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**Mothers' perceptions of children's age of maturity:
An exploratory study**

McAninch, John Patrick, Ph.D.

The University of North Carolina at Greensboro, 1987

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MOTHERS' PERCEPTIONS OF CHILDREN'S AGE OF MATURITY:

AN EXPLORATORY STUDY

by

John P. McAninch

A Dissertation Submitted to
the Faculty of the Graduate School at
The University of North Carolina at Greensboro
in Partial Fulfillment
of the Requirements for the Degree
Doctor of Philosophy

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1987

Approved by



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APPROVAL PAGE

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This study examined the construct of perceived age of maturity. Mothers' perceptions of normative capabilities are presumed to influence their child rearing decisions. Responses were collected with the Perceived Age of Maturity (PAM) Scale, developed by Rodman and Pratto (1980), as part of an instrument distributed to a nationwide sample of mothers with children in self-care. The instrument assessed self-care variables, family structure, and demographics as well as perceived age of maturity.

The responses of 288 mothers to the PAM Scale were used in this study to answer the following research questions:

- (1) Is there a significant difference between mothers' patterns of responses for boys and for girls?
- (2) Are there underlying dimensions in the Perceived Age of Maturity Scale?
- (3) Do respondents' personal and social attributes help account for a significant degree of variation in their reported perceptions of children's age of maturity?

Descriptive statistics and t tests determined that although mothers reported significantly different perceptions of age of maturity for girls than for boys, the differences were small. Factor analysis revealed four factors which were labeled: Social/Sexual Independence, Caregiving Responsibility, Mechanical Responsibility, and Social

Freedom. Regression analyses were performed to determine the influence of selected independent variables on these underlying dimensions of perceived age of maturity. The independent variables found to contribute significantly were mother's occupation, education, and church attendance. Recommendations for further instrument development and future research applications were provided.

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TABLE OF CONTENTS

| | Page |
|--|------|
| APPROVAL PAGE | ii |
| ACKNOWLEDGMENTS. | iii |
| LIST OF TABLES | vi |
| CHAPTER | |
| I. INTRODUCTION | 1 |
| Purpose. | 4 |
| Limitations of the Study | 6 |
| II. REVIEW OF LITERATURE | 7 |
| Introduction | 7 |
| Working Mothers. | 7 |
| Independent Variables Associated with Parents | 19 |
| Family variables | 21 |
| Socioeconomic status variables | 23 |
| Residential locale variables | 29 |
| Previous Instruments Designed to Measure Parental Perceptions | 33 |
| Summary and Conclusions | 37 |
| III. METHODS | 43 |
| Source of Data | 43 |
| Methodology | 45 |
| Question 1 | 45 |
| Procedures for Question 1 | 45 |
| Expectations for Question 1 | 46 |
| Question 2 | 46 |
| Procedures for Question 2 | 46 |
| Expectations for Question 2 | 47 |
| Question 3 | 48 |
| Definition of Dependent Variables. | 48 |
| Definition of Independent Variables. | 48 |
| Procedures for Question 3 | 53 |
| Expectations for Question 3 | 54 |
| IV. RESULTS | 57 |
| Description of the Sample. | 57 |
| Means and Standard Deviations. | 68 |

| CHAPTER | Page |
|--|------|
| IV. RESULTS (continued) | |
| Results of the <u>t</u> Tests | 75 |
| Distributions of Perceived Age of Maturity . . | 79 |
| Factor Analyses. | 86 |
| Summary of Differences in Perceived Age of Maturity | 100 |
| Multiple Regression Analyses | 112 |
| V. SUMMARY AND CONCLUSIONS | 120 |
| Summary of Objectives, Methodology, and Results | 120 |
| Conclusions, Limitations, and Recommendations | 132 |
| Limitations | 138 |
| Recommendations | 140 |
| Closing | 142 |
| BIBLIOGRAPHY | 144 |
| APPENDICES | 150 |
| A: PAM Scale from Phase II | 150 |
| B: Items from Phase I | 152 |
| C: Items from Phase II | 154 |
| D: Revised Hollingshead Occupational Scale . . . | 155 |
| E: Statistical Formulas for Calculating Effect Size | 156 |

LIST OF TABLES

| TABLE | Page |
|---|------|
| 1. Crosstabulations for Agreement of Responses on Phase I and Phase II on Age of Respondent and Number of Children Under 14 in Family . . . | 50 |
| 2. Descriptive Statistics of the Sample | 59 |
| 3. Means and Standard Deviations of Perceived Age of Maturity Items for Boys and Girls | 69 |
| 4. Difference in Means, t Values, Significance, Effect Size, and Estimates of Power of Perceived Age of Maturity Items for Boys and Girls | 76 |
| 5. Distributions of Mothers' Perceived Age of Maturity of Boys and Girls | 80 |
| 6. Factor Analysis of Perceived Age of Maturity Responses for Boys | 88 |
| 7. Factor Analysis of Perceived Age of Maturity Responses for Girls | 91 |
| 8. Cronbach's Alpha Values for PAM Scale and PAM Factors. | 98 |
| 9. Difference Plots of Items Loading Above 0.40 for Perceptions of Both Genders with Percentages of Responses | 102 |
| 10. Difference Plots of Items Loading Above 0.40 for Perceptions of Only One Gender with Percentages of Responses | 107 |
| 11. Difference Plots of Items Loading Below 0.40 for Perceptions of Both Genders with Percentages of Responses | 110 |
| 12. Correlation Matrix of Independent Variables . . . | 113 |
| 13. Mothers' Perception of Maturity of Boys: Multiple Regression Analysis of Independent Variables on Each of Four Factors | 116 |

| | | |
|-----|--|-----|
| 14. | Mothers' Perception of Maturity of Girls: Multiple Regression of Independent Variables on Each of Four Factors | 118 |
| 15. | Items and Means of Children's Responsibility Inventory and Perceived Age of Maturity Scale . | 134 |

CHAPTER 1

INTRODUCTION

As children grow older their social world expands, particularly with the beginning of the school years. Healthy developing children must be able to cope with increasing independence and responsibility. Our society presents an unusually slow and complex course of development for children. Unlike many Third World societies where early independence is required, acquisition of independence from the parent in our society is rarely completed before adolescence or young adulthood. Parents typically play the major role both in delaying and in facilitating the development of that independence. That there are risks in granting independence is known, yet an appropriate maturing progression results from the child being provided the level of responsibilities and independence compatible with his or her abilities. Determining these levels and dealing with the prolonged childrearing process that is characteristic of our society places a substantial burden upon the responsible parent and often places unclear expectations upon the child.

Although some researchers find that parents' attitudes toward parenting change over time (Maccoby, 1980; Bronfenbrenner, 1958), there does seem to be an underlying stability or continuity in those attitudes (Hock & Lindamood, 1981). Roberts, Block, and Block (1984), in a longitudinal

study of parents of children at the age of three and again at the age of twelve, report

that the children participating in the longitudinal study have by and large experienced considerable continuity and congruence in parent attitudes and values from early childhood to early adolescence, despite many changes in the families and in family composition Indeed, this may be part of the basis for the recognition . . . of the underlying coherence of individual personality development. (p. 595)

This continuity seems to exist despite the necessity for parents to adjust their behavior as their child moves from the virtually total dependence of an infant through the increasing independence of childhood and adolescence.

Parents' decisions about how to time their support and encouragement of the development of independence in a child are influenced by many factors. However, there often is a lack of objective criteria for making many of the child care decisions. The subjective reality of what parents perceive to be appropriate expectations for the average child provides an important framework within which these decisions are made. The framework of the parents' perception of average developmental norms provides a stable criterion against which to compare an individual child's developmental progress. Parents may utilize this framework to provide structure for

their developing expectations of their child. This framework guides parents' perceptions and decisions as the child moves back and forth experimenting with new roles and retreating to safer, familiar roles.

Behavior results from the interaction of a person with their perceived environment rather than with an objectively determinable environment. To understand parents' behavior one must understand the perceptions on which it is based. The parents' perceptions of children's age of maturity influence the structure and timing of the independence and responsibility granted their children. More generally, these perceptions influence childrearing behavior which may have far-reaching effects on the child, the family, and society. Yet we know very little of the perceptions that parents have of what is appropriate and normal to expect of school age children.

As of December 1984 over half of the approximately 29 million children between 5 and 13 years of age in the United States had working mothers and the percentage of children affected is expected to increase through 1990 (Bruno, 1987; Bureau of Labor, 1983; Masnick & Bane, 1980). If parents are working they confront decisions regarding the care of preschool and school age children under the strain of reduced time, energy, and employer demands, yet federal supports for child care are being eliminated. These social changes contribute to increasing pressures on parents to consider the

self-care alternative for their children. The issue of child care and the childrearing decisions that parents make have become major interests of policy makers. Further knowledge of the components contributing to parents' decision making processes may help us to understand parents' decisions and to predict resultant behaviors. It may also shed light on social policy questions about child care.

Knowledge of parents' perceptions of children's maturity may be basic to understanding why and under what circumstances parents make crucial childrearing decisions. Instruments to measure the perceptions which make up those attitudes are not available, yet a clearer understanding of these perceptions is essential for informed policy responses and appropriate intervention strategies for professionals.

Purpose

The purpose of this study was to investigate parents' perceptions of maturity in children. This study examined mothers' perceptions of the ages at which they believe average children can be expected to independently perform various activities. The study investigated whether mothers have different ideas about when boys and girls mature and why some mothers might perceive that children are able to do things at younger ages than do other mothers.

The Perceived Age of Maturity (PAM) Scale (Appendix C) was assembled by Rodman and Pratto (1980) to explore

variations in the profile of expectations that parents have as to when the average child is usually mature enough to engage in a variety of activities. The responses to the PAM Scale were used to describe the variations in perceptions mothers have of expected ages of maturity for children and to determine whether mothers reported different perceptions of age of maturity for girls than for boys. The responses were examined for interpretable factors and factor scores were developed and used in further analyses. This study measured the relationship of several independent variables to perceived age of maturity. Some of the independent variables examined were mother's age, occupation, education, church attendance, and number of children.

This investigation described the characteristics of the sample and the responses to the Perceived Age of Maturity (PAM) Scale. Further examination was made in an attempt to more clearly define PAM conceptually, measure it, evaluate the measurement properties of this construct, and relate PAM to the respondents' characteristics.

The following research questions were addressed:

1. Are there underlying dimensions in the Perceived Age of Maturity (PAM) Scale?
2. Is there a significant difference between mothers' patterns of responses for boys and for girls?

3. Do the independent variables (Described in Chapter 3, Methods) help account for a significant amount of variance in the reported perceptions of the respondents?

Limitations of the Study

This study is limited by restraints common to exploratory examinations of under-researched areas and to the secondary analysis of data. The PAM Scale is a developing construct that was generated in an attempt to investigate attitudes believed to be influential in parents' decisions to use self-care arrangements for their children. The national sample of working mothers used in this study was obtained through a magazine-distributed questionnaire. Such self selection procedures do not produce a random sample and the findings can only be generalized very cautiously (Pratto and Rodman, 1987). However, demographic characteristics of the sample and their 50 state distribution from residences ranging across the urban to rural continuum support an assumption that this sample is reasonably representative of a population of the working mothers of lower through middle class status. In addition, the findings are based on correlational analyses and the inference of causality relations between variables is not warranted.

CHAPTER II

REVIEW OF THE LITERATURE

Introduction

The area of particular interest in this study was mothers' perceptions of children's maturity, perceptions which are presumably based on societal norms. At what ages do these mothers expect the average child to be, do, or decide certain things? Do they perceive maturity differences between boys and girls? Are these perceptions related to demographic variables? The initial sample for this study was collected through a questionnaire distributed in Working Mother (Leishman, 1980), a magazine tailored to the market of working mothers. The review of the literature for this study concentrates on three areas of investigation--working mothers, independent variables associated with parenting, and previous instruments designed to measure parental perceptions.

Working Mothers

Working women with and without children have been an increasingly important part of American society since the early 1940s.

In the early 1960s about half the women in the United States were keeping house full time while 37 percent were in the labor force. By 1982, these proportions

were reversed--53 percent were working or looking for work while 35 percent were keeping house. (Bureau of Labor, 1983, p. 4)

As of 1984, "in the prime working age group [as well as age for motherhood] of 25 to 54, nearly 70 percent were in the labor force" and "the largest growth was among younger women ages 25 to 34, those at the early family building stage" (Women's Bureau, 1985, p. 2). Working women are now a significant element in the U.S. labor force and their labor force participation continues to grow. "Women have constituted the major share of labor force growth since the 1960s, and are projected to account for 7 out of 10 additions to the labor force in the 1980s" (Bureau of Labor, 1983, p. 14).

The numbers of working mothers have been increasing at a greater rate than working women in general; in 1986 alone, adult women added 1.4 million to the work force (Kokoski, 1987, p. 32). The U.S. Department of Labor reports a "dramatic rise in the number of working mothers--both single and married--reaching nearly 20 million in 1984. These working mothers were usually employed full time, even when their youngest child was a preschooler" (Women's Bureau, 1985, p. 2). Many of these working mothers are single parents. The rate of increase for families with female householders (no husband present) has been much greater than that for married-couple families in each of the 5-year

periods since 1970. The increase in families maintained by women alone, however, slowed to 16 percent for 1980-85, which was down substantially from 22 percent for 1975-80, but far below the phenomenal increase of 30 percent between 1970 and 1975. Families maintained by men (no wife present) have also increased at a much greater rate than married-couple families during each 5-year period over the past 15 years. In fact, since 1980, families maintained by men alone increased at a greater rate than either married-couple families or families maintained by women alone. Even so, "lone men maintained fewer than 4 out of every 100 families in 1985" (Bureau of the Census, 1985, p. 1), while 16 out of 100 families were female headed households. "Single parents accounted for 26 percent of all family groups with children under 18 years old in 1985, a proportion twice as large as in 1970" and the overwhelming majority of those single parents were women (Bureau of the Census, 1985, p. 9).

Along with increased employment of mothers and their higher level of education, the American family is affected by having fewer children and having them later in the family life cycle. These changes result from changing environmental demands, modifications in societal values, and greater societal acceptance of new familial relationships and expectations. The traditional American family of working father, dependent homemaking wife and 2.5 children is now a distinct minority; despite that, American society continues

to apply the purported values of that family to many of its social and political decisions. Those traditional values include full time mother-care of children into the teenage years, regular church attendance by the family, a more rigid definition of family roles, and perceptions of children as maturing later rather than earlier. The phrase, traditional values, here and henceforth, refers to a conservative interpretation of social norms.

Obviously, these changes have resulted in various effects on different areas of family interactions, and these effects are only beginning to be understood. Working mothers often face conflict between their work commitment and their child care responsibilities. Their child care decisions are largely based on their perceptions of the ages at which children are generally capable of fulfilling certain expectations. However, just what these perceptions are or what the changes are that have occurred in these perceptions is virtually unknown. These changes in American society have implications for large numbers of children.

About 56 percent of the 58 million U.S. children under age 18 had mothers in the labor force in 1984, compared with 44 percent in 1975. The vast majority of these children were under 14 years--ages for which all-day care, after-school care, or a combination of both is likely to be needed. (Women's Bureau, 1985, p. 27)

Women in American society are increasingly expected to not only fill the roles of housewife, mother, and employee, but to achieve excellence in all areas simultaneously. The difficulty or impossibility of successfully fulfilling all the expected roles satisfactorily is evident. There is not sufficient time available to simultaneously satisfy extensive demands in many life areas. Despite the apparent impossibility, however, many mothers themselves expect to fulfill all the roles and to do so harmoniously (Hewlett, 1986). When there is conflict between roles the effects on the mother are adverse. For example, conflict between only two of the roles, "good" housewife and "good" mother, was investigated by Olson (1979). Conflict was determined to exist between these roles and this conflict results in frustration and attempts to reduce involvement in one or the other of the roles, if not both.

This conflict and frustration is aggravated for both working and nonworking mothers. There are fewer of the resources--both formal and informal--that parents need to supplement the care they provide their children. These effects are particularly dramatic on female headed households (10.3 million in 1984) whose numbers are expected to continue to increase (Bureau of Census, 1985). The general characteristics of marginal earnings and high unemployment among women who maintain families account in part for the

fact that almost half of all poor persons live in families headed by women (Women's Bureau, 1985, p. 3).

The married working mother is not exempt from the strain of reduced resources. Along with the increased mobility of the American family, higher divorce rates at all age levels, and social welfare policies which encourage abandonment of familial responsibilities, there is substantially less kin support available for the mother in providing care for her children. A reduction of kin support is evident in the changing circumstances of divorced mothers and the great numbers of persons living alone. In 1960, 49 percent of divorced mothers with one child lived with relatives, yet by 1976 only 14 percent lived with relatives. This is part of a long term trend of increasing proportions of both young adults (never married or formerly married) [increase in this group has faltered recently but the numbers remain high] and elderly adults who maintain their own household. This trend is indicative of diminishing intergenerational support and increasing isolation from extended family supports (Masnick & Bane, 1980; Bureau of the Census, 1985).

With growing isolation from kin support child care has become an increasing problem. Teenagers, once a mainstay of after-school and evening care of children, are no longer tempted by the relatively nominal salaries most parents can afford. Allowances are more generous and part-time jobs paying at least minimum wage are so plentiful in many areas

that "as many as two-thirds of Americas high school juniors and seniors now hold down part-time paying jobs" (Etzioni, 1986, p. C1). Teens are permitted more social freedom during evenings and weekends so there remains relatively little incentive for teenagers to engage in regular child care service. Where the employment of children was once a supplement to the family income, teen income "is often, especially in the middle class, spent largely or wholly by the teens. That is, the youngsters live free at home, and are left with very substantial sums of money" (Etzioni, 1986, p. C2).

With more mothers employed, more mothers postponing childbirth, and fewer children per family, there are few if any available mothers in the neighborhood with the time or the inclination to either provide or share responsibility for the care of children, or indeed to offer any support to other mothers. In addition, cutbacks in Federal funding have also reduced the availability of public child care.

Less availability of kin, teenagers, neighborhood mothers, and public child care raises the question for the mother: To what extent can their children remove some of the burden by beginning to take care of themselves? The ages at which mothers begin to allow their children to assume additional responsibilities are generally based not only on environmental demands but also on the mothers' perceptions of what children are generally capable of doing or handling.

These perceptions are influenced by social norms. Gradually, as employed mothers continue to be an increasingly significant part of American society, such employment has become more acceptable, and alternatives to full-time maternal involvement with the child have also become more acceptable. Child care has thus become an important area of developing interest and research.

The numbers of children involved has demanded the attention of policymakers. "Altogether, about 25 million children--over half in married-couple families--are in families where the mother is absent from the home for part of the workday on a regular basis" (Hayghe, 1986, p. 43). This absence is not limited to school-age children.

In March 1985, nearly half of all wives (husband present) with infant children 1 year old or under were in the labor force, compared with only 31 percent in 1975. The proportion rises significantly until the youngest child reaches school age. Fifty-four percent of the mothers of 2-year-olds were working or looking for work in March, as were 62 percent of those with 5-year-olds. For mothers of school-age children the proportion ranged between 64 and 71 percent. (Hayghe, 1986, p. 43)

Of course single parent mothers are even more likely to be in the labor force. This has resulted in an increasing amount of child care provided by other than the mother. Yet little

is known of the consequences of these different care situations.

Only recently has there been much consideration of self-care as an alternative care choice for children. The traditional model of child care was considered to be the only way to raise children. All other styles, including day care centers, were viewed as less acceptable or even pathological. Despite persistent concerns, there is, as yet, little evidence of any negative consequences for a child in being temporarily separated from the parent or parents when that child is placed in high quality child care. However, the difficulty is that since children in structured day care are the most accessible, they tend to be the sample that is usually studied. Although organized day care placements are available to only a small proportion of all children of dual-employment marriages, there has been little research into the effects of other alternative child care arrangements. In addition, not all studies have been careful to discriminate between the different categories of mothers--married, single parent, working by choice or by necessity, etc.--and have tended to overemphasize relatively minor differences between groups. Therefore, the conclusions of these studies may not have widespread application.

The changing views as to the acceptability of self-care are related to the increased awareness of the possibility of making this choice as well as the lack of palatable

alternatives. According to a 1984 survey of the U.S. Bureau of the Census, "about 552,000 children cared for themselves or were cared for by another child before school" (Bruno, 1987, p. 2). The study found that 2.1 million children were in self or nonadult care after school and 249,000 were in self or nonadult care during the night. It is reasonable to assume that the growing number of children in self-care is related to greater acceptance of the arrangement, but empirical data are lacking. Publicly, however, the effects of alternate care situations, and particularly self-care, have been viewed with alarm, at least by some social commentators.

Traditionally mothers have borne the primary responsibility for child care decisions. There are indications that the father is becoming increasingly involved in childrearing and that he faces many of the same difficulties.

From 1970 to 1980 the number of female headed family households with no spouse present increased by 58.3 percent. The number of male headed family households with no spouse present increased by 41.1 percent. However, from 1980 to 1986 the change in male headed family exceeded that of female headed family households by 22 percent (39.3 vs. 17.3) (Bureau of the Census, 1987, p. 42).

A significantly increasing percentage of these male headed family households are single parents.

The number of white single parent fathers has gone up by 56 percent since 1980, versus a 22 percent increase for 1975 to 1980. Thus, there is some evidence of an acceleration in the rate of increase for this type of family group among whites [yet the single parent male remains a small minority among American families].

(Bureau of the Census, 1985, p. 10)

Whether the "cult of motherhood" in America begins with the Twentieth Century (Scarr, 1984) or in 1950 (Hewlett, 1986), there is no doubt that American society continues to perceive the mother as bearing primary responsibility for childrearing and for the consequences thereof. Such perceptions affect mothers' expectations for themselves. During the American baby boom of the late 1940s and 1950s working mothers were out of favor and the role of the mother expanded dramatically. Child development experts were promulgating visions of virtually omnipotent powers to mothers in the shaping of the physical, cognitive, and emotional character of their child.

The traditional family has become a cultural icon. Hewlett points out that "even in contemporary political life it is the fifties family and the fifties mother that constitute both the standard and the norm" (1986, p. 228). This normative perception results in mothers believing this

to be their role and attempting to fulfill the consequent demands no matter how extensive and unreasonable. The stresses and demands on the American woman seem to have increased with "progress" in society. While expectations have increased for the mother to maintain a modern household and to be more intensely involved in the early experiences of children, at the same time there have been a variety of legal decisions resulting in less security in the homemaker role.

The working mother is part of the mainstream of American society. In the last 40 years, one of the most persistent trends in the changing roles of women has been the increase in employed wives. There has been greater social acceptance of the working woman but social acceptance of the working mother lags far behind. Employers do not accept the intrusion of child care responsibilities into the work environment while social norms do not accept the intrusion of employment responsibilities into child care decisions.

Whatever their gender, parents are faced with the need to make decisions regarding care for children. There seems little doubt that preschoolers require adult supervision, but with the school-age child, self-care decisions inevitably involve the parents' perceptions of when children are old enough to do or decide a variety of interrelated activities. Robinson, Rowland, and Coleman (1986) claim

there is a wide range of social and emotional maturation rates that differ for each child. Some children are

capable of taking care of themselves at 10 or 11 years of age, and others still have not matured by age 14 or 15. (pp. 6-7)

Yet they note that "in practice, parents still use age as a benchmark for latchkey status" (p. 7) as well as for other childrearing decisions and these age benchmarks reflect their perceptions of societal norms.

Despite unreasonable demands by society it is parents' and usually mothers' perceptions of the societal norms for maturation of children that are likely to continue to provide guidance in difficult childrearing decisions. Understanding these perceptions is essential to understanding the decisions that parents make.

Independent Variables Associated with Parents

Although there is little literature directly addressing the relationship of various independent variables to parents' perceptions of children's age of maturity, there is a vast amount of literature on a wide variety of independent variables that are correlated with families, their structure, their attitudes, and their childrearing patterns. These independent variables may be relevant to understanding mothers' responses to the Perceived Age of Maturity Scale.

Perceived age of maturity is assumed to influence the age at which parents permit their children freedoms and responsibilities and the differentiations that parents make

by gender. Conversely, the ages at which freedoms and responsibilities are granted are presumed to reflect the perceived age of maturity constructs guiding parental decisions. As the child matures, decisions are made to permit independence and an expanded field of experience for that child. Thus research on differences in independence granting by different categories of parents is relevant to identifying the independent variables that may be related to perceived age of maturity.

Various independent variables not only affect the parent directly but also serve to map the social environment of which that parent is a part. That territory forms the context within which their perceptions of social norms are formed. Galambos and Dixon (1984), in their study of latchkey children, point out the necessity of considering the total environmental context, including type of community, age, sex, and socioeconomic status, when attempting to understand the factors that contribute to the rearing of children. All these variables may contribute to the perceptual structure that the parent brings to the ongoing decision making process of childrearing. For the purposes of this review the independent variables will be clustered into three categories--family variables, socioeconomic status variables, and residential locale variables--even though these variables may be inextricably interrelated.

Family variables. The family variables of special interest in this study are age of mother, number of children, marital status, and relative age of husband and wife. Mother's age is directly associated with the resources she brings to the childrearing experience. Older mothers tend to have a more established and stable home life, more life experience, and more financial resources (Bureau of Labor, 1983).

The number of children is directly associated with the demands on resources of time and money. Although increased experience and economies of scale may reduce the effect of increasing numbers of children, that there is an effect, however, is supported by research. Lasko (1954) examined parent behavior as a function of the number and order of the children in the family, and found evidence of systematic changes in the way a parent behaves to children in various positions in the family.

Number of children is interrelated with a number of other variables, such as mothers' age (older mothers are able to have born more children), socioeconomic status variables (lower socioeconomic families tend to have more children), and residential locale (rural families tend to be larger) (Bureau of the Census, 1987). Of course, the problem of multicollinearity is always present. For example, as Douglas and Davie (cited in Pilling & Pringle, 1978) pointed out, "families of working mothers tend to be smaller and small

families are associated with higher academic achievement" (p. 179). Also, womens' unemployment rates decline with increasing age and education. (Bureau of Labor, 1983)

Hetherington and Parke (1975) have reported that the number of children in a family is directly related to authoritarian control of children. They also speculate that because the parents in large families cannot interact as closely with their children as those in smaller families, there is less opportunity for overprotection, infantilization, constant harassing, or close supervision of children. The results of this relationship are reflected in the greater independence but lower academic achievement of children from large families. (p. 342)

Marital status is also associated with the availability of resources for childrearing and with the traditional or liberal character of lifestyle. Married women are generally in a traditional household with more income, less unemployment, and additional support systems. On the other hand, female headed households tend to be less traditional and to face more extensive demands on more limited resources. "Women maintaining families are far more likely to be unemployed than husbands or wives, their average (median) family income is less than half that of married couples, and they are five times as likely to be in poverty" (Bureau of Labor, 1983, p. 26).

No research was located on the effects of the relative age of husband and wife. It is possible that families where the relative age of the dyad differs from the norm are more likely to be nontraditional in other respects as well.

Socioeconomic status variables. Socioeconomic status variables include mothers' education, employment status, income, and occupation. These variables have been used individually and in various combinations as measures of a construct called socioeconomic status. The interaction of these variables is pronounced and it is often advisable to view them as indicators of socioeconomic status rather than as separate measures of an individual's position in society.

Relationships reported by Bruno (1987) between after-school care arrangements and mothers' education, occupation, and income suggest that the differences in perceptions of what constitutes appropriate childrearing care are related to socioeconomic status. Children of mothers who have not completed high school or who are in occupations subject to shift work (lower occupational and income levels) or geographically isolated (rural, with lower occupational and income levels), are more likely to be in parental care only, while those with mothers in "executive and managerial," or "technical, sales and administrative" occupations (higher occupational and income levels) are less likely to receive only parental care, and more likely to receive other adult or nonadult care (Bruno, 1987).

Education of the mother is highly correlated with many aspects of the family and of childrearing decisions.

Fertility and birth expectations vary inversely with educational attainment, occupation and labor force status, and family income. The higher a women's educational attainment, the fewer births she has had or expects and the greater likelihood that she plans to have no children. (Women's Bureau, 1985, p. 28)

The research on the relationship of maternal employment to childrearing practices is extensive. Reviews of research during the 1960s and early 1970s (Vogel, Broverman, Broverman, Clarkson, & Rosenkrantz, 1970; Etaugh, 1974; Hoffman, 1974) concur that childrearing practices differ between employed and unemployed mothers and that there was less sex role stereotyping of children of both sexes when the mother was employed, but agreed on little else.

In 1974 Hoffman's review of studies on the effects of maternal employment found that:

The data are quite sketchy, but the general picture is that except for the working mothers of younger children (elementary school age) who are educated or enjoy work and possibly the working mothers in unstable families, working mothers stress independence more than do nonworking mothers. (p. 215)

Hoffman was basically oriented toward the positive features of maternal employment and reported little of the research

which viewed the increases in working mothers with concern. Her summation received little support from Hock (1980), following a well constructed study, who concluded that "work status per se is not significantly related to maternal attitudes and caregiving behaviors, to infant developmental level, or to the quality of the mother-infant relationship" (p. 100).

Scarr (1984) states that
in the 1980's we have not resolved the costs and benefits of maternal employment to anyone's real satisfaction. I think that the lack of resolution results more from conflicting cultural values about women and children than from any good or bad effects of mothers' working or staying home. (p. 10)

This conclusion was not unlike that of Yarrow, Scott, Leeuw, and Heinig who reported in a 1962 literature review:

"Working and nonworking mothers, who are of similar cultural background and family circumstances, are very much alike in philosophy, practices, and apparent relationships with their children" (p. 130).

In general, the research on the effects of employment was well characterized by Pilling and Pringle (1978) following an overview of the research in the field:

It is true that there is an abundance of studies dealing with the question of the effects of maternal employment on the child. Most, though, have subjects who are older

adolescents. . . . there are obvious differences between the needs of a six-year-old and a fifteen-year-old, both for physical care and in the time that can be spent alone without adult supervision. The difference in the need for care of the two age groups is also likely to affect the mothers' attitude to her employment--the mother of the young child is more likely to feel guilty about working and to be harassed by her dual role. Most of the studies with adolescents as subjects choose them on the basis of the mother's current working status, with little regard for her employment history during the child's primary school years. Even the few studies which have made a sharp demarcation, insisting that the criterion of the non-employed mother should be that she has never worked during the child's life, do not also insist that the employed mother should have been working in the earlier part of the child's school career. Taken together, the findings of the studies with adolescents as subjects are consistent enough for it to be concluded, at least that maternal employment has few, if any adverse effects for most children in this age range. They can give very little indication, though, of the effects of maternal employment on children in the primary school age range.

Findings from the few studies which have been carried out on children at the primary school stage are

mixed, some suggesting that there are no adverse effects of maternal employment on adjustment or attainments and others suggesting that there may be such effects.

(p.181)

This review pointed out quite clearly that, although there has been extensive research in the field of working mothers, the methods are often flawed and the conclusions are often contradictory.

The literature would seem to support the conclusion that for the most part there is relatively little difference in the long term effects of working and nonworking mothers on the development of their children. However, benefits or costs due to maternal employment may exist that have yet to be captured by research. Detrimental effects are not necessarily a direct result of employment, and are possibly a consequence of a complex of employment related factors. The interrelated pressures and rewards of employment are likely to influence childrearing decisions that the mother makes. Decisions are made by the mother's balancing the perceived demands of her various roles while considering the resources available to her.

The attitudes and values influencing parental perceptions are related to their socioeconomic status and may differ according to the age of the child. Although for preschool children the middle and upper classes of parents expect more responsibility and independence than the lower

classes, this relationship soon changes. Above five or six years of age the lower to lower-middle class has been found to be more permissive than the middle class (Clausen & Williams, 1963) and lower to lower-middle class mothers tend to stress independence more than middle class mothers (Hoffman, 1974; Hetherington & Parke, 1975). Hetherington and Parke, in an overview of reviews of research on socioeconomic status and parental permissiveness, report that current social class differences in permissiveness should be regarded as a difference in kind and timing of restrictions rather than degree of restrictiveness. There is less restrictiveness among middle-class parents toward the infant and young child, but greater parental supervision and control in adolescence. Middle-class parents . . . expect early development of responsibility and have higher achievement and academic goals for their children. The shift to greater permissiveness by the lower-class parents with older children may be attributable in part to the expectation of earlier attainment of economic independence by children in lower-class families. Most lower-class adolescents must of necessity help contribute financially to their own support, in contrast to middle-class children who usually expect to be supported through college and often graduate school, well into young adulthood. (p. 339)

The extended dependence for other than lower class adolescents has continued into the 1980s. There has been an increased percentage of middle and upper class children extending their financial and residential dependence for even longer periods. The persistence of these patterns argues for the relevance of socioeconomic status in studies of parental perceptions (Household and Family, 1987).

In addition socioeconomic status interacts with other family and residential variables. The Connecticut Mutual Life Insurance Company (1981), after a nationwide study, reported that

social advantage has an important impact on religious commitment. The less advantaged are markedly more inclined to participate frequently in religious activities and experiences than are the more advantaged. About one-third (32%) of those who have not graduated from high school are among the most highly involved in religion, for example, compared with one-fifth (18%) of those with more than a high school education. Similarly, one-third (33%) of Americans with incomes under \$12,000 are among the most religious, compared with only one-fifth (19%) of those with annual incomes over \$25,000. (p. 48)

Residential locale variables. Residential locale variables include the number of moves the family has made in the last 10 years, rural/urban character of residence, and

church attendance. These variables help to establish the profile of interaction between the community of residence and the family.

America is a mobile society with one-fifth of the population moving every year. Certain types of families tend to exhibit more mobility than others. Fischer (1977) found that families exhibiting more nontraditional values exhibited more geographic mobility. For example, single parents or cohabitating couples are more likely to move than traditional husband-wife families. Differences in mobility are also associated with social class. White collar families typically move to take advantage of occupational opportunities, blue collar families move to where they have kin, and the poor are more likely to be forced out of their homes.

A variable exemplifying the overlap among many of the independent variables is the urban/rural concept. Both rural residence and church attendance are positively related to traditional values and childrearing practices (Bronfenbrenner, Moen, & Garbarino, 1984). The rural woman is more likely to follow a domestic role, have few recreational activities outside the home, and not work outside the home. The rural husband is likely to have more social and work experiences outside the home while rural "women are ultimately responsible for home and children" (Beaver, 1986, p. 112).

Historically, the rural family has been considered to be the repository of traditional values as distinct from and opposed to the more modern urban values. Rural families continue to be more traditional than urban families and traditional rural mothers are more likely to be accepting of what they perceive to be societal norms. Rural families remain larger than urban families, both due to a significantly higher birth rate and to the higher likelihood of kinfolk moving into the family household. There is a tendency to favor boys more than girls and the husband is more likely to act as the head of the household (Photiadis & Schwarzweller, 1970).

Rural men and women are more likely to get married and to have children at an earlier age. Also, if divorced, they remarry much more quickly and tend to spend more of their life in the married state (Woodrow, Hastings, & Tu, 1978). The norms of society are more important than the accomplishments of the individual in rural cultures. The Connecticut Mutual study (1981) found that, more than political issues, moral issues tended to divide "the young and old, men and women, those living in urban and rural areas, the rich and poor, and the least and most educated" (p. 87). In 1979, England, Gibbons, and Johnson reported that not only do rural men and women place greater importance on kindness, physical development, honesty, religion and self control (traditional values) but they also value

intellectualism, social skills, status and creativity. As stated by Bronfenbrenner, Moen, and Garbarino "in general, the findings from investigations of this sort reveal that, in comparison to their urban counterparts, rural families exhibit more traditional values and childrearing practices, while the children themselves show lower levels of ability and achievement" (1984, p. 285).

Church attendance was used in this study as a proxy measurement of religious commitment. Increased church attendance is associated with increased religiosity and with an acceptance of more traditional norms. Religious commitment has been found to be the best predictor of moral attitudes and is important in determining family values (Connecticut Mutual, 1981). It was found that

while demographic factors such as age, income, education and gender clearly have an impact on attitudes toward moral issues, it is the impact of religion that is by far the most significant. On virtually every moral issue, religious commitment has the most powerful impact. (p. 88)

To understand and to predict parents' perceptions of children's maturity we must understand the context within which parents operate and where they are within that space. All of the preceding independent variables are associated with the parents' topographical location in society and thus

may help to provide some predictability of the norms within their social environment.

Previous Instruments Designed to
Measure Parental Perceptions

Much of the work that has been done on parental attitudes occurred in the late 1950s and early 1960s, generally investigating attitudes toward independence of the child. Only four scales measuring concepts comparable to those in the Perceived Age of Maturity (PAM) Scale and addressing the same age range under consideration were located in the literature. These were: the Parental Expectancy Scale developed by Jerry D. Alpern, the Maternal Attitude toward Independence Training by June E. Chance, the Children's Responsibility Inventory by James Walters, Frances I. Stromberg, and Geraldine Lonian, and the Parental Developmental Timetable by Irving Torgoff (Johnson & Bommarito, 1971; Johnson, 1976).

The Parental Expectancy Scale is a 26 item structured interview designed by Gerald Alpern (Johnson, 1976) in 1959 to cover "normative" skills ranging from two to adulthood in five skill areas. Those areas were: physical development, self-help, social development, academic development, and communication development. This scale was designed to be administered to parents of handicapped children. Social development is the subscale that appears most closely related

to PAM and was addressed by only three items. The sample item provided was: "Can the child do a responsible job of babysitting during the day with a 3-year-old child for at least 3 hours" (Johnson, 1976, pp. 835-836).

The Maternal Attitude Toward Independence Training Scale, developed in 1965 by Chance (Johnson & Bommarito, 1965), was an adaptation and extension of Winterbottom's Independence Training Attitude Questionnaire developed in 1958. It used 40 items to ask the mother

the age at which he [sic] would like his [sic] child to be able to do the activity indicated and also the range of ages from the earliest at which the parent would expect the child to do the activity to the age at which the parent begins to feel concerned if the child is not doing the activity. (Johnson & Bomarito, 1965, p. 330)

Chance then used 31 of these items to compute a mean age of independence demands and used the standard deviation of those 31 items to represent flexibility of attitude. No reliability and validity was reported.

The Children's Responsibility Inventory is a 50 item instrument with an emphasis on parental perceptions of children's responsibility for grooming, hygiene, and household chores. The instrument was developed to attempt to establish norms of expectation for comparison with the expectations of child development experts. Walters, Stromberg, and Lonian (1957) gathered perceptions of 210

black mothers of children in the first grade, 170 white mothers of children in the first grade, 81 single white female university students, and six college-level instructors in Home Life on what was the earliest age at which the average boy and the average girl should be able to assume responsibility for different tasks. Of particular interest to the examination of the Perceived Age of Maturity Scale were the responses of the college-level instructors in Home Life who provided a panel representing "expert" opinion in the mid-1950s and the responses of the 170 white mothers, the group most closely paralleling the PAM sample group.

Only four items of the 50 item instrument were very similar to items in the Perceived Age of Maturity Scale. Those items and the age response means of the perceptions of white mothers and Home Life instructors were:

Straightening up his room once a week (such as putting away toys, hanging up clothes, tidying shelves and drawers).

| | <u>Boys</u> | <u>Girls</u> |
|---|-------------|--------------|
| Response means of white mothers | 7 | 6 |
| Response means of Home Life instructors | 8 | 7 |

Walking to school alone assuming that he has to cross only a few moderately busy streets.

| | <u>Boys</u> | <u>Girls</u> |
|---|-------------|--------------|
| Response means of white mothers | 6 | 6 |
| Response means of Home Life instructors | 6 | 6 |

Crossing main traffic thoroughfares which do not have traffic lights.

| | <u>Boys</u> | <u>Girls</u> |
|---|-------------|--------------|
| Response means of white mothers | 8 | 8 |
| Response means of Home Life instructors | 9 | 9 |

Staying alone in his home for a half-day occasionally.

| | <u>Boys</u> | <u>Girls</u> |
|---|-------------|--------------|
| Response means of white mothers | 10 | 10 |
| Response means of Home Life instructors | 9 | 8 |

Going with a friend to a movie which his parent approves.

| | <u>Boys</u> | <u>Girls</u> |
|---|-------------|--------------|
| Response means of white mothers | 8 | 8 |
| Response means of Home Life instructors | 9 | 9 |

(Walters, Stromberg, & Lonian, 1957, p. 212)

In addition to the age means for the above items which can be compared with the results on the PAM items, a number of their findings are relevant to the current investigation into perceived age of maturity. The test-retest reliability check of their sample of predominantly middle-class white mothers yielded a 0.76 reliability coefficient. They report a high degree of consistency between the responses of the mothers and those of the specialists as well as "a tendency for both groups of mothers as well as for the specialists and the students to believe that girls should be able to assume responsibility earlier than boys" (Walters et al., 1957, p. 214). They report that

of the two hundred responses of the parents which were compared with the ratings of the specialists, in only twenty-one instances did the median age cited by the mothers differ from those recommended by the specialists by more than one year. (p. 214)

The Parental Developmental Timetable is a 48 item scale designed by Torgoff to measure mothers' and fathers'

achievement-inducing (pushing in parentally determined directions) and independence-granting (allowance of self direction) dimensions. Torgoff (1961; Torgoff & Dreyer, 1961) used the relative emphasis that the parent placed on the two variables to measure the influence technique of the parent on their child. The ratios of the achievement-inducing and independence-granting scores were calculated and compared to the child's observed compliance with the parents' techniques as well as with the child's measured levels of aspiration. Torgoff's instrument was a conceptual starting point for the development of the Perceived Age of Maturity (PAM) Scale investigated in this study.

In a thorough review of the literature on scales available for the measurement of parental perceptions of children's maturity it becomes evident that what little has been done occurred in the 1950s and early 1960s. Considering the extensive societal changes since that time--including increased numbers of working mothers, single parent families, and families disrupted by relocation or divorce--the need for an instrument that addresses more timely concerns and establishes more current norms of perception is readily apparent.

Summary and Conclusions

The wide differences among various societies help to distinguish between the impact of societal norms and possible

genetic influences on the perceptions of ages of maturity of children. If perceptions of maturity are based on "true" organic characteristics of the genders, expectations would be relatively consistent across cultures. However, Third World countries confer adult responsibilities at a far earlier age than is typical in American society. Even when comparing industrialized countries there are wide variances in the expectations of parents. Therefore, the impact of societal norms on parental perceptions seems the most probable explanation of intrasocietal similarities and intersocietal differences.

In a 10 nation study of childrearing values Lambert, Hamers, and Frasure-Smith (1979) found that "American, English Canadian, and French Canadian parents were generally more permissive than all seven European parental groups" in their reactions to autonomy requests and that parents in the United States were among the most willing to grant guest privileges (pp. 324-325). In their summary, the researchers state that their

broad-ranged analysis has turned up a powerful "general trend," running across the ten national settings, indicating that parents from lower socioeconomic backgrounds tend to be more severe and demanding with their six-year-old children than parents from middle-class backgrounds. (p. 321)

However, they went on to report that

as a group, American parents stand out as permissive and lenient relative to the other nine parental groups.

Furthermore their leniency is seen at both [working and middle] social class levels and is reflected in a wide range of value issues, including both aid and discipline matters. (pp. 346-347)

In general, compared to other industrial societies, American parents tend to be more permissive and to perceive relatively low sex role contrasts. The American culture is also marked by a much greater affiliative drive than other cultures (Lambert et al., 1979).

There is no doubt that the traditional family model of mother and father can do the best job at childrearing if all else is equal. However, this does not seem to be due to any unique genetic relationship between parent and child but rather to situational circumstances and, unfortunately, all else is rarely equal. Basically, biological parents (or adoptive parents of infants or young children) are available to develop the attachments and interactive bonds that can begin forming before birth and that help to maintain familial commitment through difficult times. The two parent model provides the needed variety of role figures and permits the latitude for each parent to choose roles in accordance with skills and interests. This model usually provides each parent with more emotional and physical support as well as

improving the chances for better family finances than is probable in a single parent household. The advantages of the traditional family model, however, can diminish rapidly when detrimental circumstances are included.

The expectations people have toward their descendants reflect their concepts of what Boszormenyi-Nagy and Spark (1973) refer to as intergenerational justice. These expectations are generated by the context in which people live, including not only their background and rearing but their perceptions of societal norms. When the individual's sense of the appropriate human order of life is violated, interference can occur with other and subsequent relationships. Frustration and despair are generated when expectations of what constitutes justice are not met. A lack of congruity between expectations and performance may produce changes in expectations and may also devastate what could be supportive kinship bonds.

Hoopes's (1982) longitudinal study of prediction in child development discovered a reassuring long-term consistency of parent attitudes. Attitudes were measured using the Inventory of Family Life and Attitudes Scale when the parents' first child was 16 months, 5 years, and between 8 and 12 years of age. All of these attitudes correlated significantly, across time, at the 0.001 level. This suggests that despite some changes in general cultural attitudes toward childrearing over the intervening years

since the beginning of the study, this group of parents has remained quite consistent in their own attitudes. It also means that despite the experience of living with one or more children, attitudes have remained consistent.

The stability of parental attitudes is also supported by Hock and Lindamood (1981) whose four year study found that "attitudes about childrearing may be quite stable, even over several years" (p. 306) and Roberts, Block, and Block (1984) who report

considerable continuity in parental childrearing orientations from early childhood to early adolescence, [and] the shifts in emphases generally coincide with what are considered to be developmentally appropriate areas for change. (p. 586)

This stability of attitudes over time provides predictability and the possibilities of planned interventions.

In conclusion, as an increasingly large proportion of America's children are being brought up in other than the traditional family (working father, housewife-mother, and child), the investigation into factors affecting the decision making of parents is especially pertinent. Professionals in child development and family relations need to understand the influences parental perceptions have on families and what those perceptions are in order to become effective advocates for the future development of children. Books and articles by persons who consider themselves family and child "experts"

(often with little qualification other than adamant opinions) have a history of promulgating what the norms are and what they should be, with little basis in research (Hewlett, 1986; Scarr, 1984). To ethically advocate for or against any intervention strategy, family researchers need to develop clearer concepts of what the current status might be. As our society continues to change its expectations of what is appropriate childrearing behavior, the stress on people who take responsibility for parenting roles is increasing. Are you more effective as a parent if you are expressive or instrumental? Involved or distant? Traditional or liberal (and if liberal, liberal in what ways)? The importance of further research into relational variables in childrearing cannot be overstated.

Societal changes do not necessarily overwhelm families and cause sudden changes in their perceptions. One should also keep in mind that not all changes come from outside the family. The state of the family is not only the effect of social changes but is also the source of social change. Parental perceptions of norms of maturity of children provide a framework for childrearing decisions that prepare children for their role in society.

CHAPTER 3

METHODS

Source of Data

The data for this secondary data analysis were collected by Rodman and Pratto (1980) in two phases of a survey of self-care mothers (see Appendix A, Appendix B, and Appendix C). In addition to items addressing a variety of demographic and other information, the second instrument included a 30 item scale to collect responses on mothers' perceptions of the appropriate age for children, of either sex, to engage in a variety of activities or experiences. The initial survey was distributed in the July, 1980 issue of McCall's Working Mother (Leishman, 1980), and resulted in a response from 1,194 mothers having children in self-care. The Perceived Age of Maturity (PAM) Scale was included in the Phase II instrument which was mailed in May, 1982 to the 598 subjects who had participated in the Phase I survey on "How Children Take Care of Themselves" and had indicated their willingness to continue in the study by providing the researchers with a mailing address. Of the 598 instruments mailed, 60 were returned undelivered and 329 responses were received.

Both instruments were self-administered questionnaires covering self-care variables, family structure, demographics, and perceived age of maturity. The instruments were assembled by Rodman and Pratto (1980) when no valid

instrument could be located to address their research concerns. The development of the 30 items used for the PAM Scale was influenced by Irving Torgoff's Parental Developmental Timetable, a 46 item scale developed in the 1950s to measure achievement-inducing and independence-granting by the parent (1961).

The 329 Phase II responses were matched with the respondents' Phase I responses. Since virtually all of these responses were from mothers, only they were considered in these analyses. This study uses sections from both questionnaires (Appendix B and Appendix C) as sources for the dependent and independent variables and for verification of the reliability of the responses.

The 30 item PAM Scale asks the respondent to indicate at what age "the average boy and the average girl are mature enough to be able to do or decide" a variety of items which were believed to reflect developing independence skills. Some representative examples are:

1. To use a stove
5. To cross busy streets alone
10. To care for him/herself regularly after school
15. To have sexual intercourse
25. To spend a few hours at a shopping mall alone
30. To stay home alone with a cold all day while the parents are working

Methodology

This study focused on the Perceived Age of Maturity (PAM) Scale. Using the Statistical Package for the Social Sciences (SPSS^x), the study began the validation of the scale and addressed the following questions with the procedures as described below. These questions and, where appropriate, resultant hypotheses were based upon an extensive literature review.

Question 1

Is Perceived Age of Maturity (PAM) a unidimensional construct or are there underlying factors in the scale?

Procedures for Question 1

Exploratory factor analysis was used to determine if there were interpretable underlying dimensions in the 30 item PAM Scale and to create a new and smaller set of variables for further analyses. Principal components factor analysis with varimax rotation was performed on the data, since there was no basis upon which to estimate communality. Determination of the number of factors to rotate was based upon the Scree test, as well as the interpretability of factors, procedures recommended by Nunnally (1978). The rotated factor analysis was compared with the unrotated analysis and was then used to determine the items with factor loadings equal to or greater than 0.40 which were included in the factors. An oblique rotation was performed on the four

factor solution to compare the factor structures elicited in the orthogonal rotation. Reliability tests were performed on the entire test and on the items included within the separate factors (subscales).

Expectations for Question 1

In testing the results it was expected that there would be a consistent pattern of responses to items measuring perceived age of maturity. Factor analysis of the PAM Scale data was expected to produce one of two possible results. First, there would be only one factor that reflected the perceived age of maturity and further analysis would require only a unidimensional score to represent the respondents' perceptions. Second, there would be more than one interpretable factor. In this study there were four interpretable factors, therefore, subsequent multiple regressions were based on these four factors.

Question 2

Are there significant differences between mothers' patterns of responses for boys and for girls?

Procedures for Question 2

Hypothesis 1--There would be no difference between the perceived age of maturity for girls and the perceived age of maturity for boys--was used to test for gender differences in the mothers' responses. The t test ($\alpha = 0.05$) was used

to test for significant differences in the mean of each individual item and of the total score. Differences were found to exist. Effect size was calculated in order to determine the magnitude of the effect in standard deviation units using the formulas presented in Appendix E, and approximate power was calculated as recommended by Cohen (1977). In addition, difference scores were calculated to focus the examination upon the respondents who reported dissimilarities.

Expectations for Question 2

For the majority of the items on the PAM Scale, it was expected there would be no significant differences in mothers' perceptions of the age of maturity for boys and the age of maturity for girls. The exceptions to this expectation of no significant differences were those items inquiring about behavior marked by strong, traditional gender differences. The items believed to meet these criteria were:

8. To go hunting with parents
11. To join the army or navy
16. To work as a babysitter
19. To prepare a meal for several people
23. To hunt animals with friends

These items were expected to demonstrate significant differences. If those five items evidenced a pattern of gender differentiation unique from the rest of the scale,

they were to be considered anomalous and dropped from consideration in further analyses. However, not evidencing a widely discrepant pattern, they were retained for further consideration.

Question 3

Do the independent variables help account for a significant amount of variance in mothers' reported perceptions?

Definitions of Dependent Variables

Perceived age of maturity (PAM). The dependent variables were factors generated from the Perceived Age of Maturity (PAM) Scale (Appendix A) which was included in the Phase II instrument. The responses to the PAM items reflect the respondents' perceived age of maturity of average children. The higher the score the higher the age at which they generally expect children to be socially and emotionally mature. These item responses were factor analyzed and generated four interpretable factors: Social/Sexual Independence (SX), Caretaking Responsibility (CR), Mechanical Responsibility (MR), and Social Freedom (SF).

Definitions of Independent Variables

The following are the independent variables (based on questions listed in Appendix B or Appendix C unless otherwise noted) that were examined. From this list, variables were

accepted for inclusion in further analyses. Two of the items --age and number of children--were included in both Phase I and Phase II instruments so the consistency of their responses over time could be compared (Table 1).

Age. Mother's chronological age response to Item 13, Appendix C, and verified by cross comparison with their response to Item A, Part II, Appendix B (Table 1). Despite the different phrasing of the question, the separation of two years between Phase I and Phase II, and the probability of confusion by subjects being at or near the dividing point of an age group when filling out the questionnaires, the subjects were very consistent in their responses to these items. In responding to the items on age, only four subjects differed by more than one age level category.

Church attendance. Mother's reported church attendance measured on a seven point scale ranging from (1) "Never" to (7) "More than once a week" from Item D, Part II, Appendix B.

Number of children. Number of children living in the home in four categories: (1) "One", (2) "Two", (3) "Three", and (4) "Four or more" as given in response to Item 1, Part I, Appendix C, and verified by cross comparison with their responses to Item A, Part I, Appendix B (Table 1). This item demonstrated very consistent responses despite the passage of time and the possibility of the mother having additional children at or near the time of receiving the

Table 1

Crosstabulations for Agreement of Responses on Phase I and Phase II on Age of Respondent^a
and Number of Children Under 14 in Family^b

| Item | Crosstabulation (n) | | | | | | | More than 1 level % | Differ by 1 level % | Agree % |
|-------------------------------------|---------------------|---|---|----|----|---|----|---------------------------|---------------------------|------------|
| Age of respondent | | | | | | | | | | |
| Phase I | | | | | | | | | | |
| | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | | |
| P h a s e I I | Under 21 | 1 | 1 | | | | | | | |
| | 21 - 24 | 2 | 3 | 1 | | | | | | |
| | 25 - 29 | 3 | 1 | 31 | 1 | | | | | |
| | 30 - 34 | 4 | | 3 | 96 | 1 | | | 1.4 | 8.2 |
| | 35 - 39 | 5 | 1 | | 1 | 9 | 85 | 2 | | |
| | 40 - 49 | 6 | | 1 | | | 3 | 37 | | |
| | 50 - Up | 7 | | | | | | 1 | 1 | |

(table continues)

| Item | Crosstabulation (n) | | | | More than 1 Level % | Differ by 1 Level % | Agree % |
|---------------------------------------|---------------------|---------|----|-----|---------------------------|---------------------------|--------------------|
| Number of children under 14 in family | | | | | | | |
| | | Phase I | | | | | |
| | | 1 | 2 | 3 | 4 | | |
| P h a s e | One | 1 | 96 | 7 | 2 | | |
| | Two | 2 | 3 | 124 | 8 | 2 | 2.1 9.7 88.2 |
| | Three | 3 | 2 | 6 | 28 | 2 | |
| II Four or more | 4 | | | 2 | 6 | | |

Note. Total sample size = 288.

^a Seven subjects did not respond to both Phase I and Phase II items.

^b All subjects responded to this item in both Phase I and Phase II.

surveys. Only eight subjects differed by more than one category.

Education. Mother's education measured on a six point scale ranging from (1) "Some high school or less" to (6) "Graduate or professional degree" as given in response to Item J, Part II, Appendix B.

Hollingshead occupational status. Mother's occupation recoded into the seven categories of the Hollingshead Occupational Scale from the U. S. Census categories initially assigned to responses given to Item 10, Part II, Appendix C.

Family income. Total family income before taxes measured on a seven point scale ranging from (1) "Less than \$5,000" to (7) "\$35,000 or over" as given in response to Item T, Part II, Appendix B.

Mobility. How many times the respondent has moved in the past 10 years on a five point scale ranging from (1) "Never" to (5) "Four times or more" as given in response to Item U, Part II, Appendix B.

Person of opposite sex sharing living quarters (POSLQ). Whether the mother shares living quarters with an adult male (including spouse) who is not related by blood. This variable was computed from the responses to Item 13, Part I, Appendix C.

Relative age. A number calculated by subtracting the wife's age from that of the husband (or POSLQ) as given in response to Item 13, Part I, Appendix C.

Community of residence. Urban/rural character of residence on a five point scale ranging from (1) "A large city" to (5) "A rural area" as given in response to Item G, Part II, Appendix B.

Employment status. Mother's employment status computed into two categories: (1) "Unemployed" and "Employed part-time" and (2) "Employed full-time" based on their responses to Item O, Part II, Appendix B.

Main financial support. Divided into two categories: (1) "Provided by the mother", and (2) "Not provided by the mother" as given in response to Item Q, Part II, Appendix B.

Procedures for Question 3

Hypothesis 2--The set of independent variables, singly or in combination, account for a significant amount of the variation in the responses to the Perceived Age of Maturity (PAM) Scale--will be tested using selected demographic variables. The independent variables were examined to determine their appropriateness for inclusion into regression equations. Where the independent variable was found to be nominal, extremely skewed, or not normal, it was converted into a dummy variable. Independent variables not appropriate for inclusion into further analyses were reported as such and dropped. Each PAM factor score from the original four factor orthogonal solution was regressed on the independent variables to see whether and which of these variables accounted for a

significant amount of variation. The relative contributions the independent variables retained was examined.

Expectations for Question 3

Though expectations were based on there being a single construct--Perceived Age of Maturity (PAM)--the possibility that there could be more than one factor was acknowledged in planning the study. This did prove to be the case.

The mother's employment status was expected to have little correlation with the PAM Score. It was expected that lower PAM Scores would be evidenced by single parent mothers and higher PAM Scores by mothers of intact nuclear families. Since the behaviors under consideration in this study were largely expected to occur after five years of age, a positive relationship was expected between the Perceived Age of Maturity (PAM) scores and the independent variables that measure various aspects of socioeconomic status--"Education", "Income", and "Occupation". Since these variables are known to be related, significant multicollinearity was also anticipated.

Multicollinearity was a concern with the variables of "Residence" and "Church attendance" due to many research findings relating increased rurality of residence with more traditional values. It was predicted that as residence became more rural and as the frequency of church attendance increased there would be less permissiveness, consequently

increased Perceived Age of Maturity (PAM) scores. Since large families typically require more independence at earlier ages the expectation was that "Number of children" would be negatively related to PAM scores. In addition, since the families of employed mothers tend to be smaller (Douglas & Davie, cited in Pilling & Pringle, 1978) multicollinearity was expected between "Employment status" and "Number of children".

A correlation of "Mobility" with traditional values was expected since families exhibiting more nontraditional values ("alternative families") have been found to exhibit more geographic mobility (Fischer, 1977). In addition, however, the mobility of the family itself was expected to affect Perceived Age of Maturity (PAM). Families that are more mobile tend to have fewer established community supports and to be more distant from extended family supports. This was expected to result in increased reliance on intrafamily supports and to promote earlier demands for independence and responsibility from involved children. It was predicted that as "Mobility" went up mothers would report lower Perceived Age of Maturity (PAM) scores.

"Relative age", as well as the extent of the mother's contribution to the support of the family, was also expected to reflect a traditional versus nontraditional structure of the family. The mother's values were expected to be less traditional as relative age decreased and the Perceived Age

of Maturity (PAM) scores were therefore expected to be lower. Lower PAM scores were also expected when the mother provided the main financial support of the family. Mother's age was assumed to be directly related to traditional values so that as age increased the mother was expected to be more traditional and to report higher Perceived Age of Maturity (PAM) scores.

CHAPTER 4

RESULTS

The objectives of this study were to answer the following research questions: (1) Is there a significant difference between mothers' patterns of responses for boys and for girls? (2) Are there underlying dimensions in the Perceived Age of Maturity Scale? (3) Do respondents' personal and social attributes help account for a significant degree of variation in their reported perceptions of children's age of maturity?

Before the results are presented, a description of the demographic characteristics of the sample and some comparisons of the demographics of comparable national groups are provided. In answer to question one, the results of t-tests and descriptive data on the response distributions are provided and discussed. In response to question two the results of factor analyses and their interpretation are provided. Question three is addressed by a presentation of the results of regression analyses of the factors constituting the PAM Scale on selected demographic variables.

Description of the Sample

Three hundred twenty-nine subjects responded to both the Phase I and the Phase II survey instruments and were considered for this study. This number was reduced to 288

because 35 subjects did not provide personal demographic information other than their sex and six subjects did not positively identify themselves as female. Therefore, for the purposes of this study, 41 subjects were dropped from the analyses due to insufficient responses. Since they did complete the Perceived Age of Maturity (PAM) Scale the mean scores of the dropped subjects for the PAM Scale items were compared to the mean scores of the entire sample group. Since the differences between the means in this comparison were minimal, ranging from 0.002 to 0.063 (amounting to much less than a month's difference for any item) there was some assurance of similarity between the groups. Therefore, it was concluded that the analyses were not likely to be greatly affected by the need to drop some of the respondents.

Descriptive statistics for the sample of 288 are presented in Table 2. "Age", which was collected and analyzed as a continuous variable, is grouped for presentation in this table. There were no teenage mothers in this sample and, indeed, very few respondents under 25 years of age or over 45 years of age. The majority of the mothers (71.2 percent) were within the range of 30 to 39 years of age; increasing that range to 25 to 44 years resulted in the inclusion of 96.2 percent of the respondents. That the mothers tend to fall in this age range was not surprising given the nature of the sample--women who were readers of Working Mother and who responded to an initial questionnaire requesting responses

Table 2

Descriptive Statistics of the Sample

| Descriptive variables | n | Percentage of responses | 1980 national percentages ^d |
|---|------------|-------------------------------|--|
| Age^a | | | |
| 20 to 24 years | 5 | 1.7 | 9.0 |
| 25 to 29 years | 34 | 11.8 | 8.3 |
| 30 to 34 years | 105 | 36.5 | 7.6 |
| 35 to 39 years | 100 | 34.7 | 6.1 |
| 40 to 44 years | 38 | 13.9 | 5.1 |
| 45 + years | 6 | 2.1 | |
| | <u>288</u> | | |
| Marital status | | | |
| Single | 3 | 1.0 | 14.3 |
| Married | 196 | 68.5 | — |
| Married, husband absent | 4 | 1.4 | 152.8 |
| Separated | 7 | 2.4 | — |
| Widowed | 5 | 1.7 | 10.8 |
| Divorced | 71 | 24.8 | 6.0 |
| | <u>286</u> | | |
| Unrelated adult male shares living quarters^b (Includes husbands) | | | |
| Yes | 207 | 71.9 | |
| No | 81 | 29.1 | |
| | <u>288</u> | | |

(table continues)

| Descriptive variables | n | Percentage of responses | 1980 national percentages ^d |
|---|-----|-------------------------------|--|
| Children under 14 at home | | | |
| One child | 105 | 36.5 | 40.0 |
| Two children | 137 | 47.6 | 37.0 |
| Three children | 38 | 13.2 | 15.1 |
| Four or more | 8 | 2.7 | 7.9 |
| | 288 | | |
| Relative age of husband and wife ^a | | | |
| Wife more than 5 years older | 8 | 4.0 | |
| Wife one to five years older | 19 | 9.5 | |
| Wife and husband same age | 40 | 19.9 | |
| Husband one to five years older | 93 | 46.3 | |
| Husband more than 5 years older | 41 | 20.4 | |
| | 201 | | |
| Education | | | |
| Under 12th grade | 8 | 2.9 | 42.3 |
| High school graduate | 46 | 17.0 | 39.0 |
| Some college | 108 | 39.9 | 10.1 |
| College degree | 37 | 13.7 | |
| Some graduate school | 35 | 12.9 | 8.6 |
| Graduate degree | 37 | 13.7 | |
| | 271 | | |

(table continues)

| Descriptive variables | n | Percentage of responses | 1980 national percentages ^d |
|---|-----|-------------------------------|--|
| Employment status | | | |
| Not employed | 5 | 1.8 | 38.7 |
| Employed full-time | 237 | 82.9 | — 161.3 |
| Employed part-time | 44 | 15.4 | — |
| | 286 | | |
| Occupation^c | | | |
| Unskilled | 12 | 4.3 | — |
| Semiskilled | 76 | 27.0 | 34.3 |
| Skilled | 10 | 3.6 | — |
| Sales and clerical | 165 | 58.7 | 46.3 |
| Administrative | 4 | 1.4 | — 29.6 |
| Managerial | 9 | 3.2 | — |
| Executive | 5 | 1.8 | |
| | 281 | | |
| Main source of financial support | | | |
| Self | 98 | 34.8 | |
| Other | 184 | 65.2 | |
| | 282 | | |

(table continues)

| Descriptive variables | n | Percentage of responses | 1980 national percentages ^d |
|------------------------------------|-----|-------------------------------|--|
| Family income | | | |
| Less than \$5,000 | 9 | 3.2 | 3.0 |
| \$5,000 - \$9,999 | 21 | 7.4 | 7.6 |
| \$10,000 - \$14,999 | 38 | 13.3 | 9.9 |
| \$15,000 - \$19,999 | 35 | 12.3 | 11.0 |
| \$20,000 - \$24,999 | 57 | 20.0 | 10.7 |
| \$25,000 - \$34,999 | 63 | 22.1 | 21.2 |
| \$35,000+ | 62 | 21.8 | 36.6 |
| | 285 | | |
| Urban-rural character of residence | | | |
| Large city | 44 | 15.4 | |
| Suburb of large city | 67 | 23.4 | |
| Small city | 78 | 27.3 | |
| Small town | 54 | 18.9 | |
| Rural | 43 | 15.0 | |
| | 286 | | |

(table continues)

| Descriptive variables | n | Percentage of responses | 1980 national percentages ^e |
|---|-----|-------------------------------|--|
| Mobility (times moved in past 10 years) | | | |
| Never | 41 | 14.5 | |
| Once | 70 | 24.8 | |
| Twice | 55 | 19.5 | |
| Thrice | 46 | 16.3 | |
| Four or more times | 70 | 24.8 | |
| | 282 | | |
| Church attendance | | | |
| Never | 32 | 11.1 | 18 |
| Once a year | 42 | 14.6 | — |
| Several times a year | 50 | 17.4 | 38 |
| Once or twice a month | 32 | 11.1 | — |
| Three times a month | 36 | 12.5 | — |
| Weekly | 75 | 26.1 | 44 |
| More than once a week | 20 | 7.0 | — |
| | 287 | | |

Note. Total sample size = 288. Smaller totals for individual items reflect no response or not appropriate. Due to rounding errors percentages given may not always total 100 percent. National percentage values are equated to the sample responses by dotted brackets.

(table continues)

^aContinuous variable presented in categorical form to compact table size.

^bCalculated from Item 13, Appendix B.

^cSee Appendix D. Revised Hollingshead Scale.

^d1980 United States national percentages are divided into comparable categories with the sample group and represent proportions of:

Age-all white females

Marital status-all females over 18 years of age

Children under 14 at home-all families with children under
18 years of age residing in the home

Education-white females over 25 years of age

Employment status-white females over 16 of age

Family income-all white families

Occupation-all females over 16 years of age

(Statistical Abstract of the United States 1987 and 1983).

^e1980 data from Connecticut Mutual's (1981) nationwide sample of 1600 respondents of both genders answering the question--How frequently do you attend religious services?--in the categories of: Never, Occasionally, Frequently.

from mothers with children who "occasionally or regularly care for themselves". Children of the ages that this survey focused on were much likely to have mothers falling within the 25 to 44 age range than would be expected from national distributions of women.

Seventy percent of the subjects were married and 25 percent were divorced. Seven subjects reported themselves as separated, five reported themselves as widowed, and only three subjects reported themselves as single mothers. Again this was not surprising given the selection process. Divorced mothers and working married women are more likely to be employed and experiencing less stress and financial difficulty than single mothers. Mothers with a more settled life style and above minimal resources are more likely to have the discretionary money to be able to subscribe to Working Mother and to have the time and inclination to respond to these surveys.

Due to the number of "Marital status" categories (6) and the limited number of responses in most of these categories, a surrogate dummy variable (POSLQ) was generated to replace "Marital status" for use in later regression analyses. The dummy variable was computed from the responses to Phase II, Item 13, Appendix C and reflects whether or not the respondent reports sharing living quarters with an adult male (including husband) who was not a child or father. Of the respondents, 71.9 percent reported sharing their living quarters in this manner. The similarity to the number reporting themselves in

one of the "married" categories (69.9 percent) lends credence to the accuracy of this computed dummy variable.

By far the largest percentage (84.1) of the respondents reported one or two children under 14 in the home. Only 13.2 percent reported having 3 children and 2.7 percent reported having 4 or more children under 14 in the home. Given that one of the selection criteria for this category was that the respondent have a child in self-care the national percentages reflect only the proportions of families that do have children. As is evident the proportional number of children in these families is similar to the number of children in families surveyed by the Census Bureau (1987).

Relative age of husband and wife was a continuous variable that was calculated by subtracting the reported age of the respondent from the reported age of her husband (where husband's age was reported). Although "Relative age" was continuous it was grouped in the table for ease of presentation. Only 13.5 percent of the respondents to this item reported themselves as older than their husband while 66.7 percent reported the husband as older. The remaining 19.9 percent reported their husband as being the same age as themselves. For 87 subjects "Relative age" could not be calculated because no husband was present.

The level of education of this sample was relatively high when compared to the national educational level of white women over 18. Less than 20 percent reported that they had

not received any college level training and less than three percent reported not finishing high school. More than 26 percent reported study beyond a bachelor's degree. The higher educational level was expected from self-selected respondents to a magazine-distributed questionnaire.

Reported occupations were initially coded into the 1000 categories of the U. S. Census Code. For further analyses this information was recoded into categories compatible with the Hollingshead Occupational Scale (Hollingshead & Redlich, 1958) as shown in Appendix D. While the national average employment rate for white women over 18 is 61.3 percent, almost all of these respondents were working (98.3 percent) either part-time or full-time but their occupational status was not particularly high. Almost 60 percent (58.7) were in the sales or clerical category and 27 percent were in the semi-skilled category. These two categories alone accounted for over 85 percent of the respondents. Almost 94 percent (93.6) of the respondents were included in the categories of sales or clerical rank or below--much below the national average. however, despite the relatively low employment status, 34.8 percent of these mothers were the main source of financial support for their family. These subjects generally reported adequate family income levels. Forty-four percent reported family incomes of \$25,000 or greater. However, 10.5 percent of the respondents reported family incomes below \$10,000 and 3.2 percent reported family incomes below \$5,000 per year and

a much smaller percentage than would be expected from the national white family income average. This may well be due to the larger proportion of divorced respondents in this study.

"Residence type", "Mobility" and "Church attendance" were the last three items reported in Table 2. The urban-rural character of the respondents' residence was fairly evenly distributed across all the possible categories with substantial group sizes in each category. The sample respondents were generally mobile with 41.1 percent having moved three or more times in the last ten years and only 14.5 percent not having moved in the same time period. Overall, most of the respondents reported intermittent church attendance. Only 7 percent attend more than once a week whereas 11.1 percent never attend. These sample respondents were similar, though a little more frequent in attendance, to those in a nationwide study by Connecticut Mutual (1981) where 18 percent report never attending church with the balance attending frequently or occasionally.

Means and Standard Deviations

The means and standard deviations of the responses to the PAM Scale items are given in Table 3 and are provided as background for subsequent tables and analyses. This table also includes a condensed format statement for each item in Appendix A. These condensed forms will subsequently be used in the text and tables.

Table 3

Means and Standard Deviations of Perceived Age of Maturity Items
for Boys and Girls

| | Boys' Age | | Girls' Age | |
|--|-----------|-------|------------|-------|
| | Mean | S.D. | Mean | S.D. |
| AT WHAT AGE IS THE AVERAGE BOY AND GIRL MATURE ENOUGH TO . . . * | | | | |
| To use the stove | | | | |
| Use stove | 10.118 | 1.948 | 9.696 | 1.906 |
| To walk a mile to school alone | | | | |
| Walk mile to school | 8.996 | 2.278 | 9.111 | 2.441 |
| To keep his/her room tidy | | | | |
| Keep own room tidy | 6.659 | 2.104 | 6.500 | 1.843 |
| To go out on a date | | | | |
| Go out on date | 15.271 | 1.001 | 15.161 | 1.038 |
| To cross busy streets alone | | | | |
| Cross busy streets | 8.576 | 1.999 | 8.549 | 2.011 |
| To occasionally stay at home alone for an hour or two | | | | |
| Occasional self-care | 8.482 | 1.860 | 8.343 | 1.881 |
| To take a part-time job at a fast- food restaurant | | | | |
| Part-time job | 15.414 | .858 | 15.400 | .930 |
| To go hunting with parents | | | | |
| Hunting with parents | 11.281 | 3.009 | 11.454 | 3.114 |

(table continues)

| | Boys | | Girls | |
|--|---------------|--------------|---------------|--------------|
| | Mean | S. D. | Mean | S. D. |
| To run a lawnmower | | | | |
| Run a lawnmower | 11.040 | 1.958 | 11.209 | 1.987 |
| To care for himself/herself regularly after school | | | | |
| Regular self-care | 9.723 | 1.864 | 9.566 | 1.843 |
| To join the army or navy | | | | |
| Join military | 18.163 | .935 | 18.196 | .917 |
| To live alone | | | | |
| Live alone | 18.706 | 1.153 | 18.705 | 1.251 |
| To spend a month traveling with friends in Europe | | | | |
| Travel in Europe | 18.737 | 2.611 | 18.767 | 2.693 |
| To use contraceptives | | | | |
| Use contraceptives | 17.022 | 1.884 | 17.004 | 1.841 |
| To have sexual intercourse | | | | |
| Have sexual intercourse | 17.738 | 1.674 | 17.704 | 1.672 |
| To work as a babysitter | | | | |
| Work as babysitter | 13.343 | 1.402 | 12.747 | 1.414 |
| To occasionally take care of a younger brother or sister for an hour or two after school | | | | |
| Occasional care of sibling | 11.205 | 1.683 | 10.841 | 1.659 |

(table continues)

| | Boys | | Girls | |
|---|---------------|--------------|---------------|--------------|
| | Mean | S. D. | Mean | S. D. |
| To regularly take care of a younger brother or sister for an hour or two after school | | | | |
| Regular care of sibling | 12.037 | 1.735 | 11.620 | 1.837 |
| To prepare a meal for several people | | | | |
| Prepare large meal | 12.813 | 2.204 | 12.321 | 2.049 |
| To play tennis | | | | |
| Play tennis | 8.877 | 2.306 | 8.884 | 2.269 |
| To decide whether or not to go to church | | | | |
| Decide to go to church | 14.472 | 3.728 | 14.394 | 3.714 |
| To decide to change his/her religion | | | | |
| Decide to change religion | 16.922 | 2.757 | 16.821 | 2.785 |
| To hunt animals with friends | | | | |
| Hunt with friends | 16.559 | 2.451 | 16.545 | 2.310 |
| To go to a shopping mall for a few hours with friends | | | | |
| Go to mall with friends | 13.176 | 1.878 | 13.044 | 1.877 |
| To spend a few hours at a shopping mall alone | | | | |
| Go to mall alone | 13.752 | 1.895 | 13.815 | 1.936 |

(table continues)

| | Boys | | Girls | |
|---|---------------|--------------|---------------|--------------|
| | Mean | S. D. | Mean | S. D. |
| To have a party at home when the parents are out | | | | |
| Party without parents | 17.612 | 1.579 | 17.534 | 1.586 |
| To have a friend over when the parents are out | | | | |
| Friend over without parents | 13.923 | 2.672 | 13.703 | 2.739 |
| To spend his/her money in any way he/she wants | | | | |
| Spend money as chooses | 11.956 | 3.585 | 11.746 | 3.578 |
| To decide whether or not to visit relatives with the rest of the family | | | | |
| Decide to visit relatives | 14.364 | 2.478 | 14.321 | 2.519 |
| To stay home alone with a cold all day while the parents are working | | | | |
| Home alone with cold | 11.084 | 1.921 | 10.952 | 2.008 |

*The complete form of each item (see Appendix C) is presented followed by the condensed form of that item. Condensed forms will generally be used in subsequent tables and in the text.

What was most notable about the means and standard deviations of the items on the PAM Scale was the close similarity between the mothers' reported perceptions of boys and girls. When the age means for boys and for girls were ordered by increasing age (results not shown) the developmental sequence as perceived by the mothers was very similar for both boys and girls. In only four sets of items does the order differ for the two genders and even in these items the differences are not great. Mothers perceive girls as being mature enough for "Occasional care of sibling" before they can "Run a lawnmower", while for boys this was reversed. Mothers perceive girls as being mature enough to provide "Regular care of sibling" before they were mature enough to "Spend money as chooses" whereas for boys the opposite order was reported. Girls were perceived as being ready to "Work as babysitter" before being mature enough to "Go to mall with friends" and to be able to "Have friend over without parents" before being mature enough to "Go to mall alone". In both cases the perceived order was reversed for boys. For six of the eight items included in these four pairs of items the mothers perceive the girls as maturing earlier than the boys. The only items where the boys were perceived as maturing earlier than the girls were "Run a lawnmower" and "Go to mall alone".

The greatest variance in the responses was found for three items--"Decide to go to church", "Spend money as

chooses", and "Hunting with parents". All three of these items exhibit standard deviations exceeding three years for both boys and girls, an indication of widely differing perceptions as to appropriate ages of maturity in these skills.

The smallest standard deviations on these 30 items were exhibited in the responses to two items--"Part-time job" and "Join the military". In both cases the standard deviation is less than one year. The consistency of perceptions of ages of maturity on these two items was probably a result of the mothers' awareness of legal requirements as to minimum age required before children engage in these activities. Possible involvement of state or federal laws in these perceptions will be discussed later.

The validity of this study's results on perception of the age at which the average child is mature enough to use contraceptives was supported by the similarity of the results in a 1987 Newsweek Gallup Poll (Kantrowitz et al., p. 56) which reports that 54 percent of Americans over 13 years of age think that children should first be able to get birth control devices between 16 and 18 years of age. The responses to the PAM Scale on the "Use contraceptives" item display a mean response of 17.0 years with a standard deviation of approximately 1.8 years. However, the responses of the mothers to the PAM Scale item were relatively normally distributed with a skewness of 0.736 for boys and 0.605 for

girls and do not exhibit either the marked negative skew with responses distributed through the range of 8 to 11 years as in the Gallup Poll. Further discussion of individual items will continue as subsequent tables are presented.

Results of the t Tests

Do mothers' perceptions of age of maturity differ for boys and girls? A matched pairs difference of means t test was used to examine the hypothesis--"There will be no difference between the perceived age of maturity for boys and the perceived age of maturity for girls"--for each item. The results of the paired t tests are presented in Table 4. The t tests indicate, with a significance level of 0.05 or better, that while girls were perceived as maturing earlier than boys on 14 items, boys were perceived as maturing earlier than girls on only four items. In other words, when the respondents perceive either boys or girls as maturing earlier than the other, generally their perception was that girls mature earlier. This was in accord with the literature which reports the earlier maturation of girls in many developmental areas and results in the hypothesis being rejected.

Yet, while the paired t test shows 18 items evidencing differences between the means at a significance of 0.05 or better, the effect size (measured in standard deviation units) is generally minimal. Small effect sizes result in

Table 4

Difference in Means, t values, Significance, Effect Size, and Estimates of Power of Perceived Age of Maturity Items for Boys and Girls^a

| Items | Difference in means ^c | Paired <u>t</u> tests | | Effect size ^d |
|-------------------------------|-------------------------------------|-----------------------|---------------------------|-----------------------------|
| | | <u>t</u> value | Significance ^b | |
| Use stove | .42 | 8.15 | .000 | .1497 |
| Walk mile to school | -.11 | -3.78 | .000 | .0576 |
| Keep own room tidy | .16 | 2.63 | .009 | .0455 |
| Go out on date | .11 | 2.81 | .005 | .0694 |
| Cross busy streets | .03 | .52 | - | - |
| Occasional self-care | .14 | 3.13 | .002 | .0510 |
| Part-time job | .01 | .58 | - | - |
| Hunting with parents | -.17 | -3.74 | .000 | .0532 |
| Run a lawnmower | -.17 | -5.59 | .000 | .0874 |
| Regular self-care | .16 | 3.63 | .000 | .0831 |
| Join military | -.03 | 2.01 | .045 | .0374 |
| Live alone | .00 | -0.10 | - | - |
| Travel in Europe | -.03 | 0.00 | - | - |
| Use contraceptives | .02 | -0.11 | - | - |
| Have sexual intercourse | .03 | 0.00 | - | - |
| Work as babysitter | .60 | 10.27 | .000 | .3167 |
| Occasional care of sibling | .36 | 8.00 | .000 | .1696 |
| Regular care of sibling | .42 | 9.11 | .000 | .1820 |
| Prepare large meal | .49 | 7.55 | .000 | .1616 |
| Play tennis | .08 | 0.36 | - | - |

(table continues)

| Items | Difference in means ^c | Paired <u>t</u> tests | | Effect size ^d |
|--------------------------------|-------------------------------------|-----------------------|---------------------------|-----------------------------|
| | | <u>t</u> value | Significance ^b | |
| Decide to go to church | .08 | 1.15 | - | - |
| Decide to change religion | .10 | 1.58 | - | - |
| Hunt with friends | -.01 | -1.03 | - | - |
| Go to mall with friends | .13 | 3.70 | .000 | .0605 |
| Go to mall alone | -.06 | 0.18 | - | - |
| Party without parents | .08 | 2.76 | .006 | .0401 |
| Friend over without parents | .22 | 5.07 | .000 | .0413 |
| Spend money as chooses | .21 | 2.89 | .004 | .0301 |
| Decide to visit relatives | .04 | 1.83 | - | - |
| Home alone with cold | .13 | 2.16 | .032 | .0323 |

^aN = 288.

^bAlpha level of significance for non-directional tests of correlated pairs difference of means t test; - indicates not significant at 0.05 or better.

^cCalculated by subtracting the Perceived Age of Maturity of girls from the Perceived Age of Maturity of boys and calculating the mean for each item.

^dEffect size is adjusted for paired responses.

reduced power despite the relatively large sample size. This large a sample provided a high likelihood of detecting small differences between the means. Therefore, there generally is not much difference between mothers' perceptions of age of maturity of boys and of girls.

For these respondents on only one item--"Work as babysitter" (0.3167)--is the effect size sufficient to exceed the 0.2 considered by Cohen (1977) to be minimal for a small effect size. Only four other items even approach having a small effect size--"Regular care of sibling" (0.1820), "Occasional care of sibling" (0.1696), "Prepare large meal" (0.1616), and "Use stove" (0.1497). In all five cases the direction of difference is toward the perception that girls mature earlier than boys. The one item, "Work as babysitter", suggests a difference between the means of approximately six months in perceived age. In all other items, the magnitude of the difference in the means is generally much smaller.

The five items--Hunting with parents, Join military, Work as babysitter, Prepare large meal, Hunt with friends--which were predicted to represent behavior marked by strong, traditional gender difference can not be said to be unusually different from the remainder of the items. Therefore, all Perceived Age of Maturity items were retained for further analyses.

Distributions of Perceived Age of Maturity

The distributions of mothers' perceived age of maturity of boys and perceived age of maturity of girls are presented in box and whisker plots in Table 5 using the shortened forms of the items presented in Table 3. Box and whisker plots provide a graphic representation and ready comparison of the meaningful parameters of the sample mothers' responses for perceived age of maturity of both boys and girls. The box, the limits of which are indicated in this case by brackets ([]), encloses the range of the middle 50 percent of the distribution of responses on each item. The location of the median point is indicated by a "+"; an "*" is used to represent both the fifth percentile point and the ninety-fifth percentile point. Due to the tendency of most of the respondents to answer the items in whole numbers there are several cases where the fifth or ninety-fifth percentile age coincides with the age point of Quartile 1 or Quartile 3. Where this occurs the representation of the Quartile point will take precedence and the * will be omitted. By using the fifth and the ninety-fifth percentile cutoff points only extreme and possibly misleading scores were not presented. This permits the table to display the most relevant range of sample responses and prevents distraction by anomalous responses. To restate, the box delineates the boundaries for the central 50 percent of the respondents and the whisker ends mark the boundaries of 0.05 and 0.95 of the

Table 5

Distributions of Mothers' Perceived Age of Maturity of Boys and Girls^a

| Items | Age in years | | | | | | | | | | | | | | | | | | |
|--------------------------------|--------------|---|---------|---|---------|---|---------|----|----|----|----|----|----|----|----|----|----|----|--------|
| | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | |
| Keep own room tidy (B) | *-----[| | + | | | | | | | | | | | | | | |] | -----* |
| Keep own room tidy (G) | *-----[| | + | | | | | | | | | | | | | | |] | -----* |
| Cross busy streets (B) | | | *-----[| | + | | | | | | | | | | | | |] | -----* |
| Cross busy streets (G) | | | *-----[| | + | | | | | | | | | | | | |] | -----* |
| Occasional self-care (B) | | | *-----[| | + | | | | | | | | | | | | |] | -----* |
| Occasional self-care (G) | | | *-----[| | + | | | | | | | | | | | | |] | -----* |
| Play tennis (B) | | | *-----[| | + | | | | | | | | | | | | |] | -----* |
| Play tennis (G) | | | *-----[| | | | + | | | | | | | | | | |] | -----* |
| Walk mile to school (B) | | | *-----[| | | | + | | | | | | | | | | |] | -----* |
| Walk mile to school (G) | | | *-----[| | | | + | | | | | | | | | | |] | -----* |
| Regular self-care (B) | | | | | *-----[| | | + | | | | | | | | | |] | -----* |
| Regular self-care (G) | | | | | *-----[| | | + | | | | | | | | | |] | -----* |
| Use stove (B) | | | | | *-----[| | | + | | | | | | | | | |] | -----* |
| Use stove (G) | | | | | *-----[| | | + | | | | | | | | | |] | -----* |
| Home alone with cold (B) | | | | | *-----[| | | + | | | | | | | | | |] | -----* |
| Home alone with cold (G) | | | | | *-----[| | | + | | | | | | | | | |] | -----* |
| Occasional care of sibling (B) | | | | | | | *-----[| | + | | | | | | | | |] | -----* |
| Occasional care of sibling (G) | | | | | | | *-----[| | + | | | | | | | | |] | -----* |
| Run a lawnmower (B) | | | | | | | *-----[| | + | | | | | | | | |] | -----* |
| Run a lawnmower (G) | | | | | | | *-----[| | + | | | | | | | | |] | -----* |
| Spend money as chooses (B) | | | | | | | *-----[| | | + | | | | | | | |] | -----* |
| Spend money as chooses (G) | | | | | | | *-----[| | | + | | | | | | | |] | -----* |
| Hunting with parents (B) | | | | | | | *-----[| | | + | | | | | | | |] | -----* |
| Hunting with parents (G) | | | | | | | *-----[| | | + | | | | | | | |] | -----* |

(table continues)

| Items | Age in years | | | | | | | | | | | | | | | | | | |
|---------------------------------|--------------|---|---|---|---|---|----|----|----|----|----|----|----|----|----|----|----|----|--|
| | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | |
| Regular care of sibling (B) | | | | | | | | | * | | | | | | | | | | |
| Regular care of sibling (G) | | | | | | | | | * | | | | | | | | | | |
| Prepare large meal (B) | | | | | | | | | * | | | | | | | | | | |
| Prepare large meal (G) | | | | | | | | | * | | | | | | | | | | |
| Work as babysitter (B) | | | | | | | | | | | | | | | | | | | |
| Work as babysitter (G) | | | | | | | | | * | | | | | | | | | | |
| Go to mall with friends (B) | | | | | | | | | * | | | | | | | | | | |
| Go to mall with friends (G) | | | | | | | | | * | | | | | | | | | | |
| Go to mall alone (B) | | | | | | | | | * | | | | | | | | | | |
| Go to mall alone (G) | | | | | | | | | * | | | | | | | | | | |
| Friend over without parents (B) | | | | | | | | | * | | | | | | | | | | |
| Friend over without parents (G) | | | | | | | | | * | | | | | | | | | | |
| Decide to visit relatives (B) | | | | | | | | | * | | | | | | | | | | |
| Decide to visit relatives (G) | | | | | | | | | * | | | | | | | | | | |
| Go out on date (B) | | | | | | | | | | | | | | | | | | | |
| Go out on date (G) | | | | | | | | | | | | | | | | | | | |
| Decide to go to church (B) | | | | | | | | | * | | | | | | | | | | |
| Decide to go to church (G) | | | | | | | | | * | | | | | | | | | | |
| Part-time job (B) | | | | | | | | | | | | | | | | | | | |
| Part-time job (G) | | | | | | | | | | | | | | | | | | | |
| Hunt with friends (B) | | | | | | | | | | | | | | | | | | | |
| Hunt with friends (G) | | | | | | | | | | | | | | | | | | | |
| Use contraceptives (B) | | | | | | | | | | | | | | | | | | | |
| Use contraceptives (G) | | | | | | | | | | | | | | | | | | | |
| Decide to change religion (B) | | | | | | | | | | | | | | | | | | | |
| Decide to change religion (G) | | | | | | | | | | | | | | | | | | | |

(table continues)

| Items | Age in years | | | | | | | | | | | | | | | | | |
|-----------------------------|--------------|---|---|---|---|---|----|----|----|----|----|----|----|----|----|----|----|----|
| | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 |
| Party without parents (B) | | | | | | | | | | | | | | | | | | |
| Party without parents (G) | | | | | | | | | | | | | | | | | | |
| Have sexual intercourse (B) | | | | | | | | | | | | | | | | | | |
| Have sexual intercourse (G) | | | | | | | | | | | | | | | | | | |
| Join military (B) | | | | | | | | | | | | | | | | | | |
| Join military (G) | | | | | | | | | | | | | | | | | | |
| Live alone (B) | | | | | | | | | | | | | | | | | | |
| Live alone (G) | | | | | | | | | | | | | | | | | | |
| Travel in Europe (B) | | | | | | | | | | | | | | | | | | |
| Travel in Europe (G) | | | | | | | | | | | | | | | | | | |

Note. The box and whisker plot is used to graphically represent the median response, the central 50 percent of the responses (delineated by Quartile 1 and Quartile 3), and 40 percent of the remaining 50 percent of the responses (those included between the fifth percentile and the ninety-fifth percentile). Items are generally ordered by increasing age of perceived maturity and the scale is accurate to the nearest .25 year.

+ = median response; [] indicates limits of Q_1 and Q_3 ; * indicates P_5 and P_{95} .

Where the bracket indicating the limit of the central 50 percent of the distribution falls upon the same point as the * would fall to indicate the fifth or ninety-fifth percentile, only the bracket is indicated.

Where the + falls upon the same point as the right or left bracket, the bracket will be appear on the immediate left or right side of the +.

^aThe items for girls are indicated by a (G), while the items for the boys are indicated by a (B).

distribution. The remaining 10 percent were considered to possibly represent extreme responses and were not displayed in order to avoid blurring the readers visualization of the responses. Visual examination of a box and whisker plot facilitates ready perception of the median response, the range of the central 50 percent of the responses, the 5 percent to 95 percent range of the responses, as well as any significant skew in the response pattern.

The item--"Join the military"--evidenced the closest agreement by most of the respondents. The age in years for the median was the same as that for the first and third quartile--18 years of age for both boys and girls. Two other items--"Part-time job" and "Have sexual intercourse"--were also notable for presenting an identical pattern for both boys and girls with the central 50 percent all within the range of one year. The item with the smallest range for the central 90 percent of respondents' perceptions of both boys and girls is "Part-time job", ranging from 14 to 16 years of age. The narrow range for all three items most probably reflects the respondents' awareness of state and federal statutes associated with minimum legal ages for these activities.

The youngest age at which a person can enlist in the military without written parental consent is 18 years of age (National Defense, 1986), which is the age response of the

majority of the mothers. The item--"Part-time job"--is affected by both Federal and State regulations.

Under the Fair Labor Standards Act (FLSA), 16 years of age is the critical cut off [sic] point for regulation of child labor. The FLSA defines 'oppressive child labor' as employment of a child under 16, except employment of children between 14 and 16 years of age in nonmining, nonhazardous, and nonmanufacturing occupations and under conditions the secretary of labor determines not to interfere with their schooling or well-being. . . . The age of 16 is used, in part, because it represents the most common cutoff [sic] for compulsory education. Restrictions on child labor are greatest for school-aged children. (Horowitz & Davidson, 1984, p. 318)

The FLSA goes on to prescribe

a minimum age of 18 years for employment in any occupation which the Secretary of Labor has found to be hazardous [and employers] must abide by higher child labor standards fixed by applicable state and other federal laws. (Staff, 1987, pp. 660QF-663QF)

These federal laws reflect the will of the state legislatures with only two states having set a minimum age below 16 for leaving school before graduation, 36 states establishing 16 as the minimum, and the rest ranging up to 18 years of age. (Council of State, 1986)

State laws also seem to be related to the perception of sexual independence with the median response of 18 years of age and the relatively narrow distribution of responses on the item--"Have sexual intercourse"--corresponding with the age of majority in 46 of the 50 states in America (Council of State, 1986). The similarity to state statutes on age of majority suggests that these perceptions may be more influenced by an awareness of legal requirements rather than by local norms or evaluation of actual abilities and implies that legislative action can have a powerful effect on social norms.

The widest ranges in responses of the central 90 percent of respondents was reported in three items for both boys and girls--"Spend money as chooses", "Decide to go to church", and "Hunting with parents"--displaying ranges of 10 years or more and indicating that these items may be tapping a sensitive area where there are more extreme differences between mothers.

Despite the diversity of the sample as revealed by the descriptive statistics in Table 2, the central 50 percent of the respondents generally gave a relatively consistent range of responses to most of the items. When considering the amount of media coverage of self-care children and the concerns with premature burdens of responsibility on children in the popular press, it was anticipated there would be a wider range of responses. Yet, despite the differences among

the respondents' location of residence, income, religiosity, and education, the majority of this group did not report inordinately early perceived ages of maturity and perceived very similar sequences of development for most of the items.

Summarizing the data in Table 5, the range of included responses for the items is from 4 to 21 years of age, with medians ranging from 6 to 18 years. On five items the median response of mothers for both boys and girls was below 10 years of age. Those items were "Walk a mile to school", "Keep own room tidy", "Cross busy streets", "Occasional self-care", and "Play tennis". The remaining 25 items have median scores of 10 years of age or older. Of those 25 items 6 have median scores above 17 years of age--"Join the military", "Live alone", "Travel in Europe", "Have sexual intercourse", "Decide to change religion", and "Party without parents". This may indicate that this scale was overly weighted toward measuring perceptions of children at the higher end of the age range and that inclusion of other items addressing earlier developmental benchmarks may improve the effectiveness of this scale.

Factor Analyses

Question 2--"Is Perceived Age of Maturity (PAM) a unidimensional construct or are there underlying factors in the scale?"--was investigated using factor analysis, principal components method with Varimax rotation. The Scree

test was used to determine the approximate number of factors to examine. Further criteria used in establishing the selected factor solution were the interpretability of factors and Cronbach's alpha scores of 0.60 or greater for all factors in the solution (Table 8). Separate factor analysis of the responses for mothers' perceptions of boys and mothers' perceptions of girls indicates the existence of four very similar factors for each.

Factor analyses were then performed on two factor, three factor, four factor, five factor, and six factor solutions and compared for interpretability as recommended by Rummell (1970) and the four factor solution remained the clearest and most interpretable pattern. In Table 6 are the results of the factor analysis of mothers' perceived age of maturity of boys and in Table 7 are the results of the factor analysis of mothers' perceived age of maturity of girls. Items were assigned based on a factor loading of 0.40 or greater on one factor with low loadings on the remaining three factors. The factor analysis reduces the scale size to 24 items for boys and 25 items for girls.

The most important factor for boys (19.2 percent) was a factor in which the two highest loading items were "Have sexual intercourse" and "Use contraceptives", giving this factor a sexually oriented aspect. The other items included in this factor seem to reflect independent decision-making in social areas likely to include heterosexual contacts.

Table 6

Factor Analysis of Perceived Age of Maturity Responses for Boys

| | SX | CR | MR | SF |
|--|---------------|---------------|---------|---------|
| Social/Sexual Independence (SX) | | | | |
| Have sexual intercourse | <u>.74349</u> | .02199 | .01182 | .06244 |
| Use contraceptives | <u>.73917</u> | -.00844 | .02397 | -.05586 |
| Decide to change religion | <u>.66034</u> | -.14802 | .14191 | .15766 |
| To go to church | <u>.63987</u> | -.09555 | .08532 | .16271 |
| Party without parents | <u>.51737</u> | .03406 | .00722 | .29059 |
| Decide to visit relatives | <u>.45176</u> | .11350 | -.02614 | .36245 |
| Live alone | <u>.40785</u> | .27033 | .14779 | -.11619 |
| Go out on date | <u>.40037</u> | .28689 | .03347 | .12606 |
| Caregiving Responsibility (CR) | | | | |
| Occasional care of sibling | .04706 | <u>.83606</u> | .10045 | .09495 |
| Regular care of sibling | -.04538 | <u>.81094</u> | .06571 | .03083 |
| Regular self-care | .08534 | <u>.63646</u> | .33900 | .07758 |
| Work as babysitter | .07525 | <u>.61130</u> | .05225 | .19494 |
| Occasional self-care | .06021 | <u>.53032</u> | .43504 | -.01615 |
| Home alone with cold | -.01358 | <u>.41996</u> | .34749 | .31243 |

(table continues)

| | SX | CR | MR | SF |
|---|---------------|---------------|---------------|-----------------|
| Mechanical Responsibility (MR) | | | | |
| Cross busy streets | -.01539 | .08243 | <u>.67635</u> | .08050 |
| Run a lawnmower | -.07164 | .12252 | <u>.59088</u> | .02421 |
| Use stove | .25664 | .00698 | <u>.57205</u> | .11849 |
| Hunting with parents | .06186 | -.00339 | <u>.53481</u> | .03076 |
| Keep own room tidy | .08554 | .20483 | <u>.48532</u> | -.07541 |
| Walk mile to school | .16387 | .24346 | <u>.47195</u> | .03161 |
| Play tennis | -.03284 | .08532 | <u>.41691</u> | .18157 |
| Social Freedom (SF) | | | | |
| Go to mall with friends | .04855 | .06060 | .24493 | <u>.80040</u> |
| Go to mall alone | .10681 | .03337 | .30292 | <u>.72210</u> |
| Friend over without parents | .18637 | .26142 | .03375 | <u>.53694</u> |
| Items which loaded above .30 but below .40 | | | | |
| Prepare large meal | .09036 | <u>.37508</u> | .33575 | .20586 |
| Hunt with friends | .23787 | .02401 | .22017 | <u>.36757</u> |
| Spend money as chooses | <u>.34929</u> | .22302 | .26253 | .33379 |
| Join military | .26117 | .04435 | .17501 | -. <u>30421</u> |

(table continues)

| | SX | CR | MR | SF |
|--|---------------|--------|---------|---------------|
| Items which did not load above .30 on any factor | | | | |
| Part-time job | .06883 | .07086 | -.05325 | <u>.29250</u> |
| Travel in Europe | <u>.27966</u> | .16974 | -.00984 | .00633 |
| Eigen values | 5.7471 | 2.8198 | 1.7317 | 1.5833 |
| Percentage of variability explained | 19.2 | 9.4 | 5.8 | 5.3 |

Note. Bold type indicates a factor loading of .40 or above. Underlining indicates highest factor loading for each item.

Table 7

Factor Analysis of Perceived Age of Maturity Responses for Girls

| | SF | CR | MR | SX |
|---------------------------------------|---------------|---------------|---------|---------|
| Social Freedom (SF) | | | | |
| Go to mall with friends | <u>.62581</u> | .21110 | .24911 | -.27416 |
| Go to mall alone | <u>.60696</u> | .17631 | .30511 | -.22661 |
| Decide to visit relatives | <u>.59149</u> | .05669 | -.01739 | .09905 |
| Friend over without parents | <u>.56080</u> | .37155 | -.04077 | -.05063 |
| Decide to go to church | <u>.54140</u> | -.26896 | .12903 | .17071 |
| Decide to change religion | <u>.50979</u> | -.31082 | .24817 | .26712 |
| Party without parents | <u>.49562</u> | .02671 | .02895 | .20630 |
| Spend money as chooses | <u>.49501</u> | .23163 | .21398 | .14642 |
| Caregiving Responsibility (CR) | | | | |
| Occasional care of sibling | .02636 | <u>.79533</u> | .18315 | .05841 |
| Regular care of sibling | -.04269 | <u>.76035</u> | .14138 | .02218 |
| Work as babysitter | .11540 | <u>.60151</u> | .00756 | .02483 |
| Occasional self-care | .07237 | <u>.59396</u> | .34094 | .17895 |
| Regular self-care | .04120 | <u>.57698</u> | .44638 | .20203 |
| Home alone with cold | .27973 | <u>.52016</u> | .27533 | -.06613 |

(table continues)

| | SF | CR | MR | SX |
|---|---------------|---------|---------------|---------------|
| Mechanical Responsibility (MR) | | | | |
| Use stove | .16971 | -.09308 | <u>.62738</u> | .10798 |
| Hunting with parents | .02958 | .00349 | <u>.59967</u> | .03880 |
| Run a lawnmower | -.03029 | .22093 | <u>.58620</u> | .10895 |
| Cross busy streets | .07132 | .23745 | <u>.55951</u> | .05215 |
| Keep own room tidy | -.01926 | .10943 | <u>.52855</u> | .09029 |
| Prepare large meal | .16051 | .26350 | <u>.42901</u> | -.01717 |
| Social/Sexual Independence (SX) | | | | |
| Have sexual intercourse | .46880 | .04077 | -.06329 | <u>.61527</u> |
| Use contraceptives | .37190 | -.01340 | -.07820 | <u>.61026</u> |
| Live alone | .08390 | .11693 | .15997 | <u>.60987</u> |
| Travel in Europe | .06573 | .12426 | .03497 | <u>.47877</u> |
| Join military | -.10615 | -.05398 | .19673 | <u>.43040</u> |
| Items which loaded above .30 but below .40 | | | | |
| Hunt with friends | .17605 | .10477 | <u>.39427</u> | -.07781 |
| Walk mile to school | <u>.38537</u> | .19094 | -.04104 | .25358 |
| Play tennis | .19650 | .29283 | <u>.37393</u> | .03592 |
| Go out on date | <u>.36645</u> | .00461 | .28411 | .05698 |

(table continues)

| | SF | CR | MR | SX |
|---|--------|--------|--------|--------|
| <hr/> | | | | |
| Items which did not load over .30 on any factor | | | | |
| Part-time job | .14928 | .12295 | .02207 | .05081 |
| <hr/> | | | | |
| Eigen values | 5.7037 | 2.7889 | 1.6864 | 1.6439 |
| Percentage of Variability | | | | |
| Explained | 19.0 | 9.3 | 5.6 | 5.5 |
| <hr/> | | | | |

Note. Bold type indicates a factor loading of .40 or above. Underlining indicates highest factor loading for each item.

Therefore, this factor was named Social/Sexual Independence (SX). A similar factor occurs for girls with the first two items included being identical to the boys' factor. The same Social/Sexual Independence (SX) label was therefore assigned. This was the least important factor for girls, accounting for less than six percent (5.5%) of the variance.

The highest loading factor for girls included a variety of independent social activities with no emphasis on heterosexual activities. This factor explains 19.0 percent of the variance and was labeled Social Freedom (SF). The boys also presented a similar factor with the same first two highest loading items as girls. However, while the girls retain eight items in this factor, the boys retain only three items which accounts for only 5.3 percent of the total variability. For both boys and girls the Social Freedom factor seems to be related to independent activities with friends and, in particular, with visiting the mall. A major distinction the mothers seem to make between the genders was in relating almost all heterosexual activities of boys with the Social/Sexual factor, including activities with the church and extended family. Their reported perceptions of girls places virtually all of these activities into the Social Freedom factor, even dating. "Go out on date" was considered a Social/Sexual factor item for boys only.

The third highest loading factor for both genders was largely the same with five out of six items being identical--

"Use stove", "Run a lawnmower", "Hunting with parents", "Cross busy streets" and "Keep own room tidy". This factor represents a perception of appropriately performing mechanical tasks and was labeled "Mechanical Responsibility" (MR). This factor accounts for a small percentage (5.6%) of variance for both genders. Girls include the item "Prepare large meal" and boys include two other items, "Walk mile to school" and "Play tennis". Playing tennis was not an important item and does not differ greatly between the genders, being barely significant for boys and only approaching a significant loading for girls. However, a clear distinction may be perceived in the loading of "Walk mile to school". This may reflect security concerns for girls that are not the same as for boys.

Security concerns may result in mothers including different sorts of activities in their Social/Sexual concepts of boys and girls. With girls, perhaps separation from the mothers' day-to-day supervision raises those security concerns resulting in their linking "Live alone", "Travel in Europe", and "Join the military" with the Social/Sexual factor for girls. Whereas, with the boys' Social/Sexual factor, all manner of possible heterosexual activities may be related. This seems to be a traditional perception of genders.

The items which load above 0.40 for the second factor for perceptions of both boys and girls were identical and

seem to represent an area of caretaking responsibility by the child for him/herself and others. This factor was labeled "Caregiving Responsibility" (CR). The CR factor accounts for almost identical amounts of variance for both boys (9.4 %) and girls (9.3 %).

The total amount of variability explained was similar for both boys (39.7 %) and girls (39.4 %). For this sample the four factor solution appears to be the most appropriate choice. Although there are a number of structural similarities existing in the boys' and girls' factors, the factors were sufficiently dissimilar that subsequent analyses were performed separately for both boys and girls using their original four factor solutions.

Oblique rotations are considered to be more flexible and empirically realistic in obtaining theoretically meaningful constructs but do not eliminate collinearity as does orthogonal rotation. However, if the results of oblique rotation concur with the results of orthogonal rotation on the same data the validity of the orthogonal constructs are supported. Oblique rotation (not shown) of the boys' scale items results in the retention of the same items in the four factor solution except for two items being excluded--"Play tennis" from the Mechanical Responsibility factor (MR) and "Live alone" from the Social/Sexual Independence factor (SX). Oblique rotation of the girls' scale items results in the retention of the same items in each of the factors except for

the exclusion of one item--"Prepare large meal"--from the Mechanical Responsibility factor (MR).

Cronbach's alpha values were computed and are presented in Table 8. The reliability coefficient of the entire 30 item scale is 0.93. The reliability coefficient for the items measuring perceptions of girls' age of maturity is 0.86. The reliability coefficient for items measuring only perceptions of boys' age of maturity was also 0.86. Reliability coefficients for the individual factors for boys and girls are all 0.63 or greater. Table 8 indicates how little the reliability of the PAM Scale and the subscales are affected by the reduction of the number of items to include only those which were common to perceptions of both genders.

The six items which made up the factor of Caretaking Responsibility were identical for perceptions of both boys and girls. These six items were "Occasional self-care", "Regular self-care", "Work as babysitter", "Occasional care of sibling", "Regular care of sibling", and "Home alone with cold". This factor exhibits a Cronbach's alpha of 0.84 for boys and 0.79 for girls.

Three items were common for mothers' perceptions of both boys and girls in the factor of Social/Sexual Independence (SX)--"Live alone", "Use contraceptives", and "Have sexual intercourse". These items evidence a reliability of 0.70 for boys and 0.72 for girls but there is

Table 8

Cronbach's alpha Values for PAM Scale and PAM Factors

| | All items | | Items loading above .40 | | Items common to boys and girls | |
|---------------------------------|---------------------|--------------------|----------------------------|--------------------|-----------------------------------|--------------------|
| | Cronbach's Alpha | Number of items | Cronbach's Alpha | Number of items | Cronbach's Alpha | Number of items |
| Combined scale | .93 | 60 | .92 | 48 | .91 | 34 |
| Overall scale for boys' | .86 | 30 | .85 | 24 | .83 | 17 |
| Factors: | | | | | | |
| Caregiving Responsibility (CR) | | | .84 | 6 | .84 | 6 |
| Social/Sexual Independence (SX) | | | .76 | 8 | .70 | 3 |
| Mechanical Responsibility (MR) | | | .70 | 7 | .62 | 5 |
| Social Freedom (SF) | | | .67 | 3 | .67 | 3 |
| Overall scale for girls' | .86 | 30 | .84 | 25 | .82 | 17 |
| Factors: | | | | | | |
| Caregiving Responsibility (CR) | | | .79 | 6 | .79 | 6 |
| Social/Sexual Independence (SX) | | | .67 | 5 | .72 | 3 |
| Mechanical Responsibility (MR) | | | .63 | 6 | .63 | 5 |
| Social Freedom (SF) | | | .74 | 8 | .71 | 3 |

a need for additional items on social/sexual development for better balance in the scale.

The factor of Mechanical Responsibility (MR) retains five common items--"Use the stove", "Keep own room tidy", "Cross busy streets", "Hunting with parents", and "Use a lawnmower" with a reliability of 0.62 for boys and 0.63 for girls. Though the reliability for boys went down from 0.70 to 0.62 by removing two items from the MR factor, the girls MR factor lost no reliability by eliminating one item. However, considering the levels of reliability for this factor there may be a need to develop further items for this subscale that address this construct more closely.

The Social Freedom Factor (SF) retains three items which were common to mothers' perceptions of age of maturity for both genders--"Go to mall with friends", "Go to mall alone", and "Friend over without parents"--with a reliability of 0.67 for boys and 0.71 for girls. Though the girls dropped five items the reliability of their factor is only reduced by 0.03. This factor does, however, need more items to adequately cover the range of social development.

There is only a small loss of reliability for boys and a gain in reliability for girls by including only the common items in these factors. Yet there is a need for more items to cover the range of development in these factors. The use of those common items would seem to provide a solid base for the further development of this scale. The means of these

five items ranged from 6 to 12 years, and the reported perceptions of the central 90 percent of the respondents range from 4 to 16 years.

As expected there was a consistent pattern of responses to items measuring perceived age of maturity. Factor analysis extracted four factors that were similar for mothers' perceptions of both boys and girls. Therefore, subsequent analyses will be based on this four factor solution. For clarity of presentation in subsequent tables the factors are presented in the same order for both genders.

Summary of Differences in Perceived Ages of Maturity

The box and whisker plots of the responses to the PAM Scale items for boys and girls provided earlier in the text (Table 5) were difficult to place into a conceptual framework and the interaction, if any, with the separate subscales (factors) is not clear. Assuming that there may be an inclination on the part of respondents to report similar ages for both boys and girls, particularly when the responses are side by side, respondents that report differences in perception by gender may be disproportionately important. In order to examine more closely those respondents, difference scores were calculated by subtracting the perceived age for boys from the perceived age for girls for each respondent on every item. Box and whisker charts were created using those difference scores. Box and whisker charts ordered according

to the items' factor membership and showing the percentage of responses for each value make evident the patterns in the difference scores.

Table 9 presents the distributions of the difference scores, serially for each of the four factors on items which load above 0.40 for both genders. As is evident in the table the median difference score for all items is zero (indicating that the median response was one of no difference based on gender for those particular respondents). However, the shape of the distribution of difference scores reveals some interesting response patterns.

In the Caregiving Responsibility factor the skew consistently indicates that in all six items, when these respondents perceived any differences between the genders, they viewed the girl as maturing earlier. With the first three items it was notable that many more respondents viewed girls as maturing earlier on these items than on the next three items where more of the respondents reported no differences. The consistent direction of skew for all the items in this factor is substantive support of a difference in mothers' perceived age of maturity for caregiving responsibility of girls and boys.

The three shared items in the Social/Sexual Independence Factor show less skew than is evidenced by the other factor clusters indicating that for this factor there was less evidence of bias by gender. Even when considering the items

Table 9

Difference Plots of Items Loading Above 0.40 for Perceptions of Both Genders^a
with Percentages of Responses^b

| Items and response percentages | Difference in years ^c | | | | | | | Median age ^d |
|-------------------------------------|----------------------------------|---------|----------|---------------------|---|---|---|-------------------------|
| | Girls mature earlier | | | Boys mature earlier | | | | |
| | -3 | -2 | -1 | 0 | 1 | 2 | 3 | |
| I. Caregiving Responsibility (CR) | | | | | | | | |
| Occasional care of sibling | | *-----[| | +] | | | | 11 |
| Response percentages | 11 | 15 | 64 | | | | | |
| Regular care of sibling | | *-----[| | +] | | | | 12 |
| Response percentages | 14 | 15 | 69 | | | | | |
| Work as babysitter | | *-----[| | +] | | | | 12 13 |
| Response percentages | 17 | 15 | 64 | | | | | |
| Regular self-care | | | *----[+] | | | | | 10 |
| Response percentages | | | 8 | 84 | | | | |
| Occasional self-care | | | *----[+] | | | | | 8 |
| Response percentages | | | 8 | 84 | | | | |
| Home alone with cold | | | *----[+] | | | | | 8 |
| Response percentages | | | 10 | 86 | | | | |
| II. Social/Sexual Independence (SX) | | | | | | | | |
| Have sexual intercourse | | | *----[+] | ---- | * | | | 18 |
| Response percentages | | | 2 | 86 | 4 | | | |
| Use contraceptives | | | *----[+] | ---- | * | | | 17 |
| Response percentages | | | 3 | 86 | 3 | | | |
| Live alone | | | *----[+] | ---- | * | | | 18 |
| Response percentages | | | 2 | 89 | 4 | | | |

(table continues)

| Items and response percentages | Difference in years ^c | | | | | | Median age ^d |
|--|----------------------------------|----|-----------|---------------------|--------|---|----------------------------|
| | Girls mature earlier | | | Boys mature earlier | | | |
| | -3 | -2 | -1 | 0 | 1 | 2 | |
| III. Mechanical Responsibility (MR) | | | | | | | |
| Run a lawnmower | | | | [+] | -----* | | 11 |
| Response percentages | | | | 81 | 9 | | |
| Hunting with parents | | | | [+] | -----* | | 12 |
| Response percentages | | | | 83 | 4 | 8 | |
| Cross busy streets | | | | [+] | | | 8 |
| Response percentages | | | | 94 | | | |
| Use stove | | | *-----[| [+] | | | 10 |
| Response percentages | | 10 | 16 | 72 | | | |
| Keep own room tidy | | | *-----[+] | | | | 6 |
| Response percentages | | | 3 | 92 | | | |
| IV. Social Freedom (SF) | | | | | | | |
| Go to mall alone | | | *-----[+] | -----* | | | 14 |
| Response percentages | | | 4 | 86 | 4 | | |
| Decide to visit relatives | | | | [+] | | | 15 |
| Response percentages | | | | 95 | | | |
| Go to mall with friends | | | *-----[+] | | | | 13 |
| Response percentages | | | 15 | 82 | | | |
| Friend over without parents | | | *-----[+] | | | | 16 |
| Response percentages | | | 8 | 87 | | | |

Note. The box and whisker plot is used to graphically represent the median response, the central 50 percent of the responses (delineated by Quartile 1 and Quartile 3), and 40 percent of the remaining 50 percent of the responses (those included between the fifth percentile and the ninety-fifth percentile).

(table continues)

(Note. continues)

+ = median response; [] indicates limits of Q_1 and Q_3 ; * indicates P_5 and P_{95} , Where the bracket indicating the limit of the central 50 percent of the distribution falls upon the same point as the * would fall to indicate the fifth or ninety-fifth percentile, only the bracket is indicated. The items are sorted into the factors in which they load. The response percentages for each point are directly below the indicators.

^aBox and whisker plots of the distributions of the difference scores acquired by subtracting the Perceived Age of Maturity for boys from the Perceived Age of Maturity for girls for each item. $(PAMG_x - PAMB_x) = \text{Difference}$.

^bAll subjects included in this analysis responded in whole numbers. The percentages therefore also refer to difference scores that are whole numbers.

^cFor all items the median difference score was 0.

^dFor all items on this table except "Prepare large meal" and "Work as babysitter" the median scores were identical for boys and girls. On those two items the girls' median score is presented first followed by the boys' median score.

for the SX factor that survive the 0.40 cutoff point for only one gender (Tables 10 and 11) there is a general consistency in the lack or small amount of differentiation between the sexes. Only on the item "Go out on date", which was retained by the boys and not the girls, was there a reasonable percentage (13%) that perceived girls as maturing a year earlier. Interestingly, only the boys' factors retain "Go out on date" and "Party without parents" as well as "Decide to change religion" or "Decide to go to church". (Apparently mothers perceive that these items on dating and religion were part of the same underlying SX concept or factor only for boys--perhaps boys in these ages evidence sexually related activity in more diverse areas.) The only unique item included in the girls' Social/Sexual Independence Factor was "Travel in Europe", perhaps reflecting concern for physical distance affecting the parent child relationship.

The profile of the last two factors was not as consistent as that of the first two factors but it was nonetheless clear and interpretable. In the factor of Mechanical Responsibility the common items tied to the traditional male activities of lawnmowing and hunting both exhibit a respectable percentages of respondents (16% and 12% respectively) who perceive boys as maturing earlier. This indicates that although most mothers did not report a difference in their perceptions of the ages of maturity for boys and girls on these items, when a mother did report a

difference it was most likely to be in the direction of boys maturing earlier. In contrast, for each of two traditionally female gender related housekeeping tasks--using a stove and preparing a large meal--26 percent of the respondents reported the perception of girls maturing earlier than boys. The item of "Walk mile to school" loads above 0.40 only for boys and 9 percent of those mothers perceived boys as maturing earlier than girls. This difference may be due less to maturity and more to a possible concern for the safety of unsupervised young girls in our society.

In the Social Freedom (SF) factor the median and central 50 percent of responses to all included items reflect no perception of differences between the genders. Only for "go to mall with friends" did 21 percent report earlier maturity for girls. On the SF factor the girls only retain "Party without parents", "Decide to go to church", and "Decide to change religion". The boys only additional item retained was "Spend money as chooses".

As was expected from the results of the t tests the majority of the respondents reported no differences between their perceptions of boys and girls. However, the consistency of the patterns of the difference scores as well as the consistency of direction with the t test results lends substantive support to there being a subpopulation that reports a difference in perceptions of the age of maturity of boys and girls for certain key items.

Table 10

Difference Plots of Items Loading Above 0.40 for Perceptions of Only One Gender^a
with Percentages of Responses^b

| Items and response percentages | Difference in years ^c | | | | | | | Median age ^d |
|-------------------------------------|----------------------------------|----|----|---------------------|----|---|---|-------------------------|
| | Girls mature earlier | | | Boys mature earlier | | | | |
| | -3 | -2 | -1 | 0 | 1 | 2 | 3 | |
| II. Social/Sexual Independence (SX) | | | | | | | | |
| -Boys only include these items: | | | | | | | | |
| Go out on date | | | | *----[+]---- | | | | 15 |
| Response percentages | | | 13 | 79 | 4 | | | |
| Decide to change religion | | | | [+] | | | | 18 |
| Response percentages | | | | 96 | | | | |
| Decide to go to church | | | | [+] | | | | 15 |
| Response percentages | | | | 97 | | | | |
| Party without parents | | | | *----[+]---- | | | | 18 |
| Response percentages | | | 5 | 90 | | | | |
| -Girls only include this item: | | | | | | | | |
| Travel in Europe | | | | [+] | | | | 18 |
| Response percentages | | | | 93 | | | | |
| III. Mechanical Responsibility (MR) | | | | | | | | |
| -Boys only include this item: | | | | | | | | |
| Walk mile to school | | | | [+]-----* | | | | 9 |
| Response percentages | | | | 88 | 3 | | | |
| -Girls only include this item | | | | | | | | |
| Prepare large meal | | | | *-----*-----[+] | | | | 12 13 |
| Response percentages | | | 12 | 14 | 70 | | | |

(table continues)

| Items and response percentages | Difference in years ^c | | | | | | | Median age ^d |
|--------------------------------|---|----|----|---------------------|---|---|---|----------------------------|
| | Girls mature earlier | | | Boys mature earlier | | | | |
| | -3 | -2 | -1 | 0 | 1 | 2 | 3 | |
| | -- ----- ----- ----- ----- ----- ----- -- | | | | | | | |

IV. Social Freedom (SF)

-Boys only include this item:

| | | |
|------------------------|-----------|----|
| Spend money as chooses | *-----[+] | 12 |
| Response percentages | 4 90 | |

-Girls only include these items:

| | | |
|---------------------------|-----------|----|
| Party without parents | *-----[+] | 18 |
| Response percentages | 5 90 | |
| Decide to go to church | [+] | 15 |
| Response percentages | 97 | |
| Decide to change religion | [+] | 18 |
| Response percentages | 96 | |

Note. The box and whisker plot is used to graphically represent the median response, the central 50 percent of the responses (delineated by Quartile 1 and Quartile 3), and 40 percent of the remaining 50 percent of the responses (those included between the fifth percentile and the ninety-fifth percentile).

* = median response; [] indicates limits of Q_1 and Q_3 ; * indicates P_5 and P_{95} .

Where the bracket indicating the limit of the central 50 percent of the distribution falls upon the same point as the * would fall to indicate the fifth or ninety-fifth percentile, only the bracket is indicated. The items are sorted into the factors in which they load. The response percentages for each point are directly below the indicators.

(table continues)

^aBox and whisker plots of the distributions of the difference scores acquired by subtracting the Perceived Age of Maturity for boys from the Perceived Age of Maturity for girls for each item. $(PAMG_x - PAMB_x) = \text{Difference}$.

^bAll subjects included in this analysis responded in whole numbers. The percentages therefore also refer to difference scores that are whole numbers.

^cFor all items the median difference score was 0.

^dFor all items on this table except "Prepare large meal" the median scores were identical for boys and girls. On those two items the girls' median score is presented first followed by the boys' median score.

Table 11

Difference Plots of Items Loading Below 0.40 for Perceptions of Both Genders^a
with Percentages of Responses^b

| Items and response percentages | Difference in years ^c | | | | | | | Median age ^d |
|--------------------------------|----------------------------------|----|----|---------------------|-----|--------|---|-------------------------|
| | Girls mature earlier | | | Boys mature earlier | | | | |
| | -3 | -2 | -1 | 0 | 1 | 2 | 3 | |
| Part-time job | | | | *---- | [+] | | | 16 |
| Response percentages | | | | 4 | 90 | | | |
| Hunt with friends | | | | *---- | [+] | -----* | | 16 |
| Response percentages | | | | 2 | 85 | 4 | | |
| Play tennis | | | | | [+] | | | 9 8 |
| Response percentages | | | | | 93 | | | |
| Join military | | | | | [+] | | | 18 |
| Response percentages | | | | | 95 | | | |

Note. The box and whisker plot is used to graphically represent the median response, the central 50 percent of the responses (delineated by Quartile 1 and Quartile 3), and 40 percent of the remaining 50 percent of the responses (those included between the fifth percentile and the ninety-fifth percentile).

+ = median response; [] indicates limits of Q_1 and Q_3 ; * indicates P_5 and P_{95} .

Where the bracket indicating the limit of the central 50 percent of the distribution falls upon the same point as the * would fall to indicate the fifth or ninety-fifth percentile, only the bracket is indicated. The items are sorted into the factors in which they load. The response percentages for each point are directly below the indicators.

(table continues)

^aBox and whisker plots of the distributions of the difference scores acquired by subtracting the Perceived Age of Maturity for boys from the Perceived Age of Maturity for girls for each item. $(PAMG_x - PAMB_x) = \text{Difference}$.

^bAll subjects included in this analysis responded in whole numbers. The percentages therefore also refer to difference scores that are whole numbers.

^cFor all items the median difference score was 0.

^dFor all items on this table except "Play tennis" the median scores were identical for boys and girls. On that item the girls' median score is presented first followed by the boys' median score.

Multiple Regression Analyses

The third question of this study was addressed by the second hypothesis--that the set of independent variables, singly or in combination, would account for a significant amount of the variation in the responses to the Perceived Age of Maturity (PAM) Scale. Two dummy variables were computed: (1) whether the person shares living quarters with an adult male (POSLQ), and (2) whether the respondent was employed full-time (RVEMP). Table 12 reports the correlations between all pairs of independent variables. The evidence in Table 12 suggests that generally multicollinearity was not experienced to the degree expected with the exception of three variables--"Person of opposite sex sharing living quarters", "Main financial support", and "Income". If the respondents were responsible for their own support their income tended to be lower, and if they were not sharing living quarters with an adult male they were likely to be their own main source of financial support.

The eleven independent variables--"Age", "Church attendance", "Residence", "Education", "Income", "Mobility", "Relative age", "Number of children under 14", "Occupation", and the two dummy variables--POSLQ and RVEMP--were then entered into separate stepwise multiple regressions with each of the four factors for perceptions of both boys' and girls' maturity. Despite predictions to the contrary, relatively few of the independent variables were statistically significantly

Table 12

Correlation Matrix of Independent Variables

| | AGE | CHAT | POSLQ | RES | EDU | HOCC | RVEMP | SUPT | INC | MOVE | RAGE | CHILD |
|-------|-------|-------|--------------|-------|-------|-------|-------|--------------|-------|-------|-------|-------|
| AGE | 1.000 | .231 | -.048 | .052 | .258 | -.128 | -.032 | .025 | .101 | -.332 | -.105 | -.165 |
| CHAT | .231 | 1.000 | .111 | .101 | .057 | -.106 | .059 | -.142 | .060 | -.100 | -.019 | .133 |
| POSLQ | -.048 | .111 | 1.000 | .048 | .070 | -.206 | .022 | -.813 | .648 | -.016 | .151 | .105 |
| RES | .052 | .101 | .048 | 1.000 | .063 | -.027 | .101 | .007 | -.033 | -.155 | .009 | .023 |
| EDU | .258 | .057 | .070 | .063 | 1.000 | -.323 | -.075 | -.002 | .241 | .024 | -.037 | -.067 |
| HOCC | -.128 | -.106 | -.206 | -.027 | -.323 | 1.000 | .041 | .150 | -.244 | -.043 | .041 | .027 |
| RVEMP | -.032 | .059 | .022 | .101 | -.075 | .041 | 1.000 | -.040 | -.031 | -.042 | -.028 | -.041 |
| SUPT | .025 | -.142 | <u>-.813</u> | .007 | -.002 | .150 | -.040 | 1.000 | -.601 | .028 | -.154 | -.132 |
| INC | .101 | .060 | <u>.648</u> | -.033 | .241 | -.244 | -.031 | <u>-.601</u> | 1.000 | -.045 | .121 | .010 |
| MOVE | -.332 | -.100 | -.016 | -.155 | .024 | -.043 | -.042 | .028 | -.045 | 1.000 | .004 | -.004 |
| RAGE | -.105 | -.019 | .151 | .009 | -.037 | .041 | -.028 | -.154 | .121 | .004 | 1.000 | .063 |
| CHILD | -.165 | .133 | .105 | .023 | -.067 | .027 | -.041 | -.132 | .010 | -.004 | .063 | 1.000 |

(table continues)

Note. AGE = mother's age; CHAT = mother's church attendance; POSLQ = person of opposite sex sharing living quarters; RES = urban/rural character of residence; EDU = mother's education level; HOCC = occupational status by Hollinghead Scale; RVEMP = employment dummy variable; SUPT = main source of financial support; INC = total family income; MOVE = number of moves in past 10 years; RAGE = relative age of wife to husband (or POSLQ); CHILD = number of children living in the home.

Correlation values greater than .05 are underlined.

related to the four Perceived Age of Maturity Factors for mothers' perceptions of either boys or girls. Table 13 shows that, for perceptions of boys, "Church attendance" is significantly positively related to the Social/Sexual Independence Factor. This relationship (Beta weight = 0.19, $p = 0.00$) had the strongest relationship of any of the independent variables with the four factors. The positive relationship indicates that with increased church attendance by mothers the reported perceived age of maturity for the Social/Sexual Independence factor tends to increase. However, the adjusted R^2 of 0.033 indicates that the independent variables explain only 3.3 percent of the variability of the Social/Sexual Independence factor and no other independent variables significantly added to the explained variance for this factor.

The other two factors for boys with significant amounts of their variance accounted for were Caregiving Responsibility and Mechanical Responsibility. The Hollingshead Occupational Scale (Beta weight = -0.12, $p = 0.03$) accounts for a significant amount of the variation in the Caregiving Responsibility factor. Since the Hollingshead Scale was recoded so that higher status received higher numbers, these results indicate that as "Occupation" was of higher status the age that she perceives an average boy as competent to provide caregiving responsibility tends to be younger. "Education" was related in a similar way to the

Table 13

Mothers' Perception of Maturity of Boys: Multiple Regression Analysis of
Independent Variables on Each of Four Factors

| Factors and independent variable retained | b | Beta | t value | P | R ² | R ² _{adj} |
|--|--------|------|---------|------|----------------|-------------------------------|
| Social/Sexual Independence (SX) | | | | | | |
| Church Attendance (CHAT) | 0.069 | .19 | 3.301 | .001 | .037 | .033 |
| Caregiving Responsibility (CR) | | | | | | |
| Occupation (HOCC) | -0.056 | -.12 | -2.131 | .034 | .015 | .012 |
| Mechanical Responsibility (MR) | | | | | | |
| Education (EDU) | -0.069 | -.13 | -2.224 | .027 | .017 | .014 |
| Social Freedom (SF) | | | | | | |
| (none) | | | | | | |

Mechanical Responsibility factor (Beta weight = -0.13 , $p = 0.03$). None of the independent variables account for a significant amount of the variance in the Social Freedom factor. Overall, for the three factors which had significant relationships with independent variables, the magnitudes of the effects were minimal.

For the girls' Social Freedom factor only one variable-- "Church attendance"--accounts for a significant amount of variance (Table 14). This relationship, with a Beta weight of 0.20 ($p = 0.00$), was the strongest evidenced by any of the independent variables for any of the four factors. The positive relationship indicates that as mother's church attendance goes up so does the age at which the mother perceives the average girl as mature enough to become involved in Social Freedom factor items. The only other factor for girls which emerges as having a significant amount of variance accounted for by any of the independent variables was the Mechanical Responsibility factor, which shows a negative relationship (Beta weight = -0.14 , $p = 0.02$) with "Education". The relationships between independent variables and two of the four Perceived Age of Maturity factors for girls were relatively minimal, with the largest, "Church attendance", accounting for less than four percent of the variability and "Education" accounting for less than two percent.

Table 14

Mothers' Perception of Maturity of Girls: Multiple Regression Analysis of Independent Variables on Each of Four Factors

| Factors and independent variable retained | b | Beta | t value | P | R ² | R ² _{adj} |
|---|--------|------|---------|------|----------------|-------------------------------|
| Social Freedom (SF) | | | | | | |
| Church Attendance (CHAT) | 0.070 | .20 | 3.446 | .000 | .040 | .037 |
| Caregiving Responsibility (CR) | | | | | | |
| (none) | | | | | | |
| Mechanical Responsibility (MR) | | | | | | |
| Education (EDU) | -0.069 | -.14 | -2.409 | .017 | .019 | .016 |
| Social/Sexual Independence (SX) | | | | | | |
| (none) | | | | | | |

Altogether the independent variables accounted for relatively little of the variance in the Perceived Age of Maturity scores even though their relationship was statistically significant. Although the hypothesis that the independent variables, singly or in combination, account for a significant amount of the variation in the responses to the Perceived Age of Maturity (PAM) Scale is retained, very few of the 11 variables were able to predict even small amounts of variance.

CHAPTER 5

SUMMARY AND CONCLUSIONS

Summary of Objectives, Methodology, and Results

Assuming that mothers make childrearing decisions based on their perceptions of appropriate normative capabilities of children, these perceptions deserve examination. This study examined the construct of perceived age of maturity by examining the respondents' perceptions of the ages at which they believe average children can be expected to independently perform various activities. This study attempted to determine if mothers have different ideas about when boys and girls mature and why some mothers perceive that children are able to do things at younger ages than other mothers.

The data for this study were collected by Rodman and Pratto through two self-administered magazine-distributed questionnaires from 288 mothers of self-care children. Virtually all the mothers were within 25 to 44 years of age with most having one or two children under 14 in the home. More than 70 percent of the subjects shared living quarters with an adult male (including a husband) who was not consanguineous. Only 13.5 percent of the respondents to this item reported their coresident as younger than themselves, while 86.5 percent reported the coresident being the same age as they or older.

The level of education of this sample was relatively high with more than 80 percent having received college level training and less than three percent not having finished high school. Sample respondents were generally mobile and the urban-rural character of the respondents' residences were fairly evenly distributed across all the possible categories of residence. They usually attended church intermittently and virtually all the respondents were working either part-time or full-time and generally reported adequate family income levels. However, slightly more than 10 percent of the respondents did report incomes below \$10,000. Although their occupational status was not particularly high, one-third of these mothers are the main source of financial support for their family.

The Perceived Age of Maturity (PAM) Scale was developed by Rodman and Pratto (1980) to explore variations in the profile of expectations that parents have as to when the average child is usually mature enough to engage in a variety of activities. This scale was included in a self-administered questionnaire covering self-care variables, family structure, demographics, and perceived age of maturity which was mailed to a nationwide sample of mothers with children in self-care.

This investigation has described the characteristics of the sample and the responses to the Perceived Age of Maturity (PAM) Scale. Further examination was made in an attempt to

more clearly define PAM conceptually, measure it empirically, evaluate the measurement properties of this construct, and relate PAM to the respondents' characteristics.

The specific objectives were to answer the following research questions:

1. Is there a significant difference between mothers' patterns of responses to items on the PAM for boys and for girls?
2. Is there more than one underlying dimension in the Perceived Age of Maturity (PAM) Scale? If so what are they?
3. Do any of the selected demographic variables help account for variations in the reported perceptions of the respondents?

Focusing on the Perceived Age of Maturity (PAM) Scale this study:

1. Used the responses to the PAM Scale to describe the variations in perceptions mothers have of expected ages of maturity for children and to determine whether mothers reported different perceptions of age of maturity for girls than for boys.
2. Tested the hypothesis that "There would be no difference between the perceived ages of maturity for boys and the perceived age of maturity for girls", through the use of the t test and examination of the distributions of responses.

3. Performed factor analysis to determine if there were interpretable underlying dimensions in the PAM Scale and to create a new and smaller set of variables for inclusion in further analyses.
4. Through the use of multiple regression tested the hypothesis that "The set of independent variables, singly or in combination, were expected to account for a significant amount of the variation in the responses to the factors within the Perceived Age of Maturity (PAM) Scale."

The descriptive analysis of the responses using means, standard deviations, and box and whisker plots showed the greatest response variance to three items--"Decide to go to church", "Spend money as chooses", and "Hunting with parents". All three of these items exhibited standard deviations exceeding three years for perceptions of both boys and girls, an indication of widely differing perceptions as to appropriate ages of maturity in these skills and a possible indication there may be less agreement on the meaning of the items or less normative consensus.

The smallest standard deviations on these 30 items was exhibited in the responses to two items, "Part-time job" and "Join the military". In both cases the standard deviation was less than one year. The smaller variance in perceptions of ages of maturity on these two items was considered to be related to the mothers' awareness of legal requirements as to

minimum age required before children engage in these activities.

The box and whisker plots present the median, the central 50 percent of the respondents, and the range of respondents between 5 and 95 percent. The item with the narrowest distribution of the central 50 percent of the responses is "Join the military" with that 50 percent all providing the median response of 18 years of age for both boys and girls. Two other items--"Part-time job" and "Have sexual intercourse"--are also notable for presenting an identical pattern for both boys and girls with the central 50 percent all within the range of one year. The item with the smallest range for the central 90 percent of respondents' perceptions of both boys and girls is "Part-time job", ranging from 14 to 16 years of age. The narrow range for all three items probably reflects the respondents' awareness of state and federal statutes associated with minimum legal ages for these activities.

The range of responses for the items is from 4 to 21 years of age, with medians ranging from 6 to 18 years. On only five items was the median response of mothers for both boys and girls below 10 years of age. The remaining 25 items had median scores of 10 years of age or older, with 6 of those median scores above 17 years of age. This may indicate that this scale is overly weighted toward measuring perceptions of children at the higher end of the age range.

A matched pairs difference of means t test for each item was used to examine the hypothesis--"There would be no difference between the perceived age of maturity for boys and the perceived age of maturity for girls". The results of t tests indicate that while girls were perceived as maturing significantly earlier than boys on 14 items, boys were perceived as maturing significantly earlier than girls on only 4 items. In general, when the respondents perceived either boys or girls as maturing earlier than the other, their perception was that girls matured earlier. This resulted in the hypothesis being rejected in 18 of the 30 items.

However, while the hypothesis was rejected because the paired t tests found 18 items evidencing differences between the means, the effect size was generally minimal. This small effect size reduced the power of the t test and increased the chance of error. Only 5 items of the 30 had any notable effect size--"Work as babysitter", "Regular care of sibling", "Occasional care of sibling", "Prepare large meal", and "Use stove". In all five cases the direction of difference is toward the perception that girls mature earlier than boys. The one item, "Work as babysitter", evidences a difference between the means of approximately six months. In all other items the magnitude of the difference in the means was generally much smaller.

The five items predicted to represent behavior marked by strong, traditional gender preferences did not demonstrate such substantial differences from the other items that they could be said to be unique. Therefore, all Perceived Age of Maturity items were retained for further analyses.

The question--"Is Perceived Age of Maturity (PAM) a unidimensional construct or are there underlying factors in the scale?"--was approached by factor analysis. The principal components method with Varimax rotation was used to examine the PAM Scale. As expected there was a consistent pattern of responses to items measuring perceived age of maturity.

Separate factor analysis of the responses for mothers' perceptions of boys and mothers' perceptions of girls indicated the existence of four similar factors for each set. Therefore, subsequent analyses were based on this four factor solution.

In the factor analyses Social/Sexual Independence (SX) emerged as the factor retaining the greatest variability in the original items for boys but was the factor retaining the least for girls. Social Freedom (SF) emerged instead as the factor retaining the greatest variability for girls but the least for boys. A major distinction the mothers seemed to make between boys and girls was to relate almost all heterosexual activities of boys with the Social/Sexual factor, including activities with the church and extended

family. For girls, however, virtually all of these activities, even dating, were included in the Social Freedom factor.

The second most important factor for both boys and girls was the Caregiving Responsibility factor. The mothers' responses to all the items in this factor tended to view the girls as maturing earlier than boys. Three of the five items that evidenced measurable power in the t test were included in this factor.

The third highest loading factor for both genders was Mechanical Responsibility (MR) which accounted for almost identical amounts of variance for both boys and girls. The MR factor also included traditional gender linked items and did differentiate between boys and girls on those activities. This factor included two of the five items that demonstrated the most power in the t test. All of the above four factors combined for boys and for girls accounted for very similar amounts of variance for both genders.

Security concerns may result in mothers including different sorts of activities in their Social/Sexual concepts of boys and girls. Perhaps daughters' separation from day-to-day supervision increases mothers' concerns for their sexual security resulting in high loadings of "Live alone", "Travel in Europe", and "Join the military" on the Social/Sexual factor for girls. These responses seem to reflect a qualitatively different relationship between mother and

daughter resulting in physical distance being related with the Social/Sexual factor.

Although accounting for more of the variance would have been preferable, this solution did account for 39.7% of the variability for boys and 39.4% of the variability for girls. Oblique rotation resulted in the retention of almost exactly the same items in each of the factors. The four factors were interpretable and represented conceptually different areas of development. Subsequent analyses were therefore performed using the original four factor orthogonal solution.

Cronbach's alpha values were computed and the reliability coefficient of the entire 30 item scale was 0.93. The reliability of the PAM Scale and the subscales showed little change when items were removed that were not common to mothers' perceptions of both genders. As a result, in future research, it is possible to consider a reduction of the scale to the 17 common items for boys and girls.

Assuming that there may be a response tendency on the part of mothers to respond with similar ages for both boys and girls, a greater importance may be attached to respondents that report differences in perception by gender. In order to examine more closely those respondents, difference scores were calculated and plotted into box and whisker diagrams. When the plotted items were ordered according to their factor membership, patterns in the difference scores became evident. All the items

uniformly evidenced median difference scores of zero as a result of the overwhelming majority reporting the same age for both boys and girls. However, the shape of the distribution of difference scores revealed some interesting response patterns.

In the Caretaking Responsibility factor the skew was consistently negative indicating that in all six items, when a respondent perceived any differences between the genders, they were likely to view the girl as maturing earlier. The consistent negative skew of these items is substantive support of a difference in perceived age of maturity of girls and boys by mothers.

The lack of differentiation between the sexes is striking in the three shared items of the Social/Sexual Independence factor and the three shared items on the Social Freedom (SF) factor. The median and central 50 percent of responses on these items reflect no perception of differences between the genders.

In the factor of Mechanical Responsibility the common items tied to the traditional male activities of lawnmowing and hunting exhibit a marked positive skew while for the traditionally female activities ("Prepare large meal", "Use stove", and "Keep own room tidy"), there was a marked negative skew. This presents the traditional image of boys maturing earlier in male activities and girls maturing earlier in female activities.

As was expected from the results of the t tests, the majority of the respondents reported no differences between their perceptions of boys and girls. However, consistency in the patterns of the difference scores and consistency in direction of most of the t test results lend substantive support to there being a difference in perceptions of the age of maturity of boys and girls. Though a difference does seem to exist that difference appears to be relatively small.

The second hypothesis of this study was that the set of independent variables, singly or in combination, would account for a significant amount of the variation in the responses to the Perceived Age of Maturity (PAM) Scale. A stepwise multiple regression analysis of each of the four factors was done on the independent variables--"Age", "Church attendance", "Residence", "Education", "Income", "Mobility", "Relative age", "Number of children under 14", "Occupation", and the two dummy variables--presence of adult male and whether employed full-time). These were done separately for mothers' perceptions of girls' maturity and boys' maturity. Despite predictions to the contrary, relatively few of the independent variables were statistically significantly related to the four Perceived Age of Maturity Factors for mothers' perceptions of either boys or girls.

For perceptions of boys, "Church attendance" was significantly positively related to the Social/Sexual

Independence factor. This was the strongest relationship of any of the independent variables with the four factors and it explained only 3.3 percent of the variability. The other two boys' factors with significant amounts of their variance accounted for are Caregiving Responsibility and Mechanical Responsibility. "Occupation" accounted for a small but significant amount of the variation in the Caregiving Responsibility factor and "Education" was related in a similar way to the Mechanical Responsibility factor.

For the girls' Social Freedom factor only one variable, "Church attendance", accounted for a significant amount of variance. "Church attendance" accounted for more variance than did all of the other independent variables for any of the four girls' factors. Of the independent variables only "Education" also accounted for a significant amount of variance in any of the girls' factors. The Mechanical Responsibility factor for mothers' perceptions of girls showed a low negative relationship with "Education".

Altogether the independent variables accounted for relatively little of the variance in the Perceived Age of Maturity scores--the most accounted for being less than four percent of the variability and the least being less than two percent. The amount of variance accounted for was statistically significant although very small. The hypothesis that the independent variables, singly or in

combination, accounted for a significant amount of the variation in the responses to the Perceived Age of Maturity (PAM) Scale was therefore retained.

Conclusions, Limitations and Recommendations

While there was a significant difference between mothers' patterns of responses for boys and for girls, this study found smaller amounts of variance in the age responses to individual items and less differentiation between the genders than was initially expected. There are several possible reasons for this finding. The small amount of variance may be due to homogeneity of the sample, although this seems doubtful given the demographics of the sample. It may also be due to the move toward homogeneity in American society (McClelland, 1975). The mass media, in particular television, have effectively penetrated virtually the entire American society. Exposure to its influence may serve to provide powerful guidelines for parents who are developing their perceptions of the current social norms. Regarding children, another possible contributor to the reduction of variance in social norms is the aggressive standardization of the American public school system which has occurred since the mid 1950s.

Collins (1984) asserts that

developmental unevenness, also called horizontal decalage (Piaget, 1941) seems to be the rule for

development in general. Some weak forms of developmental states -- what we have called levels -- probably exist, as we have noted, but they occur in the face of wide variations in performance. (p. 76)

If this is correct then the relatively small amount of variance in responses suggests that these parents are making their estimates based on social norms rather than observation.

The above are just some of the possibilities that may account for the limited amount of variance in mothers' responses. What may also be important are the indications of changes over time in mothers' perceptions of boys and girls. When compared with the results from the study by Walters et al. (1957) this study differs in several important ways. The Perceived Age of Maturity (PAM) scale did not distinguish between the genders as clearly as did the Childrens' Responsibility Inventory (CRI). The responses to the items on the PAM Scale and their comparable items on the CRI are presented in Table 15. The items "Keep own room tidy" and "Cross busy streets", when compared to similar items on the earlier study, show that while the current study reports virtually no differentiation by gender, the 1957 study reported large gender differences in perceptions.

The age means for the items comparable to "Walk mile to school" and "Go to mall with friends" were much younger in 1957 than the age means for similar items in the current

Table 15

Items and Means from Children's Responsibility Inventory^a and
Perceived Age of Maturity Scale^b

| Items | Responses | |
|---|------------|------------|
| | Boys | Girls |
| Straightening up his room once a week (such as putting away toys, hanging up clothes, tidying shelves and drawers). | | |
| Response means of white mothers | 7 | 6 |
| Response means of Home Life instructors | 8 | 7 |
| <u>Keep own room tidy</u> | <u>6.7</u> | <u>6.5</u> |
| Walking to school alone assuming that he has to cross only a few moderately busy streets. | | |
| Response means of white mothers | 6 | 6 |
| Response means of Home Life instructors | 6 | 6 |
| <u>Walk mile to school</u> | <u>9.0</u> | <u>9.1</u> |
| Crossing main traffic thoroughfares which do not have traffic lights. | | |
| Response means of white mothers | 8 | 8 |
| Response means of Home Life instructors | 9 | 9 |
| <u>Cross busy streets</u> | <u>8.6</u> | <u>8.5</u> |
| Staying alone in his home for a half-day occasionally. | | |
| Response means of white mothers | 10 | 10 |
| Response means of Home Life instructors | 9 | 8 |
| <u>Occasional self-care</u> | <u>8.5</u> | <u>8.3</u> |

(table continues)

| Items | Responses | |
|---|-------------|-------------|
| | Boys | Girls |
| Going with a friend to a movie which his parent approves. | | |
| Response means of white mothers | 8 | 8 |
| Response means of Home Life instructors | 9 | 9 |
| <u>Go to mall with friends</u> | <u>13.2</u> | <u>13.0</u> |

^aFrom Walters, Stromberg, and Lonian, 1957, p. 212.

^bPerceived Age of Maturity Scale items and response means are underlined.

study. This marked increase in the age of maturity for these items may be the result of differences in the construction of the items or may indicate dramatic changes in norms and/or safety concerns from those of 30 years ago.

Mothers' perceptions of ages of maturity for "Occasional self-care" are much lower in the current study than in the 1957 study. Perhaps the previously mentioned environmental security concerns do not apply in the self-care situation, or it may be that the alternative child care choices are considered more risky. The simplest explanation, however, is that norms have indeed changed.

The generally small differences between mother's perceptions of age of maturity of average girls and average boys is similar to the actual sex differences reported in Maccoby and Jacklin's 1974 sex differences summary, The Psychology of Sex Differences. Their examination was summarized by Plomin and Foch (1981):

It seems safe to conclude that sex differences in personality and cognition do not explain much variation among individuals. Of course, sex differences with substantial overlap between sexes may be important at the extremes of the distribution. Nonetheless, it is critical to distinguish "effect size" from statistical significance. For example, attempts to explain the origin of sex differences which themselves account for

such a small portion of the variance seem doomed from the start. (p. 385)

Alternatively, however, what must be considered is the fact that although the differences are small this does not necessarily make them inconsequential. The consistency of the patterns and of the directions of perceptions support a belief that these differences, though small, may exist. There may be a need to increase the sample size or to define the variables more accurately to detect the differences at issue. Even relatively small biases operating over the years can have cumulatively large effects.

Findings of gender related differences in mothers' perceptions of children's maturity are supported by the underlying dimensions in the Perceived Age of Maturity Scale and these dimensions not only distinguish by sex but also by areas of development. Unfortunately, the developmental milestones the PAM Scale items address are perceived by the mothers to be distributed toward what their expectations are for older children and adolescents. This has resulted in relatively few items where the central 50 percent distribution of responses occur in the under 10 age range.

Although the independent variables did help to account for variations in the reported perceptions of the respondents, their contribution was relatively small. This may be due to the particular items selected. Bengtson and Lovejoy (1973), in a study of values, found that "the nature

of the value dimension being examined affects the degree of association with these predictor variables (class, sex, age, status, and subjective state" (pp. 902-903). However, given that the apparent diversity of the items assures the inclusion of a number of value dimensions and given the consistency of the patterns of responses, there is support for the belief that the effects of common influences somehow serve to promote homogeneity in the perceptions of these mothers.

Limitations

There are inherent limitations in the Perceived Age of Maturity Scale as it is presently constructed. An appropriate revision of the PAM Scale would permit a more accurate and informative measure of parental perceptions of maturity. The limited number of items (5) that evidenced a median response in the range of five to ten years of age indicates that this scale needs more items addressing that age range.

The limited ability of very few of the independent variables to account for variance in the factors means that we must look elsewhere to understand what may contribute to Perceived Age of Maturity. Perhaps a refinement of the categories of the independent variables or an interactive combination of those variables would help account for more of the variance. Alternatively, other variables, not addressed

in this study, may play an important role in accounting for variance in the factors.

It could be that the independent variables in this study are not refined enough to detect existing differences among the mothers. For example, it is possible that the perception of the continuum of traditional/nontraditional, a key concept in accounting for values, is an oversimplification. There may well be more than two dimensions in the concept.

Another example could be the urban/rural variable which may not address the diversity of composition in various locales. A rust-belt urban area is quite different from a low crime, high employment urban area, just as an agricultural rural area is different from a mining rural area (Garreau, 1981). This is not to say, however, that there are no areas of similarity and consistency within the general types of categories. However, too general a category may obscure the very characteristics needed to establish correlations.

Additionally this study is based on a nonrandom sample of primarily middle-class women who are reasonably well educated. This limits the generalizability of the conclusions. The respondents were all mothers and no information was collected on the perceptions of fathers or children, particularly those in the same family setting.

Recommendations

Recommendations evolving from this study refer to instrument development as well as future research applications. To increase the utility of the PAM Scale the range of development from 4 to 16 years needs to be addressed more evenly. Twenty-five of the scales' 30 items received median scores of 10 years or more and only 5 items fell into the range below 10 years. This would seem to indicate that future revisions of the PAM Scale should include more items addressing appropriate developmental milestones which mothers perceive as occurring before 10 years of age. Perhaps by replacing the items that do not contribute to the four factor solution, a revised PAM Scale could be more successful in accounting for a greater proportion of the variance.

There is only a small loss of reliability for boys and a gain in reliability for girls by including only the common items. The elimination of almost one half of the scale items by limiting consideration to only those items which load over 0.40 for perceptions of both boys and girls, and are common to both boys' and girls' factors, suggests the possibility of a shorter version of the scale that is almost as effective at measuring perceived age of maturity and which can be used as a framework for rebuilding.

There is a need for more items to cover the range of development in these factors. The use of the common items would seem to provide a solid base for the further

development of this scale. Improving the conceptual similarity of the factors for boys and girls by using only the common items would also be helpful. Future development of this scale utilizing the four factor concept should focus particularly on expanding the items in Social/Sexual Independence and Social Freedom Factors.

The ranges for all three Social/Sexual Independence items are between 14 to 21 years with means of 17 to 18 years. The need for additional items eliciting developmental milestones that are precursors to Social/Sexual Independence seems evident, but what those precursors might be is unclear from this study. Further investigation of these perceptions is needed.

The items on the Caregiving Responsibility factor seem to cover the age range under consideration relatively well although one more item addressing the younger end of the range might be helpful. A possibility might be to include an item addressing the age at which the average child is old enough to be responsible for caretaking activities with a pet.

The Mechanical Responsibility factor appears to reasonably cover the developmental ages of interest, although perhaps an additional item or two may help improve reliability. Such items might include taking phone messages, performing regular household chores, and/or running errands.

More items are also required to address activities appropriate to earlier ages of the Social Responsibility factor. These might include such items as using the phone without supervision, participating in school activities which require afterschool attendance, freedom to briefly visit approved friends' homes without individual clearance, or to stay overnight at a friend's home with parental approval.

After further development and testing of the scale, an investigation of a representative population sample would establish benchmarks in perceived age of maturity that could form the foundation of future studies. These studies, in addition to developing comparisons of various subgroups within the population, might investigate the sequence of perception formation. Foremost among the questions is whether the general perceptions of ages at which the parents expect the child to become mature influence earlier structuring of family priorities and promote self-fulfilling prophecies.

Closing

Despite expected increases in single parent households, and increases in women working outside the home, this is a time of reduction of federal supports for a wide range of social programs, including child care. As a consequence of past and projected changes, self-care children have become an

issue of growing concern for professionals involved in treating, serving, or studying families in the United States.

Family patterns facilitated or hampered by federal, state, and local policy decisions may be extremely long lasting and resistant to change. In American society there has been an increased concern with improving the quality of life for all. If we wish to improve the quality of family life, it seems essential that there be a clear understanding of the expectations that parents have toward their children. The refinement of scales to measure those perceptions can provide the information needed to understand parental decision making and to assist in developing and implementing social policies that facilitate the healthy development of our children.

BIBLIOGRAPHY

- Beaver, P. D. (1986). Rural community in the Appalachian South. Lexington: University Press of Kentucky.
- Bengtson, V. L., & Lovejoy, M. C. (1973). Values, personality, and social structure: An intergenerational Analysis. American Behavioral Scientist, 16(6), 880-912.
- Boszormenyi-Nagy, I., & Spark, G. M. (1973). Invisible loyalties. New York: Brunner/Mazel.
- Bronfenbrenner, U. (1958). Socialization and social class through time and space. In E. E. Maccoby, T. M. Newcomb, & E. L. Hartley (Eds.), Readings in social psychology (pp. 400-425). New York: Huff.
- Bronfenbrenner, U., Moen, P., & Garbarino, J. (1984). Child, family, and community. In R. D. Parke (Ed.), Review of child development research: Vol. 7. The family (pp. 283-324). Chicago: University of Chicago Press.
- Bruno, R. R. (1987). After-school care of school age children: December 1984 (Current Population Reports, Series P-23, No. 149). Washington, DC: U.S. Government Printing Office.
- Bureau of Labor Statistics. (1983). Women at work: A chartbook (U.S. Department of Labor Bulletin 2168). Washington, DC: U.S. Government Printing Office.
- Bureau of the Census. (1985). Household and family characteristics: March 1985 (Current Population Reports, Series P-20, No. 411). Washington, DC: U.S. Government Printing Office.
- Bureau of the Census. (1982). Statistical Abstract of the United States 1982-83 (103d Edition). Washington, DC: U.S. Department of Commerce.
- Bureau of the Census. (1987). Statistical Abstract of the United States 1987 (107th Edition). Washington, DC: U.S. Department of Commerce.

- Clausen, J. A., & Williams, J. R. (1963). Sociological correlates of child behavior. In H. W. Stevenson, J. Kagan, & C. Spiker (Eds.), Child psychology: The sixty-second yearbook of the national society for the study of education (pp. 62-107). Chicago: University of Chicago Press.
- Cohen, J. (1977). Statistical power analysis for the behavioral sciences. New York: Academic Press.
- Collins, W. A. (Ed.). (1984). Development during middle childhood in the years from six to twelve. Washington, DC: National Academy.
- Connecticut Mutual Life Insurance Company. (1981). The Connecticut Mutual Life report on American values in the 80's: The impact of belief. Hartford, CT: Author.
- The Council of State Governments. (1986/87). The book of the states (Vol. 26). Lexington, KY: Author.
- England, J. L., Gibbons, W. E., & Johnson, B. L. (1979). The impact of a rural environment on values. Rural Sociology, 44(1), 119-136.
- Etaugh, C. (1974). Effects of maternal employment on children: Review of recent research. Merrill Palmer Quarterly, 20(7), 1-98.
- Etzioni, A. (1986, August 24). The fast-food factories: McJobs are bad for kids. The Washington Post, pp. C1-C2.
- Fischer, C. S. (1977). Urban-to-rural diffusion of opinions in contemporary America (Working Paper no. 280). Berkeley: University of California, Institute of Urban and Rural Development.
- Galambos, N. L., & Dixon, R. A. (1984). Toward understanding and caring for latchkey children. Child Care Quarterly, 13(2), 116-125.
- Garreau, J. (1981). The nine nations of North America. Boston, MA: Houghton Mifflin Company.
- Hair, J. F., Anderson, R. E., Tatham, R. L., & Grablovsky, B. J. (1979). Multivariate data analysis with readings. Tulsa, OK: Pipe Books.
- Hayghe, H. (1986). Rise in mothers' labor force activity includes those with infants. Monthly Labor Review, 109(2), 43-45.

- Hetherington, E. M., & Parke, R. D. (1975). Child Psychology. New York: McGraw-Hill.
- Hewlett, S. A. (1986). A lesser life: The myth of women's liberation in America. New York: William Morrow and Company.
- Hock, E. (1980). Working and nonworking mothers and their infants: A comparative study of maternal caregiving characteristics and infant social behavior. Merrill-Palmer Quarterly, 26, 79-101.
- Hock, E., & Lindamood, J. (1981). Continuity of child-rearing attitudes of mothers of young children. The Journal of Genetic Psychology, 138, 305-306.
- Hoffman, L. W. (1974). Effects of maternal employment on the child: Review of the research. Developmental Psychology, 10(2), 204-228.
- Hollingshead, A. B., & Redlich, F. C. (1958). Social class and mental illness: A community study. New York: John Wiley and Sons.
- Hoopes, J. L. (1982). Prediction in child development. New York: Child Welfare League of America.
- Horowitz, R. M., & Davidson, H. A. (Eds.). (1984). Legal rights of children (Family law series). Colorado Springs: Shepard's/McGraw-Hill.
- Household and Family Projections. (1987). Family Economics Review, 2, 9.
- Johnson, O. G., & Bommarito, J. W. (1971). Tests and measurements in child development: A handbook. San Francisco: Jossey-Bass.
- Johnson, O. G. (1976). Tests and measurements in child development: Handbook II (Vol. 2). San Francisco: Jossey-Bass.
- Kantrowitz, B., Hager, M., Wingert, P., Carroll, G., Raine, G., Anderson, M., Witherspoon, D., Huck, J., & Doherty, S. (1987, February 16). Kids and contraceptives. Newsweek, pp.54-65.
- Kerlinger, F. N., & Pedhazur, E. J. (1973). Multiple regression in behavioral research. New York: Holt, Rinehart and Winston.

- Kokoski, M. F. (1987). Employment and wage changes of families from CE survey data. Monthly Labor Review, 110(2), 31-33.
- Lambert, W. E., Hamers, J. F., & Frasure-Smith, N. (1979). Child-rearing values. New York: Praeger Publishers.
- Lasko, J. K. (1954). Parent behavior toward first and second children. Genetic Psychology Monographs, 49, 97-137.
- Leishman, K. (1980). When kids are home alone: How mothers make sure they're safe. Working Mother, 3, 21-25.
- Maccoby, E. (1980). Social development-- Psychological growth and the parent-child relationship. New York: Harcourt Brace Jovanovich.
- Maanick, G., & Bane, M. J. (1980). The nation's families: 1960-1990. Cambridge, MA: Joint Center for Urban Studies of MIT and Harvard University.
- McClelland, D. D. (1975). Power: The inner experience. New York: Irvington.
- McKenry, P. C., Price-Bonham, S. (1980). There's a difference in how family members perceive. Ohio Reports on Research and Development, 65(4), 56-59.
- National Defense. (1986, July 1). Code of federal regulations: Vol. 32. Parts 400 to 69 (pp. 317-322). Washington, DC: U.S. Government Printing Office.
- Nunnally, J. C. (1978). Psychometric theory. New York: McGraw-Hill.
- Olaon, J. T. (1979). Role conflict between housework and child care. Sociology of Work and Occupations, 6(4), 430-456.
- Photiadis, J. D., & Schwarzweller, H. K. (1970). Changes in rural Appalachia: Implications for action programs. Philadelphia: University of Pennsylvania Press.
- Pilling, D., & Pringle, M. K. (1978). Controversial issues in child development. New York: Schocken Books.
- Plomin, R., & Foch, T. (1981). Sex differences and individual differences. Child Development, 52, 383-385.

- Pratto, D. J., & Rodman, H. (1987). Magazine distributed questionnaires in exploratory family research: Advantages and problems. Sociological Spectrum, 7(1), 61-72.
- Roberts, G. C., Block, J. H., & Block, J. (1984). Continuity and change in parents' child-rearing practices. Child Development, 55, 586-597.
- Robinson, B. E., Rowland, B. H., & Coleman, M. (1986). Latchkey kids. Lexington, MA: Lexington Books.
- Rodman, H., & Pratto, D. (1980). How children take care of themselves: Preliminary statement on magazine survey (Report submitted to the Ford Foundation).
- Rummell, R. J. (1970). Applied factor analysis. Evanston, IL: Northwestern University Press.
- x x
- SPSS : User's guide [SPSS Release 2.2]. (1983). New York: McGraw-Hill Book Company.
- Scarr, S. (1984). Mother care/Other care. New York: Basic Books.
- Staff. (1987). Labor law reporter: Vol. 8. Federal wages-hours (pp. 88QF-89QF, 524QF-527QF, 658QF-667QF). Chicago: Commerce Clearing House, Inc.
- Torgoff, I. (1961). Parental developmental timetable: Parental field effects on children's compliance. Paper presented at the meeting of the Society for Research in Child Development, Pennsylvania State University.
- Torgoff, I., & Dreyer, A. S. (1961, September). Achievement-inducing and independence granting--synergistic parental role components: Relation to daughters' "parental" role orientation and level of aspiration. Paper presented at the meeting of the American Psychological Association, New York, NY.
- Vogel, S. R., Broverman, I. K., Broverman, D. M., Clarkson, F. E., & Rosenkrantz, P. S. (1970). Maternal employment and perceptions of sex roles among college students. Developmental Psychology, 3, 384-391.
- Walters, J., Stromberg, F., & Lonian, G. (1957). Perception concerning development of responsibility in young children. Elementary School Journal, 57, 209-216.

- Women's Bureau. (1985). The United Nations Decade for Women, 1976-1985: Employment in the United States (U.S. Department of Labor). Washington, DC: U.S. Government Printing Office.
- Woodrow, K., Hastings, D. W., & Tu, E. J. (1978). Rural-urban patterns of marriage, divorce and mortality: Tennessee, 1970. Rural Sociology, 43(1), 78-86.
- Yarrow, M. R., Scott, P., Leeuw, L. D., & Heinig, C. (1962). Child-rearing in families of working and nonworking mothers. Sociometry, 25(2), 122-140.

APPENDIX A

PAM Scale from Phase II

HOW CHILDREN TAKE CARE OF THEMSELVES

(The Perceived Age of Maturity Scale)

People have different opinions about when individuals are old enough or mature enough to do certain things or to decide certain things. THERE ARE NO RIGHT OR WRONG ANSWERS. THERE ARE NO "CORRECT" AGES. Please give us your opinion about the age at which the average boy and the average girl are mature enough to be able to do or decide each of the following. For each item, please fill in the ages that are closest to what you think.

AT WHAT AGE IS THE AVERAGE BOY AND GIRL MATURE ENOUGH TO . . .

| | AGES FOR | |
|---|----------|-------|
| | BOYS | GIRLS |
| 1. To use the stove | _____ | _____ |
| 2. To walk a mile to school alone | _____ | _____ |
| 3. To keep his/her room tidy | _____ | _____ |
| 4. To go out on a date | _____ | _____ |
| 5. To cross busy streets alone | _____ | _____ |
| 6. To occasionally stay at home alone for an hour or two | _____ | _____ |
| 7. To take a part-time job at a fast- food restaurant | _____ | _____ |
| 8. To go hunting with parents | _____ | _____ |
| 9. To run a lawnmower | _____ | _____ |
| 10. To care for him/herself regularly after school | _____ | _____ |
| 11. To join the army or navy | _____ | _____ |
| 12. To live alone | _____ | _____ |

| | BOYS | GIRLS |
|--|-------|-------|
| 13. To spend a month traveling with friends in Europe | _____ | _____ |
| 14. To use contraceptives | _____ | _____ |
| 15. To have sexual intercourse | _____ | _____ |
| 16. To work as a babysitter | _____ | _____ |
| 17. To occasionally take care of a younger brother or sister for an hour or two after school | _____ | _____ |
| 18. To regularly take care of a younger brother or sister for an hour or two after school | _____ | _____ |
| 19. To prepare a meal for several people | _____ | _____ |
| 20. To play tennis | _____ | _____ |
| 21. To decide whether or not to go to church | _____ | _____ |
| 22. To decide to change his/her religion | _____ | _____ |
| 23. To hunt animals with friends | _____ | _____ |
| 24. To go to a shopping mall for a few hours with friends | _____ | _____ |
| 25. To spend a few hours at a shopping mall alone | _____ | _____ |
| 26. To have a party at home when the parents are out | _____ | _____ |
| 27. To have a friend over when the parents are out | _____ | _____ |
| 28. To spend his/her money in any way he/she wants | _____ | _____ |
| 29. To decide whether or not to visit relatives with the rest of the family | _____ | _____ |
| 30. To stay home alone with a cold all day while the parents are working | _____ | _____ |

APPENDIX B

Items from Phase I

HOW CHILDREN TAKE CARE OF THEMSELVES

(Selected items used in this study)

When parents are working, or have to be away from the house for some other reason, most of them occasionally or regularly leave children to care for themselves.

If your child or children occasionally or regularly care for themselves, please take a few minutes to answer the questions that follow.

The Family Research Center of the University of North Carolina at Greensboro is trying to learn more about what children do while they take care of themselves. We will share the findings with you in a future issue of Working Mother.

Please answer each question by checking the box for the one answer that fits your situation best. We're very much interested in your thoughts and ideas, and encourage you to send them to us on a separate sheet of paper.

Send your questionnaire and your comments, if any, as soon as possible to: Child Survey, Greensboro, NC, 27412.

Part I (value of response in database)

A. HOW MANY CHILDREN UNDER 14 YEARS OLD ARE LIVING WITH YOU?

| | |
|--------------|-----|
| one | (1) |
| two | (2) |
| three | (3) |
| four or more | (4) |

Part II (value of response in database)

A. HOW OLD ARE YOU?

| | |
|------------|-----|
| under 21 | (1) |
| 21 to 24 | (2) |
| 25 to 29 | (3) |
| 30 to 34 | (4) |
| 35 to 39 | (5) |
| 40 to 49 | (6) |
| 50 or over | (7) |

D. HOW OFTEN DO YOU ATTEND RELIGIOUS SERVICES?

- never (1)
- once a year or less (2)
- several times a year (3)
- once or twice a month (4)
- about 3 times a month (5)
- every week (6)
- more than once a week (7)

G. WHAT KIND OF COMMUNITY DO YOU LIVE IN?

- A large city--over 250,000 population (1)
- Suburb of a large city (2)
- A small city--under 250,000 population (3)
- A small town--under 10,000 population (4)
- A rural area (5)

J. HOW MUCH EDUCATION DO YOU HAVE?

- some H.S. or less (1)
- H.S. diploma (2)
- some college (3)
- college degree (4)
- some graduate or professional school (5)
- graduate or professional degree (6)

O. HOW MANY HOURS A WEEK DO YOU USUALLY WORK FOR PAY?

- Do not work for pay (1)
- One to none hours (2)
- 10 to 19 hours (3)
- 20 to 29 hours (4)
- 30 to 39 hours (5)
- 40 hours or more (6)

Q. DO YOU PROVIDE THE MAIN SUPPORT FOR YOUR FAMILY?

- Yes (1)
- No (2)

T. TOTAL FAMILY INCOME IN 1979, BEFORE TAXES:

- less than \$5,000 (1)
- \$5,000 to \$9,999 (2)
- \$10,000 to \$14,999 (3)
- \$15,000 to \$19,999 (4)
- \$20,000 to \$24,999 (5)
- \$25,000 to \$34,999 (6)
- \$35,000 or over (7)

U. HOW MANY TIMES HAVE YOU MOVED IN THE PAST TEN YEARS?

- Never (1)
- Once (2)
- Twice (3)
- Three times (4)
- Four times or more (5)

APPENDIX C
Items from Phase II

HOW CHILDREN TAKE CARE OF THEMSELVES
(Selected items used in this study)

INSTRUCTIONS

When parents are working, or have to be away from the house for some other reason, most of them occasionally or regularly leave children to care for themselves. Two years ago you answered some questions in Working Mother about your child or children who cared for themselves. We now want to clear up some gaps in the information we collected two years ago. Please answer the questions in Part I in terms of your situation as it existed two years ago, when you replied to our first questionnaire.

Part I

1. Two years ago, how many children under 14 years old were living with you?

One
Two
Three
Four or more

13. In the chart below, please tell us who the people were who lived together with you two years ago. Start with yourself, and then list everybody else, giving us each person's age, sex, and relationship to you:

| | Relationship To You | Age | Sex |
|----------|------------------------|-----|-----|
| Yourself | ----- | | |
| | | | |
| | | | |
| | | | |
| | | | |

PART II

In Part II we are asking a few questions about changes in your child-care arrangements through the years.

10. What paid work were you doing two years ago? _____

APPENDIX D

Revised Hollingshead Occupational Scale

This study initially coded the responses to Item 9, Part II, Phase II (Appendix B) into the 999 categories of the U.S. Census Code. To collapse this data into a more manageable number of categories the data were recoded into the categories of the occupational scale suggested by Hollingshead (1958). The numerical order of the categories was then reversed into the order below for the convenience of having higher numbers indicate higher occupational levels.

The Occupational Scale

1. Unskilled employees;
2. Semi-skilled employees and machine operators;
3. Skilled manual employees, such as repairmen;
4. Sales and clerical workers, technicians, and owners of small businesses;
5. Administrative personnel, small independent businessmen, and teachers;
6. Business managers, proprietors of medium-sized businesses and lesser professionals, such as nurses, accountants, real estate brokers;
7. Higher executives of large businesses, proprietors of large businesses, and major professionals, such as doctors, dentists, lawyers, and pharmacists.

APPENDIX E

Statistical Formulas for Calculating Effect Sizes*

$$S_{\text{whole}} = \sqrt{(S_{\text{boy}}^2 + S_{\text{girl}}^2)} \quad (1)$$

$$d_{\text{whole}} = \frac{(\bar{X}_{\text{boy}} - \bar{X}_{\text{girl}})}{S_{\text{whole}}} \quad (2)$$

$$r_{\text{pb}} = \frac{d_{\text{whole}}}{\sqrt{d_{\text{whole}}^2 + 4}} \quad (3)$$

$$d_{\text{adjusted}} = \frac{d_{\text{whole}}}{\sqrt{1 - r_{\text{pb}}}} \quad (4)$$

S = standard deviation

d_{whole} = effect size (not adjusted)

r_{pb} = point biserial correlation coefficient

d_{adjusted} = effect size adjusted for paired sample

*Cohen, J. (1977). Statistical power analysis for the behavioral sciences. New York: Academic Press.