Being able to enjoy the child and knowing I don't have the responsibility any longer. I'm tired of the responsibility, esp. when they become teenagers". (Grandfather)

"Holding the baby and watching the various stages of development". (Grandfather)

Other grandparents emphasized the feelings of family continuity and renewal that emerged with the birth of the first grandchild.

"That the next generation is continuing & she [the daughter] values so many ideas & concerns as I did for my children -- she's happy & wants more children. one more to love." (Grandmother)

"Holding the baby -- the feeling he's an extension of our daughter (baby of the family)" (Grandmother)

"Seeing my daughter extend our values to her daughter. However, not feeling the same obligation as the parent for the grandchild." (Grandfather)

"The joy of knowing that I brought a life into the world and now that life bore a new life". (Grandfather)

Observing the happiness that the baby brought to their children's lives was the most satisfying aspect of grandparent to several subjects.

"Loving our granddaughter. Seeing our daughter & son-in-law love her. Seeing our whole family love this little baby". (Grandmother)

"Knowing they are happy about having a baby". (Grandmother)

"The joy in my daughter and son-in-law" (Grandfather)

"My Daughter is Happier Than She's Ever Been". (Grandfather)

Finally, just having a grandchild to love was especially satisfying to many grandparents.

"Loving our new little person." (Grandmother)

"JUST FEELING GREAT LOVE FOR MY GRANDSON."
(Grandmother)

"Cuddling, loving my grandchild." (Grandfather)

"Just loving Him." (Grandfather)

When asked which aspects of grandparenthood were least satisfying 53% of the subjects felt that there were none, 17.1% reported that they were not with the baby often enough, 5.1% reported particular infant behaviors that were not satisfying such as the infant's crying, 4.3% reported worry over the baby, and 12.8% reported other aspects (such as "Makes me realize my age" or "My inner annoyance at the other grandmother"). 7.7% of the subjects did not answer this question.

CHAPTER 4

DISCUSSION

The Timing of First Grandparenthood

The first hypothesis posed the issue of whether parents who become grandparents "off-time" in terms of their expectations for this event have greater difficulty considering themselves as grandparents than do those who become grandparents at the expected time.

It is interesting to note the differences in chronological age among those subjects who considered their timing to be "off". Those who felt they were becoming grandparents sooner than expected (aged 42 to 52 years) were in their 40's and early 50's thus providing some support for the hypotheses by Cavan (1962) and Waller and Hill (1951) that many feel the role to be inappropriate until after their 40's. Indeed, when asked the best age to become a grandparent the mean was 50 years of age for becoming a grandfather and 49 years of age for becoming a grandmother. But a consideration of age alone would not explain the fact that subjects who were becoming grandparents when expected ranged in age from 37 years to 77 years! Among subjects whose chronological age was the same as the age they considered to be the ideal age to

become a grandparent, 15.4% were becoming grandparents later than they thought they would, and 7.7% were becoming grandparents sooner than they thought that they would. Thus, factors other than their own age were being considered when a person formed an expectation for this event. Since the subjects in this analysis all had married children, the problems involved in being "off-time" due to a pregnancy outside of marriage were not relevant. Therefore, other factors must be considered when explaining these findings. Parents of adult children may contemplate their child's maturity, the length of time that the child has been married, whether or not educational plans have been completed, and other factors of this nature when they begin to anticipate a timing for grandparenthood in their own lives.

The hypothesis that there would be a relationship between perceiving the assumption of the grandparental role as being off-time and reporting difficulty thinking of oneself as a grandparent was not supported. However, one cannot conclude from this finding that there is no relationship between the two variables. Although many parents in the study became grandparents "off-time" in terms of their own expectations for the event, the ordering of the events was normative relative to society's timetable. As noted above, the subjects' children were married adults at the time of the grandchildren's births.

It may be that those who become grandparents at a non-normative time according to society do have difficulty in assuming the grandparental role. Recent research concerning the timing of grandparenthood has emphasized becoming a grandmother too soon according to society's norms. The stresses involved when grandparenthood occurs "off-time" have been explored in the mothers of teenage parents (Lee, 1982; Lee and Colletta, 1983; Lee, 1984). A feeling of burden caused by the needs of the daughter and grandchild was expressed by two-thirds of the subjects. Those who did not feel burden usually had social support systems to aid them, positive self-concepts, and a sense of control over their own lives. Not surprisingly, the younger the mother, the more burden felt by the grandmother.

Since difficulty perceiving oneself as a grandparent was not explained in terms of the timing of the event, other factors need to be considered. Difficulty perceiving oneself as a grandparent also was not due to the fact that the grandchild had not yet been born at the time the subject first participated in the study since 25% of the grandfathers and 15% of the grandmothers had difficulty thinking of themselves in this role even after the grandchild's birth. This result is not due to the fact that many of the grandparents had not yet had the opportunity to see their grandchild; although many lived at considerable distances from the grandchild all but two

grandparents had seen their grandchild by the time the postnatal assessment was completed. Fischer (1983) found that geographical distance affected grandmothers' conceptions of the role of grandparent. Mothers whose married daughters lived near most frequently reported that grandparenthood was an emotional investment. The most frequent response from those subjects whose daughters lived far away and from those whose grandchildren were through a son rather than through a daughter (the two groups were combined in the analysis) was that life did not change. However, interpretation of these results is difficult. The rationale that geographical distance is relevant only according to matrilineal kinship patterns is questionable. The assumption that paternal grandmothers living near their grandchildren are more similar to grandmothers whose sons and daughters live far away than to maternal grandmothers living close to their grandchildren is made without supporting evidence.

Another reason why the grandparental role is difficult for some subjects to assume may be their current parental activities. For example, it may be that these subjects are still active in a parenting role with other children. Even though they may have expected to become grandparents at this time, the role is hard to imagine since they are active parents with other children. Although this was the

typical pattern decades ago (Glick, 1955, 1977), at the present time the two roles are usually distinct.

Further research on the timing of grandparenthood should include both grandparent and parent variables in order to assess how the person determines whether their family is "on-time" or "off-time". Teenage pregnancy has been found to be stressful for grandparents who are "off-time" in terms of the assumption of this role. Whether it also is stressful to assume the grandparental role "off-time" because one's children are much older than expected when pregnancy occurs would be interesting to investigate.

Biological Renewal

The second hypothesis concerned whether feelings of biological renewal would be stronger for maternal grandmothers and for paternal grandfathers. Although in the past stronger indications of biological renewal have been reported by grandmothers than by grandfathers (Neugarten and Weinstein, 1964) it was hypothesized that this result could have been obtained because of the greater number of maternal grandparents studied. It is difficult to draw conclusions about this hypothesis due to the conflicting results obtained in the two assessments. The prenatal data supported the hypothesis but when the postnatal results were analyzed there was no interaction between sex and lineage. When 3-generational lineage patterns were analyzed there was no support for the

hypothesis that biological renewal follows same-sexed lineage patterns. Investigation of biological renewal with cell sizes large enough to allow for analyses of the eight possible lineage combinations obtained when three generations are included may reveal patterns that were not found in the current study due to the need to combine groups. However, it may be that biological renewal is not as salient an issue to grandparents as has been suggested in the literature. In order to determine if this is the case it would be useful to interview grandparents with respect to how they feel family continuity is carried on through grandchildren. Through these interviews a more robust measure of biological renewal may be obtained and used to further research this question.

The topic of biological renewal has been addressed in theory and research but its significance to grandparents remains unclear. However, as noted earlier, the transition to grandparenthood is a middle-aged transition rather than one of old-age. Perhaps the importance of having someone carrying on the family line emerges toward the end of the life cycle rather than at the grandchild's birth. This question could be studied cross-sectionally to determine if it warrants further consideration in a longitudinal manner and, if so, at what point in time it becomes a meaningful issue for grandparents.

Anticipating Grandparenthood

The third hypothesis considered whether women begin to imagine themselves as grandparents at an earlier age than do men. It has been suggested that there is a preparatory period for grandmotherhood before one's children are married (Neugarten and Weinstein, 1964). The data supported this hypothesis. Men and women differed in regard to when they first began to imagine themselves as grandparents. Twice as many women than men had begun to visualize this role by the time their children were married. In fact, many men had not yet begun to picture themselves as grandfathers even during the last trimester of the pregnancy! This may explain the fact that men were more likely than women to respond that they felt distant from involvement with the grandchild before the birth. Since women had begun to prepare for the role earlier, it was easier for them to imagine themselves as involved with a grandchild than it was for the men.

Age Differences

The first research question concerned whether or not there are age differences in terms of grandparents' expectations for the grandparental role. The results showed that there were no significant age differences regarding the significance of grandparenthood or regarding role behaviors that the grandparents expected to enact with grandchildren. This result was contrary to that obtained

by Neugarten and Weinstein (1964) in which older grandparents tended to prefer a formal style of grandparenting whereas younger grandparents tended to prefer either a funseeking or a distant style. One difference between the two studies could be the age at which the division into an "older" and a "younger" group was made. In the current investigation the differentiation was between those who were above or below age 52; in the study by Neugarten and Weinstein (1964) the subjects were divided at age 65. If indeed the preferences are due to age differences it may be that the subjects in the current study had not yet reached the age where differences emerge. A more likely explanation would be one based on the developmental level of the grandchild. At this point in time all of the grandchildren are infants. Differences in styles assumed by the grandparents may change over time as different behaviors become more appropriate for, and more appreciated by, children of different ages. Recent evidence supports this interpretation. A content analysis of Grandparent's Day cards indicated that the cards could be divided into three categories suitable for mailing by children of different developmental stages (Greene and Polivka, 1983). Cards appropriate for young children often emphasized indulgent qualities. The next level of cards emphasized functional interactions that involved sharing activities. Finally, there was a group of cards with

abstract messages suitable for older children. The implication of these categories is that the grandchild-grandparent relationship changes over time such that different types of interactions are appropriate for children of different ages.

Research by Thomas and Datan (1983) stressed the need for investigating grandparenthood from a developmental point of view. Grandparents gave retrospective reports of changes in their relationships with grandchildren that had occurred over time. Outings with grandchildren increased during the preschool years and then began to decrease as grandchildren became teenagers and associated more often with peers. Methods used to entertain grandchildren also changed over time. Different activities were found to be satisfying and different behaviors were considered annoying as the grandchildren grew older. Grandparents considered these changes to be a result of their accommodations to the grandchild's development. In order to investigate how grandparents adapt their interactions to the changing needs of their grandchildren, longitudinal studies of grandparent-grandchild interactions are necessary.

Several assumptions regarding grandparenthood have been advanced and warrant further consideration before they are accepted. Among these is the suggestion that the older the parents of the grandchildren, the more ceremonial the grandparental role will be (Sprey and Matthews, 1982).

This assumption is based on the fact that older parents are more likely to be independent of their own parents, thus reducing the direct participation of the grandparents in family life. This assumption could be supported when one is comparing teenage parents with older parents. However, once the parents are adults this assumption may no longer prove true. Research is needed to determine the impact of parent age (beyond the teenage years) on the grandparent-grandchild relationship.

Age differences were found in regard to whether or not a person was becoming a grandparent at the expected age. Those in the younger group tended to be assuming the role at about the time that they had expected, whereas those in the older group were becoming grandparents somewhat later than expected. The stability of these expectations can be seen when the prenatal and postnatal means are compared. This finding indicates, first, that the majority of subjects (both male and female) have anticipated grandparenthood even before the birth of the first grandchild. Second, it shows that these expectations are related to chronological age. The relationship with chronological age, however, may actually be caused by another variable. For example, the older subjects are more likely to have older children who may have been married longer, reached career goals, etc. Further investigation of this issue including adult-child variables would be beneficial.

Age differences also were found in self-perceived age status in terms of whether subjects considered themselves to be young, middle-aged, or old. The prenatal-postnatal differences in response to this question are interesting since they imply that chronological age alone is not the major determinant. One would expect little change in self-perceived age status over the course of this study if it was primarily due to chronological age since the study was conducted within the span of a year and many subjects were the same chronological age for the prenatal and the postnatal assessment. Yet a significant increase was found such that postnatal scores reflected an older age status than did prenatal scores. The younger subjects still reported a younger perceived age status than did the older subjects but the means of both groups increased. This finding supports the hypothesis that grandparenthood may be a social transition point used to define age categories in our society. However, the age category that it appears to define is that of middle-age rather than the stereotype of old age.

In conclusion, the results of this investigation and other recent studies suggest that the grandparent-grandchild relationship should be viewed as a developmental process. In the past, chronological age of the grandparent often received major emphasis. It appears likely that the chronological age of the grandchild is a

more salient aspect to be considered when exploring the interactions of grandparents and their grandchildren. Changes that occur in the relationship that may be a result of changes in the development of the child need to be investigated through longitudinal studies.

Lineage

The second research question investigated in this study concerned whether there are lineage differences in grandparenting expectations and behaviors and whether there was more communication between the expectant parents and the maternal grandparents. No lineage differences were found in regard to whether the subjects knew that the pregnancy was planned or unplanned. Subjects learned of the pregnancy most frequently from their own child but several paternal grandparents received the news from a daughter-in-law. No maternal grandparents learned of the pregnancy through a son-in-law. Information about the pregnancy, therefore, seems to be regarded as the expectant mother's news in these cases. Information about the birth, on the other hand, most often came through the new father. This result may be due in part to hospital practices rather than due to a decision on the part of the new parents. Until recently parents often were separated from the baby soon after birth and the woman was required to stay in a recovery room (sans phone) for several hours.

Thus a major focus at the time may have involved informing relatives of the birth which would necessarily be done by the father. This would also be more likely in cases where the mother received extensive medication during the birth. With the increased emphasis on "natural" (reduction of chemicals) childbirth and with changes in hospital practices so that both parents and the baby can remain together during the transitional recovery period it may be that the above result will change.

Maternal grandparents were more likely to be at the hospital during the birth than were paternal grandparents and all of the grandparents who witnessed the birth were maternal grandparents. This evidence would appear to support the assumptions that family interactions in our society are indeed matrilineal (Robins and Tomanec, 1962; Crase and Hendrickson, 1968; Updegraff, 1968) and that family ties are stronger through the maternal side (Kahana and Kahana, 1970b). However, the differences that are evident during the neonatal period disappear over time. Although the maternal grandparents are more likely to see the grandchild first, there are no differences between maternal and paternal grandparents in terms of how often they see the grandchild after the birth and no differences in terms of how often they expect to see the grandchild after the birth. Longitudinal investigations would prove interesting with respect to this issue. Do the paternal grandparents actually continue to interact as anticipated?

Since research has shown that many young children report that the maternal grandparent is their favorite (Kahana and Kahana, 1970b) consideration of the types of interactions between grandparent and grandchild would be useful since actual frequency of interaction during infancy does not appear to differ. Recent research provides evidence that interactions are influenced by lineage in adulthood. When adult grandchildren were asked about their relationships with grandparents they reported that there was more contact with the maternal grandmother than with the other three grandparents (Hartshorne and Manaster; 1982). The paternal grandmother had more contact with the grandchild than did either grandfather. When grandfathers were compared the maternal grandfather had more contact with his grandchildren than did the paternal grandfather. Often paternal grandparents are older than maternal grandparents and so morbidity has been used to explain preferences for maternal over paternal grandparents (eg, as found by Kahana and Kahana, 1970b). However, Hartshorne and Manaster found that more paternal than maternal grandfathers were actually available for contact thus reducing the possibility of morbidity as an explanation for these results.

Anecdotal evidence suggests that maternal grandparents are considered to have priority in terms of helping a new family after the birth of a child. This was confirmed in the results. Paternal grandparents are more likely to form

their plans based on the plans of the maternal grandparents, as though deferring to an acknowledged priority. Maternal grandparents are more likely to plan to help out whereas paternal grandparents are twice as likely to report that they will help out if they are needed or if an emergency arises. However, after the birth there are no differences in terms of whether or not the grandparents actually provided help. This discrepancy would be interesting to pursue in future research. For example, do maternal and paternal grandparents help out in different ways? Are they using the same definitions in defining what constitutes helping out during the newborn period? Do those in one group tend to provide more physical care of mother, baby and household while those in the other group provide financial assistance, gifts, etc, more frequently? Is there a difference in the length of time during which the helping occurs? Is there an order in which care is given (example: maternal grandparents visiting for one week, paternal grandparents visiting for the next week)? These issues can be explored to help resolve the prenatal-postnatal discrepancy.

Sex Differences

The possibility of sex differences in grandparenting was considered in the third research question. Specific hypotheses regarding this topic were difficult to construct due to the fact that so few researchers have included

grandfathers in their samples. The suggestion that men may have more difficulty than women in the grandparental role (Cavan, 1962) was supported by the fact that expectant grandfathers received higher scores than did expectant grandmothers on items from the Distant cluster. However, once the grandchild was born there were no sex differences on this variable. Thus, it can be concluded that men may have more difficulty anticipating the role but that once the baby is born they no longer feel distant. This interpretation is supported by the results showing that men and women differ with respect to when they first begin to imagine themselves as grandparents. Women report that they imagine themselves in this role much earlier than do men. There are no differences between men and women in regard to the knowledge they have about the pregnancy and birth. It is interesting to note that although women communicate directly with their children, more men than women obtain information about the pregnancy from their spouses. Thus, many men may become aware of aspects of their adult children's lives indirectly. This would be an interesting issue to pursue in further research. In the present study most of the marriages of the subjects were intact. However, given the current divorce rate many parents about to become grandparents are divorced. Whether or not sex differences become more obvious in that situation (such that men have less knowledge about their children's pregnancy and birthing experiences), in which there is

reduced (if any) communication between the parents of the expectant parents, would be informative.

Woman are more likely to plan to help out the new family after the birth and they are more likely to discuss their plans with their children. They also are more likely to follow through with these plans. Women indicated different patterns of help. It would be useful in future studies to assess the frequency of helping behaviors as well as the activities the grandparent engages in. Given the more detailed descriptions of help reported by the women it appears that they provide more extensive help. However, since frequency was not assessed in the present study this cannot be determined.

Comparisons were planned to determine whether grandparents had a preference for a grandchild of a particular sex. However, very few subjects expressed a preference before the birth of the baby. Among the 25 subjects who did have a preference 80% of those preferring grandsons were men and 80% of those preferring granddaughters were women. As noted earlier, a reason for the small number of subjects reporting a preferred sex may be the manner in which the question was asked. This item had a high degree of social desirability in the way that it was worded and the majority of subjects gave responses indicating that their only concern was a healthy baby.

When this topic is addressed in future research care should be taken to avoid this problem.

There was no association between subject's sex and the preferred sex of the grandchild. More subjects reported having preferred a particular sex postnatally than prenatally. It seems likely that the postnatal preference may not represent a prenatal preference. There is a significant relationship between reporting that one had hoped for a particular sex and having a grandchild of that sex. Yet, there would be no reason to expect a relationship between hoping for a girl and having a granddaughter or between hoping for a boy and having a grandson. A possible interpretation is that this association reflects a satisfaction with the grandchild and thus retrospectively the grandparent reports that this is just the child that had been hoped for. Once a more reliable means to assess this preference prenatally has been developed, a prenatal-postnatal comparison can be performed to provide more detail on this research question. The reasons for preferring a particular sex (eg, does the grandparent plan particular interactions that are considered more appropriate for one sex than the other?; do the grandparents' preferences relate to the sexes of their own children such that a mother of boys prefers granddaughters?) also should be explored.

The marital status of the grandparents and of the parents can have considerable impact on the grandchild-grandparent relationship. It is likely that divorce may affect grandmothers and grandfathers in different ways. Although research is currently being conducted which evaluates the effects of parental divorce (Johnson, 1983; Matthews and Sprey, 1984) the effects of grandparental divorce have not been considered. Research on family rituals revealed that these gatherings tended to center around the grandparent generation when the older members were couples more frequently than when an older family member was single (Albrecht, 1962). Given the role of women as "kin-keepers" (Hagestad, 1984) the divorce of an older couple may have a greater impact on the man's family relationships. The role of the grandfather in this context should be explored.

Grandparental Role Meaning Types

Since four distinct grandparental role meaning types have been differentiated among grandparents (Robertson, 1977) the fourth research question involved whether these types could be replicated among those becoming grandparents for the first time. The results show that two factors were obtained through factor analysis. The loadings occurred on each factor as would be predicted (from Robertson's analysis) in both the prenatal and the postnatal data. However, once communalities replaced unities as the

diagonal elements the spurious common error was eliminated and it was revealed that the factor representing the Social Dimension of grandparenthood had been inflated by error scores. Therefore, even though the two factors were confirmed the lowered factor loadings on the Social Dimension indicate that it is unlikely that all four role meaning types obtained will be meaningful. Instead of comparisons of high-low scorers on each dimension (resulting in the four types) future research may consider only the Personal Dimension (thus reducing the number of types to two). However, it should be noted that the present study relied on only 9 items in the factor analysis whereas Robertson's (1977) analysis included 12 items. Before eliminating the Social Dimension from future studies an attempt could be made to include an additional battery of items that would represent the social factor.

In conclusion, Robertson's (1977) typology of the meaning of grandparenthood requires further development before it can be considered useful. Instrument development is needed which includes more items relating to the Personal and Social Dimensions of grandparenthood. If error scores continue to inflate the social items then it may be necessary to reduce the typology to two types rather than four. Descriptions based on each type should not be developed until there is evidence that these types are consistent.

Predicting Role Meaning Types

Since the four grandparental role meaning types were replicated an attempt was made to predict these types from life style variables before the birth of the grandchild. Life style variables relating to each type have been discussed in the literature (Robertson, 1977). However, the significance levels used to determine these types have been set at such liberal levels that it seems likely that the results were obtained by chance. In the current study there were no relationships found between role meaning types and various life style variables such as age and education. There were no differences between the four types with respect to anticipation of grandparenthood, reaction to grandparenthood, and grandparental role behaviors. There also was a lack of stability in regard to the classification of individuals when prenatal and postnatal comparisons were made.

There are two possible explanations for the discrepancy of the current investigation and Robertson's (1977) investigation. It could be that the effects of the variables emerge as the grandchild grows older and interactions become more reciprocal. This explanation, however, seems unlikely. It is more likely that the original findings were due to chance and that once traditional significance levels rather than liberal levels are used no significant relationships occur.

It was found that only a quarter of the subjects were consistent in classification by role type in the prenatal and postnatal classification. In order to prove valuable in describing grandparental role meaning types, these classifications should be consistent. However, the inconsistencies may prove interesting in relation to transitions in adult development. It may be that these types reflect issues, such as the transition to middle age, that are undergoing change as an individual becomes a grandparent.

Role Behaviors

The sixth research question addressed the issue of whether expectant grandparents would anticipate engaging in role behaviors that are performed by experienced grandparents (as reported by Robertson, 1977). The results reveal that when adults are questioned before and after the birth of the first grandchild about the activities that they will perform with grandchildren they anticipate higher levels of interaction than has actually been reported by experienced grandparents. Some differences may be based on realistic assessments of the current intergenerational relationships between parent and adult child. Over time the interactions may be reduced. For example, the fact that over 99% of the subjects in this study reported that they would help out in family emergencies may be influenced by the fact that many helped

out at the time of birth. Also, these subjects are substantially younger than the experienced grandmothers studied by Robertson (1977) and therefore may be in a better position to help out both financially and physically. Robertson reports that over 38% of her subjects were over 70 years of age; in the current study 1.8% of the subjects were over 70-years-old (Longitudinal Selected Sample). Another difference between the subjects in the current study and in Robertson's study involves the SES of the two samples. Incomes reported by Robertson were 25% over \$9,000, 50% between \$3,000. and \$9,000, and 25% under \$3,000. [as reported in interviews in 1970]. In contrast, subjects in the current investigation reported high levels of income; over half of the subjects reported incomes over \$30,000. [as reported in 1982-1983]. Over 50% of Robertson's subjects had an 8th grade education or less whereas in the current study the average education was beyond high school.

When the expectations for role behaviors obtained prenatally and postnatally were compared no differences were found. It should be noted though that as of yet the grandchildren were young and so opportunities for many of the activities had not yet occurred. It would be interesting in further research to follow subjects longitudinally to determine if grandparents actually do engage in these role behaviors as anticipated and the frequency of each behavior. It is likely, however, that

expectations for the role may change over time as the grandparents and grandchildren interact and as interactions change with the adult children who have assumed a parental role.

Given the discrepancies between the expectations for grandparenthood and the actual behaviors reported by grandparents there is a need to consider the expectations of the child's parents in order to determine if their attitudes are the mediating variables causing the reduction in grandparent involvement. Studies focusing on grandparent-adult child interactions are necessary to gain information on family relationships involving the grandchildren. This is a difficult topic to research due to the need to include members of three-generations in sufficient numbers so that analyses can be performed to determine the effects of sex and lineage. Nevertheless, it appears to be an important issue to investigate based on the findings of this research.

Satisfaction with Grandparenthood

The final research issue explored the aspects of grandparenthood that are considered the most and least satisfying during the grandchild's infancy. More subjects in the current study expressed satisfaction than would be anticipated from the findings of Neugarten and Weinstein (1965). They found that 59% of the grandmothers and 61% of the grandfathers expressed comfort and pleasure in the

role. Grandparenthood is viewed as a satisfying experience by 90% of the subjects in this study. Over half felt that there were no dissatisfying aspects of the role; the most common source of dissatisfaction among those who specified a least satisfying aspect was not being able to spend enough time with the infant. Grandparents reported that satisfaction with the grandchild was obtained by enjoying the development of the baby, by feelings of family continuity, by observation of the happiness of the new parents, and simply by having another family member to love. Once again, longitudinal investigations would be useful to explore how satisfaction derived from grandparenthood changes as the grandchild matures. The above sources of satisfaction are basically unidirectional. It would be interesting to determine whether reciprocity between grandparent and grandchild becomes important in deriving satisfaction from the role once the grandchild reaches a particular point in development.

Summary

The current investigation examined individuals' expectations for the grandparenting role before and after the birth of the first grandchild. Grandparents' perceptions of the timing of this event in terms of their expected time-table for becoming a grandparent also were studied. The results showed considerable variation in the chronological ages of those becoming grandparents at the

expected time. Plans to engage in various activities with the grandchild varied as a function of perceived timing of the role. Those who were becoming grandparents "off-time", however, were not more likely than "on-time" grandparents to report difficulty thinking of themselves in this role.

Contrary to previous findings there were no age differences either prenatally or postnatally on the cluster variables or on anticipated role behaviors. Age differences were found with respect to the timing of grandparenthood such that older grandparents reported that the birth of the first grandchild occurred later than expected. Older grandparents also indicated that they perceived themselves as members of an older age-status groups than did younger grandparents. Prenatal and postnatal comparisons showed that, in general, subjects reported an older age status after the birth of the grandchild.

The findings reflect a need to consider issues of lineage when investigating the significance of grandparenthood. The prenatal results support the hypothesis that women perceive biological renewal through their daughters whereas men view it as occurring through their sons. However, no relationship between sex and lineage was found when the postnatal data were analyzed for themes of biological renewal. Maternal grandparents were more likely than paternal grandparents to state that they

would help the new parents after the birth; paternal grandparents indicated a willingness to help only if needed more often than did maternal grandparents. Lineage differences were evident in early grandparent-grandchild interactions such that maternal grandparents usually saw the infant at a younger age than did the paternal grandparents. However, there were no differences in the frequency of visits after the birth.

In general, sex differences were more evident before the birth of the grandchild. Women began to visualize themselves as grandparents at earlier points in their lives than did men. Before the birth men were more likely to perceive themselves as distant from the grandchild whereas women perceived themselves as involved with the grandchild. After the birth there were no sex differences on these variables. Differences remained, however, in regard to helping behaviors such that women were more likely to assist the new parents.

Factor analysis replicated the personal and social dimensions of grandparenthood as defined by Robertson (1977). Loadings on the social dimension were inflated by a common error term and therefore the value of dividing subjects on this dimension is questionable. When subjects were assigned to four role-types the types were not related to sex, lineage, age, education or to anticipated role behaviors.

The majority of subjects were satisfied with the grandparental role during their grandchild's infancy. Major sources of satisfaction were watching the development of the baby without the responsibility of parenting, feeling a sense of family continuity, observing the happiness of their own children, and having another family member to love. Most grandparents felt that there were no aspects of the role that were dissatisfying. Among those who did express some dissatisfaction the aspects that were not satisfying included not being with the baby often enough, particular infant behaviors, and worry over the baby.

The birth of the first grandchild has been shown to be a significant event in the lives of the grandparents. The impact of this event on the adult's life and on the grandchild's development needs to be considered in greater detail. Middle-aged life events, including the transition to grandparenthood, have long been ignored. Longitudinal research of the grandparent-parent-grandchild relationship should add to our understanding of psychosocial development in adulthood and intergenerational relationships within the family. The topic of grandparenthood promises to be an exciting area of study to those interested in life-span developmental issues.

Appendices

Appendix A
Correspondance with Subjects

Dear _____,

I would like to invite you to participate in a study of grandparenting attitudes and behaviors. I am studying the reactions to grandparenthood in those who are becoming grandparents for the first time. I am also interested in the attitudes of adults who have married children but as of yet have no grandchildren.

Although much is known about the transition to parenthood, very little is known about the transition to grandparenthood, and what changes, if any, it brings to a person's life. When grandparenthood has been studied most of the participants have been older persons who have been grandparents for many years. This will be the first study, to my knowledge, that investigates the significance of grandparenthood when the first grandchild is born.

The study includes:

1. Filling out a questionnaire about your attitudes toward grandparenting and your expectations for this grandchild before the birth of the child.
2. Filling out a similar questionnaire after the birth of your grandchild.

All questionnaires will be mailed to your home and can be completed at your convenience.

All data that are collected are strictly confidential and you will remain anonymous.

If you are interested in participating in this study please sign the enclosed consent form and fill in the questionnaire. They can be sent to me in the business reply envelope. If you would like more information about the study I can be reached at (517) 353-5324 or messages for me can be left at (517) 353-8691.

I hope that you will consider participating in this study.

Thank you,

Cathleen McGreal, M.A.

Dear _____,

Thank you for participating in the Grandparenting Project. I am enclosing the second questionnaire that will be used to compare your attitudes concerning grandparenthood before and after the birth of your grandchild.

I thought you might be interested in hearing about some of the other people who are in this study. 66 men are participating in the study. Some are as young as 40 but the oldest grandfather is 77. All have just become grandfathers for the first time. 35 of the men have daughters who gave birth to the first grandchild, 29 became grandfathers through their sons.

The grandmothers ranged in age from 27 (one of the four step-mothers in the study) to age 71. It is interesting that some of the grandparents in the study are younger than some of the couples becoming parents for the first time! 45 of the women were related to the grandchild through their daughters, 34 through their sons.

Many of the people in the study live far away from their grandchildren. Although most of the grandchildren live in Michigan, questionnaires were received from people from New York to California, from Florida to Illinois. In fact, 2 of the couples in the study are living as far away as Korea and Mexico!

Thank you once again,

Cathleen McGreal, M.A.

Michigan State University
Department of Psychology

Grandparenting Project

Informed Consent Statement

1. I have freely consented to take part in a study of grandparenting attitudes being conducted by Cathleen McGreal under the supervision of Professor Hiram Fitzgerald both of the Department of Psychology, Michigan State University.
2. The study has been described to me and I understand the explanation that has been given and what my participation will involve.
3. I understand that I am free to discontinue participation in the study at any time without penalty.
4. I understand that the results of the study will be treated in strict confidence and that I will remain anonymous. Within these restrictions, results of the study will be made available to me at my request.
5. I understand that my participation in the study does not guarantee any beneficial results to me.
6. I understand that at my request, I can receive additional explanation of the study after my participation is completed, but that procedures used to assure confidentiality prevents the release of individual results.

Signed: _____

Date: _____

Do you wish to receive summaries of research reports that will be developed from the results of this study?

Yes _____

No _____

Appendix B
Sample Questionnaires

GRANDPARENTING PROJECT

GRANDMOTHER'S PRENATAL QUESTIONNAIRE

NOTE: THIS QUESTIONNAIRE IS TO BE FILLED OUT BEFORE
THE BIRTH OF YOUR GRANDCHILD

DIRECTIONS: THE FOLLOWING QUESTIONNAIRE CONCERNS YOUR
ATTITUDES TOWARD BECOMING A GRANDMOTHER. PLEASE FILL
OUT THE QUESTIONNAIRE INDIVIDUALLY, MEN AND WOMEN OFTEN
HAVE DIFFERENT REACTIONS TO BECOMING GRANDPARENTS!
READ EACH ITEM CAREFULLY AND THEN ANSWER. THE FIRST
PART OF THE QUESTIONNAIRE CONSISTS OF MULTIPLE-CHOICE
ITEMS. PLEASE PLACE AN "X" IN THE BOX THAT BEST
DESCRIBES YOUR FEELINGS. THE SECOND PART OF THE
QUESTIONNAIRE CONSISTS OF A GROUP OF QUESTIONS THAT
ASK YOU TO WRITE IN YOUR OWN INDIVIDUAL RESPONSE.

ALL THE INFORMATION IN THIS QUESTIONNAIRE IS CONFIDENTIAL.
IT WILL ONLY BE HANDLED BY THE RESEARCH STAFF AND NO
NAMES WILL BE ATTACHED.

WHEN YOU HAVE COMPLETED THIS QUESTIONNAIRE PLEASE MAIL
IT IN THE BUSINESS REPLY ENVELOPE.

Subject I.D.	_____	
	(1-3)	
Card No.	<u>01</u>	Date _____
	(4-5)	(6-11)
Type	<u>2</u>	
	(12)	

GRANDPARENTING PROJECT

GRANDFATHER'S PRENATAL QUESTIONNAIRE

NOTE: THIS QUESTIONNAIRE IS TO BE FILLED OUT BEFORE THE BIRTH OF YOUR GRANDCHILD.

DIRECTIONS: THE FOLLOWING QUESTIONNAIRE CONCERNS YOUR ATTITUDES TOWARD BECOMING A GRANDFATHER. PLEASE FILL OUT THE QUESTIONNAIRE INDIVIDUALLY, MEN AND WOMEN OFTEN HAVE DIFFERENT REACTIONS TO BECOMING GRANDPARENTS! READ EACH ITEM CAREFULLY AND THEN ANSWER. THE FIRST PART OF THE QUESTIONNAIRE CONSISTS OF MULTIPLE-CHOICE ITEMS. PLEASE PLACE AN "X" IN THE BOX THAT BEST DESCRIBES YOUR FEELINGS. THE SECOND PART OF THE QUESTIONNAIRE CONSISTS OF A GROUP OF QUESTIONS THAT ASK YOU TO WRITE IN YOUR INDIVIDUAL RESPONSE.

ALL THE INFORMATION IN THIS QUESTIONNAIRE IS CONFIDENTIAL. IT WILL ONLY BE HANDLED BY THE RESEARCH STAFF AND NO NAMES WILL BE ATTACHED.

WHEN YOU HAVE COMPLETED THIS QUESTIONNAIRE PLEASE MAIL IT IN THE BUSINESS REPLY ENVELOPE.

Subject I.D.	_____
	(1-3)
Card No.	$\frac{01}{(4-5)}$
Date	$\frac{\quad}{(6-11)}$
Type	$\frac{1}{(12)}$

PLEASE INDICATE WHETHER YOU STRONGLY AGREE, AGREE, DISAGREE, OR STRONGLY DISAGREE WITH EACH OF THE STATEMENTS BELOW BY PLACING AN "X" IN THE APPROPRIATE BOX.

1. THIS GRANDCHILD IS IMPORTANT TO ME BECAUSE HE OR SHE WILL BE CARRYING
ON THE FAMILY LINE. (13)
☐ STRONGLY AGREE
☐ AGREE
☐ DISAGREE
☐ STRONGLY DISAGREE

2. GRANDPARENTS SHOULD MAINTAIN A CONSTANT INTEREST IN THEIR GRANDCHILDREN,
BUT SHOULD ALSO BE CAREFUL TO LEAVE PARENTING STRICTLY TO THE PARENTS. (14)
☐ STRONGLY AGREE
☐ AGREE
☐ DISAGREE
☐ STRONGLY DISAGREE

3. I THINK THAT I WILL FEEL YOUNG AGAIN THROUGH MY GRANDCHILD. (15)
☐ STRONGLY AGREE
☐ AGREE
☐ DISAGREE
☐ STRONGLY DISAGREE

4. THE GRANDPARENT AND GRANDCHILD SHOULD BOTH GET FUN OUT OF THEIR
RELATIONSHIP. (16)
- ☐ STRONGLY AGREE
- ☐ AGREE
- ☐ DISAGREE
- ☐ STRONGLY DISAGREE
5. I PLAN TO SET MONEY ASIDE ESPECIALLY FOR MY GRANDCHILD. (17)
- ☐ STRONGLY AGREE
- ☐ AGREE
- ☐ DISAGREE
- ☐ STRONGLY DISAGREE
6. I FEEL THAT I WILL BE A BETTER GRANDPARENT THAN I WAS A PARENT. (18)
- ☐ STRONGLY AGREE
- ☐ AGREE
- ☐ DISAGREE
- ☐ STRONGLY DISAGREE
7. IF THE CHILDREN REQUEST HELP IN CARING FOR THE GRANDCHILD ON A REGULAR
BASIS IT IS THE GRANDPARENT'S OBLIGATION TO HELP OUT. (19)
- ☐ STRONGLY AGREE
- ☐ AGREE
- ☐ DISAGREE
- ☐ STRONGLY DISAGREE

8. I EXPECT THAT BECOMING A GRANDPARENT WILL HAVE LITTLE EFFECT ON MY LIFE.

- ☐ STRONGLY AGREE (20)
☐ AGREE
☐ DISAGREE
☐ STRONGLY DISAGREE

9. GRANDPARENTS SHOULD VISIT THEIR GRANDCHILD FREQUENTLY BUT SHOULD NOT
OFFER ADVICE ON CHILDREARING. (21)

- ☐ STRONGLY AGREE
☐ AGREE
☐ DISAGREE
☐ STRONGLY DISAGREE

10. GRANDPARENTHOOD WILL BE A SOURCE OF SATISFACTION SINCE MY GRANDCHILD
WILL BE ABLE TO ACCOMPLISH THAT WHICH MY CHILDREN AND I HAVE NOT.

- ☐ STRONGLY AGREE (22)
☐ AGREE
☐ DISAGREE
☐ STRONGLY DISAGREE

11. A GRANDPARENT USUALLY HAS LITTLE CONTACT WITH THE GRANDCHILD EXCEPT
ON SPECIAL HOLIDAYS OR BIRTHDAYS. (23)

- ☐ STRONGLY AGREE
☐ AGREE
☐ DISAGREE
☐ STRONGLY DISAGREE

12. I REALLY DON'T HAVE MUCH TIME TO DEVOTE TO BEING A GRANDPARENT.

- () STRONGLY AGREE (24)
 () AGREE
 () DISAGREE
 () STRONGLY DISAGREE

13. IF BOTH PARENTS WORK THEN ONE OF THE GRANDPARENTS SHOULD ASSUME
 THE CARETAKING OF THE CHILD. (25)

- () STRONGLY AGREE
 () AGREE
 () DISAGREE
 () STRONGLY DISAGREE

14. THE GRANDPARENT-GRANDCHILD RELATIONSHIP SHOULD BE CHARACTERIZED BY
 INFORMALITY AND PLAYFULNESS. (26)

- () STRONGLY AGREE
 () AGREE
 () DISAGREE
 () STRONGLY DISAGREE

15. AS A GRANDPARENT I WILL HELP OUT IN FAMILY EMERGENCIES.

- () STRONGLY AGREE (27)
 () AGREE
 () DISAGREE
 () STRONGLY DISAGREE

16. ONE OF THE MOST IMPORTANT THINGS ABOUT HAVING GRANDCHILDREN IS THAT THEY PROVIDE ME WITH A WAY TO SEE MY BLOOD LINE CARRIED ON FOR ANOTHER GENERATION. (28)

☐ STRONGLY AGREE
☐ AGREE
☐ DISAGREE
☐ STRONGLY DISAGREE

17. I PLAN TO TAKE MY GRANDCHILDREN ON VACATIONS WHEN THEY ARE OLDER. (29)

☐ STRONGLY AGREE
☐ AGREE
☐ DISAGREE
☐ STRONGLY DISAGREE

18. LIFE WOULD BE VERY LONELY FOR ME IF I NEVER HAD GRANDCHILDREN. (30)

☐ STRONGLY AGREE
☐ AGREE
☐ DISAGREE
☐ STRONGLY DISAGREE

19. AS THEY GROW OLDER I EXPECT TO ADVISE MY GRANDCHILDREN ON THEIR PERSONAL PROBLEMS. (31)

☐ STRONGLY AGREE
☐ AGREE
☐ DISAGREE
☐ STRONGLY DISAGREE

20. GOING TO VISIT A FRIEND FOR A HOLIDAY IS MORE ENJOYABLE THAN
SPENDING HOLIDAYS WITH ONE'S FAMILY. (32)
- ☐ STRONGLY AGREE
- ☐ AGREE
- ☐ DISAGREE
- ☐ STRONGLY DISAGREE
21. I THINK THAT I SHOULD BE ABLE TO GIVE MY GRANDCHILD WHATEVER I CAN
AND NOT BE WORRIED ABOUT SPOILING HIM OR HER. (33)
- ☐ STRONGLY AGREE
- ☐ AGREE
- ☐ DISAGREE
- ☐ STRONGLY DISAGREE
22. AS THEY GROW OLDER I EXPECT TO ADVISE MY GRANDCHILDREN REGARDING WORK. (34)
- ☐ STRONGLY AGREE
- ☐ AGREE
- ☐ DISAGREE
- ☐ STRONGLY DISAGREE
23. I FEEL THAT I SHOULD DO WHAT IS MORALLY RIGHT TO SET A GOOD EXAMPLE
FOR MY GRANDCHILD. (35)
- ☐ STRONGLY AGREE
- ☐ AGREE
- ☐ DISAGREE
- ☐ STRONGLY DISAGREE

24. ONE OF THE MOST IMPORTANT THINGS ABOUT HAVING GRANDCHILDREN FOR ME
IS THAT THEY WILL MAKE ME FEEL YOUNG AGAIN. (36)
- ☐ STRONGLY AGREE
- ☐ AGREE
- ☐ DISAGREE
- ☐ STRONGLY DISAGREE
25. THE GREATEST HAPPINESS IS FOUND IN A FAMILY WHERE ALL MEMBERS WORK
TOGETHER AS A GROUP. (37)
- ☐ STRONGLY AGREE
- ☐ AGREE
- ☐ DISAGREE
- ☐ STRONGLY DISAGREE
26. AS THEY GROW OLDER I EXPECT TO ADVISE MY GRANDCHILDREN REGARDING RELIGION. (38)
- ☐ STRONGLY AGREE
- ☐ AGREE
- ☐ DISAGREE
- ☐ STRONGLY DISAGREE
27. THE MOST IMPORTANT THING ABOUT HAVING GRANDCHILDREN FOR ME IS THAT
THEY WILL BRING A DEEP SENSE OF EMOTIONAL SATISFACTION TO MY LIFE. (39)
- ☐ STRONGLY AGREE
- ☐ AGREE
- ☐ DISAGREE
- ☐ STRONGLY DISAGREE

28. ONE OF THE MOST IMPORTANT THINGS THAT I WANT FROM MY GRANDCHILDREN
IS FOR THEM TO "RESPECT THEIR ELDERS". (40)
- () STRONGLY AGREE
- () AGREE
- () DISAGREE
- () STRONGLY DISAGREE
29. IT IS IMPORTANT FOR GRANDPARENTS TO LIVE IN A CLOSE GEOGRAPHICAL
LOCATION TO THEIR GRANDCHILDREN. (41)
- () STRONGLY AGREE
- () AGREE
- () DISAGREE
- () STRONGLY DISAGREE
30. GRANDPARENTS SHOULD BE INVOLVED IN THE DAILY LIVES OF THEIR GRANDCHILDREN. (42)
- () STRONGLY AGREE
- () AGREE
- () DISAGREE
- () STRONGLY DISAGREE
31. IT IS DIFFICULT TO THINK OF MYSELF AS A GRANDPARENT. (43)
- () STRONGLY AGREE
- () AGREE
- () DISAGREE
- () STRONGLY DISAGREE

PLEASE PLACE AN "X" IN THE BOX THAT YOU FEEL BEST ANSWERS THE QUESTION.

32. WHEN I THINK ABOUT THE AGE THAT I EXPECTED TO BE WHEN I BECAME A GRANDPARENT, I REALIZE THAT I WILL BECOME ONE: (44)

- () SOONER THAN I HAD EXPECTED
- () AT ABOUT THE TIME I HAD EXPECTED
- () LATER THAN I HAD EXPECTED

33. I CONSIDER MYSELF TO BE:

- () YOUNG (45)
- () MIDDLE-AGED
- () OLD

34. AS A GRANDPARENT I EXPECT TO PROVIDE GIFTS FOR MY GRANDCHILD.

- () YES (46)
- () NO

IF YES:

A. HOW OFTEN WILL YOU BE PROVIDING GIFTS?

B. WHAT KINDS OF GIFTS DO YOU PLAN TO PROVIDE?

35. I PLAN TO BABYSIT WITH MY GRANDCHILD.

() YES

(47)

() NO

IF YES:

HOW OFTEN DO YOU PLAN TO BABYSIT?

36. I EXPECT TO ENGAGE IN HOME RECREATIONAL ACTIVITIES (SUCH AS READING STORIES AND PLAYING GAMES) WITH MY GRANDCHILD.

() YES

(48)

() NO

IF YES:

A. HOW OFTEN WILL YOU BE ENGAGED IN THIS TYPE OF ACTIVITY?

B. WHAT TYPES OF ACTIVITIES DO YOU PLAN TO DO WITH YOUR GRANDCHILD?

37. I WILL SPONTANEOUSLY DROP-IN TO VISIT MY GRANDCHILD,

() YES

(49)

() No



IF YES:
HOW OFTEN DO YOU THINK YOU
WILL DROP-IN TO VISIT?

38. ONE OF MY ACTIVITIES WITH MY GRANDCHILD WILL BE TO RELATE FAMILY HISTORY, (50)

() YES

() No



IF YES:
HOW OFTEN WILL YOU TELL YOUR GRANDCHILD
ABOUT YOUR FAMILY HISTORY?

39. AS THEY GROW OLDER I PLAN TO TEACH MY GRANDCHILDREN SPECIAL SKILLS (SUCH AS SEWING OR CARPENTRY), (51)

() YES

() No



IF YES:
WHAT SKILLS WILL YOU TEACH YOUR GRANDCHILDREN?

PLEASE WRITE YOUR ANSWER IN THE BLANK NEXT TO EACH QUESTION.

40. WHAT IS THE BEST AGE FOR A MAN TO BE WHEN HE GETS MARRIED? _____
(52-53)
41. WHAT IS THE BEST AGE FOR A WOMAN TO BE WHEN SHE GETS MARRIED? _____
(54-55)
42. WHAT IS THE IDEAL AGE FOR A MAN TO BECOME A FATHER? _____
(56-57)
43. WHAT IS THE IDEAL AGE FOR A WOMAN TO BECOME A MOTHER? _____
(58-59)
44. WHAT IS THE IDEAL AGE FOR A MAN TO BECOME A GRANDFATHER? _____
(60-61)
45. WHAT IS THE IDEAL AGE FOR A WOMAN TO BECOME A GRANDMOTHER? _____
(62-63)
46. WHAT AGE COMES TO YOUR MIND WHEN YOU THINK OF A 'YOUNG' MAN? _____
(64-65)
47. WHAT AGE COMES TO YOUR MIND WHEN YOU THINK OF A 'MIDDLE-AGED' MAN? _____
(66-67)
48. WHAT AGE COMES TO YOUR MIND WHEN YOU THINK OF AN 'OLD' MAN? _____
(68-69)
49. WHAT AGE COMES TO YOUR MIND WHEN YOU THINK OF A 'YOUNG' WOMAN? _____
(70-71)
50. WHAT AGE COMES TO YOUR MIND WHEN YOU THINK OF A 'MIDDLE-AGED' WOMAN? _____
(72-73)
51. WHAT AGE COMES TO YOUR MIND WHEN YOU THINK OF AN 'OLD' WOMAN? _____
(74-75)

52. WHEN DID YOU FIRST BEGIN TO IMAGINE WHAT IT WOULD BE LIKE TO BE A GRANDPARENT?

How did you find out? Who told you?

[illegible]

54. IF THIS WAS A PLANNED PREGNANCY, DID YOUR CHILDREN LET YOU KNOW THAT
THEY WERE PLANNING TO HAVE A BABY? HOW DID THEY LET YOU KNOW?

55. ARE YOU PLANNING TO HELP OUT IN ANY WAY WHEN THE BABY IS BORN?
IF SO, WHAT SPECIFIC THINGS WILL YOU DO TO HELP OUT?

56. DO YOUR PLANS DEPEND ON WHAT YOUR CHILD'S IN-LAWS ARE PLANNING FOR THE BIRTH OF THE BABY? IF SO, HOW?

57. HAVE YOU DISCUSSED ANY OF THE PLANS WITH YOUR CHILD?

58. DO YOU HAVE A PREFERENCE AS TO THE SEX OF THE BABY? IF SO, DO YOU PREFER A BOY OR A GIRL?

59. DO YOU KNOW WHAT YOUR CHILDREN ARE PLANNING TO NAME THE BABY?

() YES

IF IT IS A GIRL: _____

IF IT IS A BOY: _____

() NO

60. HAVE THEY DISCUSSED POSSIBLE NAMES WITH YOU?

61. HAVE YOU SUGGESTED NAMES TO THEM? HAVE YOU SUGGESTED THAT THE BABY BE NAMED AFTER ANYONE? IF SO, WHOM?

62. WHEN YOU WERE CHOOSING A NAME FOR YOUR OWN CHILD DID YOUR PARENTS MAKE ANY SUGGESTIONS? WERE YOU INFLUENCED BY THEIR SUGGESTIONS IN YOUR CHOICE?

63. WHAT WAS YOUR FIRST REACTION WHEN YOU FOUND OUT THAT YOU WERE GOING TO BE A GRANDPARENT?

64. WHAT WAS YOUR REACTION ONCE THERE WAS TIME FOR THE NEWS TO "SINK IN"?

65. HOW HAVE YOUR FRIENDS REACTED TO THE NEWS?

IF SO, WHAT SPECIAL THINGS DO YOU REMEMBER ABOUT YOUR RELATIONSHIPS?

This image shows a single sheet of white paper with horizontal ruling lines. The lines are evenly spaced and run across the width of the page. There are no margins, text, or other markings on the paper.

This image shows a single sheet of white paper with horizontal blue or grey ruling lines. The lines are evenly spaced and run across the width of the page. There are no margins, text, or other markings on the paper.

BACKGROUND INFORMATION

THE INFORMATION REQUESTED ON THIS PAGE WILL BE USED TO REPORT THE GENERAL CHARACTERISTICS OF THE ADULTS IN THIS STUDY. ONLY GROUP RESULTS WILL BE PUBLISHED AND THE IDENTITY OF INDIVIDUAL SUBJECTS REMAINS ANONYMOUS. ALL INFORMATION PROVIDED ON THIS PAGE WILL BE KEPT STRICTLY CONFIDENTIAL.

AGE:

SEX:

OCCUPATION:

ETHNIC GROUP:

WILL THIS GRANDCHILD BE THE CHILD OF YOUR:

() BIOLOGICAL CHILD

() ADOPTED CHILD

() STEPCCHILD

WHAT IS YOUR CURRENT MARITAL STATUS:

() MARRIED

() DIVORCED

() WIDOWED

() SINGLE

() SEPARATED

PLEASE CIRCLE THE HIGHEST GRADE LEVEL THAT YOU HAVE COMPLETED:

GRADE SCHOOL	5	6	7	8
HIGH SCHOOL	9	10	11	12
COLLEGE	13	14	15	16
GRADUATE WORK	17	18	19	20

DEGREE: _____

DEGREE: _____

WHICH OF THE FOLLOWING INCOME GROUPS BEST DESCRIBES YOUR FAMILY'S INCOME?

- () UNDER \$5,000
 () \$5,000 - \$10,000
 () \$10,000 - \$15,000
 () \$15,000 - \$20,000
 () OVER \$20,000

AT THE TIME OF BIRTH, HOW FAR WILL YOU LIVE FROM YOUR GRANDCHILD?

- () IN THE SAME HOUSEHOLD
 () WITHIN WALKING DISTANCE
 () WITHIN DAILY DRIVING DISTANCE
 () OVER 100 MILES AWAY
 () OVER 1000 MILES AWAY

PLEASE LIST THE AGE, SEX, AND MARITAL STATUS OF ALL YOUR CHILDREN.

AGE	SEX	MARITAL STATUS
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

HOW OLD WERE YOU WHEN YOU FIRST GOT MARRIED? _____

HOW OLD WERE YOU WHEN YOU HAD YOUR FIRST CHILD? _____

EXTRA PAGES FOR LONG ANSWERS
(PAGE 22)

SUBJECT # _____

ADDITION TO QUESTION # _____

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ADDITION TO QUESTION # _____

This image shows a single sheet of white paper with horizontal blue or grey ruling lines. The lines are evenly spaced and run across the width of the page. There is no handwriting or other markings on the paper.

GRANDPARENTING PROJECT

GRANDMOTHER'S POSTNATAL QUESTIONNAIRE

NOTE: THIS QUESTIONNAIRE IS TO BE FILLED OUT AFTER THE BIRTH OF YOUR GRANDCHILD

DIRECTIONS: THE FOLLOWING QUESTIONNAIRE IS ABOUT YOUR ATTITUDES TOWARD GRANDPARENTHOOD NOW THAT YOU HAVE BECOME A GRANDMOTHER. PLEASE FILL OUT THE QUESTIONNAIRE INDIVIDUALLY, GRANDMOTHERS AND GRANDFATHERS OFTEN HAVE DIFFERENT REACTIONS TO BECOMING GRANDPARENTS! READ EACH ITEM CAREFULLY AND THEN ANSWER. THE FIRST PART OF THE QUESTIONNAIRE CONSISTS OF MULTIPLE-CHOICE ITEMS. PLEASE PLACE AN "X" IN THE BOX THAT BEST DESCRIBES YOUR FEELINGS. THE SECOND PART OF THE QUESTIONNAIRE CONSISTS OF A GROUP OF QUESTIONS THAT ASK YOU TO WRITE IN YOUR INDIVIDUAL RESPONSE.

ALL THE INFORMATION IN THE QUESTIONNAIRE IS CONFIDENTIAL. IT WILL ONLY BE HANDLED BY THE RESEARCH STAFF AND NO NAMES WILL BE ATTACHED.

WHEN YOU HAVE COMPLETED THIS QUESTIONNAIRE PLEASE MAIL IT IN THE BUSINESS REPLY ENVELOPE.

Subject I.D.	_____
	(1-3)
Card No.	<u>01</u>
	(4-5)
Date	_____
	(6-11)
Type	<u>4</u>
	(12)

GRANDPARENTING PROJECT

GRANDFATHER'S POSTNATAL QUESTIONNAIRE

NOTE: THIS QUESTIONNAIRE IS TO BE FILLED OUT AFTER THE BIRTH OF YOUR GRANDCHILD

DIRECTIONS: THE FOLLOWING QUESTIONNAIRE IS ABOUT YOUR ATTITUDES TOWARD GRANDPARENTHOOD NOW THAT YOU HAVE BECOME A GRANDFATHER. PLEASE FILL OUT THE QUESTIONNAIRE INDIVIDUALLY, GRANDFATHERS AND GRANDMOTHERS OFTEN HAVE DIFFERENT REACTIONS TO BECOMING GRANDPARENTS! READ EACH ITEM CAREFULLY AND THEN ANSWER. THE FIRST PART OF THE QUESTIONNAIRE CONSISTS OF MULTIPLE-CHOICE ITEMS. PLEASE PLACE AN "X" IN THE BOX THAT BEST DESCRIBES YOUR FEELINGS. THE SECOND PART OF THE QUESTIONNAIRE CONSISTS OF A GROUP OF QUESTIONS THAT ASK YOU TO WRITE IN YOUR INDIVIDUAL RESPONSE.

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WHEN YOU HAVE COMPLETED THIS QUESTIONNAIRE PLEASE MAIL IT IN THE BUSINESS REPLY ENVELOPE.

Subject I.D.	_____
	(1-3)
Card No.	<u>01</u>
	(4-5)
Date	_____
	(6-11)
Type	<u>3</u>
	(12)

PLEASE INDICATE WHETHER YOU STRONGLY AGREE, AGREE, DISAGREE, OR STRONGLY DISAGREE WITH EACH OF THE STATEMENTS BELOW BY PLACING AN "X" IN THE APPROPRIATE BOX.

1. THIS GRANDCHILD IS IMPORTANT TO ME BECAUSE HE OR SHE WILL BE CARRYING
ON THE FAMILY LINE. (13)
☐ STRONGLY AGREE
☐ AGREE
☐ DISAGREE
☐ STRONGLY DISAGREE

2. GRANDPARENTS SHOULD MAINTAIN A CONSTANT INTEREST IN THEIR GRANDCHILDREN,
BUT SHOULD ALSO BE CAREFUL TO LEAVE PARENTING STRICTLY TO THE PARENTS. (14)
☐ STRONGLY AGREE
☐ AGREE
☐ DISAGREE
☐ STRONGLY DISAGREE

3. I THINK THAT I WILL FEEL YOUNG AGAIN THROUGH MY GRANDCHILD. (15)
☐ STRONGLY AGREE
☐ AGREE
☐ DISAGREE
☐ STRONGLY DISAGREE

4. THE GRANDPARENT AND GRANDCHILD SHOULD BOTH GET FUN OUT OF THEIR
RELATIONSHIP. (16)
☐ STRONGLY AGREE
☐ AGREE
☐ DISAGREE
☐ STRONGLY DISAGREE

5. I PLAN TO SET MONEY ASIDE ESPECIALLY FOR MY GRANDCHILD. (17)
☐ STRONGLY AGREE
☐ AGREE
☐ DISAGREE
☐ STRONGLY DISAGREE

6. I FEEL THAT I WILL BE A BETTER GRANDPARENT THAN I WAS A PARENT. (18)
☐ STRONGLY AGREE
☐ AGREE
☐ DISAGREE
☐ STRONGLY DISAGREE

7. IF THE CHILDREN REQUEST HELP IN CARING FOR THE GRANDCHILD ON A REGULAR
BASIS IT IS THE GRANDPARENT'S OBLIGATION TO HELP OUT. (19)
☐ STRONGLY AGREE
☐ AGREE
☐ DISAGREE
☐ STRONGLY DISAGREE

8. I EXPECT THAT BECOMING A GRANDPARENT WILL HAVE LITTLE EFFECT ON MY LIFE.

- ☐ () STRONGLY AGREE (20)
- ☐ () AGREE
- ☐ () DISAGREE
- ☐ () STRONGLY DISAGREE

9. GRANDPARENTS SHOULD VISIT THEIR GRANDCHILD FREQUENTLY BUT SHOULD NOT
OFFER ADVICE ON CHILDREARING. (21)

- ☐ () STRONGLY AGREE
- ☐ () AGREE
- ☐ () DISAGREE
- ☐ () STRONGLY DISAGREE

10. GRANDPARENTHOOD WILL BE A SOURCE OF SATISFACTION SINCE MY GRANDCHILD
WILL BE ABLE TO ACCOMPLISH THAT WHICH MY CHILDREN AND I HAVE NOT.

- ☐ () STRONGLY AGREE (22)
- ☐ () AGREE
- ☐ () DISAGREE
- ☐ () STRONGLY DISAGREE

11. A GRANDPARENT USUALLY HAS LITTLE CONTACT WITH THE GRANDCHILD EXCEPT
ON SPECIAL HOLIDAYS OR BIRTHDAYS. (23)

- ☐ () STRONGLY AGREE
- ☐ () AGREE
- ☐ () DISAGREE
- ☐ () STRONGLY DISAGREE

12. I REALLY DON'T HAVE MUCH TIME TO DEVOTE TO BEING A GRANDPARENT.
☐ STRONGLY AGREE (24)
☐ AGREE
☐ DISAGREE
☐ STRONGLY DISAGREE
13. IF BOTH PARENTS WORK THEN ONE OF THE GRANDPARENTS SHOULD ASSUME
 THE CARETAKING OF THE CHILD. (25)
☐ STRONGLY AGREE
☐ AGREE
☐ DISAGREE
☐ STRONGLY DISAGREE
14. THE GRANDPARENT-GRANDCHILD RELATIONSHIP SHOULD BE CHARACTERIZED BY
 INFORMALITY AND PLAYFULNESS. (26)
☐ STRONGLY AGREE
☐ AGREE
☐ DISAGREE
☐ STRONGLY DISAGREE
15. AS A GRANDPARENT I WILL HELP OUT IN FAMILY EMERGENCIES.
☐ STRONGLY AGREE (27)
☐ AGREE
☐ DISAGREE
☐ STRONGLY DISAGREE

16. ONE OF THE MOST IMPORTANT THINGS ABOUT HAVING GRANDCHILDREN IS THAT THEY PROVIDE ME WITH A WAY TO SEE MY BLOOD LINE CARRIED ON FOR ANOTHER GENERATION. (28)

☐ STRONGLY AGREE
☐ AGREE
☐ DISAGREE
☐ STRONGLY DISAGREE

17. I PLAN TO TAKE MY GRANDCHILDREN ON VACATIONS WHEN THEY ARE OLDER. (29)

☐ STRONGLY AGREE
☐ AGREE
☐ DISAGREE
☐ STRONGLY DISAGREE

18. LIFE WOULD BE VERY LONELY FOR ME IF I NEVER HAD GRANDCHILDREN. (30)

☐ STRONGLY AGREE
☐ AGREE
☐ DISAGREE
☐ STRONGLY DISAGREE

19. AS THEY GROW OLDER I EXPECT TO ADVISE MY GRANDCHILDREN ON THEIR PERSONAL PROBLEMS. (31)

☐ STRONGLY AGREE
☐ AGREE
☐ DISAGREE
☐ STRONGLY DISAGREE

20. GOING TO VISIT A FRIEND FOR A HOLIDAY IS MORE ENJOYABLE THAN
SPENDING HOLIDAYS WITH ONE'S FAMILY. (32)
- ☐ STRONGLY AGREE
- ☐ AGREE
- ☐ DISAGREE
- ☐ STRONGLY DISAGREE
21. I THINK THAT I SHOULD BE ABLE TO GIVE MY GRANDCHILD WHATEVER I CAN
AND NOT BE WORRIED ABOUT SPOILING HIM OR HER. (33)
- ☐ STRONGLY AGREE
- ☐ AGREE
- ☐ DISAGREE
- ☐ STRONGLY DISAGREE
22. AS THEY GROW OLDER I EXPECT TO ADVISE MY GRANDCHILDREN REGARDING WORK. (34)
- ☐ STRONGLY AGREE
- ☐ AGREE
- ☐ DISAGREE
- ☐ STRONGLY DISAGREE
23. I FEEL THAT I SHOULD DO WHAT IS MORALLY RIGHT TO SET A GOOD EXAMPLE
FOR MY GRANDCHILD. (35)
- ☐ STRONGLY AGREE
- ☐ AGREE
- ☐ DISAGREE
- ☐ STRONGLY DISAGREE

24. ONE OF THE MOST IMPORTANT THINGS ABOUT HAVING GRANDCHILDREN FOR ME
IS THAT THEY WILL MAKE ME FEEL YOUNG AGAIN. (36)
- ☐ STRONGLY AGREE
- ☐ AGREE
- ☐ DISAGREE
- ☐ STRONGLY DISAGREE
25. THE GREATEST HAPPINESS IS FOUND IN A FAMILY WHERE ALL MEMBERS WORK
TOGETHER AS A GROUP. (37)
- ☐ STRONGLY AGREE
- ☐ AGREE
- ☐ DISAGREE
- ☐ STRONGLY DISAGREE
26. AS THEY GROW OLDER I EXPECT TO ADVISE MY GRANDCHILDREN REGARDING RELIGION. (38)
- ☐ STRONGLY AGREE
- ☐ AGREE
- ☐ DISAGREE
- ☐ STRONGLY DISAGREE
27. THE MOST IMPORTANT THING ABOUT HAVING GRANDCHILDREN FOR ME IS THAT
THEY WILL BRING A DEEP SENSE OF EMOTIONAL SATISFACTION TO MY LIFE. (39)
- ☐ STRONGLY AGREE
- ☐ AGREE
- ☐ DISAGREE
- ☐ STRONGLY DISAGREE

28. ONE OF THE MOST IMPORTANT THINGS THAT I WANT FROM MY GRANDCHILDREN
IS FOR THEM TO "RESPECT THEIR ELDERS". (40)
- () STRONGLY AGREE
 - () AGREE
 - () DISAGREE
 - () STRONGLY DISAGREE
29. IT IS IMPORTANT FOR GRANDPARENTS TO LIVE IN A CLOSE GEOGRAPHICAL
LOCATION TO THEIR GRANDCHILDREN. (41)
- () STRONGLY AGREE
 - () AGREE
 - () DISAGREE
 - () STRONGLY DISAGREE
30. GRANDPARENTS SHOULD BE INVOLVED IN THE DAILY LIVES OF THEIR GRANDCHILDREN. (42)
- () STRONGLY AGREE
 - () AGREE
 - () DISAGREE
 - () STRONGLY DISAGREE
31. IT IS DIFFICULT TO THINK OF MYSELF AS A GRANDPARENT. (43)
- () STRONGLY AGREE
 - () AGREE
 - () DISAGREE
 - () STRONGLY DISAGREE

PLEASE PLACE AN "X" IN THE BOX THAT YOU FEELS BEST ANSWERS THE QUESTION.

32. WHEN I THINK ABOUT THE AGE THAT I EXPECTED TO BE WHEN I BECAME A GRANDPARENT I REALIZE THAT I BECAME ONE: (44)

- () SOONER THAN I HAD EXPECTED
- () AT ABOUT THE TIME I HAD EXPECTED
- () LATER THAN I HAD EXPECTED

33. I CONSIDER MYSELF TO BE:

- () YOUNG (45)
- () MIDDLE-AGED
- () OLD

34. AS A GRANDPARENT I EXPECT TO PROVIDE GIFTS FOR MY GRANDCHILD.

- () YES (46)
- () NO



IF YES:

A. HOW OFTEN WILL YOU BE PROVIDING GIFTS?

B. WHAT KINDS OF GIFTS DO YOU PLAN TO PROVIDE?

35. I PLAN TO BABYSIT WITH MY GRANDCHILD.

() YES

(47)

() NO

IF YES:

HOW OFTEN DO YOU PLAN TO BABYSIT?

36. I EXPECT TO ENGAGE IN HOME RECREATIONAL ACTIVITIES (SUCH AS READING STORIES AND PLAYING GAMES) WITH MY GRANDCHILD.

() YES

(48)

() NO

IF YES:

A. HOW OFTEN WILL YOU BE ENGAGED IN THIS TYPE OF ACTIVITY?

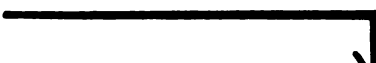
B. WHAT TYPES OF ACTIVITIES DO YOU PLAN TO DO WITH YOUR GRANDCHILD?

37. I WILL SPONTANEOUSLY DROP-IN TO VISIT MY GRANDCHILD.

() YES

(49)

() No



IF YES:

HOW OFTEN DO YOU THINK YOU
WILL DROP-IN TO VISIT?

38. ONE OF MY ACTIVITIES WITH MY GRANDCHILD WILL BE TO RELATE FAMILY HISTORY.

(50)

() YES

() No



IF YES:

HOW OFTEN WILL YOU TELL YOUR GRANDCHILD
ABOUT YOUR FAMILY HISTORY?

39. AS THEY GROW OLDER I PLAN TO TEACH MY GRANDCHILDREN SPECIAL SKILLS (SUCH AS SEWING OR CARPENTRY).

(51)

() YES

() No



IF YES:

WHAT SKILLS WILL YOU TEACH YOUR GRANDCHILDREN?

PLEASE WRITE YOUR ANSWER IN THE BLANK NEXT TO EACH QUESTION.

40. WHAT IS THE BEST AGE FOR A MAN TO BE WHEN HE GETS MARRIED?
(52-53) _____
41. WHAT IS THE BEST AGE FOR A WOMAN TO BE WHEN SHE GETS MARRIED?
(54-55) _____
42. WHAT IS THE IDEAL AGE FOR A MAN TO BECOME A FATHER?
(56-57) _____
43. WHAT IS THE IDEAL AGE FOR A WOMAN TO BECOME A MOTHER?
(58-59) _____
44. WHAT IS THE IDEAL AGE FOR A MAN TO BECOME A GRANDFATHER?
(60-61) _____
45. WHAT IS THE IDEAL AGE FOR A WOMAN TO BECOME A GRANDMOTHER?
(62-63) _____
46. WHAT AGE COMES TO YOUR MIND WHEN YOU THINK OF A 'YOUNG' MAN?
(64-65) _____
47. WHAT AGE COMES TO YOUR MIND WHEN YOU THINK OF A 'MIDDLE-AGED' MAN?
(66-67) _____
48. WHAT AGE COMES TO YOUR MIND WHEN YOU THINK OF AN 'OLD' MAN?
(68-69) _____
49. WHAT AGE COMES TO YOUR MIND WHEN YOU THINK OF A 'YOUNG' WOMAN?
(70-71) _____
50. WHAT AGE COMES TO YOUR MIND WHEN YOU THINK OF A 'MIDDLE-AGED' WOMAN?
(72-73) _____
51. WHAT AGE COMES TO YOUR MIND WHEN YOU THINK OF AN 'OLD' WOMAN?
(74-75) _____

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THE FOLLOWING QUESTIONS ARE ABOUT YOUR OWN REACTIONS TO BECOMING A GRANDPARENT.

52. HOW DID YOU LEARN THAT YOUR GRANDCHILD HAD BEEN BORN? WHO TOLD YOU?

53. WERE YOU AT THE HOSPITAL DURING THE BIRTH OF YOUR GRANDCHILD?

IF SO, COULD YOU DESCRIBE YOUR EXPERIENCES THERE?

54. HAVE YOU SEEN YOUR GRANDCHILD YET? IF YOU HAVE, HOW OLD WAS YOUR GRANDCHILD WHEN YOU FIRST SAW HIM OR HER?

55. DID YOU STAY WITH THE PARENTS AND BABY AFTER THE BIRTH?

IF SO, HOW LONG DID YOU STAY?

56. DID YOU HELP OUT IN ANY WAY AFTER THE BABY WAS BORN?

IF SO, WHAT DID YOU DO TO HELP OUT?

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57. WHAT WAS YOUR FIRST REACTION WHEN YOU FOUND OUT YOU WERE A GRANDPARENT?

58. HOW DO YOU FEEL ABOUT THE NAME THAT WAS GIVEN TO YOUR GRANDCHILD?

59. IS THE BABY THE SEX YOU HAD HOPED IT WOULD BE?

60. HOW OFTEN DO YOU SEE YOUR GRANDCHILD? HOW OFTEN DO YOU EXPECT TO SEE HIM OR HER DURING THE FIRST YEAR OF LIFE?

61. ARE YOU AS INVOLVED WITH THIS GRANDCHILD AS YOU HAD EXPECTED TO BE?
IF NOT, WHY DO YOU THINK YOU AREN'T AS INVOLVED AS YOU THOUGHT YOU WOULD BE?

62. HAS THIS EXPERIENCE CHANGED YOUR RELATIONSHIP WITH YOUR CHILDREN?
IF SO, WHAT ARE THE CHANGES? ARE THEY POSITIVE OR NEGATIVE CHANGES?

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63. HAS THIS EXPERIENCE CHANGED YOUR RELATIONSHIP WITH YOUR SPOUSE?
IF SO, WHAT CHANGES HAVE OCCURRED?

64. HOW HAVE YOUR FRIENDS REACTED TO THE NEWS THAT YOU ARE NOW A GRANDPARENT?

65. DO YOU HAVE A GOOD RELATIONSHIP WITH THE OTHER SET OF GRANDPARENTS?
HAVE ANY CONFLICTS OR JEALOUSIES ARISEN OVER YOUR GRANDCHILD?

66. DID YOUR PARENTS' OR IN-LAWS' BEHAVIORS AS GRANDPARENTS INFLUENCE HOW YOU
FEEL GRANDPARENTS SHOULD ACT? IF SO, HOW?

67. WHAT ASPECTS OF GRANDPARENTHOOD DO YOU FIND THE MOST SATISFYING?

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68. WHAT ASPECTS OF GRANDPARENTHOOD DO YOU FIND THE LEAST SATISFYING?

69. IS BEING A GRANDPARENT DIFFERENT IN ANY WAY FROM WHAT YOU HAD EXPECTED?

...

70. RECENTLY THERE HAS BEEN PUBLICITY ABOUT "GRANDPARENTS' RIGHTS", IN PARTICULAR, THE RIGHT OF THE GRANDPARENTS TO VISIT AND CORRESPOND WITH GRANDCHILDREN AFTER THE PARENTS ARE DIVORCED OR AFTER A PARENT DIES AND THE SPOUSE REMARRIES. WHAT RIGHTS DO YOU FEEL YOU ARE ENTITLED TO AS A GRANDPARENT? _____

WHAT WOULD BE THE LEAST AMOUNT OF CONTACT WITH A GRANDCHILD THAT YOU FEEL A GRANDPARENT IS ENTITLED TO? _____

71. WHAT ADVICE WOULD YOU GIVE TO THOSE WHO ARE ABOUT TO BECOME GRANDPARENTS FOR THE FIRST TIME?

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72. WHAT SPECIAL MEMORIES OF YOUR OWN GRANDPARENTS HAVE COME TO MIND NOW THAT YOU ARE A GRANDPARENT?

73. IF YOU LIVE FAR AWAY FROM YOUR GRANDCHILD:

HOW HAS THE DISTANCE AFFECTED YOUR PERCEPTION OF GRANDPARENTHOOD? _____

WHAT CHANGES WOULD YOU EXPECT IF YOUR GRANDCHILD LIVED CLOSER? _____

HOW DO YOU MAINTAIN CONTACT WITH YOUR GRANDCHILD? _____

HOW DO YOU FEEL ABOUT BEING SEPARATED FROM YOUR GRANDCHILD? _____

DO YOU HAVE ANYTHING ELSE TO ADD ABOUT THE EFFECTS OF LIVING FAR AWAY FROM YOUR GRANDCHILD? _____

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WHAT IS YOUR GRANDCHILD'S BIRTH DATE: _____

WHAT IS YOUR GRANDCHILD'S SEX?

- ☐ 1. MALE
☐ 2. FEMALE

DO YOU KNOW YOUR GRANDCHILD'S WEIGHT AT BIRTH? _____ POUNDS _____ OUNCES

DO YOU KNOW YOUR GRANDCHILD'S LENGTH AT BIRTH? _____ INCHES

HAS YOUR GRANDCHILD HAD ANY PROLONGED OR GENERAL ILLNESS SINCE BIRTH?

- ☐ 1. YES
☐ 2. NO

IF YES, PLEASE DESCRIBE THE PROBLEM: _____

HOW FAR DO YOU LIVE FROM YOUR GRANDCHILD?

- ☐ IN THE SAME HOUSEHOLD
☐ WITHIN WALKING DISTANCE
☐ WITHIN DAILY DRIVING DISTANCE
☐ OVER 100 MILES AWAY
☐ OVER 1000 MILES AWAY

WHAT ARE THE AGES OF YOUR GRANDCHILD'S PARENTS?

MOTHER: _____

FATHER: _____

WHAT IS THEIR CURRENT MARITAL STATUS?

- ☐ 1. MARRIED
☐ 2. DIVORCED
☐ 3. WIDOWED
☐ 4. SINGLE
☐ 5. SEPARATED

☐ 6. OTHER (PLEASE SPECIFY) _____

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SUBJECT #

BACKGROUND INFORMATION

ALL INFORMATION ON THIS PAGE WILL BE KEPT STRICTLY CONFIDENTIAL.

WHAT IS YOUR CURRENT MARITAL STATUS?

- ☐ 1. MARRIED
- ☐ 2. DIVORCED
- ☐ 3. WIDOWED
- ☐ 4. SINGLE
- ☐ 5. SEPARATED

WHAT IS YOUR AGE? _____

WHAT IS YOUR RACIAL OR ETHNIC BACKGROUND?

- ☐ 1. WHITE
- ☐ 2. BLACK
- ☐ 3. HISPANIC
- ☐ 4. AMERICAN INDIAN
- ☐ 5. ORIENTAL
- ☐ 6. OTHER (PLEASE SPECIFY) _____

WHICH OF THE FOLLOWING INCOME GROUPS BEST DESCRIBES YOUR FAMILY'S CURRENT INCOME?

- ☐ 1. UNDER \$5,000
- ☐ 2. \$5,000 - \$10,000
- ☐ 3. \$10,000 - \$15,000
- ☐ 4. \$15,000 - \$20,000
- ☐ 5. \$20,000 - \$25,000
- ☐ 6. \$25,000 - \$30,000
- ☐ 7. \$30,000 - \$35,000
- ☐ 8. \$35,000 - \$40,000
- ☐ 9. OVER \$40,000

WHAT IS YOUR OCCUPATION? (IF YOU ARE RETIRED, WHAT WAS YOUR OCCUPATION BEFORE RETIREMENT?) _____

Appendix C
Questionnaire Keys

Questionnaire Key: Prenatal Questionnaires

Question Number	Source	Purpose
1	Neugarten and Weinstein	Significance of Role: Biological Renewal and Continuity
2	Neugarten and Weinstein	Style of grandparent: Formal
3	Neugarten and Weinstein	Significance of Role: Biological Renewal and Continuity
4	Neugarten and Weinstein	Style of grandparent: Funseeker
5	Neugarten and Weinstein	Significance of Role: Resource Person
6	Neugarten and Weinstein	Significance of Role: Emotional Self Fulfillment
7	Neugarten and Weinstein	Style of grandparent: Surrogate Parent
8	Neugarten and Weinstein	Significance of Role: Remote
9	Neugarten and Weinstein	Style of grandparent: Formal
10	Neugarten and Weinstein	Significance of Role: Vicarious achievement through grandchild
11	Neugarten and Weinstein	Style of grandparent: Distant Figure
12	Neugarten and Weinstein	Significance of Role: Remote
13	Neugarten and Weinstein	Style of grandparent: Surrogate Parent
14	Neugarten and Weinstein	Style of grandparent: Funseeker
15	Robertson	Role Behavior

Question Number	Source	Purpose
16	Robertson	Role Meaning
17	Robertson	Role Behavior
18	Robertson	Role Meaning
19	Robertson	Role Behavior
20	Robertson	Role Meaning
21	Robertson	Role Meaning
22	Robertson	Role Behavior
23	Robertson	Role Meaning
24	Robertson	Role Meaning
25	Robertson	Role Meaning
26	Robertson	Role Behavior
27	Robertson	Role Meaning
28	Robertson	Role Meaning
29	Kornhaber and Woodward	Significance of Role
30	Kornhaber and Woodward	Significance of Role
31	Original	Degree of comfort in role
32	Original	Timing of grandparenthood: Expected life history
33	Original	Perceived age status
34	Robertson	Role behavior, examples
35	Robertson	Role behavior, examples
36	Robertson	Role behavior, examples
37	Robertson	Role behavior, examples
38	Robertson	Role behavior, examples
39	Robertson	Role behavior, examples

Question Number	Source	Purpose
40	Neugarten, Moore & Lowe	Assessment of age norms
41	Neugarten, Moore & Lowe	Assessment of age norms
42	Neugarten, Moore & Lowe	Assessment of age norms
43	Neugarten, Moore & Lowe	Assessment of age norms
44	Neugarten, Moore & Lowe	Assessment of age norms
45	Neugarten, Moore & Lowe	Assessment of age norms
46	Neugarten, Moore & Lowe	Assessment of age norms
47	Neugarten, Moore & Lowe	Assessment of age norms
48	Neugarten, Moore & Lowe	Assessment of age norms
49	Neugarten, Moore & Lowe	Assessment of age norms
50	Neugarten, Moore & Lowe	Assessment of age norms
51	Neugarten, Moore & Lowe	Assessment of age norms
52	Original	To determine when a person begins to include this event in their expected life history.
53	Original	To determine when expectant parents inform their own parents of the impending birth and to determine how this information is usually conveyed.
54	Original	To determine if an "Intent to Conceive" Announcement is made prior to the actual occurrence of pregnancy.
55	Original	To determine whether the expectant grandparent plans to assume a helping role in the family at the time of birth.

Question Number	Source	Purpose
56	Original	To determine whether plans are made that take into consideration the other set of grandparents.
57	Original	To determine whether plans are made that take into account the needs and desires of the married child.
58	Original	To determine whether there is a preference for a grandchild of a particular sex (relates to questions of biological renewal as a significant meaning to grandparenthood).
59	Original	To determine whether there is intergenerational discussion of names.
60	Original	To determine whether there is intergenerational discussion of names.
61	Original	To determine whether there is intergenerational discussion of names.
62	Original	To determine whether there is intergenerational discussion of names.
63	Original	To determine the initial reaction to the realization that the grandparental role will soon be assumed.

Question Number	Source	Purpose
64	Original	To determine later reactions to the realization that the grandparental role will soon be assumed.
65	Original	To assess peer reaction to the news
66	Original	To determine whether expectations for the grandparental role are based on experiences with one's own grandparents.
67	Original	To elicit information on other aspects of grandparenting that were not directly addressed in the questionnaire.

Questionnaire Key: Postnatal Questionnaires

Question Number	Source	Purpose
1	Neugarten and Weinstein	Significance of Role: Biological Renewal and Continuity
2	Neugarten and Weinstein	Style of grandparent: Formal
3	Neugarten and Weinstein	Significance of Role: Biological Renewal and Continuity
4	Neugarten and Weinstein	Style of grandparent: Funseeker
5	Neugarten and Weinstein	Significance of Role: Resource Person
6	Neugarten and Weinstein	Significance of Role: Emotional Self Fulfillment
7	Neugarten and Weinstein	Style of grandparent: Surrogate Parent
8	Neugarten and Weinstein	Significance of Role: Remote
9	Neugarten and Weinstein	Style of grandparent: Formal
10	Neugarten and Weinstein	Significance of Role: Vicarious achievement through grandchild
11	Neugarten and Weinstein	Style of grandparent: Distant Figure
12	Neugarten and Weinstein	Significance of Role: Remote
13	Neugarten and Weinstein	Style of grandparent: Surrogate Parent
14	Neugarten and Weinstein	Style of grandparent: Funseeker
15	Robertson	Role Behavior

Question Number	Source	Purpose
16	Robertson	Role Meaning
17	Robertson	Role Behavior
18	Robertson	Role Meaning
19	Robertson	Role Behavior
20	Robertson	Role Meaning
21	Robertson	Role Meaning
22	Robertson	Role Behavior
23	Robertson	Role Meaning
24	Robertson	Role Meaning
25	Robertson	Role Meaning
26	Robertson	Role Behavior
27	Robertson	Role Meaning
28	Robertson	Role Meaning
29	Kornhaber and Woodward	Significance of Role
30	Kornhaber and Woodward	Significance of Role
31	Original	Degree of comfort in role
32	Original	Timing of grandparenthood: Expected life history
33	Original	Perceived age status
34	Robertson	Role behavior, examples
35	Robertson	Role behavior, examples
36	Robertson	Role behavior, examples
37	Robertson	Role behavior, examples
38	Robertson	Role behavior, examples
39	Robertson	Role behavior, examples

Question Number	Source	Purpose
40	Neugarten, Moore & Lowe	Assessment of age norms
41	Neugarten, Moore & Lowe	Assessment of age norms
42	Neugarten, Moore & Lowe	Assessment of age norms
43	Neugarten, Moore & Lowe	Assessment of age norms
44	Neugarten, Moore & Lowe	Assessment of age norms
45	Neugarten, Moore & Lowe	Assessment of age norms
46	Neugarten, Moore & Lowe	Assessment of age norms
47	Neugarten, Moore & Lowe	Assessment of age norms
48	Neugarten, Moore & Lowe	Assessment of age norms
49	Neugarten, Moore & Lowe	Assessment of age norms
50	Neugarten, Moore & Lowe	Assessment of age norms
51	Neugarten, Moore & Lowe	Assessment of age norms
52	Original	To determine how the grandparent had learned of the birth of the grandchild.
53	Original	To determine if the grandparent was at the hospital at the time of the birth.
54	Original	To determine whether the grandparent has seen the grandchild yet, and if so, the age of the grandchild when first seen.
55	Original	To determine whether the grandparent stayed with the new parents after the birth.

Question Number	Source	Purpose
56	Original	To determine if the grandparent helped out after the birth and if so what the grandparent did to help.
57	Original	To determine the grandparent's first reaction to the news that she/he had become a grandparent.
58	Original	To determine the grandparent's reaction to the name that was given to the grandchild.
59	Original	To determine if the baby was the sex that the grandparent had expressed a preference for.
60	Original	To assess frequency of grandparent-grandchild visits during the first year.
61	Original	To determine whether the person's expectations for involvement with the grandchild had been met so far.
62	Original	To determine whether any changes had occurred in the parent-adult child relationship due to this experience.
63	Original	To determine whether any changes had occurred in relationships with one's spouse due to this experience.
64	Original	To assess peer reaction to the role.

Question Number	Source	Purpose
65	Original	To assess the nature of the relationship with the other set of grandparents.
66	Original	To determine whether the subject's parents' or in-laws' behaviors as grandparents influenced the subject's behavior.
67	Original	To assess what aspects of grandparenthood are considered to be the most satisfying to the new grandparents.
68	Original	To assess what aspects of grandparenthood are considered to be the least satisfying to the new grandparents.
69	Original	To assess whether grandparenthood differs from the person's expectations for the role.
70	Original	To determine if the subject feels entitled to certain rights as a grandparent and if so what rights these are.
71	Original	To elicit advice from the subjects to be offered to others becoming grandparents for the first time.
72	Original	To assess memories of one's own grandparents.
73	Original	To determine the subjects perceptions of how distance affects the grandparent-grandchild relationship.

Appendix D
Computer Codebook

Computer Codebook: Prenatal Questions

Variable	Column	Card	Number of Columns	Missing Values	Key
Subject ID	1-3	1	3		Odd = Male Even = Female
Card #	4-5	1	2		
Date	6-11	1	6		Date question- naire returned
Type	12	1	1		1 = prenatal grandfather 2 = prenatal grandmother 3 = postnatal grandfather 4 = postnatal grandmother
Q1	13	1	1	8,9	Key for questions 1 to 31: 1 = strongly agree 2 = agree 3 = disagree 4 = strongly disagree When more than one response was checked the response was determined by random assignment Missing values: 8 = wrote in an answer 9 = left blank
Q2	14	1	1	8,9	
Q3	15	1	1	8,9	
Q4	16	1	1	8,9	
Q5	17	1	1	8,9	
Q6	18	1	1	8,9	
Q7	19	1	1	8,9	
Q8	20	1	1	8,9	
Q9	21	1	1	8,9	
Q10	22	1	1	8,9	
Q11	23	1	1	8,9	
Q12	24	1	1	8,9	
Q13	25	1	1	8,9	
Q14	26	1	1	8,9	
Q15	27	1	1	8,9	
Q16	28	1	1	8,9	
Q17	29	1	1	8,9	

Variable	Column	Card	Number of Columns	Missing Values	Key
Q18	30	1	1	8,9	
Q19	31	1	1	8,9	
Q20	32	1	1	8,9	
Q21	33	1	1	8,9	
Q22	34	1	1	8,9	
Q23	35	1	1	8,9	
Q24	36	1	1	8,9	
Q25	37	1	1	8,9	
Q26	38	1	1	8,9	
Q27	39	1	1	8,9	
Q28	40	1	1	8,9	
Q30	41	1	1	8,9	
Q31	42	1	1	8,9	
Q32	43	1	1	8,9	1 = Sooner than expected 2 = At about the expected time 3 = Later than expected Missing Values: 8 = Wrote in that they never thought about it 9 = Left blank
Q33	45	1	1	8,9	1 = Young 2 = Between Young and Middle Aged 3 = Middle Aged 4 = Between Old and Middle Aged 5 = Old

Variable	Column	Card	Number of	Missing	Key
			Columns	Values	
Q33 (cont)					Missing Values: 8 = Wrote in that they never thought about it 9 = Left blank
Q34	46	1	1	8,9	Questions 34 to 39:
Q35	47	1	1	8,9	1 = yes 2 = no
Q36	48	1	1	8,9	
Q37	49	1	1	8,9	Missing Values: 8 = Wrote in answer
Q38	50	1	1	8,9	9 = Left blank
Q39	51	1	1	8,9	
Q40	52-55	1	4	*	Age ranges appear as written on questionnaire.
Q41	56-59	1	4	*	
Q42	60-63	1	4	*	*Missing values: 0000 = Left blank
Q43	64-67	1	4	*	0101 = Wrote in that s/he was not certain
Q44	68-71	1	4	*	0202 = Wrote in that it depended on the person's maturity
Q45	72-75	1	4	*	
Q46	76-79	1	4	*	
Q47	13-16	2	4	*	
Q48	17-20	2	4	*	
Q49	21-24	2	4	*	
Q50	25-28	2	4	*	
Q51	29-32	2	4	*	
Age	33-34	2	2	99	99 = Left blank
Sex	35	2	1		1 = male 2 = female
Occupation	36-37	2	2	99	99 = Left blank

Variable	Column	Card	Number of Columns	Missing Values	Key Values
Ethnic Group	38	2	1	9	1 = White 2 = Black 3 = Hispanic 4 = American Indian 5 = Oriental 6 = Other 8 = American 9 = Left blank
Relation to Expectant Parent	39	2	1	9	1 = biological child 2 = adopted child 3 = step-child 9 = Left blank
Marital Status	40	2	1	9	1 = married 2 = divorced 3 = widowed 4 = single 5 = separated 9 = Left blank
Grade Level	41-42	2	2	99	Coded highest Level completed 99 = Left blank
Income	43	2	1	9	1 = under 5,000 2 = 5,000-10,000 3 = 10,000-15,000 4 = 15,000-20,000 5 = over 20,000
Distance from grandchild	44	2	1	9	1 = Same house 2 = Walking distance 3 = Daily driving distance 4 = Over 100 miles 5 = Over 1000 miles
Number of Children	45	2	1	9	9 = Left blank
Age of Youngest Child	46-47	2	2	99	

Variable	Column	Card	Number of Columns	Missing Values	Key Values
Age of Oldest Child	48-49	2	2	99	
Age of Expectant Parent	50-51	2	2	99	
Sex of Expectant Parent	52	2	1	9	1 = Male 2 = Female
Marital Status of Expectant Parent	53	2	1	9	1 = Married 2 = Divorced 3 = Widowed 4 = Single 5 = Separated 9 = Left blank
Subject's Age at Marriage	54-55	2	2	99	99 = Left blank
Subject's Age at Birth of First Child	56-57	2	2	88,99	Missing Values: 88 = No children step-parent 99 = Left blank
Lineage	58	2	1		1 = maternal 2 = paternal 3 = both (2 children expecting)
Q52	13-14	3	2	99	01 = When I was a child 02 = When I was raising my own child- ren 03 = When my children began to get married 04 = During the pregnancy 05 = When peers became grandparents

Variable	Column	Card	Number of Columns	Missing Values	Key Values
					06 = When I reached a particular age 07 = When I began filling out questionnaire 08 = Have not yet begun to imagine it 09 = Other response 99 = Left blank
Q53A	15	3	1	9	1 = When parents- to be found out 2 = Within 1st trimester 3 = On a particular occasion or date 4 = At a particu- lar age 5 = Other response 9 = Left blank
Q53B	16	3	1	9	1 = Phone call 2 = Written message 3 = Given a symbolic gift 4 = Told in person 5 = Other response 9 = Left blank
Q53C	17	3	1	9	1 = Father-to-be 2 = Mother-to-be 3 = Both expectant parents 4 = Spouse 5 = Other person 9 = Left blank
Q54A	18	3	1	9	1 = Yes 2 = No 3 = Don't know 4 = Pregnancy was not planned 9 = Left blank

Variable	Column	Card	Number of Columns	Missing Values	Key
Q54B	19	3	1	9	1 = Directly told of plans 2 = Stated that birth control not being used 3 = Stated that they were having fertility problems 4 = Implied an interest in babies 5 = Other response 6 = Not applicable 9 = Left blank
Q55	20	3	1	9	1 = Yes 2 = No 3 = If needed or emergency 4 = Don't know 9 = Left blank
Q56	21	3	1	9	1 = Yes 2 = No 3 = Perhaps 4 = Other response 9 = Left blank
Q57	22	3	1	9	1 = Yes 2 = No 3 = Spouse has 4 = Not in terms of specifics 5 = Other response 9 = Left blank
Q58A	23	3	1	9	1 = Yes, for a girl 2 = Yes, for a boy 3 = No preference 4 = Yes, for a boy and a girl 9 = Left blank
Q58B	24	3	1	9	1 = Yes, for a girl 2 = Yes, for a boy 3 = No preference 4 = Yes, for a boy and a girl 9 = Left blank

Variable	Column	Card	Number of Columns	Missing Values	Key
Q60	25	3	1	9	1 = Yes 2 = No 3 = Other response 9 = Left blank
Q61A	26	3	1	9	1 = Yes 2 = No 3 = General sugg- stions but no specifics 4 = Other response 9 = Left blank
Q61B	27	3	1	9	1 = Yes 2 = No 3 = Other response 9 = Left blank
Q62A	28	3	1	9	1 = Yes 2 = No 3 = Other response 9 = Left blank
Q62A	29	3	1	9	1 = Yes 2 = No 3 = For some children but not for all 4 = Other response 9 = Left blank
Q63	30	3	1	9	1 = Positive 2 = Neutral 3 = Negative 4 = Mixed 5 = Other reaction 9 = Left blank
Q64	31	3	1	9	1 = Positive 2 = Neutral 3 = Negative 4 = Mixed 5 = Other reaction 9 = Left blank
Q65	32	3	1	9	1 = Positive 2 = Neutral 3 = Negative 4 = Mixed 5 = Other reaction 9 = Left blank

Computer Codebook: Postnatal Questions

Variable	Column	Card	Number of	Missing	Key
			Columns	Values	
Subject ID	1-3	4	3		Odd = Male Even = Female
Card #	4-5	4	2		
Date	6-11	4	6		Date question- naire returned
Type	12	4	1		1 = prenatal grandfather 2 = prenatal grandmother 3 = postnatal grandfather 4 = postnatal grandmother
Q1	13	4	1	8,9	Key for questions 1 to 31: 1 = strongly agree 2 = agree 3 = disagree 4 = strongly disagree When more than one response was checked the response was determined by random assignment Missing values: 8 = wrote in an answer 9 = left blank
Q2	14	4	1	8,9	
Q3	15	4	1	8,9	
Q4	16	4	1	8,9	
Q5	17	4	1	8,9	
Q6	18	4	1	8,9	
Q7	19	4	1	8,9	
Q8	20	4	1	8,9	
Q9	21	4	1	8,9	
Q10	22	4	1	8,9	
Q11	23	4	1	8,9	
Q12	24	4	1	8,9	
Q13	25	4	1	8,9	
Q14	26	4	1	8,9	
Q15	27	4	1	8,9	
Q16	28	4	1	8,9	
Q17	29	4	1	8,9	

Variable	Column	Card	Number of	Missing	Key
			Columns	Values	
Q18	30	4	1	8,9	
Q19	31	4	1	8,9	
Q20	32	4	1	8,9	
Q21	33	4	1	8,9	
Q22	34	4	1	8,9	
Q23	35	4	1	8,9	
Q24	36	4	1	8,9	
Q25	37	4	1	8,9	
Q26	38	4	1	8,9	
Q27	39	4	1	8,9	
Q28	40	4	1	8,9	
Q30	41	4	1	8,9	
Q31	42	4	1	8,9	
Q32	43	4	1	8,9	1 = Sooner than expected 2 = At about the expected time 3 = Later than expected Missing Values: 8 = Wrote in that they never thought about it 9 = Left blank
Q33	45	4	1	8,9	1 = Young 2 = Between Young and Middle Aged 3 = Middle Aged 4 = Between Old and Middle Aged 5 = Old

Variable	Column	Card	Number of Columns	Missing Values	Key
Q33 (cont)					Missing Values: 8 = Wrote in that they never thought about it 9 = Left blank
Q34	46	4	1	8,9	Questions 34 to 39:
Q35	47	4	1	8,9	1 = yes 2 = no
Q36	48	4	1	8,9	
Q37	49	4	1	8,9	Missing Values: 8 = Wrote in answer
Q38	50	4	1	8,9	9 = Left blank
Q39	51	4	1	8,9	
Q40	52-55	4	4	*	Age ranges appear as written on questionnaire.
Q41	56-59	4	4	*	
Q42	60-63	4	4	*	*Missing values: 0000 = Left blank
Q43	64-67	4	4	*	0101 = Wrote in that s/he was not certain
Q44	68-71	4	4	*	0202 = Wrote in that it depended on the person's maturity
Q45	72-75	4	4	*	
Q46	76-79	4	4	*	
Q47	13-16	5	4	*	
Q48	17-20	5	4	*	
Q49	21-24	5	4	*	
Q50	25-28	5	4	*	
Q51	29-32	5	4	*	
Grandchild Birthdate	33-38	5	6	999999	999999 = Left blank
Grandchild Sex	39	5	1	9	1 = Male 2 = Female 9 = Left blank
Birthweight	40-43	5	4	9999	9999 = Left blank

Variable	Column	Card Number	Number of Columns	Missing Values	Key Values
Length at Birth	44-47	5	4	9999	Allows for one decimal point, eg, 22.5 inches 9999 = Left blank
Prolonged Illness	48	5	1	9	1 = Yes 2 = No 9 = Left blank
Distance from grandchild	49	5	1	9	1 = Same house 2 = Within walking distance 3 = Within daily driving distance 4 = Over 100 miles 5 = Over 1000 miles 9 = Left blank
Age of grandchild's mother	50-51	5	2	99	99 = Left blank
Age of grandchild's father	52-53	5	2	99	99 = Left blank
Marital status of grandchild's parents	54	5	1	9	1 = Married 2 = Divorced 3 = Widowed 4 = Single 5 = Separated 6 = Other 9 = Left blank
Marital status of grandparent	55	5	1	9	1 = Married 2 = Divorced 3 = Widowed 4 = Single 5 = Separated 6 = Other 9 = Left blank
Grandparent Age	56-57	5	2	99	99 = Left blank
Race/Ethnic Group	58	5	1	9	1 = White 2 = Black 3 = Hispanic 4 = American Indian 5 = Oriental 6 = Other 9 = Left blank

Variable	Column	Card	Number of Columns	Missing Values	Key
Family Income	59-60	5	2	99	01 = under 5,000 02 = 5,000-10,000 03 = 10,000-15,000 04 = 15,000-20,000 05 = 20,000-25,000 06 = 25,000-30,000 07 = 30,000-35,000 08 = 35,000-40,000 09 = over 40,000
Occupation	61-62	5	2	99	99 = Left blank
Q52A	13	6	1	9	1 = At hospital 2 = Phone call 3 = Told in person 4 = Other 9 = Left blank
Q52B	14	6	1	9	1 = New mother 2 = New father 3 = Both new parents 4 = Spouse 5 = Other person 6 = Saw or heard baby being born 7 = Cannot be determined 9 = Left blank
Q53	15	6	1	9	1 = Yes 2 = No 3 = Cannot be determined 9 = Left blank
Q54A	15	6	1	9	1 = Yes 2 = No 3 = Cannot be determined 9 = Left blank

Variable	Column	Card	Number of Columns	Missing Values	Key
Q54B	17-18	6	2	99	01 = 1 day or less 02 = Within 1st week 03 = Within 1st month 04 = Within 2nd month 05 = Within 3rd month 06 = Within 4th month 07 = Within 5th month 08 = Within 6th month 09 = Between 6 and 9 months 10 = Between 9 and 12 months 11 = After 1 year 12 = Not applicable 99 = Left blank
Q56	19	6	1	9	1 = Yes 2 = No 3 = Other response 9 = Left blank
Q57	20	6	1	9	1 = Positive reaction 2 = Negative reaction 3 = Other reaction 9 = Left blank
Q58	21	6	1	9	1 = Positive reaction 2 = Neutral reaction 3 = Negative reaction 4 = Other reaction 9 = Left blank
Q59	22	6	1	9	1 = Yes 2 = No 3 = Did not have a preference 9 = Left blank
Q60A	23	6	1	9	1 = Daily 2 = 3-6 times/week 3 = 1-2 times/week 4 = 1-2 times/month 5 = Bimonthly 6 = Quarterly 7 = Other response 8 = Has not seen grandchild yet 9 = Left blank

Variable	Column	Card	Number of Columns	Missing Values	Key
Q60B	24-25	6	2	9	01 = Daily 02 = 3-6 times/week 03 = 1-2 times/week 04 = 1-2 times/month 05 = Bimonthly 06 = Quarterly 07 = Twice/year 08 = Once/year 09 = Do not plan to see grand- child 1st year 10 = Other 99 = Left blank
Q61	26	6	1	9	1 = Yes 2 = No 3 = Did not have expectations in regard to involvement 4 = Cannot be determined 9 = Left blank
Q62A	27	6	1	9	1 = Yes 2 = No 3 = Other 9 = Left blank
Q62B	28	6	1	9	1 = Positive changes 2 = Negative changes 3 = Both positive and negative changes 4 = Not applicable 9 = Left blank
Q63	29	6	1	9	1 = Yes 2 = No 3 = Other response 4 = Not applicable 9 = Left blank
Q64	30	6	1	9	1 = Positive 2 = Neutral 3 = Negative 4 = Mixed 5 = Other 9 = Left blank

Variable	Column	Card	Number of Columns	Missing Values	Key
Q65A	31	6	1	9	1 = Yes 2 = No 3 = No other grandparents 4 = Cannot be determined 9 = Left blank
Q65B	32	6	1	9	1 = Yes 2 = No 3 = No other grandparents 4 = Cannot be determined 9 = Left blank
Q66	33	6	1	9	1 = Yes 2 = No 3 = To some extent 4 = Not sure 5 = Other 9 = Left blank
Q67	34	6	1	9	1 = Subject lists a satisfying aspect of grandparenthood 2 = Subject does not list a satisfying aspect of grandparenthood 3 = Subject indicates uncertainty about the most satis- ying aspect 9 = Left blank
Q68	35	6	1	9	1 = Not being with grandchild often enough 2 = Worry about the grandchild 3 = Particular infant behaviors 4 = There are none 5 = Other response 9 = Left blank

Variable	Column	Card	Number of Columns	Missing Values	Key
Q69	36	6	1	9	1 = Yes 2 = No 3 = Did not have any expectations 9 = Left blank
Q70A	37	6	1	9	1 = Yes 2 = No 3 = Other 9 = Left blank
Q70B	38	6	1	9	1 = Weekly or more frequently 2 = Every other week 3 = Monthly 4 = 2-4 times/year 5 = 1 time/year 6 = Don't know 7 = Other response 8 = Not entitled to any contact 9 = Left blank
Q71	39	6	1	9	1 = Yes, subject offers advice 2 = No, subject does not offer advice 9 = Left blank

Appendix E
Prenatal and Postnatal Reliabilities

Postnatal Reliabilities: Open-Ended Questions

Question 52A

Coder A and Coder B	Kappa = .978
Coder A and Coder C	Kappa = .978
Coder B and Coder C	Kappa = 1.00

Question 52B

Coder A and Coder B	Kappa = .868
Coder A and Coder C	Kappa = .928
Coder B and Coder C	Kappa = .909

Question 53

Coder A and Coder B	Kappa = .978
Coder A and Coder C	Kappa = 1.00
Coder B and Coder C	Kappa = .978

Question 54A

Coder A and Coder B	Kappa = 1.00
Coder A and Coder C	Kappa = 1.00
Coder B and Coder C	Kappa = 1.00

Question 54B

Coder A and Coder B	Kappa = .936
Coder A and Coder C	Kappa = .984
Coder B and Coder C	Kappa = .952

Question 56

Coder A and Coder B	Kappa = .939
Coder A and Coder C	Kappa = .897
Coder B and Coder C	Kappa = .957

Question 57

Coder A and Coder B	Kappa = 1.00
Coder A and Coder C	Kappa = .696
Coder B and Coder C	Kappa = .696

Question 58

Coder A and Coder B	Kappa = .917
Coder A and Coder C	Kappa = .918
Coder B and Coder C	Kappa = .863

Question 59

Coder A and Coder B	Kappa = .888
Coder A and Coder C	Kappa = .945
Coder B and Coder C	Kappa = .944

Question 60A

Coder A and Coder B	Kappa = .813
Coder A and Coder C	Kappa = .813
Coder B and Coder C	Kappa = .836

Question 60B

Coder A and Coder B	Kappa = .750
Coder A and Coder C	Kappa = .805
Coder B and Coder C	Kappa = .745

Question 61

Coder A and Coder B	Kappa = .819
Coder A and Coder C	Kappa = .894
Coder B and Coder C	Kappa = .778

Question 62A

Coder A and Coder B	Kappa = .946
Coder A and Coder C	Kappa = .963
Coder B and Coder C	Kappa = .944

Question 62B

Coder A and Coder B	Kappa = .978
Coder A and Coder C	Kappa = 1.00
Coder B and Coder C	Kappa = .978

Question 63A

Coder A and Coder B	Kappa = .870
Coder A and Coder C	Kappa = .877
Coder B and Coder C	Kappa = .808

Question 63B

Coder A and Coder B	Kappa = .784
Coder A and Coder C	Kappa = .742
Coder B and Coder C	Kappa = .740

Question 65A

Coder A and Coder B	Kappa = .853
Coder A and Coder C	Kappa = .931
Coder B and Coder C	Kappa = .767

Question 65B

Coder A and Coder B	Kappa = .799
Coder A and Coder C	Kappa = .803
Coder B and Coder C	Kappa = .686

Question 66

Coder A and Coder B	Kappa = .905
Coder A and Coder C	Kappa = .884
Coder B and Coder C	Kappa = .790

Question 67

Coder A and Coder B	Kappa = .728
Coder A and Coder C	Kappa = .833
Coder B and Coder C	Kappa = .745

Question 68	
Coder A and Coder B	Kappa = .937
Coder A and Coder C	Kappa = .953
Coder B and Coder C	Kappa = .922

Question 69	
Coder A and Coder B	Kappa = .865
Coder A and Coder C	Kappa = .828
Coder B and Coder C	Kappa = .958

Question 70A	
Coder A and Coder B	Kappa = .867
Coder A and Coder C	Kappa = .787
Coder B and Coder C	Kappa = .878

Question 70B	
Coder A and Coder B	Kappa = .898
Coder A and Coder C	Kappa = .860
Coder B and Coder C	Kappa = .950

Question 71	
Coder A and Coder B	Kappa = .969
Coder A and Coder C	Kappa = .968
Coder B and Coder C	Kappa = .937

Those questions (prenatal questions: 53A, 53B, 64, 65) for which the mean reliability between raters remained below .7 after revision were not categorized.

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