Effects of Daycare Experience on Dependency Behaviour in Preschool Girls

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Thesis presented to The School of Graduate Studies of the University of Ottawa as partial fulfillment of the requirements for the degree of Master of Arts

Ottawa, Canada, 1982

ACKNOWLEDGEMENTS

The writer wishes to acknowledge her appreciation to Dr. Victor Szyrynski for his willingness to supervise this thesis and his continued encouragement and guidance; to Dr. Richard Clement for his very helpful assistance with the statistical analysis; to the prospectus committee members, Professor Gilles Chagnon and Dr. Gloria Fellers for their insightful comments; to Dr. Tim Hogan for kindly providing an office with coffee facilities; to Debbie Badali for her Herculean effort in completing the typing on time, thereby avoiding the writer registration fees for yet another semester; to those individuals involved with the various daycare and preschool organizations for their assistance in obtaining subjects; to my husband for his patience; and in particular to the parents and children who participated.

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ABSTRACT

A group of twenty-six four-to-five year-old girls who attended full-time group daycare were compared with a comparable group of twenty-eight home-reared girls on two measures of dependency, The Primary Academic Sentiment Scale and the Preschool Embedded Figures Test. Parents of the girls were assessed on various indices expected to differentially affect degree of dependency behaviour, specifically parental expectations for independence, protectiveness and sex-role attitudes; maternal role model (independent/dependent); and paternal involvement in childrearing and household tasks.

While the similarities between the two groups in terms of degree of separation and maternal employment status lessened the likelihood of significant results, the findings did indicate some limited support for the hypothesis that mother-daughter separation via daycare attendance and maternal employment are conducive to the development of independence in preschool girls. While no differences emerged between daycare and home-reared girls, the finding of significantly greater field-independence in girls commencing daycare earlier and attending longer (vs. later and shorter attendance), suggested long-term benefits of daycare attendance on the acquisition of independent behaviour. Moreover, a pattern evident in the daycare families that was not replicated in the home-care

group, revealed that daycare girls with greater independence had received support for such behaviour from their mothers. Although these maternal influences did not result in the daycare groups' greater independence as a whole, it was suggested that the long-term outcome of such influences would be reflected in differences favourable to the daycare group.

Implications of the present findings and recommendations for future research were outlined.

INTRODUCTION

Due to traditional sex-role socialization that has predisposed girls to greater dependency than boys, the concern has been expressed that girls are in particular need of experiences to counteract this socialization process, especially during the critical formative years. Research in this area has identified two major factors that are associated with a lessening of dependency in girls, specifically a certain degree of mother-daughter separation and maternal employment (Chodorow, 1974; Hoffman, 1974; Johnson, 1975).

By its very nature, daycare experience necessarily involves mother-daughter separation. Secondarily, it is also characterized by maternal employment since mothers who use daycare are generally employed outside the home. As such, daycare experience would be expected to lessen dependency behaviour in girls.

Research examining this issue has generally shown few if any differences between daycare and home-reared girls on various indices of dependency. Differences that have emerged have almost without exception been favourable to the daycare group. However, certain theoretical and methodological limitations make these conclusions somewhat questionable (Belsky & Steinberg, 1978). The present study was therefore

designed to investigate the phenomenon of daycare experience and dependency having controlled for these limitations.

The relative merits of daycare versus home-reared experience on the development of dependency in preschool girls formed the central focus for the study. Additionally, differences between parents of daycare and home-reared girls on measures expected to affect degree of dependency were examined. Finally, within the daycare group, the relationship between these parental measures and the child measures of dependency were studied.

CHAPTER I

REVIEW OF THE LITERATURE

The detrimental effects of traditional sex-role socialization on women's mental health and cognitive and social development has been extensively documented (Bardwick, 1971; Baruch & Barnett, 1975; Hoffman, 1972; Scarf, 1980; Williams, 1974). Strong identification with the traditional "feminine" role, which emphasizes dependency, passivity, and approval and affection-seeking modes of interaction (versus the masculine role of independence, assertiveness, and goal-oriented interaction), has been shown to be negatively related to women's autonomy (Lozoff, Note 1), self-esteem (Baruch & Barnett, 1975; Schiff & Koopman, 1978), and personal and social adjustment (Harris & Schwab, 1979; Heilbrun, 1968; Heilbrun & Fromme, 1965; LaTorre, 1978; Williams, 1973). In addition, women's intellectual productivity (Kagan & Freeman, 1963; Kagan & Moss, 1962; Maccoby, 1966), achievement motivation (Baumrind, 1972; Hoffman, 1972), and creativity (Helson, 1965), have suffered as a result of identification with the "feminine" role.

As noted above, a major component of this socialization process involves dependency training. Whether one conceptualizes this as the result of the active encouragement of

dependency behaviour in females or merely a greater tolerance for it (Bardwick, 1971), there would appear to be a consensus that known socialization inputs for the two sexes are sufficiently different to result in known sex differences in dependency (Barry, Bacon, & Child, 1957; Kagan, 1964; Mischel, 1970).

However, before outlining the specific mechanisms whereby this process takes place, it may be helpful initially to clarify what is meant by dependency.

Dependency is a normal and conspicuous feature of early childhood that is essential to later psychological adjustment. It is characterized by a particular set of behaviours that have generally been defined by social learning theorists to include the seeking of attention, recognition (praise and approval), reassurance, proximity, physical contact and assistance from others, (usually adults), and resisting separation (Beller, 1955; Hartup, 1963).

Psychoanalytic and ethological theorists, such as John Bowlby, prefer to use the term "attachment" to describe this phenomenon, defining it as behaviour that maintains proximity to another individual or restores that proximity when it has been impaired (Maccoby & Masters, 1970). Implicit as well in Bowlby's particular definition of attachment is the

condition of specificity of attachment object and the idea that behaviour directed at this particular object (usually the mother) is different from behaviour directed at others.

The term dependency as defined by the social-learning tradition however, does not imply this specificity of attachment object. Essentially though, it encompasses the same set of behaviours that Bowlby would call attachment (Maccoby & Masters, 1970). "The primary difference appears to be that a child may be referred to as having a given degree of dependency, without reference to the identity of the target figure toward whom the behaviour is directed" (Maccoby & Masters, 1970, p. 74).

Bowlby's own particular conception of dependency refers not to behaviour that is designed to obtain or maintain proximity, but a state of helplessness or the extent to which a person relies on another for his (her) physical needs. As Bowlby noted, a very young infant may be dependent on his (her) mother to serve his (her) needs, but he (she) is not yet attached to her. Bowlby criticizes the term dependency because of its negative connotations that imply it is an undesirable behaviour that must therefore be altered or lessened. In contrast, he views attachment behaviour as normal and necessary and sees its continuance in some form into adulthood as indicative of healthy emotional development.

To some extent, Bowlby's criticism of the term dependency is valid. As with many psychological terms, dependency is best understood when the behaviour it describes is extreme (Bardwick, 1971). However, dependency can refer to both maladaptive and normal behaviour patterns or personality qualities. As noted earlier, the establishment of a dependent bond (or certain degree of dependency) in children is essential to normal emotional development. In adulthood, a healthy degree of dependency allows individuals to be sensitive "to the needs of persons who are important to them, which allows appropriate nurturant or supportive behaviours" (Bardwick, 1971, p. 115).

In its maladaptive sense however, an overly dependent orientation reflects an inordinate need for support that is characterized initially by proximity-seeking and at later ages, attention and approval-seeking behaviours. Dynamically, marked dependence involves an excessive reliance on other's evaluations for one's feelings of self-worth and esteem. Such overly dependent individuals express feelings of inadequacy and vulnerability and frequently exhibit needs for attention, acceptance and approval from others. They are afraid to jeopardize their accepted status by asserting themselves, for fear of rejection. They feel less able to cope independently and require a great deal of emotional support to accomplish

tasks/activities that they should be capable of doing themselves.

Conversely, independent[1] individuals have a healthy (i.e. neither limited nor excessive) need for interdependent interpersonal relationships. They are neither "turned out" nor excessively "tuned in" to the evaluative responses of others. Their confidence in their ability to function independently and autonomously allows them the freedom to choose to relate in a dependent or independent fashion according to the nature of the situation or task.

In the course of a child's normal socialization, it is expected that he/she will progress from a relative state of complete helplessness or dependence to one of increasing independence or autonomy. However, due to two main factors, specifically the differential sex-role socialization of girls and boys and the particular nature of the mother-daughter bond, girls have characteristically not achieved the same degree of independence or autonomy. In examining this first factor, there are basically three avenues through which differential sex-role socialization takes place. Parental expectations, parental behaviour, and society's larger

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[1]In its maladaptive i.e. extreme form, independence can refer to a behaviour mode that reflects an inability to relate to people.

influence via the media, literature and educational personnel are thought to be the major sex-typing agents.

Sex-Typing Agents of Dependency in Girls

(a) Parental expectations and attitudes

Evidence of differential expectations and attitudes regarding independence/dependence and activity/passivity and the particular mechanisms whereby they are transmitted to girls and boys, have suggested that the process is evident, even at birth. In a study conducted by Rubin, Provenzano, and Luria (1974), parents attributed very different qualities to their newborn sons and daughters. Although the male and female infants did not differ in weight, length or Apgar scores, daughters were perceived as being softer, smaller, weaker and more delicate, while sons were seen as firmer, stronger, hardier, larger featured and better co-ordinated. Findings from a similar study revealed that fathers of infant daughters expressed more apprehension over their physical well-being than did fathers of sons, a concern which the authors noted most probably reflected cultural sex-typing that boys are hardier than girls (Pederson & Robson, 1969). In another study examining elementary-aged children, parents of 6 year olds were asked how they believed the sexes differed in behaviour (Lambert, Yackley, & Hein, 1971). Boys were seen as

rougher, noisier, more physically active and more willing to defend themselves; girls were seen as cleaner, quieter, more sensitive and more easily frightened and upset.

(b) **Parental behaviours**

In view of these differential expectations and attitudes regarding girls and boys, it is not surprising that parent-infant interaction differs according to the sex of the child. Studies have revealed that parents, through a variety of ways, convey to their daughters the expectation of greater female fragility. To summarize, parents treat girls in a more delicate fashion, discourage their attempts at exploratory behaviour and support their bids for dependent contact and assistance. This leads to a pattern of overprotection that not only precludes parental encouragement and independence, but limits the opportunities for independent behaviour as well.

The misconception that newborn infant girls are more delicate and vulnerable than male infants is reflected in parents' greater elicitation of gross motor behaviour in their sons through their greater acceptance and encouragement of more rough and vigorous play (Moss, 1967; Smith & Loyd, 1978). Male infants also receive greater maternal stimulation/arousal than do female infants (Moss, 1967). Such maternal

stimulation and attentiveness has been found to facilitate independent exploratory behaviour (Rubenstein, 1967).

One might expect parents' more active involvement with their sons if boys were sturdier than girls, but in fact female neonates are more physiologically mature and more resistant to disease and injury (Garai & Scheinfeld, 1968). This delusion of female fragility is not limited to infancy. Parents of toddlers reacted more negatively to daughters engaged in active, large motor activities and responded more positively when they engaged in adult-oriented, dependent behaviour (Fagot, 1978). In a study examining the interaction styles of elementary school-age children and their parents during a free-play session, it was found that parents of girls were more likely to engage in sociable play while parents of boys engaged in active play (Tauber, 1979). Further, fathers were less supportive of active girls than they were of active boys. By engaging in less active play with girls and less social play with boys, parents were adhering to the stereotype of sociable girls and active boys, and not the reality of the situation in which boys and girls were equally likely to engage in physically active play (Tauber, 1979).

This rougher handling of boys and assumed vulnerability of girls would appear also to be reflected in parents' greater encouragement of boys' distal and exploratory behaviours,

factors that are highly conducive to the development of independence. Goldberg & Lewis (1969), examined infants playing with their mothers and found that already at the age of 13 months, girls were more dependent and less exploratory than boys in their play. Interestingly, these differences appeared to be related to the mothers' differential treatment of the boy and girl infants at 6 months. Female infants were touched, talked to and handled more than male infants at 6 months - correspondingly at 13 months, girls touched and talked to their mothers more than boys did. These findings strongly suggested that mothers, by differentially responding to female infants in a more "proximal" fashion are reinforcing sex-typed behaviour even in infancy. The authors note that comments made by the mothers, as well as their own observations suggested that "mothers believe boys rather than girls should be independent and encouraged to explore and master their world" (Lewis, 1972, p. 236). Female infants are eventually encouraged to progress from a proximal mode of interaction to a more mature distal mode, but at an age later than that of their brothers (Lewis, 1972).

While male toddlers receive parental support for their attempts to manipulate objects and explore their environment, thereby gaining knowledge that facilitates independent functioning, girls are criticized for this behaviour and

instead receive parental support when they ask for help (Fagot, 1978), and comfort (Lambert et al., 1971). Such freedoms as crossing the street alone or using sharp scissors without supervision etc., are permitted at later ages for preschool girls (Collard, Note 2), and elementary school age girls are not allowed to roam as wide an area of their community without the special permission of their parents (Saegart & Hart, 1976).

It has been suggested that parents' encouragement of sex-typed toys and activities is another avenue whereby boys and girls are differentially reinforced for exploratory behaviour. Rheingold and Cook (1975), classified the contents of childrens' rooms in the home as an index of differences in parental behaviour to boys and girls (one month to 6 years). Boys were provided with objects that encouraged activities directed away from the home (cars, animals, military), while girls were provided with objects that encouraged activities directed toward housekeeping and caring for children (dolls, houses, etc.).

Obviously very different messages concerning the appropriateness of exploration and independent behaviour for either sex are being conveyed by parents and at critical stages in the child's development.

Children's dependency bids is another area in which parents respond differentially according to the sex of the child. Boys' bids for physical contact are met with rejection (Tauber, 1979), or punishment (Hatfield, Ferguson, & Alpert, 1967), while similar behaviour in girls receives parental support, especially by mothers (Tauber, 1979; Sears, 1963).

Parents also differentially reinforce help-seeking behaviour in children. In a study examining mothers' supervision of their child's performance on memory and puzzle tasks, mothers were more likely to give support to daughters than to sons (Rothbart & Rothbart, 1976). In their review of studies on dependency, Maccoby and Masters (1970) concluded that there was a positive relationship between rewarding of dependent behaviour and the frequency of its occurrence. Mothers' reinforcement of help-seeking in girls may thus encourage a tendency to seek help in other situations, thereby putting girls at a disadvantage when faced with tasks that involve independent problem-solving (McCandless, Bilous, & Bennett, 1969). Indeed this appears to be the case. Crandall and Rabson (1960), found that grade school girls were more likely to seek classroom help and support when faced with the possibility of failure. This type of help-seeking behaviour does not appear limited to problem solving. In a study examining the incidence of help-seeking behaviour in

pre-schoolers, girls more often sought the help of teachers in solving peer-conflict situations than did boys (McCandless et al., 1961).

(c) **Other influences**

Another avenue through which expectations of dependency and passivity are transmitted to females is via children's literature and television (Sternglanz & Serbin, 1974; Weitzman, 1972). Male characters are portrayed as more active and independent, while female characters are shown as passive and submissive.

Educational personnel are also active agents in the sex-typing of dependency in preschool girls. In nursery school, teachers were observed to differentially encourage dependent behaviour in girls and independent functioning in boys (Serbin & O'Leary, 1975; Serbin, O'Leary, Kent, & Tonick, 1973). Specifically, girls were reinforced for proximity-seeking behaviour while boys were provided with more individual instruction in how to do things "for themselves."

The effects of differential sex-socialization that girls and boys receive through the variety of sex-typing agents described above, become all the more alarming when one considers the long-term outcome of such socialization. Dependency developed in early childhood in females appears

unfortunately to be a relatively stable characteristic, which as noted earlier predicts the quality of later functioning in a number of spheres (i.e. cognitive, social, and psychological). Whereas boys are socialized towards independence and learn to inhibit dependency strivings so as to conform to traditional sex-role standards, girls are not actively encouraged to do so and thus the pattern of dependency established in early childhood continues to be reinforced by the later socialization experiences of girls (Kagan & Moss, 1960; Kagan & Moss, 1962; Mussen, Conger, & Kagan, 1974).

As a result of this inadequate encouragement of early independence strivings in females and the consequent adverse effects that such limited experience entails, the concern has been expressed that girls may be in particular need of influences/experiences that would counteract this socialization process thereby facilitating their independence (Baumrind, 1972; Hoffman, 1972; Serbin, Connor, & Citron, 1978; Williams, 1974; Woolsey, 1977). Clearly, more liberal socialization practices (in particular, child-rearing practices), would do much to improve girls' chances of developing greater independence. Another factor, perhaps more amenable to change and one which may as well have a more fundamental or pervasive effect on the development of independence or autonomy and thus later psychological adjustment,

is the degree to which the child is able to separate from its mother (Mahler, 1952).

Mother-Daughter Identification

It has been suggested that the process of separation-individuation is more easily facilitated when the child is of the opposite sex of the main caregiver (Chodorow, 1974; Johnson, 1963, 1975; Lynn, 1969, 1974; Rothbart, 1976). As the mother has traditionally been the primary caretaker and thus the person to whom girls and boys form their first attachment or love-dependent relationship (Chodorow, 1974; Lynn, 1969; Parsons & Bales, 1955), girls are once again at somewhat of a disadvantage in establishing a separate and independent sense of self. For while the girl's identification with her mother is consistent with her own sex-role and is thus maintained, the boy's identification must be with the father - a process that naturally encourages a moving away or dissociation from the early primary identification with the mother, which is characterized by an infantile dependence (Fairbairn, 1954), toward a more independent gender identification with the father. Expressed differently, the boy must break away from his dependence on his mother, and assert himself and his 'maleness' as a thing apart. The girl on the other hand does not shift from her initial identification with the mother - her process of separation-individuation is

therefore less complete and thus less likely to be conducive to the establishment of an early and independent sense of self (Chodorow, 1974; Johnson, 1975).

While there have been no studies found which directly test this hypothesis, it has been suggested that the poorer adjustment of more highly mother-identified girls (Heilbrun, 1965, 1968; Heilbrun & Fromme, 1965; Johnson, 1963; Slater, 1961), "may result at least in part from the dependency implication of an exclusive mother tie" (Johnson, 1975, p. 20), which as Chodorow (1974) notes "is liable to be excessive in the direction of allowing no room for separation or difference between mother and daughter" (p. 59). The greater dependence of females identified with a mother who is herself characterized by the traditionally female sex-typed traits of passivity and dependence, is also felt to be a further determining factor in the poorer psychological adjustment of females.

Experiences which allow for a lessening of this primary identification with the mother, especially during the critical formative years (i.e. the preschool years), would be expected to be facilitative of a more successful separation-individuation and thus the development of a more independent and esteemed sense of self. Girls who are not exclusively tied to the mother 24 hours a day, but experience separation

from her on a regular basis necessarily have less physical proximity to the mother which should lead to greater mother-daughter distance (Lynn, 1969), and by association facilitation of the process of separation/individuation (Chodorow, 1974) and the emergence of an independent and competent sense of self (Gold & Andres, 1978b; Hoffman, 1972; Lynn, 1969).

Research on the effects of maternal employment, which characteristically involves daily mother-child separation (Anderson, 1980), would appear to support this assumption, at least with reference to older aged children.

Mother-Daughter Separation via Maternal Employment

Hoffman (1974), in her review of maternal employment noted greater independence and autonomy among daughters of working mothers. Moreover, a tendency for daughters of employed mothers to have lower scores on various indices of traditional feminity was also evident (Douvan, 1963). It is unclear however, whether mother-daughter separation alone accounted for the greater independence of daughters of working mothers, or whether factors associated with maternal employment influenced the acquisition of independent behaviour in girls. More specifically, a significantly greater tendency among working mothers to stress and encourage independence

training and maturity as compared to non-working mothers has been cited as one such factor (Douvan, 1963; Von Mering, 1955; Birnbaum, Note 3; Burchinal & Lovel, Note 4). Less overprotectiveness among working mothers (Von Mering, 1955; Birnbaum, Note 3), is another factor viewed as conducive to the development of independence in girls.

A tendency for working mothers to present a more independent and competent model than that of their non-working counterparts has also been noted as a contributing factor to the greater independence of daughters of working mothers (Hoffman, 1974).[2] More specifically, a number of studies have revealed stronger feelings of competence (Williams, 1974), higher self-esteem (Baumrind, 1971), and greater competence vis-a-vis child care skills (Baumrind, 1971), among working mothers. Further, the likelihood of greater ego strength among working mothers is suggested by the findings from a study which showed more ego strength to be associated with plans for combined career and marriage rather than with traditional sex-role identification (i.e. housewife-mother) (Gump, 1972).

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[2]Higher maternal competence has been associated with earlier expectations for independent behaviour in daughters (Barnett, 1981).

Women who are employed generally have more liberal attitudes towards sex roles (Gold & Andres, 1978b, 1980; Williams, 1974), than do the non-employed (although employment is not an exclusive determinant of this factor (Stephenson, 1973) and this broader and more egalitarian sex-role orientation has been associated with greater independence in daughters (Barnett, 1981; Hoffman, 1977; Rosenkrantz, Vogel, Bee, Broverman, & Broverman, 1968).

Not surprisingly, these findings are consistent with the varying role expectations of working and non-working mothers. Whereas the growing independence of the working mother's child helps ease her dual role strain of caretaker and provider, in the case of the non-working mother, it more likely creates a void. While alternative sources of self-worth through work are available to working mothers to help decrease the psychological threat of feeling less essential to the child, these sources are not as readily nor as completely accessible to the homemaker. A study by Birnbaum (Note 3), comparing women in the professions with homemakers, clearly illustrates the contrast in the differing role expectations of working and non-working mothers. The professionally employed mothers responded positively to the prospect of the growing independence of their children, while the homemakers reacted with

ambivalence and regret and seemed concerned about their decreased importance and the loss of familiar patterns.

Research from the maternal employment studies has also suggested that the particular qualities of husbands of working women may be conducive to the lessening of dependency in girls. More specifically, studies have shown that husbands of employed women are less traditional in their sex-role attitudes than husbands of non-working women (Gold & Andres, 1980; Hoffman & Nye, 1974). Moreover, husbands of employed women have more pro-feminist attitudes than do husbands with wives who are not employed outside the home (Gold & Andres, 1978a, 1978b, 1980). As fathers' traditional attitudes vis-a-vis sex roles have been found to be positively related to daughters' degree of femininity (Mussen & Rutherford, 1963), it is expected that more liberal attitudes would be facilitative of less paternal sex differentiation, with a concomitant decrease in traditional "feminine" traits in girls and thus their greater independence (Hoffman, 1977; Mussen, Conger, & Kagan, 1974; Woolsey, 1977). Specifically, this lesser sex differentiation is expected to be reflected in greater paternal encouragement of independence and less protectiveness.

Finally, the expectation that the more egalitarian husbands of employed wives will have greater involvement in

child rearing (Gold & Andres, 1978a, 1978b, 1980; Winnett, Fuchs, Moffatt, & Nerviano, 1977), is felt to be a further factor in the lessening of their daughters' dependency.

While findings from research on maternal employment reveal greater autonomy and fostering of independence in elementary and high school aged children, studies examining the particular influence of maternal employment on dependency in preschool aged children, the focus of the present study, have not been as numerous, nor as clear-cut. Two studies which have dealt with preschool children, although not exclusively (Von Mering, 1955; Birnbaum, Note 3), had findings in the expected direction of significance. Two other studies that have exclusively dealt with the younger age groups have suggested similar findings. Specifically, a study by Gold & Andres (1978b), in which 110 nursery school age children (average age, approximately 4 years), were examined, revealed that working mothers as compared to non-working, perceived their daughters and sons as requiring equal degrees of protection. The data as presented did not however reveal whether any significant differences existed between the daughters of employed and non-employed mothers. The second study in which 5 and 6 year old children were examined (Sergel, Stolz, Hitchcock, & Adamson, 1963), revealed a trend

towards greater independence and dominance among daughters of working mothers, but this finding was non-significant.

Those studies specifically examining the influences of husbands of employed wives on dependency in preschool girls, are particularly limited, with essentially only one study suggesting a positive correlation between paternal involvement and better socio-emotional adjustment[3] (Gold & Andres, 1978b).

The bulk of studies that have examined the relationship between maternal separation and independence/dependence in preschool girls, have generally evolved from daycare research.

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[3]There have however been numerous studies on the influence of fathers in general (i.e. not specifically husbands of employed women), on dependency behaviour in girls. Findings in this area of research have nevertheless generally been equivocal, with some studies revealing a positive association between father identification (Heilbrun, 1965), and/or presence (Hetherington, 1972; Tiller, 1971), and the personality traits of autonomy and independence, and others suggesting a negative relation between father identification/presence and daughters' independence (Hoffman, 1977; Osofsky & Oldfield, 1971; Rothbart & Maccoby, 1966). Part of the reason for this lack of clarity concerning the particular role the father plays in fostering independence/dependence in girls is felt to be due to the failure of most studies to differentiate between "dependence" and "femininity" (Johnson, 1975; Johnson, Stockard, Acker, & Naffziger, 1975; Lansky & McKay, 1969), the later which Johnson (1975) defines as "qualities of sensitivity and responsiveness to the needs and reactions of others" (p. 16). Recently however, as noted earlier, research has suggested that the father's attitude towards sex roles may be the critical factor determining his childrearing practices vis-a-vis independence training.

Mother-Daughter Separation via Daycare Attendance

Due to the methodological difficulties of testing young children, what may be described in some cases as less objective measures such as observational techniques, maternal interviews and rating scales by third parties have been used by daycare researchers to study the dimension of independence/dependence, which has usually been conceptualized in terms of the the mother-child attachment relationship. More specifically, the quality of the child's attachment to the mother, whether excessive (i.e. overdependent), insufficient, or secure, is felt to reflect the state of the child's socio-emotional health (Belsky & Steinberg, 1978). If securely attached, then the child is emotionally able i.e. sufficiently independent to withstand a certain degree of mother-child separation without excessive distress.

For a number of reasons, the findings concerning the effects of daycare experience on the development of independence/dependence in girls are not as clear as in the maternal employment studies. Further, while conclusions which support the psychological benefits of maternal separation for older children with respect to greater independence and autonomy and better adjustment (Gold & Andres, 1978a), are fairly readily acceptable to the lay public and scholars

alike, such has not traditionally been the case for younger preschool children. Until very recently, separation of the preschool child from the mother through alternative forms of care such as daycare, had not been viewed in so positive a light i.e. as a constructive means of counteracting the pervasive cultural influences that condone greater dependence in girls.

Historical Antecedents of Daycare Research

Research examining the differential effects of daycare experience on dependency has generally approached it by attempting to disprove that it may adversely affect the quality and degree of the child's dependent relationship with its mother. This rather "phobic" view (Caldwell, 1973, p. 200), has its basis in the fallacious assumption of the innate primacy of the mother-child bond as the critical determinant of the child's emotional and personality development. Psychoanalytic theories of object relations have emphasized the importance of the development and quality of what Bowlby (1958) termed the "nature of the child's tie to his mother" or "attachment" and the direct relationship that that bond bears to the development of all later significant interpersonal relationships. Social learning theorists have also viewed the mother-child relationship as a significant factor in the emotional development of the child but view this relationship

in terms of "dependency" rather than attachment.[4] The infant is dependent on his (her) mother for the satisfaction of his (her) physiological needs or the reduction of his (her) primary drives. In the course of her nurturance of these primary needs other maternal stimuli (mother's voice, fear) become reinforcing for the infant and a secondary dependency drive to be close the mother and to desire her attention and care is acquired (Beller, 1955; Dollard & Miller, 1950; Sears, 1963).

Any arrangement which interferes with the child's continuous access to the mother, jeopardizes the development of a strong and healthy maternal attachment or dependent bond (Bowlby, 1969). In its extreme form, this belief in the innate monotropism of the infant (Bowlby, 1969), led to the unfounded conclusion that any form of separation from the mother was detrimental to the child's well-being (Mead, 1954; Rossi, 1965). Insufficient access to the mother could result in the child's withdrawal, while intermittent access might lead to the development of an overdependent anxious attachment.[5]

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[4]In the present context, attachment and dependency, (as conceptualized by Maccoby & Masters (1970)), will both be used to refer to behaviours that are designed to "maintain contact of varying degrees of closeness between a child and one or more other individuals that elicit reciprocal attentive and nurturant behaviours from these individuals" (p. 75).

[5]Conversely, an overly intense attachment may also lead to overdependency in the child (Levy, 1943).

This almost mystical belief in the importance of the mother as primary caretaker evolved partly from a misinterpretation of Bowlby's claim that "mother-love in infancy and childhood is as important for mental health as are vitamins and proteins for physical health" (Bowlby, 1951), quoted in Rutter, 1974, p. 123), and partly from the findings of the maternal deprivation[6] studies of institutionalized children (Bowlby, 1951, Goldfarb, 1943; Spitz & Wolf, 1946). The Spitz studies in particular suggested the severe effects that can result from maternal separation. Hospitalism and anaclitic depression were two syndromes Spitz observed in infants separated from their mothers. Although the infants received sufficient physical care, they experienced grief reactions, as well as developmental lags and intellectual retardation. In some instances, the effects were so extreme as to cause death.

However, that the deleterious effects of such severe and prolonged separation should be extrapolated to the conclusion that more normal types of separation, such as daycare or

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[6]One critic has challenged the use of this term: "The question may be asked whether it is justifiable to speak of maternal deprivation when parental deprivation would be more accurate" (Nash, 1969, p. 222).

nursery school, (in which children leave their homes for part of the day, are cared for by responsible adults, and return to their homes at the end of each day), are similarly harmful, is not only unwarranted but unscientific as well (Rossi, 1965).[7]

Apart from this unwarranted extrapolation are certain methodological flaws within the maternal deprivation studies themselves, which make untenable many of their conclusions. The majority of the studies on which the suggested deleterious effects of mother-child separation are based have dealt with children in institutionalized settings i.e. ones in which there was very little environmental or human stimulation (Casler, 1961; Wortis, 1971). Further, these studies were lacking information concerning the conditions which led to these children being institutionalized. As such, any conclusions one may wish to draw concerning the effects of separation per se are confounded by both the nature of the 'institutionalized' environment and the particular antecedent conditions which led to institutionalization. As one critic noted:

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[7]Even Bowlby has to some extent recognized the difference between maternal deprivation and less severe forms of separation, as he noted that children cared for in day nurseries had normal developmental quotients while a comparable group of institutionalized children exhibited below average D.Q.'s (Yudkin & Holme, 1963).

> One can hardly assume that the boys and girls found in a Children's Home constitute a fair sample of the child population generally; something unusual either in themselves or their environment must have happened to account for their being deprived of ordinary life.
>
> (Wooten, 1959, p. 146)

Indeed, Yarrow's review (1961) of the research on institutionalized children published over a 20 year period, confirmed that most of the subjects selected were already receiving treatment for emotional/personality disturbances and further, that very little data existed pertaining to early conditions of maternal care. Moreover, the "dramatic character of these changes (i.e. reactions of infants to separation from the mother), has overshadowed the significant fact that a substantial portion of the children in each study did not show severe reactions to separation" (Yarrow, 1961, p. 474).

Perhaps as one reviewer has noted with specific reference to the maternal deprivation studies of Spitz, it "may well be that the burden of blame for the uncritical acceptance" of these studies lies not with the authors who have published their results as they see them, "but rather with those who have acclaimed (these works), and whose research training should enable them to make a critical evaluation of such research reports" (Pinneau, 1955, p. 462).

Apart from the methodological considerations of these maternal deprivation studies, are their unfounded assumptions that biologically 1) it is the mother who is the most capable person to assume the principal responsibility for the care and socialization of the young child; 2) it is the mother or a female rather than the father, a male, that the infant naturally seeks out as the attachment figure to whom it best relates, and finally that 3) it is beneficial for both the mother and the child that they form such a strong bond of attachment to each other (Wortis, 1971). To assume the natural superiority of women as child-rearers in the absence of adequate information on the effects of male-infant or father-infant interaction on subsequent development, is as one reviewer noted, scientifically untenable (Wortis, 1971). It must, as another reviewer noted be recognized "that this belief (in the importance of mothering during infancy) has more the characteristics of a faith and less the basis of demonstrated fact" (Eriksen, quoted in Casler, 1961, p. 9).

Empirical evidence would appear to support these criticisms of the importance of the mother as primary caretaker. Margaret Mead's extensive study of a wide variety of cultures led her to the conclusion that:

> anthropological evidence gives no support at present to the value of such an accentuation of the tie between mother and child ... On the contrary, cross-cultural studies suggest that adjustment is most facilitated if the child is cared for by many warm friendly people.
>
> (Mead, 1954, p. 477)

The primacy of the mother-child bond is further challenged by the findings of Schaffer & Emerson's study (1964) of the attachment relationships of 18 month old Scottish infants. In only half of the cases was the mother the sole principal attachment figure, and for almost a third of the children, the main attachment was to the father. While there was usually one particularly strong attachment for these infants, the majority showed multiple attachments of varying intensity. Thus, as the authors noted:

> To focus one's enquiry on the child's relationship with the mother alone would therefore give a misleading impression of the attachment function....
>
> (p. 70)

They concluded that attachments needn't be limited to one figure, the mother, nor that other attachments are subsumed by it. Like Mead, they recognized the socio-cultural aspect of attachment behaviour:

> Whom an infant chooses as his attachment object and how many objects he selects depends, we believe, primarily on the nature of the social setting in which he is reared and not on some intrinsic characteristic of the attachment function itself.
>
> (p. 71)

A recent experimental-observational study of father-infant interaction lends further support to this idea of the non-exclusivity of the mother-child attachment bond. The results showed that one-to-two year old infants were equally attached to both parents. Further, the strength of attachment to the fathers correlated with the degree of paternal care (Kotelchuck, Note 5).

In his reassessment of maternal deprivation research, Rutter (1974), concluded that many aspects of the mothering role can be provided by others as long as the relationships are stable and of high quality. It is the bond formation generally and not the mother-child bond per se that is necessary for normal emotional development. Those factors that have been shown to be important for healthy infant and child development are consistent and stable care, sensitivity and responsivity of the care-giving adult(s), physical and intellectual stimulation and love/warmth (Hoffman, 1974; Wortis, 1971).

Yet the misconception about the primacy of the mother-child attachment bond continues to be reflected in the research examining less severe forms of separation such as daycare or nursery school. In spite of the growing need and acceptance of these adjunctive forms of child care, the mother

is still in many ways perceived as being the most qualified caregiver. Rarely is this assumption that it is the mother who must do the 'mothering' questioned sufficiently. As Yudkin and Holme (1963), point out:

> Most of the literature, ... tends to stress the value of the exclusive mother-child relationship and to ignore the possibility or even the need, for its dilution. This is to attempt to justify a particular, local and almost certainly, temporary, economic and cultural pattern as an eternal biological law. This can only do a disservice to both the mother and the children.
>
> (p. 138)

Any deviation from this pattern is considered justifiable only if it does not adversely affect the primary bond between mother and child that is felt to be of such importance. Mothers can seek employment or return to school - as long as the strength of their child's attachment and his emotional health do not differ significantly from that of children whose mothers remain at home. In a sense, children who are the product of a 'normal' or 'natural' i.e. home-reared environment are viewed as the psychological yardstick by which children of all other forms of childrearing are measured.

Recent research has suggested however that the home-reared environment may not be the ideal form of care that a number of individuals have assumed it to be. Studies have illuminated some of the negative effects that can result from

it an exclusive mother-child relationship centered in the home. Feelings of isolation and powerlessness, boredom, role conflict, and lack of adequate stimulation are cited as common complaints by mothers not working outside the home (Williams, 1972; Wortis, 1971). Many mothers who would prefer to work, do not because of the feeling that this may jeopardize their child's well-being. Unfortunately, it is these women who are frustrated in their roles, and whose misguided sense of duty prevents their seeking employment, who "report the most problems in child rearing" (Yarrow, Scott, De Leeuw, & Heinig, 1962, p. 122).

The negative effects of an exclusive mother-child relationship are not limited to the mother alone. The syndrome of 'maternal overprotection' and resulting excessive dependency, that evolves from an overly symbiotic mother-child relationship, has been extensively chronicled (Levy, 1943; Mrydal & Klein, 1968). More recently, the home environment itself, contrary to popular belief, has in fact been shown to be deficient in providing the optimal stimulation and satisfaction necessary for healthy child development. Rubenstein and Howes (1976, 1979), in their observational studies of caregiver-child interaction in home and daycare settings, concluded that the particular characteristics of the home setting - its physical and social isolation; general

absence of other children and adults with whom children and their mothers could interact; and longer hours of exclusive responsibility by the mothers for infant care, were seen as major contributing factors to the greater maternal irritation and restrictiveness and their children's resultant greater negative affect and lower developmental level of play.

Clearly, a reorientation in thinking towards the relative merits of exclusive mothering in the home versus that of multiple caregivers in alternative forms of care, such as daycare, is indicated. A brief overview has illuminated some of the reasons for that needed reorientation. A more thorough review of the literature specifically pertaining to dependency behaviour in girls as a function of daycare experience, will help clarify the direction of that reorientation.

Daycare Research

As noted above, the concern has been expressed that the daily separation the daycare child experiences from the mother may adversely affect the child's degree of dependent attachment. While the difference between daycare and more extreme forms of separation has been recognized (Swift, 1964), the controversy concerning this and other forms of substitute (i.e. nonmaternal) care still rages. Recently however, some scholars, most notably Bettleheim (1969), Caldwell (1973),

Fowler (1972), and Kagan (1976a), have argued that substitute care can be equal or even superior to home-care, particularly with reference to its facilitating independence and autonomy in girls (Cornelius & Denney, 1975; Fowler, 1972). However, research examining these forms of substitute care is a particularly recent phenomenon, especially so in the case of daycare research, which is approximately only a decade old. Thus its accumulated body of research is somewhat limited, and the findings pertaining specifically to dependency in home-reared as compared to daycare girls are even more circumscribed. For instance, while a fair number of studies have examined the socio-emotional impact of daycare experience, most have limited their examination to overall group effects rather than to sex differences and/or indeed intergroup differences (i.e. home-reared versus daycare girls). A number of those researchers who haven't limited their studies in this way, have either not reported any differences or having found differences, have dismissed them as being inconsistent with previous research. However, within this limited context, those studies that have examined the specific effects of daycare experience on dependency as it applies to girls will now be outlined.

In examining the issue of daycare and dependency, researchers have generally used some form of the

Ainsworth-Wittig (1969) 'strange-situation' paradigm. This procedure involves a structured series of situations designed to magnify attachment behaviours in which the child is repeatedly separated from his/her mother and/or introduced to a stranger. The child's reactions to the mother and stranger under separation and reunion conditions, as well as his degree of exploratory behaviour are felt to determine the quality of his/her attachment or dependent bond.

Approximately half of the studies employing the strange-situation procedure or a variation thereof, have failed to examine differences in dependency behaviour as a function of sex (Cochran, 1977; Doyle, 1975; Doyle & Somers, 1978; Ragozin, 1980; Riccuiti, 1974; Roopnarine & Lamb, 1978). The findings from some of these studies, most notably Doyle & Somers (1978) and Roopnarine & Lamb (1978), have shown greater independence of daycare children in terms of their ability to cope more adequately with brief maternal separation, (all other indices of attachment behaviour being equal). However, similar conclusions, while suggestible, cannot be drawn with any certainty for specific groups of daycare and home-reared girls, as sex was not examined in these studies. Where sex differences have been examined and make possible conclusions vis-a-vis female intergroup differences, some authors have either neglected to specify whether or not these differences

are significant (Brookhart & Hock, 1976),[8] and/or having stated the existence of significant differences, dismissed them as unimportant without describing the direction of significance (Blehar, 1974).

Findings from the 'strange-situation' studies that have compared daycare to home-reared girls have generally found few differences between these groups. For instance, Kearsley, Zelazo, Kagan, & Hartmann (1975); Portnoy & Simmons (1978); and Saunders (Note 6), did not find any differences for indices of distress nor did Moskowitz, Schwarz, & Corsini (1977), when comparing overall mean attachment composite scores of the daycare and home-reared girls. However, in that same study by Moskowitz et al. (1977), it was found that daycare girls were less distressed by maternal separation than were their home-reared counterparts. The one study (Blehar, 1974) that did reveal greater disturbance as a consequence of daycare attendance (specifically "anxious-ambivalent" attachments in the 40 month-old daycare children - less exploratory behaviour prior to and during separation, more crying, oral behaviour and active searching during separation, and more

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[8]While greater emotional dependency in daycare girls was suggested by the higher mean scores of contact-maintaining behaviour, this specific intergroup comparison is not reported by the authors.

proximity-seeking and resistant and avoidant behaviour upon reunion; and "anxious-avoidant" attachments in the 30-month old daycare children - more resistant and avoidant behaviours and less proximity-seeking during final reunion), has been singularly cited for its lack of methodological robustness (Belsky & Steinberg, 1978). More particularly, the majority of individuals involved in the observation and recording of behaviours were aware of the children's group status and hypotheses of the study. Moreover, one of the two coders knew the child's rearing group classification. As Belsky and Steinberg (1978) note, that such design weaknesses resulted in the confirmation of Blehar's (1974) predictions, is not surprising (Rosenthal, 1969). Finally, given Moskowitz et al.'s (1977) and Portnoy & Simmons's (1978) failure to replicate Blehar's findings, after having controlled for the above-noted weaknesses, it further reinforces the questionable nature of Blehar's study, whose results appear to be the "single exception to the general trend" (Belsky & Steinberg, 1978).[9]

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[9]A further criticism of Blehar's study concerns the low adult-child ratios (ranged from one to six to one to eight for the two- to three-year old groups) and the high personnel turnover rate (indicative of low morale) which suggests an unpleasant, anxiety-provoking environment (Falender & Mehrabian, 1979). That children attending such a centre might experience negative emotional reactions and generalize them to other unpleasant situations such as the laboratory settings used to study separation, is not unreasonable note the authors. A final criticism concerns the fact that the daycare group had more first-born children who are generally more distressed by separation (Fox, 1977).

A study published since Belsky and Steinberg's review has suggested possible negative effects of daycare attendance (Hock & Clinger, 1980). Twelve month old groups of daycare female infants cried more and exhibited more intense search behaviour, contact-maintaining and proximity-seeking behaviour to their mothers than did their home-reared counterparts. Some methodological omissions may preclude the unquestioned acceptance of these findings however. No information regarding possible confounding factors such as intactness of family, birth order position, number of siblings, intellectual functioning of the child, culture, quality of parent/child relations and degree of stability of care prior to daycare attendance was given. Moreover an insufficient amount of time to allow for the acclimitizing effects of daycare was suggested by the fact that a minimum of only two consecutive months in care prior to participation in the study was used as the selection criterion.

In summary, the data from these studies have generally revealed very few differences between daycare and home-reared girls; and/or differences favourable to daycare subjects. However, a number of researchers have questioned whether the strange situation paradigm does in fact provide a valid and reliable means of assessing the quality of a child's attachment or dependent relationship and his/her degree of independent/dependent functioning. In their review of daycare

research, Belsky and Steinberg (1978), expressed doubt as to whether such an artificial and unmaternal procedure as the strange situation that requires the mother to bring "her youngster into an unfamiliar room in an equally unfamiliar building", to refrain from initiating any interaction with the child, and then, without warning, to leave him/her "alone a few moments later with a complete stranger who remains passive, responding only to the child's initiative" (pp. 935-936), can actually serve as a proper index of the quality of the child's enduring relationship with its mother.

On a more fundamental level, the particular indices used to operationally define or measure the construct of attachment, have been seriously questioned. Distress after brief maternal separation has typically been used to indicate attachment, but it is one measure which is particularly difficult to interpret (Weinraub, Brooks & Lewis, 1977). As the authors note, is the child who cries in his mother's absence attached while the child who waits patiently playing until she returns not attached? This lack of interpretive clarity is evident in the conflicting interpretations attributed to the same behaviour. Both Blehar (1974), and Ragozin (1980), found that daycare children sought less proximity to the stranger than did home-reared children. However, while Blehar felt this 'avoidant' reaction to be suggestive of fear and an insecure attachment, Ragozin

interpreted the daycare children's decreased interaction as indicative of the more limited child-adult relationship that may exist in group daycare settings. Similarly, greater proximity-avoidance of the mother following brief separations has been interpreted both as a defensive gesture attributable to the child's increased concern over the mother's absence (Blehar, 1974), and as an independent gesture indicating the child's lesser anxiety and concern over the mother's departure (Brookhart & Hock, 1976).

Apart from the theoretical limitations of the construct attachment as defined by the particular indices of the Ainsworth-Wittig strange situation paradigm, are certain methodological limitations characteristic of the strange situation studies as a whole. More specifically, although the strange situation procedure was originally designed to assess the quality of mother-infant attachment, it is now being used to assess the quality of relationships between mothers and 3, 4 and 5 year olds, without any evidence that it provides a reliable and valid measure for the attachment relationships of older children (Roopnarine & Lamb, 1978).

Another methodological limitation concerns the fact that researchers do not always follow the same procedure as outlined by the Ainsworth-Wittig paradigm. For instance, contrary to the usual procedure that requires mothers not to acknowledge their child as they leave the experimental room,

the mothers in the Riccuiti (1974) and Roopnarine & Lamb (1978) studies were instructed to say "bye-bye" as they departed. Similarly, in the Cochran (1977) study the separation exercise was conducted in the home instead of the laboratory and in the Kearsley et al. (1975) study, no stranger was used. All of these procedural changes lessen the distress experienced by the child. As such, they effectively preclude any comparative analyses one might wish to draw regarding findings from other investigations that have followed the Ainsworth-Wittig procedure.

Another perhaps more inherent limitation concerns the actual procedure itself. More specifically, the varying of the mother's departures with the stranger's arrivals confounds any conclusions one may wish to make concerning the effects of maternal separation per se, since it is difficult to establish how much of the child's crying is due to distress over loss of the attachment figure and how much is the result of stranger anxiety (Cohen, 1974; Kagan, Kearsley, & Zelazo, 1975). Further, when the child is left alone towards the end of the strange situation procedure, it is unclear whether his subsequent distress is due to separation anxiety or the result of his having been placed and left alone in the experimental room. A child who is involuntarily separated from its mother experiences far more distress than does the child who separates on its own (Rheingold & Eckerman, 1969).

Another limitation of the strange situation paradigm concerns the difficulty of studying attachment experimentally, which thereby limits the number of subjects per study. Quite a few daycare studies have limited their subjects to less than 30 (Masters & Wellman, 1974), and in some cases have drawn comparisons from groups numbering less than 10. For example, in the Moskowitz et al. (1977), study, investigators found the greatest variation in scores among the daycare and home-reared males. However, there were only 4 subjects in each of these 2 groups in comparison to the 8 subjects for the female groups, who did not differ significantly on most indices of attachment. As no mention was made of the statistical analyses to offset the size effect, it is unclear whether these extreme scores were an artifact of the limited number of subjects, or the result of an actual sex/rearing experience interaction.

However, in one of the most comprehensive and controlled studies to date (Belsky & Steinberg, 1978 in reference to the Kearsley et al. (1975) study), the remarkable similarity in crying behaviour of daycare and non-daycare children (ages 3 1/2 to 29 months) to children of other cultures (Kagan, 1976b), led Kagan, Kearsley, and Zelazo, (Note 7), to speculate that such consistency across rearing and cultural conditions suggests the possibility that separation anxiety is more a function of maturational than experiential factors. It is therefore "inappropriate for studying the effects of

daycare on the child's attachment relationship" (Belsky & Steinberg, 1978, p. 938).

A final criticism of the 'strange situation' studies concerns the ethical impropriety of using a procedure that deliberately involves the separation of individuals for the purposes of studying their attachment relationships.

Other studies have used somewhat less artificial procedures though at times equally limited methodologies (Belsky & Steinberg, 1978), to assess the effects of rearing experience on dependency. Of these studies, almost half have not examined differential effects of rearing experience as a function of sex (Harper, 1978; Kagan, Kearsley, & Zelazo, 1975; Ramey & Mills, 1977; Rubenstein & Howes, 1979; Rubenstein, Yarrow, & Pederson, 1977; Young & Smith, 1977). Although the greatest majority of findings (among those studies that did examine sex differences), reveal a pattern of essentially few differences between daycare and home-reared girls, there is a respectable body of research indicating differences favourable to the daycare subjects in terms of independence strivings. More specifically, Schwarz, Strickland, & Krolick (1974), compared two groups of 3 and 4 year olds, one of which had been in a group daycare center for approximately 3 years, the other recent entrants into the daycare program. Teacher ratings 4 and 8 months after entry into a new centre revealed greater social assertiveness among

daycare girls as compared to their home-reared counterparts. A greater inclination to ignore adult directives was also evident in the daycare group.

In another study (Schwarz, Krolick, & Strickland, 1973), which used graduate student ratings of children's affect, tension, and social interaction upon their entry into a new daycare centre and 5 weeks later, the results indicated that those girls who had had earlier daycare experience adapted better to the novel setting than did those without prior daycare experience. Further, the Early group exhibited more positive affect upon arrival in the new daycare centre than did the Late group. A trend towards the Early group showing less tension was also evident.

Kagan et al. (1975), examined the play behaviour of daycare and home-reared children at three different ages - 13 1/2, 20 and 29 months, in the presence of a peer and her mother. Overall results showed daycare girls were less apprehensive of the unfamiliar peer than were their home-reared counterparts. Further, detailed analysis of proximity and play patterns at 20 months of age (the age at which uncertainty and inhibition of play peaked) revealed more proximal behaviour directed toward the mother as well as greater inhibition of play among the home-reared toddlers.

Fowler (1972), in a longitudinal study of daycare effects, found that for girls, rating values on autonomy, exploratory behaviour, goal directedness and belligerence (among others - emotional tone, gregariousness, and enthusiasm), increased significantly with longer daycare participation. A significant decline in passivity was also evident. Fowler interpreted the larger changes in girls as compensation for their initially stereotyped behaviours of greater dependence and passivity; and as the result of their exposure to a value system (partly mediated through the home) that emphasized the equal importance of autonomy, intellectual curiosity and achievement for girls as much as boys.

Another possible intergroup difference reflective of the facilitative nature of daycare attendance vis-a-vis independence development is suggested by the findings from a study by Cornelius and Denney (1975), in which proximity and attention-seeking modes of interaction of 4 and 5 year olds were used as indices of dependent behaviour. One of the findings revealed that the 5 year old daycare girls were less proximal to their mothers while in the presence of the stranger (mean location scores daycare - 21.00, home-reared - 6.50). However, the authors do not note whether this difference is significant. Perhaps more pertinent to the discussion of rearing group effects as they affect the development of independence, concerns the overall findings on the proximity-seeking

dimension of dependency for both sexes. Whereas home-reared girls sought proximity toward their mother significantly more often than home-reared boys, daycare boys and girls did not differ in this respect. As dependency is a measure which frequently differentiates boys and girls, the authors suggest that their results indicate that daycare children may be less sex-typed than those raised exclusively within the home setting. While this does not directly support the theory of significantly greater independence for girls who attend day-care, it does suggest that there is perhaps a moving towards greater independence for girls with a concomitant lessening of that trait in boys - such that an optimal midpoint of independence/dependence or more correctly interdependence is achieved for daycare enrollees which contrasts with the more stereotyped extremes exhibited by the home-reared children.[10]

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[10]A study by Wynn (Note 8) drew similar conclusions. A significant rearing by sex of child interaction suggested that daycare experience tended to lessen the differences in girls and boys, while the home-reared environment perpetuated the stereotyped behaviour pattern of greater dependency in girls.

Some studies using methodologies other than the strange situation paradigm have failed to find significant differences between home-reared and daycare girls. Using proximity-seeking and attention-seeking measures of dependency directed toward 4 and 5 year old children's mothers, a strange adult and a strange child, Cornelius and Denney (1975), found no significant differences between home-reared and daycare girls, although as noted above, the interaction between sex and rearing experience did suggest that the daycare girls were less sex-typed with respect to dependency.

In a study by Braun and Caldwell (1973), psychiatric ratings of social-emotional adjustment that included estimates of a child's ability to cope with dependency needs, were used to compare early (prior to age 3) and late enrollees in daycare. No significant differences were found between the two groups on overall adjustment. However, comparisons of the early and late enrollees on specific indices of adjustment were not reported.

Rubenstein, Howes and Boyle (1981) assessed matched groups of daycare and home-reared 3 1/2 year-olds on indices of emotional development obtained via structured situations (including separation, greeting behaviour and maternal interviews). No significant sex by setting interactions emerged.

Finally, a longitudinal study by Fowler (1972), failed to find any discernible differences between home-reared and day-care girls on a number of measures related to dependency, although trends favourable to the daycare subjects, particularly the girls, were evident on such measures as the Autonomy and Adaptation Scales. (The Autonomy Scale measured infant development on a 7 point scale, ranging from extreme independence through to an optimal midpoint of interdependence, to extreme dependency; the Adaptation Scale assessed the child's willingness to leave a familiar caretaker to explore toys in a novel setting, the child's responses to a stranger's overtures, and the quality of the child's interaction with a familiar caretaker in terms of degree of independence). However, the author notes that the omission of I.Q. norms from the research edition of the Bayley Scales used in the first year and subsequent changes in the test for the second and third program years weakened the original matchings.

The only study to reveal a finding of greater dependency among daycare as compared to home-reared children (Caldwell, Wright, Honig, & Tannenbaum, 1970), was at the marginally statistical level of significance (i.e. .10). As the particular Dependency Scale used in this study connoted proximity-seeking more than help-seeking behaviours, the

daycare girls' higher scores were felt to indicate a greater enjoyment of interaction with others.

In summary, the findings from studies using various other methodologies distinct from the strange situation paradigm to examine the effects of rearing experience on dependency in preschool girls, have suggested that daycare attendance may be facilitative of greater independence strivings in females, although this is not a consistent finding across all studies.

As with the strange-situation studies described earlier, part of the reason for this inconsistency is due to specific methodological flaws and the varying and often conflicting interpretations of dependent behaviour. The studies using methodologies other than the strange situation have generally relied upon observational procedures and/or rating scales to assess the degree of dependent behaviour. Observational techniques, although characteristically scientifically sound in their theoretical assumptions and procedural controls (stringent adherence to coding methods), can be limited by the confounding effects of observer bias (Condry & Condry, 1976). Keeping observers blind as to the child's sex and/or rearing experience will not necessarily eliminate this confounding effect. A study by Hildebrandt and Fitzgerald (1977) has suggested that this may in fact cause observers to impose stereotypical interpretations of behaviour due to an observer bias to assume male gender; or attribute female gender,

because of particular physiognomic characteristics of the child. The efficacy of rating scales can be limited in the same way by rater bias, particularly when the rater is also the researcher. Moreover, the failure of a number of studies to sufficiently describe their rating scales precludes the unquestioned acceptance of their findings (Belsky & Steinberg, 1978).

Other weaknesses characteristic of the daycare research as a whole that somewhat limit the acceptance and generalizability of the daycare findings and point to the need for further investigation, are summarized below.

Much of the daycare research has been conducted in university-based centres that have high staff-child ratios and programs specifically designed to encourage healthy emotional development (Belsky & Steinberg, 1978). The daycare available to parents however, is generally not of this kind and perhaps not of the same quality. Thus many of the findings from present daycare research may not be generalizable to the type and quality of substitute care available to most North Americans.

Another limitation concerns the comparability of family backgrounds among daycare users and non-users. Research (Hock, 1976; Sibbison, 1973, from Belsky & Steinberg, 1978), shows that families using daycare differ in a number of ways

(e.g. attitudes toward maternal role, daycare, etc.), from families rearing their children at home. As family attitudes and values influence child-rearing practices (Kohn, 1963), which in turn affect the pattern of child development, subjects should be comparable on these variables. One method of ensuring comparability involves the random assignment of subjects to various rearing groups. However, this is highly impractical and has in fact been possible in only one instance (Ramey & Mills, 1977). Another more feasible method to ensure cmparability of samples involves the selection of non-users of daycare from daycare waiting lists. To date however, only two studies have used this type of design (Cochran, 1977; Peters, 1973 from Belsky & Steinberg, 1978). A perhaps partially acceptable method that has been used somewhat more frequently involves the measurement of various parental/family indices to ensure against any initial group differences. Again however, this particular design has not been used extensively and/or sufficiently thoroughly to ensure comparability.

The generalizability of findings from the artificial laboratory settings most often used to assess dependency, to actual behaviour in real-life settings of the home, neighbourhood, and preschool etc., has also been questioned. Bronfenbrenner's (1977), criticism of contemporary developmental psychology as "the science of the strange behaviour of children in strange situations with strange adults for the

briefest possible period of time" (p. 513), is a particularly apt description of this limiting aspect of contemporary daycare research.

Another limiting factor of existing daycare research concerns the almost exclusive concentration on daycare as it affects the individual child. Rarely are such wider issues as parental lifestyles and attitudes as affected by daycare, taken into account or examined; nor are the singular effects of the father's influence on the child's development often considered in daycare research.

Finally, although most studies reviewed here achieved a certain degree of control over possible confounding factors, (such as demographic, parent, child and daycare variables), few, if any studies have controlled for all of these variables simultaneously. Variables such as birth order, number of siblings, and intactness of family (i.e. 2 parent) have been frequently ignored. Thus the findings drawn from daycare studies not only become somewhat questionable, but comparisons of conflicting findings are confounded by the lack of consistent matching across studies.

The Problem

The present study was designed to investigate the effects of rearing experience on the development of dependency in

girls, having controlled for the above-mentioned confounding variables and questionable measures of dependency. To overcome the theoretical and methodological shortcomings of the strange situation paradigm and observer/rater studies, more objective measures of dependency specifically the Primary Academic Sentiment Scale (Thompson, 1968), the Preschool Embedded Figures Test (Coates, 1972), and the Pre-school and Primary Internal-External Scale (Nowicki & Duke, 1974), were chosen to examine the effects of type of rearing experience whether day- or home-care, on the degree of dependent behaviour in preschool girls. A description of the measures and the theoretical rationale for their use are outlined below.

Primary Academic Sentiment Scale (PASS)

The first measure of dependency was derived from the Primary Academic Sentiment Scale, a self-report inventory which assesses a child's degree of independence from her parents (Thompson, 1969). The child chooses from among a series of pictures depicting either an academic, non-academic or dependent orientation (such as a child being tucked into bed by her mother). The number of dependent pictures chosen make up the Dependency Score. Stanine scores of 4, 5, and 6 are considered to be within the average range of dependence, while a score of nine would represent "high" dependency and a score of one would reflect "low" dependency.

Although not a direct measure of dependency, PASS was felt to have a certain degree of face validity since most of the choices conveying a dependent orientation deal with the child's seeking to maintain contact with the mother (particularly physical contact, that elicits nurturant behaviour). Furthermore, construct validity has been suggested from studies carried out by the scale's author.

Preschool Embedded Figures Test (PEFT)

A second measure of dependency was the Preschool Embedded Figures Test, which measures the subject's degree of field independence/dependence (Coates, 1972). This construct, as defined by Witkin, Dyk, Faterson, Goodenough, and Karp (1962), refers to the degree of one's tendency to be influenced by external cues in one's perception. Field dependent individuals are more greatly influenced by the contextual cues in their environment and thus have more difficulty disembedding items from organized perceptual contexts as in the case of embedded figure tests. Field independent individuals on the other hand are not dominated by the organization of the field, and can therefore more easily disembed items from perceptual contexts.

One's performance on this dimension of field differentiation has been shown to be highly correlated with certain aspects of personality functioning. Specifically,

studies have demonstrated that field independent individuals tend to interact with others in an independent fashion (Witkin et al., 1962), while field dependent individuals are "dependent in their interpersonal relations, suggestible, conforming, and likely to rely on others for guidance and support" (Maccoby, 1966, p. 38). Moreover, the self-perceptions of field independent and dependent individuals have been shown to parallel that of their mode of social interaction.

As to the origin of field independence/dependence, research has suggested the antecedent condition of independence training/encouragement in childhood as being a particularly salient factor in the determination of one's degree of field independence (Coates, 1972; Domash & Balter, 1976; Lynn, 1974; Witkin et al., 1962). The more the child's experiences allow for separation from the mothering figure (in particular), and the development of autonomy, the greater is the likelihood of the child's developing field independence.

Females' greater field dependence has been seen as a consequence of the cultural forces that encourage greater dependence and passivity in girls during childhood. Empirical support for this supposition derives from studies of societies in which distinctions on the basis of sex vis-a-vis independence training (e.g. Inuit of Canada - Berry, 1966),

are not made. In this case differences favouring males in field independence are not found.

The actual process by which personality characteristics of independence/dependence are mediated in the development of field independence/dependence can be conceptualized in the following way. Dependent individuals generally rely on others for help, approval and attention. As such, they are particularly sensitive to social cues in their environment. They are likely therefore to have difficulty in relinquishing their social orientation in order to make use of internal cues that are a prerequisite of field independent functioning. Further, passive-dependent persons lack sufficient initiative and assertiveness necessary for analytic tasks such as the embedded figures test. They are "oriented toward having the environment act on them" (Coates, 1974, p. 262), and cannot overcome the influence of the prevailing field or context, by actively exploring beyond the obvious contextual cues. Their more 'global' approach precludes their actively "breaking up" the field or configuration.

In contrast, independent individuals who have a more separate or autonomous sense of self are not as dependent on others for their psychological well-being. They are therefore less sensitive to social stimulation and more attuned to their own internal cues. In addition, their more assertive approach facilitates their performance on field differentiation tasks.

Specifically, it enables them to separate items from the "pull" of its prevailing field or context, an ability essential to analytical functioning.

Thus, as described above, one's degree of field independence/dependence is also not considered to be a direct measure of dependency. However, in light of the number of studies correlating that construct with the personality dimension of dependency noted above, and more recently those studies specifically assessing the construct validity of the PEFT, it is felt that degree of field differentiation is a valid measure of dependency in preschool girls.

Pre-School and Primary Internal-External Scale (PPNS-IE)

A final measure used to assess the subject's level of dependency was the Pre-School and Primary Internal-External Scale (Nowicki & Duke, 1974). This test measures an aspect of personality referred to as internal-external locus of control which derives from Rotter's (1954, 1966) Social Learning Theory. This concept refers to differences in individuals' tendencies to attribute the control for events that happen to them. On one end of the continuum are "internals" who perceive the events or reinforcements they receive as a result of their own actions or characteristics. "Externals" on the other hand, view the reinforcements they receive as the result

of external agents (e.g. fate, luck, powerful others - Gilmor, 1976).

Although this scale does not directly measure dependent behaviours per se, one's locus of control orientation is considered to be reflective of the degree of one's independence from parental dominance (Gilmor, 1976). More specifically, an internal locus of control has been shown to be positively associated with self-perceptions of independence and autonomy (Gochman, 1971); early maternal independence expectations (Chance, 1972); early independence training and independence allowing (Wichern & Nowicki, 1976); fewer parental directives (Loeb, 1975); less maternal fostering of dependence (Allen, Note 9); independence oriented behaviour on the part of the mother (Levenson, 1973); and low maternal protectiveness (MacDonald, 1971). It is thus considered to be a valid although indirect measure of dependency.

Crandall (Note 10), who found that adults with an internal control orientation had mothers who "pushed (them) toward greater independence, less often rewarded dependency, and displayed less intensive involvement and contact with them" (Crandall, Note 9, quoted in Hamilton, 1977, p. 115), offered the following explanation as to why such independence training facilitates internal perceptions. She suggested that the push and encouragement to 'leave the nest' puts "the child into more active intercourse with his (or her) physical and

social environment so that there is more opportunity for him (her) to observe the effect of his (her) own behaviour, the contingency between his (her) own action and ensuing events, unmediated by maternal intervention" (Crandall, Note 10, quoted in Hamilton, 1977, p. 115). The importance of early independence training and experience away from the parents as contributing factors to an internal locus of control is clearly illustrated.

As noted above, research on daycare and dependency has suggested two major factors to be conductive to a lessening of dependency in preschool girls: (a) a certain degree of mother-child distance or separation, and (b) maternal employment. Since preschool girls attending daycare necessarily have more mother-child distance due to daily separation; and a greater likelihood of maternal employment, it was expected that their particular rearing experience and the parental influences that are concomitants of that experience, would be more conducive to a lessening of dependency than would that experienced by their home-reared counterparts. With specific reference to the particular measures of dependency used in the present study, the following hypotheses were suggested:

Daycare girls will have lower dependency scores than home-reared girls as assessed by the Primary Academic Sentiment Scale.

Daycare girls will be less field dependent than their home-reared counterparts, as assessed by the Pre-School Embedded Figures Test.

Daycare girls will have higher internal scores than the home-reared girls on the Preschool and Primary Internal-External Scale.

Previous research as described above, has suggested that associated factors of maternal employment have been shown to be conducive to a lessening of dependency in daughters of employed mothers. Specifically, the following factors have been noted: (i) greater maternal encouragement of independence and social maturity in daughters, (ii) less maternal protectiveness, (iii) a more independent maternal role model, (iv) mother's less traditional sex-role attitudes, (v) husband's less traditional sex-role attitudes which are expected to be reflected in greater encouragement of independence in daughers and less protectiveness, and (vi) greater paternal involvement contingent upon sex-role attitudes, such that the more liberal the father's attitudes, the more conducive his greater involvement is to the development of his daughter's independence. In light of these findings the following hypotheses were suggested:

Daycare mothers will have higher expectations for independence in their daughters than will non-daycare mothers,

as determined by the Parent's Expectation Inventory (Nakamura & Rogers, 1969).

Daycare mothers will have lower protectiveness scores on the Maryland Parent Attitude Survey (Pumroy, 1966), than will non-daycare mothers.

Daycare mothers will have a more assertive independent mode of personal interaction (more independent role model) than will non-daycare mothers, as assessed by the Dominance Deference, Succorance and Abasement Scales of the Adjective Check List (Gough & Heilbrun, 1980).

Daycare mothers will have less traditional sex-role attitudes than will the non-daycare mothers, as assessed by The Attitudes Toward Women Scale (Spence & Helmreich, 1972).

Husbands of daycare wives are expected to have less traditional sex-role attitudes than the husbands of non-daycare wives (The Attitudes Toward Women Scale).

Daycare fathers will have higher expectations for independence in their daughters than will non-daycare fathers. (Parent's Expectation Inventory). This is hypothesized because daycare fathers are expected to have a more liberal outlook vis-a-vis sex roles.

Daycare fathers will have lower protectiveness scores on the Maryland Parent Attitude Survey as compared to non-daycare

fathers (again due to their expected greater liberal attitude).

Daycare fathers will have greater involvement than non-daycare fathers in childrearing and household tasks. (Parent Interview Schedule - Winnett, Fuchs, Moffatt, & Nerviano, 1977).

The following positive correlations were expected between daycare children's measures of dependency and the parental measures. Specifically, low dependency, field independence, and an internal locus of control will be positively associated with the following parental variables:

Maternal Variables

Daycare mothers' high expectations for independence.

Daycare mothers' low protectiveness.

Daycare mothers' less traditional sex-role attitudes.

Daycare maternal independent role model.

Paternal Variables

Daycare fathers' high expectations for independence.

Daycare fathers' low protectiveness.

Daycare fathers' less traditional sex-role attitudes.

Daycare fathers' greater involvement in child rearing and household tasks. (This is hypothesized because it was expected that fathers who are more involved in these activities will have more egalitarian attitudes towards sex-roles which is expected to be reflected in their higher expectations for independence and lower protectiveness and thus their daughters' lower dependency scores).

All of the daycare maternal variables noted above were expected to be positively correlated, with particularly strong correlations between (a) maternal independent role model and egalitarian sex-role attitudes and (b) high expectations for independence and low protectiveness.

For the daycare fathers, the following positive correlations were expected between (1) egalitarian sex-role attitudes and greater involvement in childrearing and household tasks and (2) egalitarian sex-role attitudes and (a) high expectations for independence and (b) low protectiveness.

Confounding Variables of Dependency Measures

The following variables were expected to have a confounding effect on the dependent variable, dependency in preschool girls, and were therefore considered in the selection and matching of subjects for this study. The

particular confounding characteristics of these variables are outlined below:

Child or Subject Variables

Age: As the child develops, there is generally (a) a decrease in the amount of dependent behaviour, (2) qualitative changes in that behaviour e.g. greater attention-seeking vs. proximal modes of dependency, and (3) a shift in the object of dependency from adults to peers (Heathers, 1955; Maccoby & Feldman, 1972; Maccoby & Masters, 1970; Murphy, 1962; Stith & Connor, 1962).

Sex: While some researchers, most notably Maccoby and Jacklin (1974), have dismissed sex differences in dependency behaviour, others (Kagan & Moss, 1962; McCandless et al., 1961; Mischel, 1970; Sears, Whiting, Nowlis, & Sears, 1958), have found greater emotional dependency in girls.

Intelligence: Generally, brighter children display less dependent behaviour (Emmerich, 1966; Kohlberg, 1966; Murphy, 1962). Further, their choice of dependency object varies as a function of cognitive development (Kohlberg, 1966; Kohlberg & Zigler, 1967). Baumrind (1972), however, in discussing the fact that brighter girls tend to learn sex-role attitudes earlier, suggests that they may also learn self-defeating attitudes such as the stereotyped female dependent orientation earlier and better.

Birth Order: There is general agreement that first born children are differentially treated by their parents (Havassy-de Avila, 1971; Lewis & Kreitzberg, 1979). Characteristically, this has taken the form of overprotection (Kinsolving & Bone, 1971; Hilton, 1967; Lasko, 1954; Schachter, 1959). However, Rosen (1964) found first borns are trained to be independent at an earlier age while Haeberle (Note 11), found no differences in degree of dependency in first born females.

Duration of Enrollment in Daycare: A child's degree of dependency behaviour has not been found to be differentially affected by length of enrollment in daycare (Belsky & Steinberg, 1978). However, some concern has been expressed that daycare subjects used in studies examining dependent behaviour, have spent a minimum amount of time in daycare to allow for acclimatizing effects. The suggested minimum period has varied from 1 to 6 months. A minimum period of 6 months enrollment was be used for this study. More precisely, the range of daycare duration varied at the minimum from 7 months (2 subjects) to a maximum of 63 months.

Demographic Variables

Socio-economic Status: Socio-economic status has been shown to be related to child rearing attitudes such that parents of lower SES tend to use more coercive forms of

discipline and demand greater obedience from their children, than do middle class parents who use more reason-oriented disciplinary techniques (Kohn, 1963). As restrictive or more punitive childrearing practices have been associated with increased dependency in children (Baumrind 1970, 1971), it was important that SES be considered in the present study. The SES scales devised by Blishen & Carroll (1978) and Blishen & McRoberts (1976), were used to determine the SES levels of the mothers and fathers respectively.

Number of Siblings: Only children have been shown to be differentially treated by their parents (Havassy-de Avila, 1971; Lewis & Kreitzberg, 1979). Compared to other birth order groups, this has typically resulted in their decreased independence (Havassy-de Avila, 1971) and autonomy (Sampson & Hancock, 1967).

Race/Culture: Different races/cultures reflect and/or encourage varying degrees of dependency/independency in their female populace (Barry, Bacon, & Child, 1957; Berry, 1966; Mead, 1949; Whiting, & Whiting, 1975).

Quality of Parent-Child Relations: The quality of the parent-child relationship, specifically its degree of warmth/acceptance is felt to be critical to a child's independence and socio-emotional adjustment (Anderson, 1980). To ensure that the daycare and home-reared groups did not

differ on this dimension, both were assessed by the Home Observation for Measurement of the Environment (Caldwell & Bradley, 1979).

Confounding Variables of Parental Measures

To control for the possibly confounding effects of certain variables on the parental measures, analysis of variance will be conducted on the following variables to ascertain whether significant differences exist between the daycare and home-reared groups. Should these differences emerge, multivariate analysis of covariance will be used to offset them.

While no specific confounding variables are expected for the measure of parental expectations for independence (Barnett, 1981), the particular nature of the test used to measure this variable, requires that birth order position be considered as a possible confounding influence. More specifically, knowledge of typical ages at which children are expected to exhibit independent behaviour is assumed to be helpful in answering the test questions properly, particularly for those questions that deal with older aged children. It is suggested therefore that parents with children older than those used in the study would be likelier to give more realistic responses to these questions. As such, the birth

order position of the subjects will be considered as this will indicate the presence of older siblings in the family.

Degree of parental protectiveness may vary according to the child's birth order position (Havassay-de Avila, 1971), and will therefore be considered in the analysis of this parental measure.

Mothers' sex-role attitudes are expected to be affected by maternal age and education such that younger and more highly educated women generally hold more liberal or feminist attitudes (Etaugh & Gerson, 1974; Etaugh & Spandikow, 1981; Mason & Bumpass, 1975; Tavris, 1973; Venkatesh, 1980).

Fathers' sex-role attitudes are expected to be affected by education only, in the same manner as described above, (Etaugh & Gerson, 1974; Etaugh & Spandikow, 1981; Tavris, 1973).

The degree of maternal independence/dependence may be confounded by the number of siblings within the subject's (i.e. the child's) family. Studies have shown that more competent[11] females have or plan to have fewer children than do less competent females (Baruch, 1976; Clarkson, Vogel, Broverman, Broverman & Rosenkrantz, 1970).

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[11]Defined as including the traits of assertiveness, independence, rationality and leadership ability.

While some studies would appear to suggest few or no differences in paternal involvement in childrearing and household tasks as a function of total number of children in the family (Baruch & Barnett, 1981; Hartmann, 1981), Booth and Edwards (1980) found that fathers interacted with their children (defined as amount of time spent on outings and playing with the child) less when the number exceeded two. Moreover, as Baruch and Barnett (1981) point out, the relatively homogeneous nature of their sample (only 7% of the families had more than 3 children and 3/4's were 1 or 2-child families) may qualify their finding of little relationship between family size and father involvement. As such, the present study will consider the number of children within the daycare and home-reared families as a possible confounding factor of paternal involvement.

CHAPTER II

METHODOLOGY

Subjects

Fifty-four 4-5 year old female English-speaking subjects from intact (i.e. 2 parent) families were selected on the basis of the child's age and daycare or nursery school experience from various group daycare centres and nursery schools in the Ottawa-Carleton region, to comprise the two groups examined in this study.

Daycare Subjects

Twenty-six female children who were enrolled in a licensed group daycare centre full-time (i.e. for five days per week, seven or more hours daily) and who had been attending such a centre for a minimum of at least six consecutive months prior to the study, comprised the daycare group. A group daycare centre is defined as a place that receives for the purpose of temporary care and custody, for a continuous period not exceeding 24 hours, more than five children, not of common parentage, who are under ten years of age. The centre is licensed annually under the Province of Ontario Day Nurseries Act (1978).[12] Two of the group daycare centres in the present

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[12](Revised Statutes of Ontario, 1980 - Chapter III; Regulation 235 - Revised Regulations of Ontario, 1980 as amended by O. Reg. 818/81).

study had staff: child ratios of 1:9; one had a ratio of 1:6; and the rest had 1:8 ratios.

The mean chronological age of the daycare group was 4.73 years (range: 4.08-5.50 years; standard deviation: .38) and mean length of time in daycare was 25.19 months (range: 7-63 months; standard deviation: 13.07).

Home-reared Subjects

As originally planned, the home-reared subjects were to have been selected from among those 4 and 5 year olds registered on daycare waiting lists. However, it quickly became apparent that at this age there are few if any children on waiting lists for daycare enrollment. Subjects were then sought through advertisements in the local paper and from the Parent Preschool Resource Centre. When these alternative sources failed to result in sufficient subjects, nursery schools were approached as the next most expedient source for possible home-reared subjects. To minimize amount of separation from the mother and thus maximize the differences between the rearing experiences of the day- and home-care groups, minimal attendance at nursery school (i.e. 2-3 times per week, with the exception of one subject), was used as the selection criterion for subjects.

Of the 28 subjects who volunteered to participate in the study, 25 were in attendance at nursery school 2-3 times a week, one attended 4 times a week and two were exclusively home-reared. Their mean chronological age was 4.59 years (range: 4.08-5.42 years; standard deviation: .33); the mean length of time in nursery school for those in attendance was (12.57) months (range: 2-20 months; standard deviation: 5.40); and the average weekly number of hours per period of nursery school attendance was (7.21) hours (range: 4.00-12.50 hours; standard deviation: 2.17).

As the subjects of the home-reared group who attended nursery school did so only on the basis of slightly over seven hours per week, their amount of separation was felt to be sufficiently different from the daycare group (who averaged forty hours per week separation) to justify a distinction between the two rearing groups.

Almost half of the mothers of the home-reared sample were continuing their education and/or employed on a part-time basis. However, for five of these twelve mothers, this did not involve any separation from their daughters (worked night shifts or did contract work at home). For the other seven mothers, five were separated only minimally (i.e. a couple of hours one or two times per week). Only two of the mothers' continuing education/employment had involved more substantial

separation, but this was still on a part-time basis (one of these mothers had in fact returned to full-time homemaker status a couple of years prior to the study).

Apparatus

General Information Questionnaire (Appendix 1)

This questionnaire was specifically designed for the purposes of this study to elicit information concerning child, parental and demographic variables (adapted from Mamen, Note 12). In addition, mothers of both the daycare and home-reared groups were asked to indicate their degree of satisfaction with their current role on a five-point scale. Daycare mothers were also asked to rate their satisfaction with their current day-care arrangement. Both groups of mothers were asked whether their child had been separated from them for an extended period time.

Daycare mothers were queried extensively about their work history and any previous child care arrangements. Home-reared mothers were queried as to any previous work history and/or alternative childcare arrangements and whether their child participated regularly in any organized group activities in addition to nursery school.

Peabody Picture Vocabulary Test (PPVT) Form B (Appendix 2)

The PPVT was used as the measure for the confounding child variable, intelligence. The PPVT is a standardized picture vocabulary test which provides an estimate of one's verbal intelligence (Dunn, 1965). Alternate form reliability coefficients for the PPVT range from 0.67 to 0.84, with a median of 0.77. Congruent validity involving the PPVT and the Wechsler Preschool and Primary Scale of Intelligence reveal correlations ranging from 0.23 to 0.58 with a Full Scale IQ correlation of 0.58. For these reasons and the fact that the PPVT is an expedient test (administration 15 minutes or less) that does not require expressive language (a possible consideration in light of the age of the subjects), it was considered to be a suitable measure for level of intellectual functioning.

Measures of Dependency

Primary Academic Sentiment Scale (PASS) (Appendix 3)

PASS is a self-report inventory for children ages 4-4 to 7-3 designed to obtain objective information about a child's relative level of maturity and parental independence (Thompson, 1968). "The former is expressed as a Sentiment Quotient (SQ); the latter as a Dependency Stanine (DS)" (Rosner, 1975). The test consists of 38 items which are read aloud to the child.

Specific directions and a script are provided for this purpose. The child is asked to indicate an attitude or preference to a given situation by marking pictures.[13] The response choices involve essentially 3 types: 1) those closely related to traditional academic tasks, 2) those that are interesting, competing, academically non-essential activities and 3) those that would appeal strongly to a dependent immature child, for example:

> (1) On this page you see a picture of some balls, a mother in a chair, and a museum. What would you like to do best - play with balls, sit on your mother's lap, or go to the museum?
>
> (Thompson, 1968, p. 2).

The choices that convey a dependent orientation are tallied to provide the DS score while those that are academically-oriented provide the SQ score. Academically irrelevant choices are not credited to either of the two scales.

The human faces and figures used in the pictures are drawn as solid black forms so as to provide a culturally unbiased presentation.

PASS was standardized on 480 preschool, kindergarten and first grade children living in suburban Chicago.

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[13] In the present study, the children were asked to indicate their preference either by stating it or pointing to the picture.

Kuder-Richardson Formula 20 reliability for the entire standardization group was .58. Split-half reliabilities for the DS ranged from .55 to .78 for different age groups. Teachers' ranking of their students along an academic interest dimension into "high" and "low" groups revealed a significant difference between these groups and their Dependency Stanine scores. Correlations between Sentiment Quotients and Dependency Stanines ranged from -.33 to -.65 for kindergarten and preschool children and -.62 to -.63 for first grade children.

Preschool Embedded Figures Test (PEFT) (Appendix 4)

The PEFT is a downward extension of the Children's Embedded Figures Test (CEFT) (Witkin, Oltman, Raskin, & Karp, 1971) which measures field independence in young children approximately 2 3/4 to 5 years of age (Coates, 1972).

Administration of the PEFT involves the presentation of a series of 24 complex figures in each of which is embedded a simple equilateral triangle. The child is asked to locate each triangle by tracing it with her finger within a specified time limit (30 seconds). The total score is the sum of correctly traced items. Means and standard deviations are given for different ages.

The standardization sample consisted of 248 middle-class children from private nursery schools (New York, N.Y.) - age range 3-0 to 5-10. Reliability estimates for correlations between odd and even items ranged from .76 to .85 for girls and are comparable to those for the CEFT and Embedded Figures Test (EFT) at older age levels. (Other investigators studying PEFT performance in 3 and 4 year old lower-class children have found similar reliabilities (Educational Testing Services, 1971; Beller, Note 13; Seitz, Note 14). Test-retest correlations ranged from .70 to .75.

Construct validity using the Wechsler Preschool and Primary Scale of Intelligence (WPPSI) Block Design subtest revealed correlations ranging from .56 to .66 for girls. The subtest Block Design on the WPPSI is similar in content and structure to subtests on the WISC that have been shown to relate to CEFT and EFT performance at older ages. Furthermore, the correlation of the WPPSI Vocabulary subtest with PEFT for girls was low, ranging from .08 to .31, which again parallels research on older subjects that has shown that verbal ability is not substantially correlated with CEFT performance. A factor analysis of older age groups found CEFT consistently loaded the Perceptual Organization factor of the WISC with unsubstantial loadings on the Verbal factor. Similar findings were also found with the PEFT.

Further construct validity has been demonstrated between PEFT performance and autonomous achievement striving (all Q Sort items significant - Coates, 1972). This parallels findings for EFT at older age levels. In another study (Coates, 1972), low and high scoring girls on PEFT were rated by their nursery school teachers on their preferences during unstructured play periods. High scorers preferred the more analytic activities (working on projects), while low scorers preferred playing house, which was viewed primarily as a social activity involving co-operation of the children. These findings also paralleled results of the EFT at older age levels.

Pre-School and Primary Internal-External Scale (PPNS-IE)

(Appendix 5)

This 26 item scale measures generalized locus of control expectancies for children aged 4 to 8 years (Nowicki & Duke, 1974). Items are presented to the child in the form of cartoon interactions between female child-characters (PPNS-IE for females). Item content is read to the child by the experimenter and the child responds with a yes-no answer.

Test-retest reliability on the standardized sample after 6 weeks was high ($r_{.}$ = .79, N = 60). Further, good internal consistency was demonstrated (most item-total correlations were in the .20's and .30's). Validity data on prediction of

achievement-test scores and interpersonal distance replicated results obtained on the adult version of the scale. Additional validity derives from the high correlation between the PPNS-IE and Nowicki-Strickland Scale (LOC scale for children in third through twelf th grade) for a sample of 8 year olds.

The scale is uncorrelated with social desirability and has the same factor structure as the Nowicki-Strickland Scale. As with other scales of this nature, internality on the PPNS-IE tended to increase with age.

Parent's Expectation Inventory (PEI) (Appendix 6)

This measure was used to assess the degree of maternal and paternal encouragement of or expectations for independence (Nakamura & Rogers, 1968). Two types of independence or autonomy are assessed by this inventory: practical and assertive autonomy.[14] Practical autonomy measures "parental expectations for the child to attain responsibility for behaviour that (has) practical and/or convenience value to the parents" (Nakamura & Rogers, 1969, p. 614). Assertive autonomy measures parental

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[14]Six other types of autonomous or responsible behaviours are also assessed by this scale, specifically social, self-decision or determination, physical, emotional, intellectual and sexual autonomy. The test-re-test reliabilities of these subscales are quite satisfactory (Nakamura, 1980), but there have been no studies to establish their validity.

expectations for the child's self-assertive and exploratory types of behaviour that may or may not be of immediate practical value and may in fact be a nuisance to the parents. Assertiveness is distinguished from rebellious or unmanageable behaviour per se.

Items on the inventory describe the behaviour of a child of a given sex and age (age range 2 - 6 years), in a specific situation (e.g. "Ann is three. She can pour milk from a small pitcher into her cup without spilling") (p. 614). Parents rate the items on a "6 point scale ranging from very common to very uncommon, depending on whether it was thought the behaviour was one that was typical and occurred very commonly, or was very uncommon in occurrence. If the behaviour was rated as very common, then the parent would have relatively high expectation of its occurrence in his (her) child" (p. 614).

Maternal anticipation of assertive independence has been shown to be positively associated with daughter's independence at nursery school (defined and measured as child's ability to separate from mother). To a lesser extent, father's expectations of practical independence were also associated with daughers' autonomy (Nakamura & Rogers, 1969). This measure is thus felt not only to provide an estimate of parental expectations and/or encouragement of independence in children, but one that is of certain functional predictability as well.

Test-retest stability for the practical and assertive scales was .80 and .82 for mothers and .73 and .70 for fathers, respectively.

Home Observation for Measurement of the Environment: HOME Inventory (Appendix 7)

The HOME Inventory assesses the quality of the home environment, specifically the parent-child relationship, physical environment, and the amount and kind of developmental stimulation. The Preschool version of the HOME Inventory (for families of preschool age children, 3 - 6 years of age), contains 55 items grouped into eight subscales which measure the following aspects of the child's developmental environment:

1. stimulation through toys, games and reading material
2. language stimulation
3. physical environment: safe, clean and conducive to development
4. pride, affection and warmth
5. stimulation of academic behaviour
6. modeling and encouraging of social maturity
7. variety of stimulation
8. physical punishment

(Caldwell & Bradley, 1979).

Items are scored from observation and interview with the mother in the home, while the child is present and awake. Scores are obtained via binary-choice format.

Internal consistency estimates ranged from .53 to .83 for the HOME subscales; for the total scale the internal consistency estimate was .93. Moderate to high correlations with socioeconomic variables, intelligence and achievement tests were obtained and are described below:

SES variables: The HOME Inventory was most highly correlated to parental education and the amount of crowding in the home with the highest correlation obtained for maternal education and selection of toys, games and materials (r = .65).

Intelligence tests: A number of subscales were significantly correlated with I.Q. for three different age groups (3,4 1/2 and 5-6 years). Certain subscales showed especially substantial correlations (stimulation through toys, games and reading materials; variety of stimulation, language stimulation, and stimulation of academic behaviour) at various ages with correlations ranging from (r = .40 to .55) for 4 1/2 year olds. Total HOME scores ranged from .58 to .67.

Achievement tests: Correlations between HOME scores of 3 to 5 year olds and SRA Achievement test scores of children aged 6 to 10 years were significant on 4 of the 8 HOME subscales for the

three achievement test scores (reading, language arts and mathematics), as well as for the total score. These estimates ranged from .27 to .55. The HOME subscale which showed the highest correlation to achievement was stimulation through toys, games and reading materials (coefficients ranged from r = .41 to .49).

Maryland Parent Attitude Survey (MPAS) (Appendix 8)

This particular instrument was used to determine the degree of parental protectiveness. The MPAS assesses parent attitudes toward child rearing and differentiates among four parent types: protective, disciplinarian, indulgent, and rejecting (Pumroy, 1966). The author of the MPAS has described these four types as follows:

1. Protective: Protective parents are primarily concerned with seeing to it that the child takes a minimum amount of risks. Consequently, the parents are overly watchful of the child and always alert to possible dangerous aspects of all situations. These parents perform tasks for the child long beyond the time the child is capable of doing the task for herself. The child is not allowed to grow up and do things for herself (e.g. feeding, bathing, going to school alone, etc.) for fear that something will happen to her. (p. 75).

2. Disciplinarian: These parents need and expect fairly strict obedience from the child. The child knows that if she does not comply she will be punished, as the rules are explicitly stated by the parent. This punishment is carried out in a fair and consistent manner. This parent is constantly pushing the child to achieve beyond her ability, forcing her too grow up early. (p. 75).

3. Indulgent: These parents are child centred; the child is allowed to have her own way in all matters. The child is showered with warmth and affection. While there are attempts at discipline, the child knows the rules can be circumvented. The child is not encouraged to show any initiative, and seldom does she have any responsibilities around the house. Frequently, but for no particular reason other than an impulse on the part of the parents, the child is given gifts and treats.

(pp. 74-75).

4. Rejecting: These parents are openly and actively hostile toward their children. This hostility is frequently reflected in discipline and punishment. This discipline and punishment seems to be based more on the general negative feelings of the parent than on the behaviour of the child. Because of the hostility engendered in the child, these parents frequently feel that children are incorrigible.

(p. 75).

The MPAS consists of ninety-five pairs of items, 90 of which measure the four types of parents (the first five pairs are buffer items designed to help the parent establish a set for taking the survey). The pairing of items or statements was based on "(a) the type of parents they represented, according to psychologist judges, and (b) the distribution of responses of a group of subjects who had been instructed to answer as they thought a good parent would" (Tolor, 1967, p. 69). This latter factor was to control for social desirability.

There are forty-five items representing each type of parent. Items are stated in the third person and do not refer specifically to mother or father, thus ensuring a broader applicability than do other parental attitude inventories, such

as the widely employed Parental Attitude Research Instrument (PARI) (Tolor, 1967; Schaefer & Bell, 1958).

The parent reads the items in each pair and selects the one which most represents his or her view (e.g. no. 6A. Parents should watch their children all the time to keep them from getting hurt. B. Children who always obey grow up to be the best adults). Scoring is accomplished by summing the number of items representing each type of parent chosen by the responder. Norms and T scores are available for each scale.

Test-retest reliability correlations ranged from .62 to .73 for a three month interval and split-half correlations ranged from .66 to .84 for the four scales. Tolor (1967) found that social desirability had been successfully ("unequivocally") controlled in the construction of the MPAS and that "the intercorrelations among the scales generally support the rationale underlying the identification of specific scales that are said to correspond to parental types" (p. 73).

Some validity studies have been completed (Brody, 1965; Gelso, 1974; Tolor, 1967), with results generally in the expected direction. Face validity has been established by the nature in which each item was originally selected, i.e. items were taken from other parent attitude scales and child rearing literature and then categorized by psychologists according to

the type of parent the item represented. Those items that obtained $\frac{2}{3}$ agreement (i.e. 6 out of 9 psychologists) were retained.

Adjective Check List (ACL) (Appendix 9)

The measure to determine whether or not the mothers of the subjects provide an independent or dependent role model was derived from 4 scales of the ACL (Gough & Heilbrun, 1980). These scales were part of an original group of nine obtained from the ratings of 400 college students (200 females) who had been asked to judge which of the ACL traits were more descriptive of their mothers or of their fathers (Heilbrun, 1964). Of the 15 Need Scale traits then in use, nine were predominantly (65 to 73 percent of the time) selected as being better characteristic of one parent or the other. Specifically, fathers were described as being more achievement-oriented, enduring, dominant, and autonomous, while mothers were seen as more deferent, abasing, succorant, nurturant, and affiliative. Heilbrun (1968) has since delineated 4 of these sex-typed behaviours as being descriptive of a submissive-dependent versus assertive-independent mode of personal interaction (i.e. deference, succorance, abasement vs. dominance scales respectively).

Standard scores of the ACL scales had correlations with the social-desirability response bias (indexed by Edward's Scale) ranging from -.45 to .50 with a median of .25 for females. "These values are well below what has typically been reported for self-descriptive personality questionnaires" (Gough & Heilbrun, 1980, p. 33). Test-retest correlations for females ranged from .45 to .86 with a median of .71. Evidence for the validity of the ACL has been extensively documented (Gough & Heilbrun, 1980).

The Attitudes Toward Women Scale (ATW) (Appendix 10)

This measure was used to assess parental sex-role attitudes, whether traditional or liberal (i.e. anti- or pro-feminist) in nature. The ATW consists of 55 items relating to the rights and roles of women in contemporary society (Spence & Helmreich, 1972). Specific areas examined include vocational, educational and intellectual roles of women, freedom and independence, dating, courtship and etiquette, sexual behaviour, and marital relationships and obligations.

Each item is phrased as a declarative statement for which there are four response modes: Agree Strongly, Agree Mildly, Diagree Mildly and Disagree Strongly. Depending on the direction of the statement, whether anti- or pro-feminist, a score varying from 0 to 3 is given (higher the score, the more

feminist the respondent). The scores are then summed to give a possible range of 0 to 165. Normative data was gathered from 768 female and 713 male introductory psychology students at the University of Texas, and 292 mothers and 232 fathers of these students.

Parent Interview Schedule (PS) (Appendix 11)

This measure was used to determine the degree of paternal involvement in child rearing and household tasks. As designed by Winnett, Fuchs, Moffatt, and Nerviano (1977), the PS measures each parent's degree of involvement in household chores, child care tasks, and parent-child interaction (in part adapted from Herbst, 1952). Parents are required to indicate the frequency that they engage in the above behaviours during a particular time period, i.e. a typical week or month, depending on the behaviour.

Procedure

A list of potential participants was complied through personal contact with daycare, nursery school and Parent Pre-school Resource Centre personnel. Daycare personnel expressed the wish to mediate between parents and researcher and so therefore initial contact with the parents was made by the administrators of the various daycare centres. Parents were told at that point that a study was being conducted on 4-5 year

old girls that would involve their participation as well as that of their child. After a list of those daycare families interested in participating in the study was given to the researcher, contact was made by telephone to explain in more detail their involvement in the study. A covering letter explaining the study, a permission form[15] and the General Information Questionnaire were then sent or delivered to the participants and appointments were arranged to conduct the testing and interview sessions. The children's testing was conducted at their respective daycare centres, while those sessions involving the family (for the administration of the HOME Inventory and the PS interviews), were conducted in the home, usually during early evening and/or on weekends.

The majority of the home-reared sample was obtained via initial contact with the parent executives of The Ottawa Valley Co-operative Preschools, who then authorized contact with nursery school personnel to obtain lists of suitable subjects. Those home-reared subjects obtained through the Parent Preschool Resource Centre were contacted via the mail. The procedure used for contacting and testing the daycare families was followed for the home-reared group with the two exceptions

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[15]Copies of the covering letters and the permission forms are provided in the appendix (Appendices 12, 13, 14 and 15).

that the home-reared children were tested in their homes and that the parental interviews usually required two interview sessions[16] instead of one as was the usual case for the daycare families. Interviews and testing sessions alternated randomly between daycare and home-reared groups.

Inter-Rater Reliability

For the HOME Inventory, six interviews, two at the beginning of the study, two in the middle and two at the end were selected randomly and then scored independently by a second rater. While initially blind as to the group status of the child involved, this information sometimes became evident to the rater during the course of the interview. This procedure was considered preferable to having a second observer present in the home setting during the HOME interview, although approximately a quarter of the HOME Inventory items are strictly observational and could not be checked from a tape.

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[16] As the home-care mothers were home during the day, it was more expedient to conduct their HOME Inventory interviews at that time, while the PS interviews which necessitated the presence of both parents, were conducted in the evenings and/or on weekends.

The original score sheet and the rater's score sheet were compared item for item and reliability ranged from 94-100%, based on the number of agreed items divided by the total items (excluding those items which were strictly observational and/or undecipherable from the tape), multiplied by 100.

CHAPTER III

RESULTS

Multivariate analysis of variance followed by univariate F-tests, using SPSS was the main technique of data analysis. In addition, canonical correlation, Pearson product-moment correlation and univariate ANOVA's were used where appropriate.

The findings are presented in the following order. Analyses dealing with initial differences between the daycare and home-reared groups to determine the covariates are outlined first. The main analyses follow and include: (1) children's measures of dependency; (2) parental measures; (3) relationship between child and parental measures; and (4) correlations among parental measures. Supplementary analyses dealing with other measures of interest are then presented.

Initial Differences Between Groups

Initial differences between the groups were limited to number of siblings, maternal culture, parental age and maternal salary level. The subjects of the home-reared group had a greater number of siblings than did their daycare counterparts, $^{2}(7) = 14.67$, $p < .01$. Both the maternal and paternal ages of the home-reared group were significantly higher than those of the daycare group, $F(1,52) = 9.59$, $p < .01$ $F(1,52) = 13.19$, $p < .01$, for mothers and fathers

respectively. Maternal culture tabulated on the basis of three cultural groups, i.e. North American, European and Third World revealed a significant difference between the daycare and home-reared groups, $^2(2) = 6.02$, $p < .05$, with the daycare group having more Third World subjects. While maternal salary level for the daycare families did exceed that of the home-reared, $^2(7) = 35.76$, $p < .001$, the overall salary level for both parents did not differ significantly between the two groups.

Subjects' age, intelligence, birth order position, parental culture, parental occupational[17] and educational levels, quality of parent-child relations, maternal satisfaction, and amount of continuous separation from the mother revealed no significant differences between the DC and HR group. The means of these measures are shown in Tables 1 and 2.

Children's Measures of Dependency

It was hypothesized that the daycare children would be more independent than their home-reared counterparts. As originally planned, there were to be three measures used to assess the childrens' level of dependency: the Primary

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[17]Tabulated on the basis of the higher of two parental occupational levels.

Academic Sentiment Scale (PASS)[18]; the Preschool Embedded Figures Test (PEFT) and the Pre-school and Primary Internal-External Scale (PPNS-IE). However, during the administration of these tests, it became apparent that the children had difficulty understanding a number of questions on the PPNS-IE, which effectively precluded its being accepted as a valid and reliable measure of dependency. Other than its inclusion in the initial multivariate analysis of variance on the three measures of dependency and the Pearson intercorrelation matrix, it was not used in any other analyses.

Multivariate analysis of variance using PASS, PEFT and PPNS-IE with number of siblings as a covariate revealed a nonsignificant relationship between type of care and dependency, $F(3,49) = .26$, $p > .05$. Multivariate analysis of variance excluding PPNS-IE also resulted in non-significance, $F(2,50) = .13$, $p > .05$.[19] The results of the multivariate analysis of PASS and PEFT measures are given in Table 3. The

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[18]PASS was designed for children aged 4 years 4 months and above. As some of the subjects were younger than this, their raw scores were converted to dependency stanines for the youngest grouping i.e. 4 years 4 months to 4 years 7 months. To determine whether or not the daycare and home-reared groups differed significantly in terms of their number of subjects below the age of 4 years 4 months, chi square analysis was conducted. No significant difference was found, $\chi^2(1) = .23$, $p > .05$.

[19]Maternal culture was also run as a covariate with nonsignificant results, $F(2,49) = .84$, $p > .05$.

group means for these measures and PPNS-IE are shown in Table 4. Pearson product-moment correlations for pairs of the three measures of dependency revealed a significant degree of association between PASS and PEFT, r -.24, $p < .05$. (Greater independence associated with lower and higher values of PASS and PEFT respectively). Non-significant associations with PPNS-IE for both PASS and PEFT suggest its further unsuitability as a valid and reliable measure of dependency for this particular age group. The correlations among the measures of dependency are shown in Table 5.

Although there were no overall differences in dependency between the daycare and home-reared subjects, within the daycare sample itself, analysis based on commencement of care (early vs. late) did reveal significant differences in dependency. Those entering care[20] at up to and including 6 months of age, as compared to those entering at or after 8 months, scored significantly higher on the PEFT measure of independence, F (1,24) = 6.37, $p < .05$. All of the matching variables expected to have a confounding effect on the measure of dependency, specifically child's age, intelligence, birth order position, number of siblings, socio-economic status, parent-child relations, and parental culture were examined to see if significant differences existed between the two groups

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[20]Defined as group or family daycare or private babysitting.

of early and late starters. Only one, birth order position was significantly different with the early starters having more first than later borns, $^{2}(1) = 4.05$, $p < .05$. Analysis of variance was then conducted with commencement of care and birth order position as factors. No significant effect emerged for the variable birth order position, F (1,22) = 0.77, $p > .05$. Thus the differences in dependency for the early and late starters can be considered attributable to the former group's earlier commencement of care.

Amount of time spent in daycare[21] (short vs. long), was also found to have a significant effect on dependency, such that those daycare subjects longer in care were more independent, F (1,12) =4.92, $p < .05$. A 2 x 2 ANOVA was conducted to determine the interactive effects of these two factors, commencement and duration of care. No analysis could be conducted as a singular matrix emerged, i.e. all those subjects who had commenced care early were also those who had stayed the longest; similarly, those who had started later, had stayed in care a shorter period of time.

Parental Measures

The hypotheses concerning day- and home-care parents were as follows: (1) Daycare mothers as compared to mothers of

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[21]Defined as care lasting less than approximately 2 1/2 years or greater than 4 years. No possible confounding variables differed significantly between the two groups.

home-reared girls would have (a) higher expectations for independence in their daughters, (b) less protectiveness, (c) less traditional sex-role attitudes and (d) provide a more independent role model; (2) Daycare fathers as compared to fathers of home-reared girls would have (a) higher expectations for independence in their daughters, (b) less protectiveness, (c) less traditional sex-role attitudes and (d) greater involvement in childrearing and household tasks.

The parental measures were grouped according to their covariates. Two multivariate and one univariate ANOVA emerged: 1) maternal and paternal expectations for practical and assertive autonomy/independence (Parent's Expectation Inventory), maternal and paternal protectiveness as measured by the Maryland Parent Attitude Survey, and paternal sex-role attitudes (Attitudes Toward Women Scale - ATW); 2) maternal role model (Adjective Check List (ACL) - (a) Assertive/ Independent Model (Dominance Scale); and (b) Submissive/ Dependent Model (Succorance, Abasement and Deference Scales); and paternal involvement in child rearing and household tasks (Parent Interview Schedule) with number of siblings as a covariate and 3) maternal attitudes toward women with maternal age as a covariate.

Significant differences between the parents of daycare and home-reared children were evident in daycare mothers' provision of a more independent role model $F(1,50) = 9.62$, $p < .01$, (as suggested by their lower scores on the

Submissive/Dependent Scales of the ACL, specifically the Deference Scale) and daycare fathers' greater involvement[22] in child rearing and household tasks, $F(1,50)$, = 10.52, $p < .01$. Mean scores on the parental measures for which specific predications were made are shown in Table 6. Results of the multivariate and univariate analyses of variance for these variables are given in Tables 7, 8 and 9).

Relationship Between Child and Parental Measures

Hypotheses concerning the relationship between the child and parental measures were as follows. It was expected that low dependency and field independence in daycare girls would be positively associated with parental high expectations for independence, low protectiveness, and less traditional sex-role attitudes; maternal independent role model; and greater paternal involvement in childrearing and household tasks. For the daycare group, canonical correlation analysis between the child measures of dependency (PASS, PEFT), and the parental measures of parental expectations for independence, both practical and assertive; parental protectiveness;

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[22]The mean score for daycare mothers' involvement in childrearing and household tasks was 570.38 (range 410-857; standard deviation: 104.67) vs. daycare fathers' involvement mean score of 394.23 (range 140-550; standard deviation: 107.94) as based on a proportional percentage (1000).

parental attitudes toward women; maternal role model and paternal involvement in child rearing and household tasks, revealed that the first canonical correlation was significant ($R_{C1} = 1.0$, $p < .001$), accounting for 100% of the variance shared between the two linear combinations of child and parental measures. Examination of the canonical coefficients suggests that at least for the PEFT measure of dependency, greater independence in daycare girls is associated with their mothers' lower protectiveness, higher expectations for practical independence and more feminist attitudes. It is also associated with greater paternal involvement in childrearing and household tasks.

Those measures used to define a dependent maternal role model, correlated in the expected direction with the childrens' measures of dependency, although not significantly so. Specifically, the lower the dependency scores of the mothers, the higher their daughters' level of independence. However, the scale used to measure the independence aspect of maternal role model, the Dominance Scale, correlated negatively with daughters' independence, such that greater dominance was associated with lower independence. Also unexpected, was the finding that a more feminist attitude among daycare fathers was associated with lower independence in daughters.[23]

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[23]In the analysis using pairwise deletion of missing data, this association did not occur.

The PASS measure of dependency did not correspond meaningfully, i.e. in the expected direction with the parental measures. The results of the canonical correlation for the daycare group are given in Table 10. No significant canonical correlation emerged for the home-reared group.

Correlations Among Parental Measures

It was hypothesized for the daycare mothers that positive correlations would exist between (1) maternal independent role model and egalitarian sex-role attitudes and (2) high expectations for independence and low protectiveness. For the daycare fathers, the following positive correlations were expected between (1) egalitarian sex-role attitudes and greater involvement in childrearing and household tasks and (2) egalitarian sex-role attitudes and (a) high expectations for independence and (b) low protectiveness.

Daycare mothers with more feminist attitudes as assessed by their total score on the ATW were found also to have significantly lower scores on two of the Submissive/Dependent Scales of the ACL (Abasement, $r = -.47$, $p < .01$; Deference, $r = -.46$, $p < .01$[24] and higher scores on the Dominance Scale, $r = .51$, $p < .01$), suggesting that there is a strong correlation

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[24]Correlation with the third dependency scale, Succorance was in the expected direction and marginally significant, $r = -0.33$, ($p = .056$).

between maternal egalitarian/feminist sex-role attitudes and maternal independence.[25]

There was no significant correlation for the daycare mothers between high expectations for independence and low protectiveness. However, this was not the case for the home-reared families nor for the combined correlation of the home-reared and daycare groups, (r = .45, p < .05; and r = .31, p < .05 respectively).

Daycare paternal involvement in childrearing and household tasks was marginally correlated with greater feminist attitudes, r = .33, (p = .056). Again, for the HR group and the DC and HR groups combined, this relationship was significant, (r = .44, p < .01; and r = .37, p < .01 respectively). Daycare fathers' egalitarian attitudes were significantly correlated with high expectations for independence (assertive) (r = -.37, p < .05) and marginally correlated with lower protectiveness r = -.34, (p = .054).[26]

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[25]Correlations for the subscales of the ACL and ATW were all in the expected direction with 17 of the 24 pairs significant.

[26]Higher expectations for independence are reflected in lower scores, thus the negative correlation.

Other Measures of Interest

As a result of daycare mothers' higher independence scores on the ACL subscale Deference, the ACL subscales of Autonomy, Aggression and Feminine Attributes were analysed, with number of siblings as a covariate. Briefly, high scorers on the Autonomy Scale tend "to act independently of others or of social values and expectations" (Gough & Heilbrun, 1980, p. 12), while those individuals with high scores on the Aggression Scale tend to behave in an assertive power-oriented fashion. The Feminine Attributes Scale differentiates between individuals who tend to be "feminine", sentimental, warm, and giving in their relations with others and those who are more autonomous and independent in their relationships (Gough & Heilbrun, 1980).

As expected, daycare mothers scored significantly higher on Autonomy, $F(1,50) = 6.11$, $p < .05$, while mothers of the home-reared girls obtained higher scores on the Feminine Attributes Scale, $F(1,50) = 6.87$, $p < .05$.[27] Tables 11 and 12 reveal the means and the results of multivariate and univariate analyses of these measures respectively.

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[27] Marginal significance was achieved for the Aggression Scale, $F(1,50) = 3.44$, ($p = .07$).

Similarly, due to the strong association between daycare mothers' independence and their feminist attitudes, the Autonomy, Aggression and Feminine Attributes Scales of the ACL were further examined for correlation with the ATW Scale. Again, significant correlations emerged and all in the expected direction. Specifically, a more feminist attitude was positively associated with autonomy, $\underline{r} = .52$, $\underline{p} < .001$ and aggression, $\underline{r} = .44$, $\underline{p} < .05$ and negatively associated with feminine attributes, $\underline{r} = -.35$, $\underline{p} < .05$.

As maternal employment has been found to be associated with greater independence, the ACL scores of those mothers in the home-reared group who were employed[28] on a part-time basis were compared to those home-care mothers who were full-time homemakers. Significant differences emerged for the Abasement Scale, $\underline{F}(1,26) = 9.04$, $\underline{p} < .01$ and the Autonomy Scale, $\underline{F}(1,26) = 6.04$, $\underline{p} < .05$ of the ACL, such that the part-time homemakers had lower abasement and higher autonomy scores than their full-time counterparts. Marginally statistical significance was reached on the Feminine Attributes Scale, $\underline{F}(1,24) = 3.49$, ($\underline{p} = .07$), with the part-time homemakers having lower scores.

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[28]Three part-time student mothers were included in this group (n = 12) to more closely balance the number of full-time homemakers (n = 16). Conceptually it was felt that the status of full-time (i.e. traditional) vs. part-time (i.e. non-traditional) homemaking was the critical factor distinguishing these two groups of homemakers, and not employment status per se.

(Possible confounding variables[29] were run to determine whether these differences could be solely attributed to the part-time employment effect. No significant differences emerged on any of the variables).

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[29]Variables were child's IQ, age, birth order position and number of siblings; parents' socio-economic status and occupational level; and mothers' age, culture, satisfaction, education and salary.

Table 1

Overall Means of Child and Parent Characteristics

	Groups	
Child Variables	Daycare (n = 26)	Home-reared (n = 28)
Age (in years)	M. 4.73 s.d. .38	M. 4.59 s.d. .33
Intelligence	M. 112.65[a] s.d. 13.01	M. 115.69 s.d. 13.46
Birth Order Position	M. 1.35 s.d. .63	M. 1.68 s.d. .82
Number of Siblings	M. .58 s.d. .76	M. 1.39 s.d. .92
Parental Variables		
Socio-economic[b] Status	M. 83.33 s.d. 16.69	M. 83.11 s.d. 7.32
Maternal Age	M. 30.31 s.d. 4.25	M. 33.79 s.d. 4.00
Paternal Age	M. 31.31 s.d. 4.10	M. 35.75 s.d. 4.83
Quality of Parent-Child Relationship	M. 48.19 s.d. 3.39	M. 48.96 s.d. 2.99
Maternal Satisfaction[c]	M. 1.58 s.d. .54	M. 1.25 s.d. .65
Amount of Separation (in weeks)	M. .77 s.d. 1.66	M. .75 s.d. 1.08

[a]An IQ of 71 was included in the computation. Without this uncharacteristically low score, the daycare mean score for IQ was 114.32 with a standard deviation of 10.05.

[b]Socio-economic status was based on the higher of the two parents' occupational status and their combined educational and salary levels.

[c]Maternal satisfaction was tabulated on the basis of the following ordinal scale: very satisfied (1) through to very dissatisfied (5). (The lower the score, the greater the satisfaction).

Table 2

Means of the Socio-Economic Variables

SES Variables	Groups			
	Daycare (n = 26)		Home-reared (n = 28)	
Parental Occupational Status	M.	63.56	M.	64.89
	s.d.	10.81	s.d.	5.49
Parental Educational Status	M.	10.23	M.	9.96
	s.d.	3.37	s.d.	2.55
Parental Salary Level	M.	9.54	M.	8.25
	s.d.	4.37	s.d.	1.96
Maternal Eduational Level	M.	4.73	M.	4.39
	s.d.	1.89	s.d.	1.37
Paternal Educational Level	M.	5.50	M.	5.57
	s.d.	1.79	s.d.	1.48
Maternal Salary Level	M.	3.96	M.	1.25
	s.d.	2.18	s.d.	0.65
Paternal Salary Level	M.	5.58	M.	7.00
	s.d.	2.63	s.d.	1.81

Table 3

Multivariate Analysis of Variance for the Dependency Measures of the Primary Academic Sentiment Scale (PASS) and the Preschool Embedded Figures Test (PEFT) with Number of Siblings (NOS) as a Covariate

(n = 54)

Source	Wilk's Lambda	df	F
Constant	.06	(2,50)	374.20
Group Status (Daycare or Home-reared)	.99	(2,50)	.13

Univariate Analysis of Variance for PASS and PEFT with NOS as a Covariate

Variable	SS	df	MS	Error	F
PASS	.35	(1,51)	.35	4.88	.07
PEFT	1.36	(1,51)	1.36	9.90	.14

Table 4

Mean Scores on the Dependency Measures for Daycare and Home-reared Groups

Dependency Measures	Groups	
	Daycare (n = 26)	Home-reared (n = 28)
Primary Academic Sentiment Scale (PASS)	M. 5.23 s.d. 2.08	M. 4.57 s.d. 2.38
Preschool Embedded Figures Test (PEFT)	M. 15.27 s.d. 3.13	M. 15.36 s.d. 3.16
Preschool and Primary Internal-External Scale (PPNS-IE)	M. 12.31 s.d. 2.68	M. 11.89 s.d. 2.23

Table 5

Pearson Product-moment Correlations for PASS, PEFT and PPNS-IE

(n = 54)

	PASS	PEFT	PPNS-IE
PASS	1.00	-0.24*	-0.11
PEFT	-0.24*	1.00	.05
PPNS-IE	-0.11	.05	1.00

*Significant at .042, one-tailed test.

Table 6

Mean Scores of the Predicted Parental Measures

	Groups			
	Mothers of Daycare Ss (n = 26)	Mothers of Home-reared Ss (n = 28)	Fathers of Daycare Ss (n = 26)	Fathers of Home-reared Ss (n = 28)
Protective Scale (MPAS)	M. 53.36 s.d. 7.09	M. 53.50 s.d. 5.99	M. 51.43 s.d. 9.64	M. 51.50 s.d. 10.38
Practical Autonomy Scale (PEI1)	M. 32.92 s.d. 6.22	M. 32.18 s.d. 6.76	M. 34.64 s.d. 6.04	M. 33.18 s.d. 6.24
Assertive Autonomy Scale (PEI2)	M. 29.54 s.d. 6.07	M. 26.93 s.d. 5.48	M. 33.55 s.d. 6.49	M. 31.04 s.d. 5.59
Attitudes Toward Women Scale (ATWT)	M. 128.96 s.d. 21.80	M. 120.39 s.d. 17.18	M. 120.08 s.d. 23.75	M. 115.25 s.d. 20.63
Independent/ Dependent Role Model (ACL)				
Assertive/ Independent Scale				
Scale				
Dominance Scale (ACL6)	M. 54.52 s.d. 10.15	M. 51.57 s.d. 8.82		

(cont'd)

Table 6 (cont'd)

Mean Scores of the Predicted Parental Measures

	Groups			
	Mothers of Daycare Ss (n = 26)	Mothers of Home-reared Ss (n = 28)	Fathers of Daycare Ss (n = 26)	Fathers of Home-reared Ss (n = 28)
Submissive/ Dependent Scales				
Succorance (ACL17)	M. 46.56 s.d. 9.29	M. 50.46 s.d. 7.58		
Abasement (ACL18)	M. 45.64 s.d. 9.57	M. 50.89 s.d. 9.51		
Deference (ACL19)	M. 46.36 s.d. 9.34	M. 54.32 s.d. 7.77		
Parent Interview Schedule (PS)			M. 394.23[a] s.d. 107.94	M. 279.71 s.d. 77.23

a $\frac{\text{number of tasks per period basis performed by father}}{\text{total number of tasks per period basis performed by both father and mother}} \times 1000$

Table 7

Multivariate Analysis of Variance for Maternal and Paternal Expectations for Practical (Scale 1) and Assertive (Scale 2) Independence (PEI1M, PEI1D, PEI2M, PEI2D), Maternal and Paternal Protectiveness (MPASPM, MPASPD) and Paternal Sex-Role Attitudes (ATWTD)

(n = 43)

Source	Wilk's Lambda	df	F
Constant	.005	(7,35)	915.75
Group Status (Daycare or Home-reared)	.81	(7,35)	1.21

Univariate Analysis of Variance for PEI, MPAS and ATWTD

Variable	SS	df	MS	Error	F
PEI1M	74.05	(1,41)	74.05	40.51	1.83
PEI2M	201.15	(1,41)	201.15	33.13	6.07
PEI1D	61.82	(1,41)	61.82	38.46	1.61
PEI2D	82.13	(1,41)	82.13	36.59	2.24
MPASPM	3.24	(1,41)	3.24	40.71	.08
MPASPD	.01	(1,41)	.01	105.82	.00
ATWTD	92.95	(1,41)	92.95	465.85	.20

Table 8

Multivariate Analysis of Variance for Maternal Role Model (Independent - ACL6M/Dependent - ACL17-19M) and Paternal Involvement in Childrearing and Household Tasks with Number of Siblings (NOS) as a Covariate

(n = 53)

Source	Wilk's Lambda	df	F
Constant	.004	(5,46)	2379.21
Group Status (Daycare or Home-reared)	.69	(5,46)	4.19*

Univariate Analysis of Variance for the ACL and PSTD with NOS as a Covariate

Variable	SS	df	MS	Error	F
ACL6M	25.60	(1,50)	25.59	89.15	.29
ACL17M	105.99	(1,50)	105.99	71.78	1.48
ACL18M	224.95	(1,50)	224.95	92.23	2.44
ACL19M	716.16	(1,50)	716.16	74.43	9.62*
PSTD	87628.51	(1,50)	87628.51	8333.16	10.52*

* $p < .01$

Table 9

Analysis of Variance for Maternal Sex-Role Attitudes with Maternal Age as a Covariate

(n = 54)

Variable	SS	df	MS	F
ATWTM	1319.30	(1,51)	382.29	3.45

(p = .069)

Table 10

Results of Canonical Correlation Between Child Measures of Dependency and Predicted Parental Measures for the Daycare Group

(n = 18)

	Eigenvalue	Canonical Correlation	Wilk's Lambda	Chi-square	df	Significance
R_{C1}	1.00	1.00	.00	71.47	26	< .001
R_{C2}	.71	.84	.29	11.18	12	.514

Canonical Coefficients

	R_{C1}
Parental Measures	
MPASPM	-0.71606
MPASPD	0.14652
PEI1M	-0.84655
PEI1D	0.26030
PEI2M	0.13450
PEI2D	0.25711
ATWTM	0.44258
ATWTD	-0.44857
PSTD	1.02305
ACL6M	-1.60961
ACL17M	-0.33210
ACL18M	-0.23188
ACL19M	-0.28020
Child Measures	
PASS	-0.59591[a]
PEFT	1.02684

[a]Pass scores were reversed from their original order for this analysis to reflect high scores = low dependency.

Table 11

Maternal Mean Scores of the Autonomy, Aggression and Feminine Attributes Scales of the ACL

ACL Scales	Groups	
	Daycare (n = 25)	Home-reared (n = 28)
Autonomy Scale	M. 52.80 s.d. 9.43	M. 46.07 s.d. 6.97
Aggression Scale	M. 54.96 s.d. 8.74	M. 49.04 s.d. 8.15
Feminine Attributes Scale	M. 46.48 s.d. 10.76	M. 54.32 s.d. 8.39

Table 12

Multivariate Analysis of Variance for the Mothers' Scores on the Autonomy (AUTM), Aggression (AGGM) and Feminine Attributes (FEMM) Scales of the ACL with Number of Siblings (NOS) as a Covariate

(n = 53)

Source	Wilk's Lambda	df	F
Constant	.02	(3,48)	717.76
Group Status (Daycare or Home-reared)	.83	(3,48)	3.21*

Univariate Analysis of Variance for AUTM, AGGM and FEMM Scales of the ACL with NOS as a Covariate

Variable	SS	df	MS	Error	F
AUTM	418.81	(1,50)	418.81	68.59	6.11*
AGGM	244.17	(1,50)	244.17	70.98	3.44
FEMM	643.13	(1,50)	643.13	93.55	6.87*

* $p < .05$

CHAPTER IV

DISCUSSION

The main purpose of this study was to examine the differential effects of rearing experience, whether daycare or home-reared, on the dependency behaviour of 4-5 year old preschool girls. Secondarily, the study was concerned with certain parental factors that were expected to differentially affect the degree of dependency behaviour.

Contrary to expectation, the results did not support the hypothesis that daycare subjects were more independent than their home-reared counterparts. It is felt however, that the lack of differences in the present study may have been due to the fact that the groups used to define day- and home-care exhibited some similarities in terms of their rearing experience. Firstly, unlike previous daycare research, the home-reared subjects in the present study had experienced some, although limited separation from their mothers via attendance at nursery/play school. Further, approximately half of their mothers were employed on a part-time basis. Both of these factors have been shown to be conducive to a lessening of dependency in girls (Hoffman, 1975; Rutter, 1980).

Another factor that was not considered in the present study and that might conceivably have increased the likelihood for differences between the daycare and home-reared groups,

concerned the particular nature of the childrearing philosophy espoused by the daycare centres, whether egalitarian or traditional vis-a-vis encouragement of independence in girls. Had centres been chosen on the basis of their more liberal orientation, it is suspected that differences favourable to the daycare group would have emerged (Cornelius & Denney, 1975; Fowler, 1972).

Although the present findings do not suggest greater independence among daycare enrollees at preschool age, research has suggested that the long-term effects of maternal employment and mother-daughter separation through alternative forms of childcare do result in girls' greater independence at later ages (Hoffman, 1974; Moore, 1974). There are indications from the present study that this may be the case. Those subjects who commenced daycare earliest and were longest in care had the most independence and differed significantly from those who had not been in care as early nor as long. As commencement of daycare in the present study was decided on the basis of early (up to and including 6 months) vs. later (at or after 8 months) attendance, it may be that as Kagan, Kearsley and Zelazo (1978), have stressed, initiating daycare before attachments are beginning to be formed (i.e. at 7 months) is better than initiating care during that time when attachments are being consolidated (i.e. seven-to-eighteen month-old age period).

However, it should be noted that girls who commenced daycare later did not differ from those girls reared at home. Thus what this finding may suggest is not adverse consequences for girls who commence care later, but increased independence being associated with earlier and longer daycare attendance.

The results of the parental measures provide some limited support for the hypothesis that parents of daycare and home-reared girls differ on those characteristics expected to affect degree of dependency in their daughters. Daycare mothers do provide a more independent role model for their daughters than do mothers of home-reared girls. (Further support for this finding comes from the additional analyses of the measures of autonomy and feminine attributes). As the majority of daycare mothers were employed, these findings replicate results from the maternal employment studies that have indicated greater independence and competence among working mothers (Baumrind, 1971; Hoffman, 1974; Williams, 1974).

Also supported was the prediction that daycare fathers' involvement in childrearing and household tasks would exceed that of the fathers of home-reared girls. Similar results have been found by Winnett et al. (1977) and Gold and Andres (1978a, 1978b, 1980).

Daycare parents were not however less protective of their daughters, nor more encouraging of their independence, findings which do not concur with previous research examining these issues (Hoffman, 1974; Williams, 1974).

The hypothesis that daycare parents would be more liberal minded in their sex-role attitudes as compared to the parents of the home-reared girls was not supported either. This contrasts with research that has shown employed women and their husbands to be more liberal in their attitudes towards sex roles (Gold & Andres, 1978a, 1978b, 1980; Hoffman & Nye, 1974; Williams, 1974). Again, the similarity between the two groups, particularly in terms of maternal employment may explain the nonsignificant findings.

The expectation that daycare daughters' independence would be positively associated with their mothers' lower protectiveness, higher expectations for independence (practical) and more feminist attitudes was supported. The findings suggest that daycare girls with greater independence receive support for this behaviour from their mothers. Such is not the case in the home-reared group where as hypothesized, there is not as salient a relationship between maternal attitude/behaviour and daughters' independence. This finding replicates previous research (Hoffman, 1974), that has indicated a significant

relationship between childrearing attitudes/practices of employed mothers and daughters' degree of independence.

However, the supposition that daycare maternal independence would be linked to daughters' independent functioning was not supported. While low maternal dependence was associated with daughters' higher independence, it was not a significant association and high maternal independence was in fact significantly and negatively associated with daughters' independence. However, the particular indice used to define the independence aspect of maternal role model (i.e. dominance, which Gough and Heilbrun (1980) define as the tendency to be influential and controlling in individual relationships), may be more descriptive of an aggressive/authoritarian mode of interpersonal interaction that an assertive-independent one as Heilbrun (1968) claimed. Considering the findings from Baumrind's studies (1970; 1971) that suggested a negative association between such an authoritarian orientation and girls' independence, it is felt that the present definition of maternal independence is not a particularly apt one to demonstrate a positive relationship between independent maternal role model and daughters' independence.

The hypothesis that certain characteristics of the daycare fathers would be related to daughters' independence was partially supported by the findings. Greater father

participation in childrearing and household tasks was associated with daughters' greater independence. However, low paternal protectiveness and encouragement of independence were not, nor was fathers' feminist sex-role ideology which was in fact significantly and negatively related to daughters' independence.

These findings are in part contradictory. As originally postulated, it was felt that daycare fathers' greater involvement in childrearing and household tasks would have had a positive effect on daughters' independence since it was assumed that such fathers would by their greater involvement have a more feminist sex-role ideology, which would be reflected in a less protective attitude and greater encouragement of their daughters' independence. Although greater participation was marginally associated with a more feminist attitude, and that attitude was positively associated with lower protectiveness and higher expectations for independence, daughters' independence was not related to fathers' sex-role ideology, protectiveness or independence expectations. Expressed differently, although there is a relationship between daycare fathers' involvement and daughters' independence, the intervening variables and process by which this comes about is not entirely clear. It may be that the association between daycare fathers' feminist sex-role ideology and encouragement

of independence reflects an affirmed belief pattern that is either not sufficiently established to effect a change in actual behaviour (vis-a-vis parent-child interactions) or is simply indicative of a social desirability response bias (Goldberg, Katz & Rappeport, 1979), in which case there would be little association between professed attitudes and actual behaviour. Another explanation is of course that there are other unaccounted for mediating variables involved in the process.

The prediction that daycare mothers who held feminist sex-role attitudes would also be independent was confirmed and supports other research that has linked acceptance of a feminist ideology with autonomous behaviour (Mason & Bumpass, 1975). Further confirmation of this association comes from the supplementary findings relating measures of autonomy, aggression and feminine attributes to sex-role ideology.

It therefore appears that when mothers work and thus choose alternative forms of childcare (in this case group daycare) they are generally more feminist in their outlook, exhibit greater independence, and have a healthier degree of aggressivity. This suggests a greater sense of personal efficacy and by implication a rejection of the traditional and unhealthy "feminine" role.

The expectation that daycare fathers who are more involved with childrearing and domestic chores would also have more feminist attitudes, was partially supported (marginally significant). The low magnitude of the correlation may be due in part to the relatively homogeneous nature of the daycare fathers' nontraditional sex-role ideology. It may also be due to the fact that independent (versus joint) participation in childrearing and housework was not used as the indice of paternal involvement. Baruch and Barnett (1981) found that only independent participation by the father, which is associated with less sex-differentiated role norms was positively related to fathers' feminist sex-role attitudes.

The hypothesis that daycare mothers' low protectiveness would correlate with high expectations for independence was not supported. This may possibly be related to parenting experience, since the majority of daycare mothers had only children.

In summary, although daycare mothers provide a more independent role model for their daughters, and although there is a strong relationship between daycare mothers' lower protectiveness, higher expectations for independence and feminist ideology and daughters' independence, the effects of these maternal influences are not such as to result in daycare girls'

greater independence as compared to that of home-reared girls.[30] However, research on older girls that has indicated greater independence in daughters who have received polymatric rearing and whose mothers work (Hoffman, 1974), suggests that the constellation of maternal factors present in the daycare group will in the long run prove conducive to the development of greater independence in daycare as opposed to home-reared girls.

Supplementary analyses that revealed less autonomy and greater feelings of abasement among full-time as compared to part-time homemakers were felt to be suggestive of a relatively less healthy lifestyle for those women who choose to be full-time homemakers. This concurs with previous research examining the traditional homemaking role (Birnbaum, 1971; Hoffman, 1974). Relating these findings to earlier results that indicated greater independence among daycare mothers (as compared to mothers of home-reared children), suggests a lifestyle continuum ranging from multiple mothering at the healthiest to exclusive mothering at the least healthy,[31] with a combination of both styles falling somewhere in between.

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[30] As noted earlier, the similarity between the two groups in terms of rearing experience and maternal employment status may be partially responsible for this.

[31] It should be noted that most of the scores for the mothers of home-reared children fell within one standard deviation of the mean and so therefore are not indicative of maladjustment. They are however, relative to the scores of the daycare mothers, less robust.

A final supplementary finding which is of interest concerns the division of childrearing and household tasks within the daycare families. Although both parents work full-time, it appears that mothers spend almost twice as much time as fathers doing their "second job" of childcare and housework. One questions the long-term effects of such an unequal arrangement,[32] particularly in light of research that has shown mothers' role-pattern satisfaction to decrease with fathers' lesser participation in childrearing and domestic chores (Bailyn, 1970).

Implications of The Present Study

There are some interesting implications arising from the findings of the present study. Firstly, the essential similarity in the emotional well-being of girls in daycare and those who are home-reared should be reassuring to mothers of either group who may have doubts regarding their choice of care.[33] The similarity between the groups may also indicate to those mothers who have chosen to stay at home in the best

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[32] Or as it has been referred to in the vernacular, the "supermom syndrome".

[33] Particular emphasis is placed on mothers' concerns, since it is generally they whom society holds responsible for the emotional and physical well-being of the child.

interests of their child, that alternative forms of care (at least with respect to group daycare) do offer the same quality care that they provide in their own homes. Such a realization may encourage them to make use of alternative childcare arrangements so that they are then free, if they so desire, to pursue other interests such as employment and/or further education.

In connection with this, it is interesting to note that those mothers who have not extensively pursued interests outside the homemaking role appeared to have the least healthy personality profile. It is not entirely clear whether this may be due to the particular nature of an exclusive mother-child relationship centered in the home, or whether it is the result of a recent change in public opinion that seems to devalue the full-time homemaking role (at least when the children are beyond preschool age).

A final implication that may be of particular interest to daycare mothers concerns the fact that the quality of the home environment in terms of parent-child relations and degree of developmental stimulation, did not differ between groups. This finding may provide some comfort to those daycare parents who may be concerned that by virtue of the time constraints placed on them by their jobs, they are not providing enough high quality child care. Clearly, the fact also that their

daughters are not suffering as a result of their dual roles, suggests that the quality of time spent with their children is more important to the children's emotional well-being than is the quantity of that time.

A number of recommendations for future research examining the relationship of daycare attendance and maternal employment to dependency behaviour in girls have been suggested by the present study.

To elucidate more clearly the singular effects of the daycare environment on girls' dependency, research examining varying childrearing philosophies, caregiver modeling effects and degree of concurrence between daycare and home environments along these dimensions are suggested avenues. Long-term effects of daycare attendance should also be a research priority.

Research examining specific parental factors relating to dependency in girls, may require observational measurement of parent-child interaction rather than a reliance simply on attitude questionnaires. With specific reference to fathers' effects on daughters' dependency, proportional as well as absolute indices of involvement in childcare and household tasks calculated on the basis of independent vs. joint participation may better reveal the nature and direction of the

particular mechanisms whereby fathers influence the degree of dependency in their daughters.

In summary, the results of this study provide some support for the hypothesis that dependency in girls varies with degree of mother-daughter separation and maternal employment status. A pattern of maternal influence that is evident within the daycare families that is not replicated in the families where the daughters are more exclusively home-reared, suggests that the particular lifestyle of multiple mothering and maternal employment in particular may provide a more conducive environment for the development of independence in preschool girls.

With particular reference to the effects of daycare itself, the present findings replicate the majority of others in suggesting that daycare attendance, while not necessarily more conducive to the development of independence in girls at preschool age, is at least not detrimental to their emotional well-being and may in fact under more ideal circumstances be facilitative of it. Daycare may as well by "changing the practice of female-dominated child care not only"..."enhance individual lives, but also attenuate the fact of universal misogyny by removing woman as the unique object of infantile rage and dependency" (Luepritz, 1982, p. 5).

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APPENDIX 1

GENERAL INFORMATION QUESTIONNAIRE

INSTRUCTIONS

1. Please answer all of the questions. If you feel however that a particular question does not apply, please note it with a N/A.

2. Please be certain to answer the questions honestly. There are no right or wrong answers.

3. Where boxes are supplied for your answer, please check only one.

4. If you have any additional comments/information that you feel might be of interest, space is provided at the end of the questionnaire for this purpose.

Thankyou for your cooperation.

Name of child participating in study : _____

Age: _____ Birthdate: _____ Nationality: _____

Day care facility attending if applicable: _____

Names of Parents: Father: _____ Mother: _____

Address: _____

Phone: _____

* * *

To be completed by Fathers only:

Age: _____ Nationality: _____

Present Occupation: _____

Place of Employment: _____

Business Phone: _____

Average number of hours worked per week: _____

* * *

To be completed by Mothers only:

Age: _____ Nationality: _____

Present Occupation: _____

Place of Employment: _____

Business Phone: _____

Average number of hours worked per week: _____

Please complete the following sections beginning with your most recent employment. Specify your work history since the birth of your child accounting for all periods of employment and non-employment.

Occupation/Position	Duration of Employment	
	From	To

Highest Level of Education:	Fathers	Mothers
Grade 10 or less	☐	☐
Grade 11	☐	☐
High School graduate	☐	☐
Some University	☐	☐
Undergraduate degree	☐	☐
Some graduate school	☐	☐
Graduate degree	☐	☐
Additional training other than university	☐	☐

Annual salary before deductions:		
Under $5,000	☐	☐
$5,000 - $10,000	☐	☐
$10,000 - $15,000	☐	☐
$15,000 - $20,000	☐	☐
$20,000 - $25,000	☐	☐
$25,000 - $30,000	☐	☐
$30,000 - $35,000	☐	☐
$35,000 - $40,000	☐	☐
$40,000 - $45,000	☐	☐
$45,000 - $50,000	☐	☐
Over $50,000	☐	☐

To be completed by mothers whose children are enrolled in day care:

1. Please indicate how satisfied you are with your present situation - that is concerning your job and how it fits in with your family responsibilities.

very satisfied	☐
moderately satisfied	☐
cannot say	☐
moderately dissatisfied	☐
very dissatisfied	☐

2. Major reasons for your satisfaction/dissatisfaction: _____

_____

_____

_____

3. Would you indicate briefly the reason you chose group day care for your child?

_____

_____

_____

4. How long has your child been at her present day care centre? _____

5. Prior to this period, had your daughter experienced any other form of day care (i.e. babysitter, family day care home)? Please specify type and approximate period/duration of care, accounting for child care arrangements since birth.

Type	Duration	
	From	To

6. How satisfied are you with the present arrangement?

very satisfied	☐
moderately satisfied	☐
cannot say	☐
moderately dissatisfied	☐
very dissatisfied	☐

7. Has your child ever been separated from you for (an) extended period(s) of time? Please specify.

_____

_____

_____

_____

8.

Names of other children	Sex	Date of Birth

Additional Comments: _____

_____

_____

_____

_____

To be completed by mothers whose children are home-reared:

1. Please indicate how satisfied you are staying at home to look after your child?

very satisfied	☐
moderately satisfied	☐
cannot say	☐
moderately dissatisfied	☐
very dissatisfied	☐

2. Major reasons for your satisfaction/dissatisfaction: _____

_____

_____

_____

3. Would you indicate briefly the reason you chose to stay home to look after your child:

_____

_____

4. Have your ever made any alternative arrangements for your child to enable you to work and/or return to school?

No	☐
Yes	☐

Please specify type of arrangement and duration: _____

_____

_____

5. During a typical week, approximately how many hours is your child babysat?

_____ hours per week.

6. Does your child participate in organized group activities with other children?

Yes, regularly	☐
Yes, occasionally	☐
Rarely	☐
Never	☐

7. Approximately how many hours per week does your child participate in such activities? _____ hours per week.

8. Has your child ever been separated from you for (an) extended period(s) of time? Please specify.

9.

Names of other children	Sex	Date of Birth

Additional Comments:

Peabody Picture Vocabulary Test

by Lloyd M Dunn, Ph D.

FORM b

INDIVIDUAL TEST RECORD

NAME _____ (last) _____ (first) _____ (initial) SEX. M F (circle) GRADE _____ (or phone)

SCHOOL _____ (or agency or address) TEACHER _____ (or counselor or supervisor)

EXAMINER _____ TIME _____ (min.) CODE _____ (or race or descent)

AGE DATA

Date of testing _____ (year) _____ (month) _____ (day)

Date of birth _____ (year) _____ (month) _____ (day)

Age _____ (years) _____ (months)

TEST SCORES

Raw score (from page 3) _____

Intelligence quotient (I.Q.) _____

Percentile score (%ile) _____

Mental age (M.A.) _____

CONVERSION OF MONTHS TO NUMERALS FOR USE IN RECORDING AGE DATA

Month	Jan	Feb	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
No. of Month:	1	2	3	4	5	6	7	8	9	10	11	12

OTHER TEST DATA

Names of tests	Date	CA	Score	Type of score
PPVT, Form A				

LANGUAGE BACKGROUND

Language of the home: _____ (if other than standard English)

Quality of language:	☐ good for age	☐ fair for age	☐ poor for age
Quantity of speech:	☐ talkative	☐ average	☐ taciturn
Intelligibility of speech:	☐ good	☐ fair	☐ poor

REASON FOR TESTING _____

AGS

Published by

AMERICAN GUIDANCE SERVICE, INC.

Publishers' Building, Circle Pines, Minnesota 55014

SCORE SHEET FORM b

Suggested Starting Points (see manual page 8)

Age Category	Begin with:	Age Category	Begin with:
below 3-3	Plate No. 1	9-6 to 11 5	Plate No. 60
3-3 to 4-2	Plate No 15	11 6 to 13-5	Plate No. 70
4-3 to 5-5.	Plate No. 25	13-6 to 15-5.	Plate No. 80
5-6 to 7-5	Plate No. 40	15-6 to 17-5.	Plate No. 90
7-6 to 9-5	Plate No. 50	above 17-6,	Plate No. 100

BASAL: 8 consecutive correct responses

CEILING: 6 errors in 8 consecutive responses

*TO RECORD ERRORS Make oblique strokes through the geometric figures. Every eighth figure is [illegible]

Plate No	Word	Key Resp	Errors*
1	table	(2)__	
2	bus	(4) _	
3	horse	(2)__	
4	dog	(3) _	
5	shoe	(4)__	
6	finger	(4) _	
7	boat	(3) __	
8	children	(2) _	
9	bell	(1) _	
10	turtle	(4) _ _	
11	climbing	(2)__	
12	lamp	(1) _	
13	sitting	(3)__	
14	jacket	(2) __	
15	pulling	(1) _ _	
16	ring	(2) __	
17	nail	(1)__	
18	hitting	(2) __	
19	tire	(3)__	
20	ladder	(3)_ _	
21	snake	(1) __	
22	river	(1)_ _	
23	ringing	(4) __	
24	baking	(4)	
25	cone	(2)_ _	
26	engineer	(3)__	
27	peeking	(4)__	
28	kite	(1)__	
29	rat	(1)__	
30	time	(1)__	
31	sail	(4)__	
32	ambulance	(2)__	
33	trunk	(2)__	
34	skiing	(4)_	
35	hook	(2)__	
36	tweezers	(1)__	
37	wasp	(3)__	
38	barber	(2) __	
39	parachute	(3)_ _	
40	saddle	(4) __	
41	temperature	(3)_ _	
42	captain	(1)__	
43	whale	(2) __	
44	cash	(4)__	
45	balancing	(1) _ _	
46	cobweb	(3) __	
47	pledging	(3)__	
48	argument	(1)__	
49	hydrant	(3)__	
50	binocular	(4)__	
51	locomotive	(1)__	
52	hive	(2)__	
53	reel	(4)__	
54	insect	(1)__	
55	gnawing	(1)__	
56	weapon	(2)__	
57	bannister	(3) __	
58	idol	(1)__	
59	globe	(1)__	
60	walrus	(3)__	
61	filing	(1)__	
62	shears	(3) __	
63	horror	(1)_ _	
64	chef	(4)__	
65	harvesting	(4)__	
66	construction	(3)__	
67	observatory	(4)__	
68	assistance	(4)__	
69	erecting	(2)_ _	
70	thoroughbred	(3) __	
71	casserole	(2)__	
72	ornament	(4)__	
73	cobbler	(3)_ _	
74	autumn	(2) __	
75	dissatisfaction	(3)__	

RAW SCORE CALCULATIONS

Ceiling item . . . . . _____

Less errors . . . . . _____

Raw score . . . . . _____

ntical to facilitate the determination of the basal or ceiling.

Plate No.	Word	Key Resp.	Errors*	Plate No.	Word	Key Resp.	Errors*	Plate No.	Word	Key Resp.	Errors*
76	scholar	(4)		101	incandescent	(4)		126	edifice	(4)	
77	oasis	(1)		102	cornucopia	(3)		127	scallion	(3)	
78	soldering	(3)		103	ascending	(2)		128	infirm	(1)	
79	astonishment	(3)		104	summit	(1)		129	emaciate	(1)	
80	tread	(1)		105	caster	(3)		130	catapult	(2)	
81	thatched	(2)		106	lobe	(2)		131	arable	(2)	
82	jurisprudence	(1)		107	patriarch	(3)		132	orifice	(4)	
83	sapling	(2)		108	sampler	(3)		133	renovate	(3)	
84	arch	(3)		109	ingenious	(3)		134	precarious	(1)	
85	dwelling	(4)		110	repose	(1)		135	dromedary	(2)	
86	lubricating	(1)		111	constrain	(3)		136	pedagogue	(1)	
87	pedestrian	(2)		112	tangent	(1)		137	sepal	(1)	
88	vale	(3)		113	sconce	(4)		138	lethargic	(3)	
89	jubilant	(3)		114	hoary	(4)		139	delectation	(4)	
90	laden	(2)		115	pendant	(1)		140	embellish	(3)	
91	pursuit	(2)		116	prodigy	(1)		141	osculation	(1)	
92	goblet	(4)		117	casement	(2)		142	cincture	(2)	
93	rodent	(2)		118	quiescent	(1)		143	barrister	(3)	
94	confiding	(3)		119	talon	(4)		144	carrion	(3)	
95	reclining	(4)		120	chevron	(1)		145	lanate	(2)	
96	frisking	(1)		121	feline	(4)		146	chirography	(4)	
97	moat	(2)		122	cairn	(2)		147	mendicant	(1)	
98	salutation	(3)		123	convergence	(4)		148	saltation	(1)	
99	barrier	(2)		124	apothecary	(3)		149	florescence	(2)	
100	foal	(3)		125	indigent	(2)		150	culver	(4)	

APPENDIX 3
PASS SCORING FORM

NAME _____ Score _____ Dependency _____

CA _____ Teacher _____ School _____

Page	Picture	Position	Score	Dependency Picture	Position	Score
1	Museum	Bottom	_____	Mother	Middle	_____
2	Dinosaur	Bottom	_____	Hands	Top	_____
3	Happy	Middle	_____	Sad	Top	_____
4	Teacher	Top	_____	Family	Bottom	_____
5	Rain	Middle	_____	Bed	Bottom	_____
6.	Numbers	Middle	_____	Mother	Top	_____
7	Rabbits	Top	_____	Bed	Middle	_____
8	Happy	Top	_____	----------	----------	
9	Book	Middle	_____	----------	----------	
10	Happy	Top	_____	Sad	Bottom	_____
11	Book	Top	_____	Hands	Middle	_____
12	Fire	Middle	_____	Mother	Bottom	_____
13	Happy	Top	_____	Sad	Bottom	_____
14	Bees	Middle	_____	Mother	Top	_____
15	Happy	Top	_____	----------	----------	
16	Candy	Middle	_____	----------	----------	
17	Elephant	Bottom	_____	House	Top	_____
18	Happy	Top	_____	----------	----------	
19	Family	Bottom	_____	Mother	Top	_____
20	Happy	Middle	_____	Sad	Bottom	_____
21	Radio	Top	_____	Hands	Middle	_____
22	Sad	Bottom	_____	Happy	Middle	_____
23	Book	Middle	_____	----------	----------	
24	Book	Bottom	_____	House	Middle	_____
25	Happy	Top	_____	----------	----------	
26	Planets	Middle	_____	Bed	Bottom	_____
27	Happy	Bottom	_____	Sad	Top	_____
28	Plane	Top	_____	Hands	Middle	_____
29	Paper	Bottom	_____	----------	----------	
30.	Happy	Bottom	_____	Sad	Middle	_____
31	Paper	Bottom	_____	----------	----------	
32	Happy	Top	_____	Sad	Bottom	_____
33.	Picture	Middle	_____	Mother	Bottom	_____
34.	Book	Top	_____	Table	Middle	_____
35.	Happy	Bottom	_____	----------	----------	
36	(Parent Same Sex)		_____	(Parent Opposite Sex)		_____
37	Happy	Middle	_____	Sad	Bottom	_____
38	Music	Top	_____	Family	Middle	_____
	TOTAL SENTIMENT		_____	TOTAL DEPENDENCY		_____

Published By Priority Innovations, Inc., P O. Box 792, Skokie, Illinois 60076

2

PEFT

PRESCHOOL EMBEDDED FIGURES TEST

by Susan Coates

SCORING SHEET

Before beginning practice series, present the "Warm-up Task" on the reverse side hereof.

Name: _____ Group: _____ Sex. _____

Age: _____ Examiner. _____ Date: _____
Years Months

Practice Series

	Trial One		Trial Two		Trial Three	
	Correct	Incorrect	Correct	Incorrect	Correct	Incorrect
P1						
P2						
P3						

Test Series

	First Response	Time	Second Response	Time
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
11				
12				

	First Response	Time	Second Response	Time
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				
23				
24				

Use the following legend for responses.

C – Correct
I – Incorrect
G – Gave up
T – Time ran out

Total correct responses _____

Comments.

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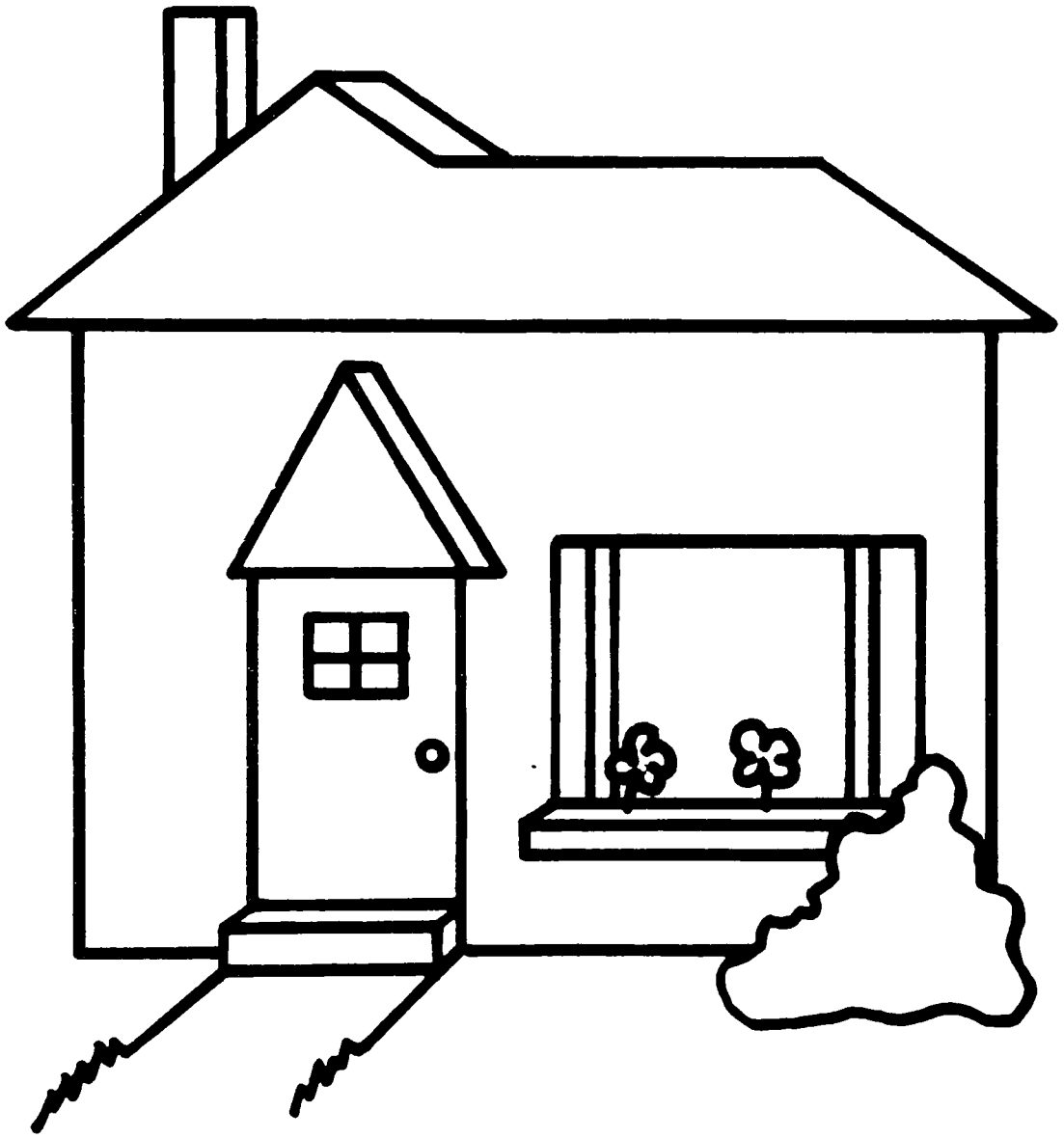
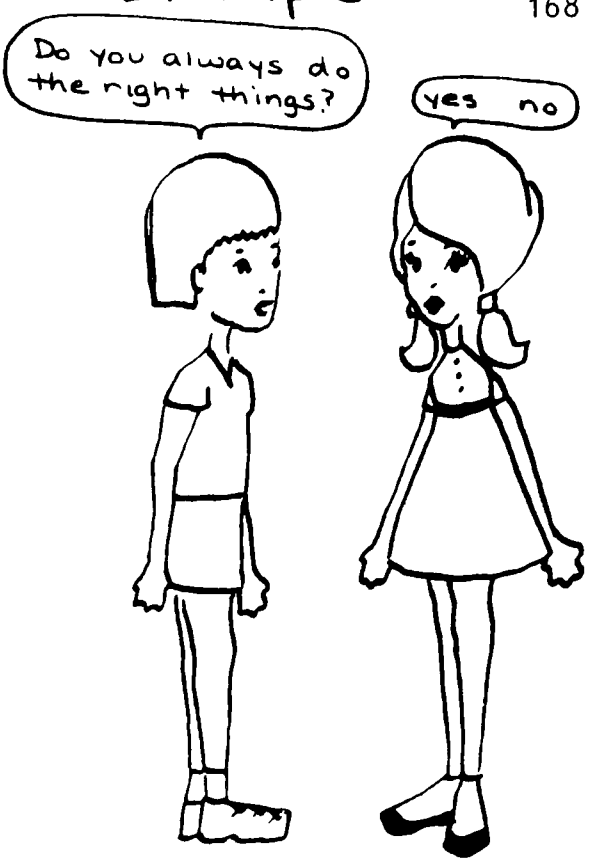


1

PPNSIE

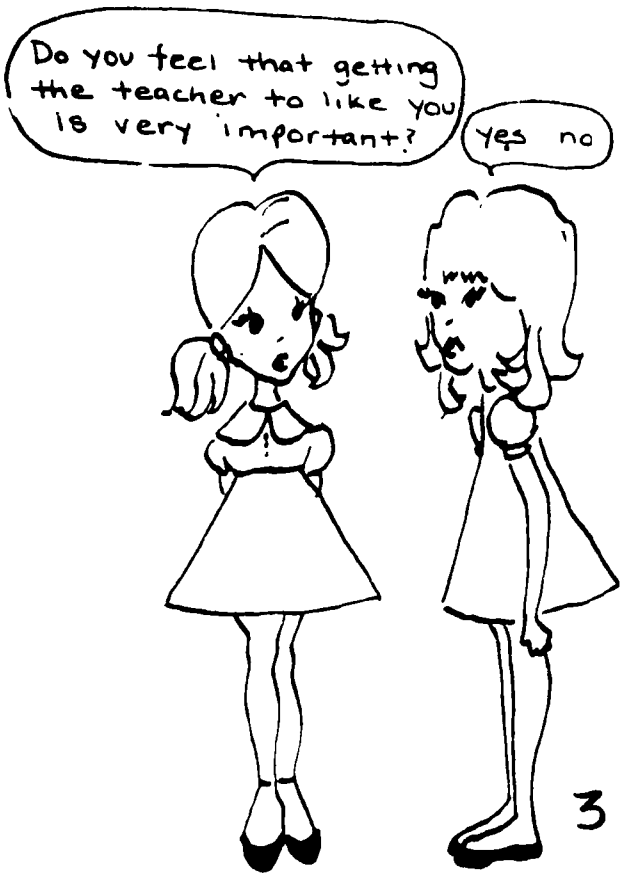
for girls

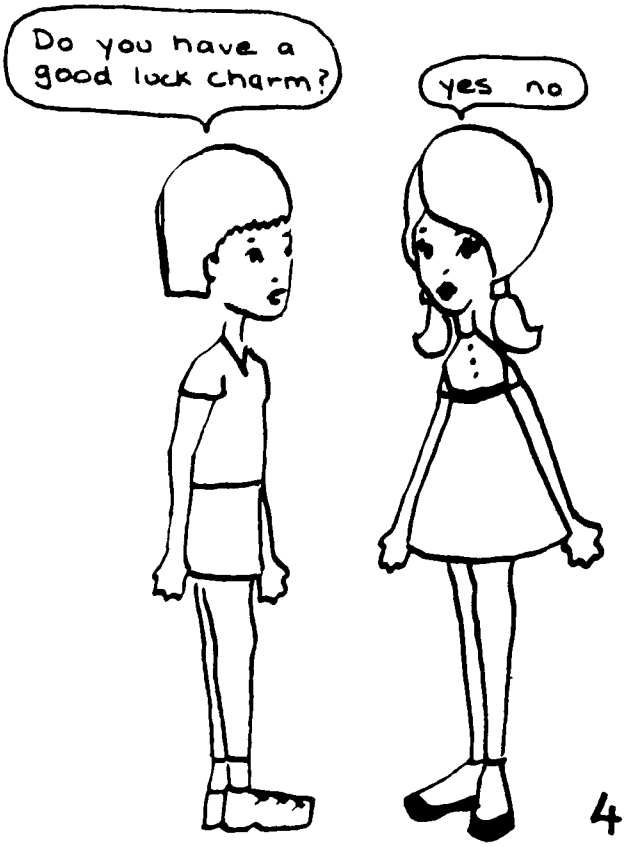
Example



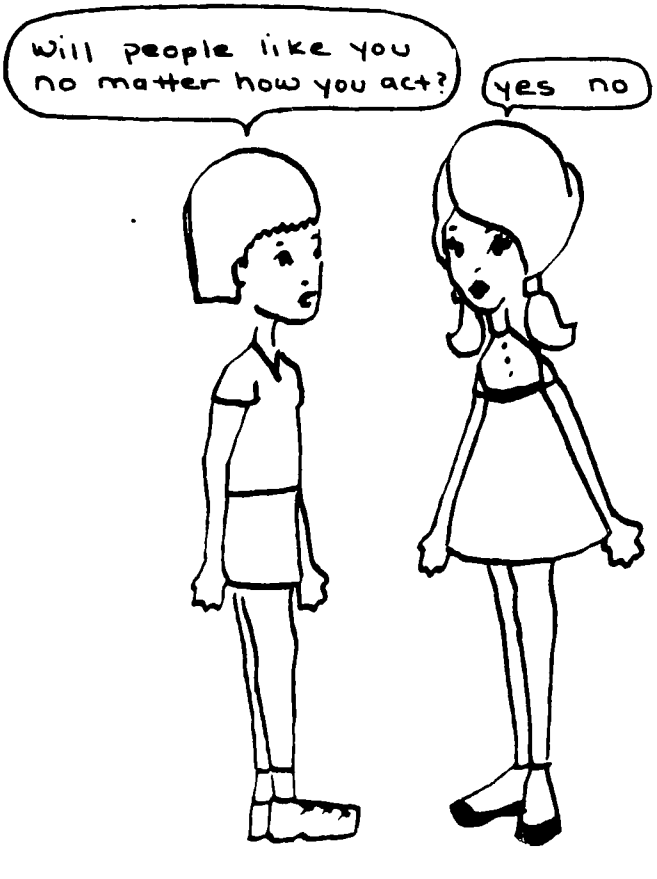
1

2


Do you feel that getting the teacher to like you is very important?
yes no
3

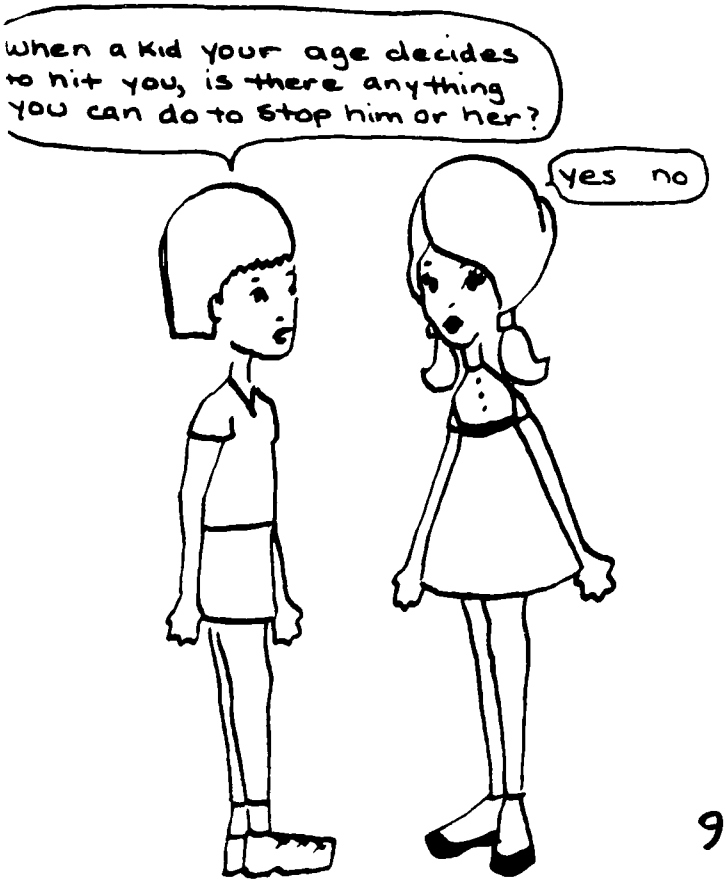

Do you have a good luck charm?
yes no
4


Are you often blamed for things that just aren't your fault?
yes no
5

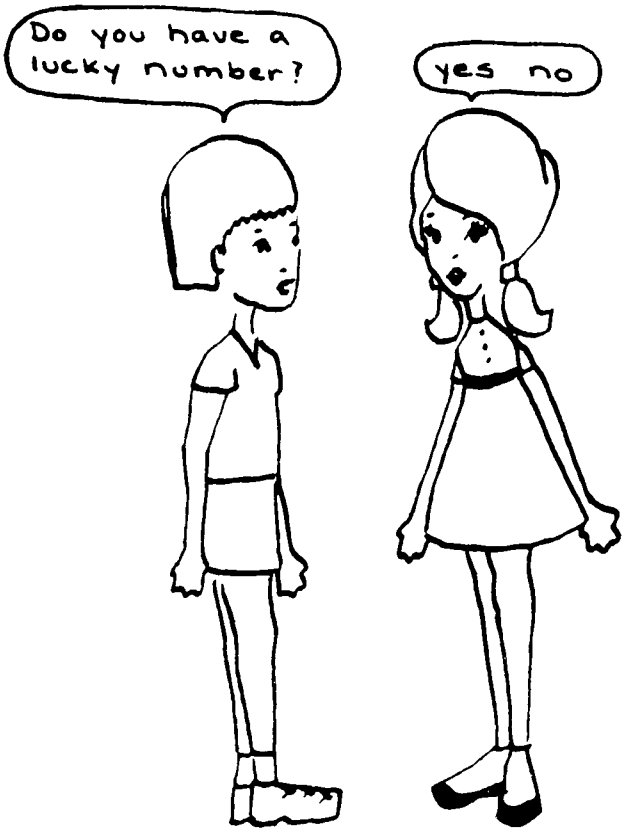

Will people like you no matter how you act?
yes no
6


If you ask for something enough, will you get it?
yes no
7


Do you believe that wishing can make good things happen?
yes no
8


When a kid your age decides to hit you, is there anything you can do to stop him or her?
yes no
9


Can you get friends to do what you want them to do?
yes no
10


Do you have a lucky number?
yes no

11


Can you get your Mommy and Daddy to do what you want to do instead of what they want to do?
yes no

1


Does whether or not Mommy and Daddy like you depend on how you act?
yes no

13


when people were mean to you, was it usually for no reason at all?
yes no

14


When you do something wrong, is there little you can do to make it right again?
yes no

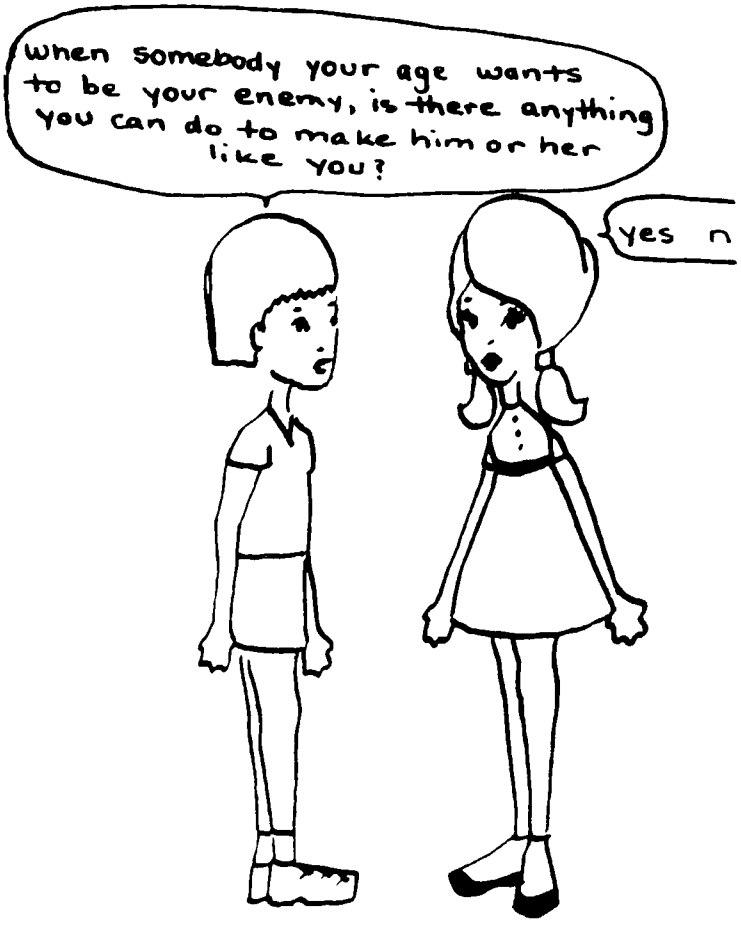
15


Most of the time do you find it easy to get your own way at home?
yes no

16

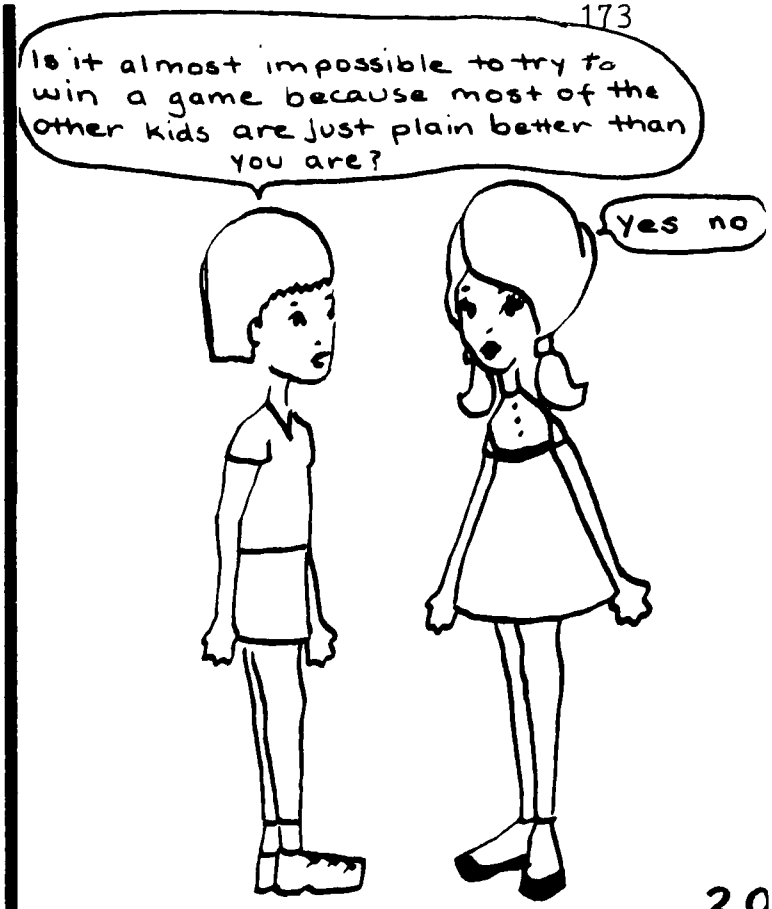

Are most kids just born good at running races?
yes no

17

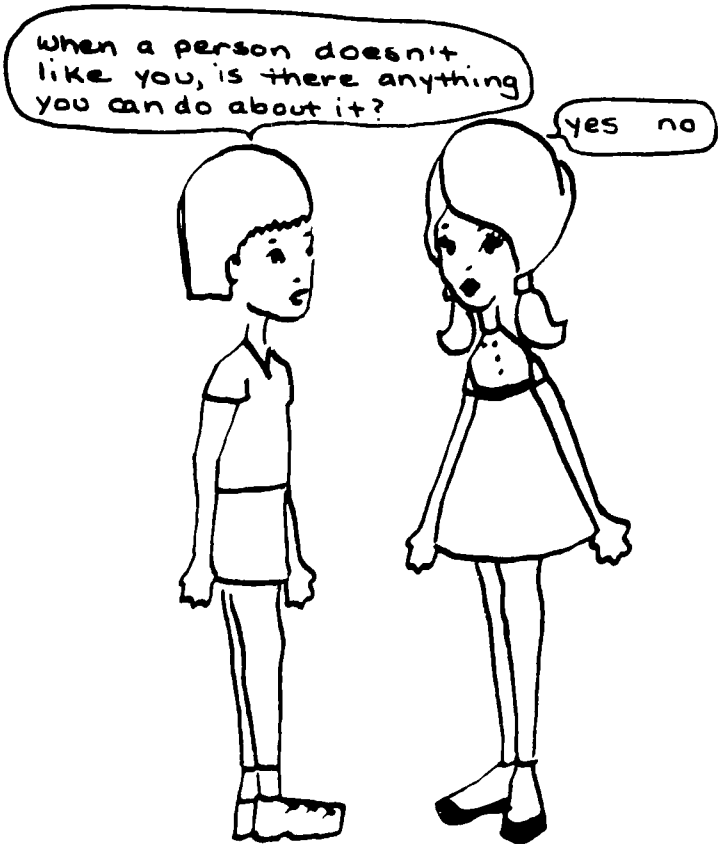

When somebody your age wants to be your enemy, is there anything you can do to make him or her like you?
yes n


Should your Mommy and Daddy decide what you should do?
yes no

19


Is it almost impossible to try to win a game because most of the other kids are just plain better than you are?
yes no

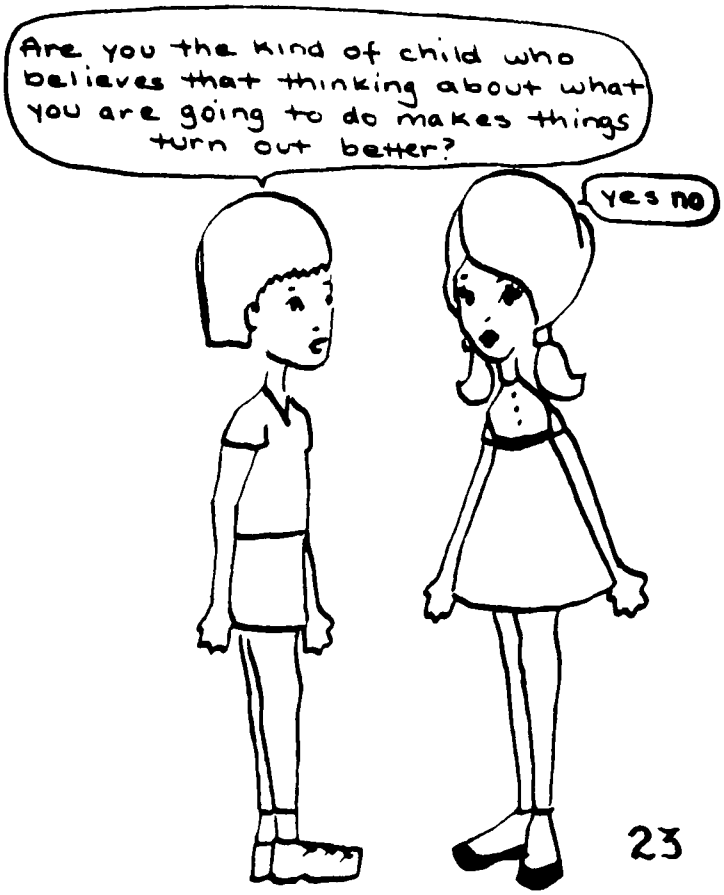
20


When a person doesn't like you, is there anything you can do about it?
yes no

21


Are most of the other girls your age stronger than you are?
yes no

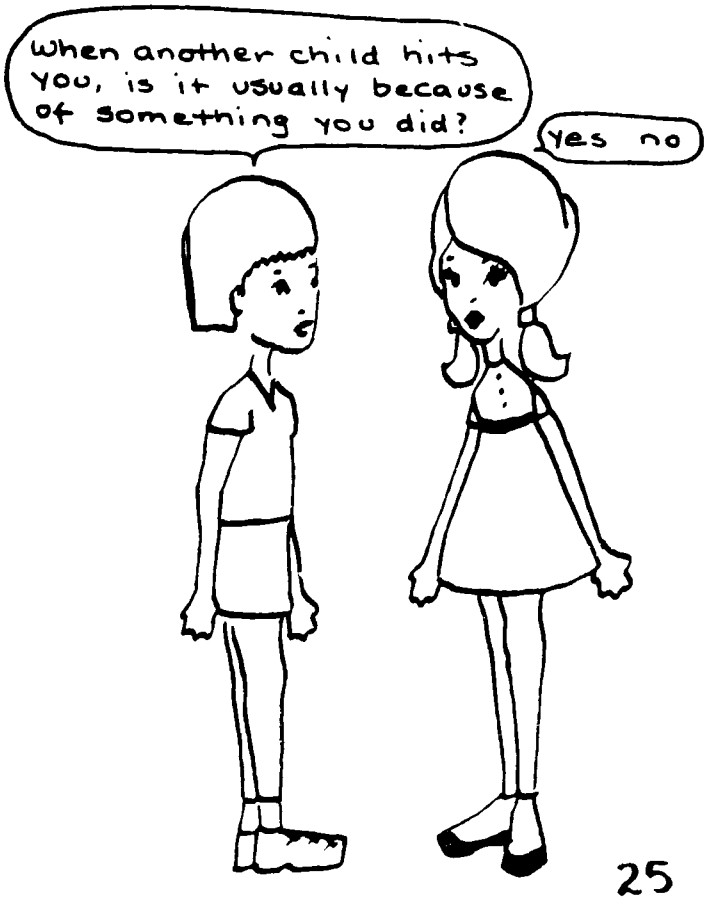
22


Are you the kind of child who believes that thinking about what you are going to do makes things turn out better?
yes no

23


Do you think it's better to be smart than to be lucky?
yes no

24


When another child hits you, is it usually because of something you did?
yes no

25


Is one of the best ways to handle a problem just not to think about it?
yes n

26

INSTRUCTIONS

This questionnaire is made up of this Booklet of questions and an Answer Sheet. Please mark your answer to the items of this booklet on the answer sheet.

Read each statement in the Booklet, and draw an X through the number 1, 2, 3, 4, 5, or 6 on the Answer Sheet according to whether you think the behavior or situation described is:

1. Very common-----occurs in 90-100% of children of the mentioned age.
2. Quite common---- " " 70- 90% " " " " " " ..
3. Common---------- " " 50- 70% " " " " " " .
4. Uncommon-------- " " 30- 50% " " " " " " .
5. Quite uncommon-- " " 10- 30% " " " " " " .
6. Very uncommon--- " " 0- 10% " " " " " " .

Refer back to these ratings occasionally as you go through the Booklet.

The following are three examples of the type of question in the Booklet and how they might be answered.

Statement in Booklet	Example of Answer Sheet
1. Ann is two years old. She can walk only by holding on to someone's hand, a chair or something else to steady herself.	1. 1 2 3 4 5 ⊠

(You would cross out the 6 on the answer sheet to indicate that this is very uncommon if for example, you should think that only a very few (10% or less) girls at age of two years would still have to hold on to something in order to walk.)

INSTRUCTIONS CONTINUED ON NEXT PAGE

Instructions Continued:

Statement in Booklet	Example of Answer Sheet
2. **Johnny is 3 years old. He is able to feed himself at the table with very little help from his mothers.**	2. 1 **X** 3 4 5 6

(You would cross out the 2 on the answer sheet if, for example, you should think that 70-90% of boys could do this by the age of three years.)

3. **Johnny is seven. He can print both his first and last names.**	3. **X** 2 3 4 5 6

In deciding upon your answer to each statement think of it in terms of what you presently observe and remember of your own child when she was of the ages specified in each statement: that is, the behaviour described very common, quite common etc. For questions that refer to ages older than your child, make a guess in terms of what you would expect for her at that age.

1. Ann is two years old. She stays happily with the next door neighbor while her mother goes shopping.

2. Johnny is two years old. He refuses to eat at meal time unless he can feed himself.

3. Ann is two. She can turn the water faucets in the kitchen on and off by herself when she needs a drink.

4. Johnny is two. In walking down the five steps at the back door his mother wants to hold his hand. He pulls away and goes down alone.

5. Johnny is two. He can climb the five steps to the top of the slide in the park and slide down.

6. Johnny is two. He is often observed speaking 5-6 word sentences.

7. Ann is two. Whenever her parents have company she insists on sitting on her mother's lap.

8. Johnny is two. He has a set of different sized cans. He can put one inside the other nesting them.

9. Ann is three. She cries when her mother leaves her in their own home with a new baby-sitter.

10. Johnny is three. He insists on putting on his socks alone.

11. Ann is three. She can pour milk from a small pitcher into her cup without spilling.

12. Ann is three. At nursery school she often needs to watch for a while before she is ready to play.

13. Johnny is three. He calls through the fence to the child next door to come play with him.

14. Ann is three. She refuses to let her mother help her put on her socks as an expression of independence.

15. Johnny is three. He can ride a tricycle following a figure 8 path drawn on the driveway.

16. Ann is three. She uses the toilet when she needs to without asking for help.

17. Johnny is three. He can zip-up his jacket by himself.

18. Johnny is three. He can handle his clothing by himself when he uses the toilet.

19. Ann is three. With a sharp stick she pierces beetles, spiders and other bugs she finds in the yard and watches them wriggle with interest, but with no noticeable emotional reaction.

20. Ann is four. She clings to her mother and cries when she meets an unfamiliar person.

21. Johnny is four. He goes shopping with his mother. He wants to take Fido along. Mother says no. He sulks and refuses to talk with his mother for the next hour.

22. Johnny is four. He stands and watches others play most of the time at the nursery school.

23. Ann is four. She tells her mother what she would like to eat for lunch.

24. Johnny is four. He knows his telephone number.

25. Ann is four. She follows her mother everywhere around the house most of the time.

26. Ann is four. On occasion she asks her father to give her a baby like he gave her mother.

27. Johnny is four. When his mother talks on the phone, Johnny tries to pull her away.

28. Johnny is four. He is shopping with his mother in a department store. He sees something he wants very much. His mother explains that he cannot have it. He throws a temper tantrum.

29. Johnny is four. He starts to attend nursery school. He has no difficulty making several friends the first day.

30. Ann is four. She climbs up steps to the washbowl and brushes her teeth without adult help.

31. Ann is four. While telling her father about her play during the day, she tends to have some difficulty with stuttering and stammering.

32. Ann is four. She has spent her first day at the nursery school. When her mother comes for her after the 3-hour period in school Ann is reluctant to leave the other children and go home with her mother.

33. Johnny is four. A new family with a boy his age has moved next door. Johnny has no one else to play with but he cannot bring himself to go over and meet the other boy although his mother encourages him to do so.

34. Ann is four. She recognizes her name in print.

35. Ann is four. Whenever her daddy goes into the bathroom before her she runs after him and watches.

36. Johnny is four. He can put on his shoes and tie the laces.

37. Johnny is four. His mother lays out the clothes when she awakens him. He dresses and washes himself before coming to breakfast.

38. Johnny is four. He is a chronic thumbsucker.

39. Ann is four. Her mother has to go downtown on a short errand. She takes her to the neighbor with whom she has occasionally left her. Ann clings to her mother's skirt and does not want her to leave.

40. Johnny is five. He can tell the time to the quarter hour.

41. Johnny is five. He still, at times, wets his bed at night.

42. Ann is five. When she does something bad she always asks her mother whether she still likes her.

43. Johnny is five. He owns a sharp pocket knife used to carve wood.

44. Johnny is five. He reads traffic signs, some TV commercials and product names on cereal boxes.

45. Ann is five. She has learned to tie her shoe laces but continues to ask her mother to do it for her.

46. Johnny is five. His parents have guests. Johnny runs naked in the living room to tell his mother something.

47. Ann is five. She counts to 50 with accuracy and ease.

48. Johnny is five. It is his first day in kindergarten. All have brought their lunches. During lunch period Johnny sits at the edge of the group looking on but does not participate socially.

49. Johnny is five. The Good Humor man goes by. He wants some ice cream but his mother says "no." Johnny shrugs his shoulders and returns to his play.

50. Ann is six. She does not want to let her mother comb her hair in public. She would rather do it herself.

51. Johnny is six. He can spell approximately twenty words.

52. Johnny is six. He frequently goes to the news stand alone to bring his dad the evening paper. On his way he has to cross a busy intersection with traffic signals.

53. Ann is six. She often asks her parents why she was not given a penis like her brother.

54. Ann is seven. The night-lite in her room does not work. She is afraid of the dark and refuses to go to bed until the light is fixed.

55. Johnny is six. He is playing with his blocks and has almost completed a sky-scraper. His mother asks him for the third time to put them away and get ready for dinner. He calmly continues to play without paying any attention to her repeated commands.

56. Johnny is six. He can count by 2's, 5's, and 10's up to 50.

57. Johnny is six. When he has finished playing with his toys in his room, he puts them away without having to be told.

58. Ann is six. She is playing "doctor" with Johnny, age five.

59. Ann is six. She bites her fingernails incessantly.

60. Ann is six. She is at a birthday party. The children are playing the game of "guess the animal sound." When it is her turn to imitate an animal, she refuses.

61. Ann is six. She does not want to wear the dress her mother has laid out because it has a spot on it.

62. Johnny is seven. He is able to use the dictionary to determine the correct spelling of words.

63. Ann is seven. She decides by herself which clothes she will wear to school each day.

64. Johnny is seven. He is sent to his room for disobedient behavior. Alone in his room, he begins to play with his genitals.

65. Ann is seven. She goes with her parents to visit another family whom she has never met. The family has a girl of her age. She chooses to stay beside her mother rather than go out and play with the other girl.

66. Johnny is seven. He can add columns of numbers three and four digits wide and high.

67. Johnny is seven. He is able to get into the bathroom, turn on the water, and take a shower without any assistance from his parents.

68. Ann is seven. When she is punished by her parents she occasionally has thoughts of running away from home.

69. Johnny is seven. After school, Charles and Johnny get together to look at the dirty picture book Johnny has managed to obtain.

70. Johnny is seven. On occasion he writes, by himself, quite accurately, short (20 words) letters to his grandparents.

CHILD BEHAVIOR SCALE--ANSWER SHEET Date:_____

Name of Parent:_____ Age:_____ No. of Children:_____

Child Name:_____ Age:_____ Sex:_____

Read each statement in the Booklet, then draw an X through the number 1, 2, 3, 4, 5 or 6 to indicate whether you consider the described behavior or situation as:

1. Very common (90-100%)
2. Quite common (70-90%)
3. Common (50-70%)
4. Uncommon (30-50%)
5. Quite uncommon (10-30%)
6. Very uncommon (0-10%)

1. 1 2 3 4 5 6	24. 1 2 3 4 5 6	48. 1 2 3 4 5 6
2. 1 2 3 4 5 6	25. 1 2 3 4 5 6	49. 1 2 3 4 5 6
3. 1 2 3 4 5 6	26. 1 2 3 4 5 6	50. 1 2 3 4 5 6
4. 1 2 3 4 5 6	27. 1 2 3 4 5 6	51. 1 2 3 4 5 6
5. 1 2 3 4 5 6	28. 1 2 3 4 5 6	52. 1 2 3 4 5 6
6. 1 2 3 4 5 6	29. 1 2 3 4 5 6	53. 1 2 3 4 5 6
7. 1 2 3 4 5 6	30. 1 2 3 4 5 6	54. 1 2 3 4 5 6
8. 1 2 3 4 5 6	31. 1 2 3 4 5 6	55. 1 2 3 4 5 6
9. 1 2 3 4 5 6	32. 1 2 3 4 5 6	56. 1 2 3 4 5 6
10. 1 2 3 4 5 6	33. 1 2 3 4 5 6	57. 1 2 3 4 5 6
11. 1 2 3 4 5 6	34. 1 2 3 4 5 6	58. 1 2 3 4 5 6
12. 1 2 3 4 5 6	35. 1 2 3 4 5 6	59. 1 2 3 4 5 6
13. 1 2 3 4 5 6	36. 1 2 3 4 5 6	60. 1 2 3 4 5 6
14. 1 2 3 4 5 6	37. 1 2 3 4 5 6	61. 1 2 3 4 5 6
15. 1 2 3 4 5 6	38. 1 2 3 4 5 6	62. 1 2 3 4 5 6
16. 1 2 3 4 5 6	39. 1 2 3 4 5 6	63. 1 2 3 4 5 6
17. 1 2 3 4 5 6	40. 1 2 3 4 5 6	64. 1 2 3 4 5 6
18. 1 2 3 4 5 6	41. 1 2 3 4 5 6	65. 1 2 3 4 5 6
19. 1 2 3 4 5 6	42. 1 2 3 4 5 6	66. 1 2 3 4 5 6
20. 1 2 3 4 5 6	43. 1 2 3 4 5 6	67. 1 2 3 4 5 6
21. 1 2 3 4 5 6	44. 1 2 3 4 5 6	68. 1 2 3 4 5 6
22. 1 2 3 4 5 6	45. 1 2 3 4 5 6	69. 1 2 3 4 5 6
23. 1 2 3 4 5 6	46. 1 2 3 4 5 6	70. 1 2 3 4 5 6
	47. 1 2 3 4 5 6	

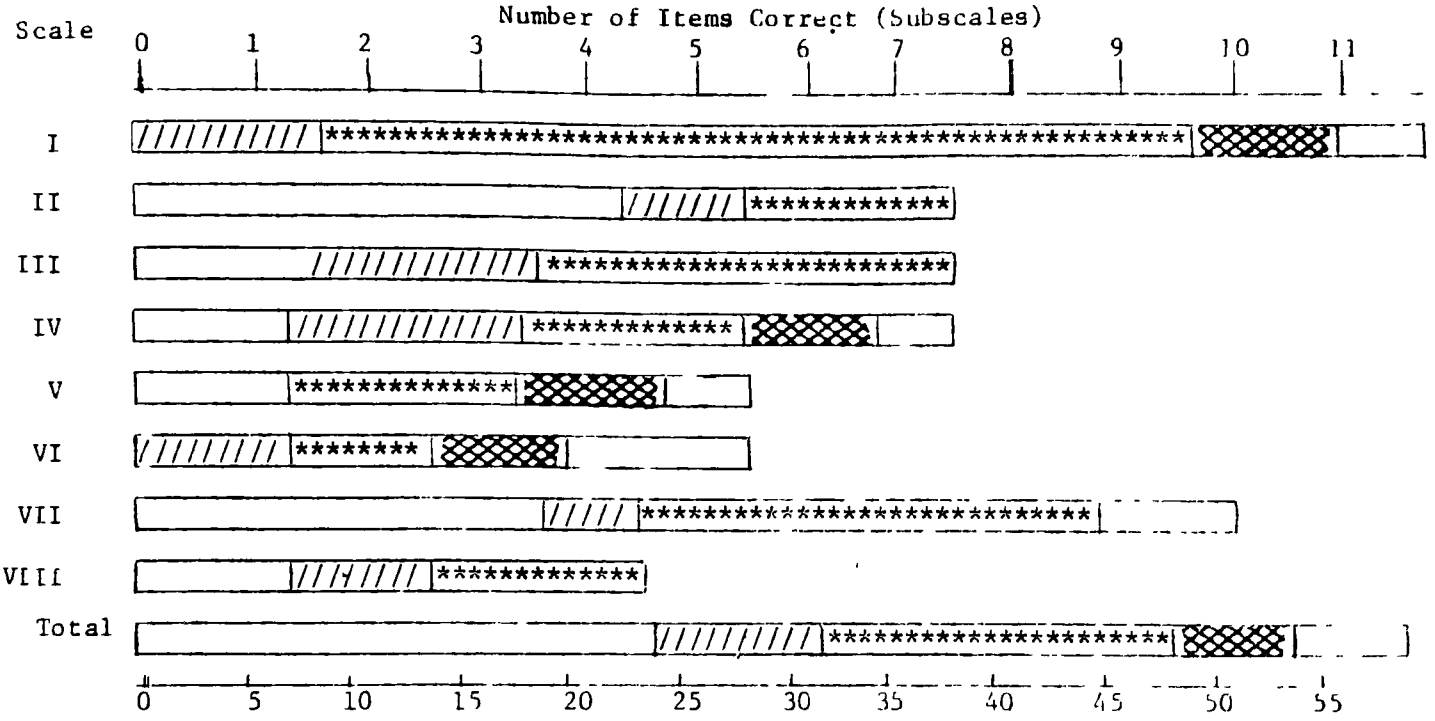
APPENDIX 7

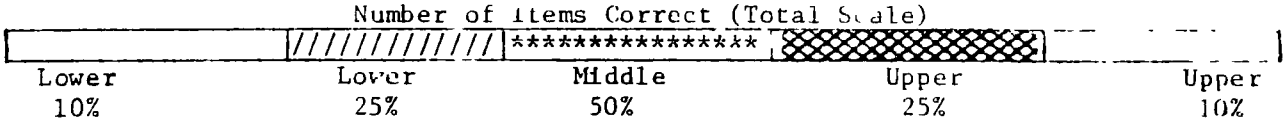
HOME INVENTORY (Preschool)

Child's Name _____ Date of Interview _____

Child's Birthdate _____ Interviewer _____

Relationship of person interviewed to child _____ Place of interview _____





Subscale	Raw Score	Percentile Band
I Stimulation Through Toys, Games and Reading Materials		
II Language Stimulation		
III Physical Environment: Safe, Clean, and Conducive to Development		
IV Pride, Affection, and Warmth		
V Stimulation of Academic Behavior		
VI Modeling and Encouragement of Social Maturity		
VII Variety of Stimulation		
VIII Physical Punishment		
Total		

INVENTORY (Preschool)

I. STIMULATION THROUGH TOYS, GAMES, AND READING MATERIALS	YES	NO
1. Toys to learn colors and sizes and shapes--pressouts, play school, pegboards, etc.		
2. Three or more puzzles.		
3. Record player and at least five children's records.		
4. Toys or game permitting free expression (finger paints, play dough, crayons or paint and paper, etc.)		
5. Toys or game necessitating refined movements (paint by number, dot book, paper dolls, crayons and coloring books).		
6. Toys or game facilitating learning numbers (blocks with numbers, books about numbers, games with numbers, etc.)		
7. Ten children's books.		
8. At least ten books are present and visible in the apartment.		
9. Family buys a newspaper daily and reads it.		
10. Family subscribes to at least one magazine.		
11. Child is encouraged to learn shapes.		

II. LANGUAGE STIMULATION	YES	NO
12. Toys to learn animals--books about animals, circus, games, animal puzzles, etc.		
13. Child is encouraged to learn the alphabet.		
14. Parent teaches child some simple manners--to say, "Please," "Thank you," "I'm sorry."		
15. Mother uses correct grammar and pronunciation.		

	YES	NO
16. Parent encourages child to relate experiences or takes time to listen to him relate experiences.		
17. When speaking of or to child, mother's voice conveys positive feeling.		
18. Child is permitted some choice in lunch or breakfast menu.		
SUBSCORE		

III. PHYSICAL ENVIRONMENT: SAFE, CLEAN AND CONDUCIVE TO DEVELOPMENT	YES	NO
19. Building has no potentially dangerous structural or health defect (e.g., plaster coming down from ceiling, stairway with boards missing, rodents, etc.)		
20. Child's outside play environment appears safe and free of hazards. (No outside play area requires an automatic "no".)		
21. The interior of the apartment is not dark or perceptably monotonous.		
22. Neighborhood has trees, grass, birds--is esthetically pleasing.		
23. There is at least 100 square feet of living space per person in the house.		
24. In terms of available floor space, the rooms are not overcrowded with furniture.		
25. All visible rooms of the house are reasonably clean and minimally cluttered.		
SUBSCORE		

IV. PRIDE, AFFECTION, AND WARMTH	YES	NO
26. Parent holds child close ten to fifteen minutes per day, e.g., during TV, story time, visiting.		
27. Mother converses with child at least twice during visit (scolding and suspicious comments not counted)		

28. Mother answers child's questions or requests verbally.	
29. Mother usually responds verbally to child's talking.	
30. Mother spontaneously praises child's qualities or behavior twice during visit.	
31. Mother caresses, kisses or cuddles child at least once during visit.	
32. Mother sets up situation that allows child to show off during visit.	
SUBSCORE	

V. STIMULATION OF ACADEMIC BEHAVIOR	
33. Child is encouraged to learn colors.	
34. Child is encouraged to learn patterned speech (nursery rhymes, prayers, songs, TV commercials, etc.)	
35. Child is encouraged to learn spatial relationships (up, down, under, big, little, etc.)	
36. Child is encouraged to learn numbers.	
37. Child is encouraged to learn to read a few words.	
SUBSCORE	

VI. MODELING AND ENCOURAGEMENT OF SOCIAL MATURITY	
38. Some delay of food gratification is demanded of the child, e.g., not to whine or demand food unless within 1/2 hour of meal time.	
39. Family has TV, and it is used judiciously, not left on continuously. (No TV requires an automatic "No"-- any scheduling scores "Yes".	
40. Mother introduces interviewer to child.	
41. Child can express negative feelings without harsh reprisal.	
42. Child is permitted to hit parent without harsh reprisal	
SUBSCORE	

VII. VARIETY OF STIMULATION	YES	NO
43. Real or toy musical instrument (piano, drum, toy xylophone or guitar, etc.)		
44. Family members have taken child on one outing (picnic, shopping excursion) at least every other week.		
45. Child has been taken by family member on a trip more than 50 miles from his home during the past year (50 mile radial distance not total distance).		
46. Child has been taken by a family member to a scientific, historical, or art museum within the past year.		
47. Tries to get child to pick up and put away toys after play session--without help.		
48. Mother uses complex sentence structure and some long words in conversing.		
49. Child's art work is displayed some place in house (anything that child makes.)		
50. Child eats at least one meal per day, on most days, with mother (or mother figure) and father (or father figure). (One parent families get an automatic "no".)		
51. Parent lets child choose certain favorite food products or brands at grocery store.		
SUBSCORE		

VIII. PHYSICAL PUNISHMENT	YES	NO
52. Mother does not scold (yell?) or derogate child more than once during visit.		
53. Mother does not use physical restraint, shake, grab, or pinch child during visit.		
54. Mother neither slaps or spanks child during visit.		
55. No more than one instance of physical punishment occurred during the past week. (accept parental report).		
SUBSCORE		

Maryland Parent Attitude Survey

by

Donald K. Pumroy

Directions: This survey is concerned with parents attitudes toward child-rearing. At first, you will probably find it difficult; but as you proceed, it will go more rapidly.

Below are presented 95 pairs of statements on attitudes toward child rearing. Your task is to choose ONE of the pair (A or B) that MOST represents your attitude, and place a circle around the letter (A or B) that proceeds that statement. Thus: (A) Parents should like their children
B Parents frequently find children a burden.

Note that in some cases it will seem that both represent the way you feel: while, on other occasions, neither represents your point of view. In both cases, however, you are to choose the one that MOST represents your point of view. As this is sometimes difficult to do, the best way to proceed is to put down your first reaction. Please pick one from each of the pairs.

1. A. Parents know what is good for their children.
   B. A good leather scrap makes children respect parents.

2. A. Parents should give some explanations for rules and restrictions.
   B. Children should never be allowed to break a rule without being punished.

3. A. Parents do much for their children with no thanks in return.
   B. Children should have tasks that they do without being reminded.

4. A. Parents should sacrifice everything for their children.
   B. Children should obey their parents.

5. A. Children should follow the rules their parents put down.
   B. Children should not interfere with their parents' night out.

6. A. Parents should watch their children all the time to keep them from getting hurt.
   B. Children who always obey grow up to be the best adults.

7. A. Children should never be allowed to talk back to their parents.
   B. Parents should accompany their children to the places they want to go.

8. A. Children should learn to keep their place.
   B. Children should be required to consult their parents before making any important decisions.

9. A. Quiet, well behaved children will develop into the best type of grown-up.
   B. Parents should pick up their child's toys if he doesn't want to do it himself.

10. A. Parents should do things for their children.
    B. A child's life should be as pleasant as possible.

11. A. Watching television keeps children out of the way.
    B. Children should never be allowed to talk back to their parents.

12. A. Personal untidiness is a revolt against authority so parents should take the matter in hand.
    B. A good child always ask permission before he does anything so he doesn't get into trouble.

13. A. Sometimes children make a parent so mad they see red.
    B. Parents should do things for their children.

14. A. Children should be taught to follow the rules of the game.
    B. A child's life should be as pleasant as possible.

15. A. Parents should cater to their children's appetites.
    B. Many parents wonder if parenthood is worthwhile.

16. A. A child's life should be as pleasant as possible.
    B. Sometimes children make their parents so mad they see red.

17. A. Children should not tell anyone their problems except their parents.
    B. Children should play whenever they feel like in the house.

18. A. A good form of discipline is to deprive a child of the things that he really wants.
    B. Children should do what they are told without arguing.

19. A. Children should be taken to and from school to make sure there are no accidents.
    B. Children who always obey grow up to be the best adults.

20. A. Many parents wonder if parenthood is worthwhile.
    B. Children should be required to consult their parents before making any decisions.

21. A. If a child doesn't like a particular food, he should be made to eat it.
    B. Children should have lots of gifts and toys.

22. A. Children should play whenever they feel like in the house.
    B. Good children are generally those who keep out of their parents way.

23. A. Children never volunteer to do anything around the house.
    B. Parents should pick up their child's toys if he doesn't want to do it himself.

24. A. Good children are generally those who keep out of their parents' way.
    B. Children should not be allowed to play in the living room.

25. A. Modern children talk back to their parents too much.
    B. Children should be required to consult their parents before making any decisions.

26. A. Parents should make it their business to know everything their children are thinking.
    B. Children never volunteer to do any work around the house.

27. A. Children should come immediately when their parents call.
    B. Parents should give surprise parties for their children.

28. A. Good parents overlook their children's shortcomings.
    B. Watching television keeps children out of the way.

29. A. Parents should watch their children all the time to keep them from getting hurt.
    B. A child should never be forced to do anything he doesn't want to do.

30. A. Television keeps children out of the way.
    B. The most important thing to teach children is discipline.

31. A. Children should do what they are told without arguing.
    B. Parents know how much a child needs to eat to stay healthy.

32. A. Television keeps children out of the way.
    B. A child needs someone to make judgments for him.

33. A. Modern children talk back to their parents too much.
    B. Parents should amuse their children if no playmates are around to amuse them.

34. A. Good children are generally those who keep out of their parents' way.
    B. Parents should pick up their child's toys if he doesn't want to do it himself.

35. A. Parents should see to it that their children do not learn bad habits from others.
    B. Good parents lavish their children with warmth and affection.

36. A. Parents shouldn't let their children tie them down.
    B. Modern children talk back to their parents too much.

37. A. Children who destroy any property should be severely punished.
    B. Children cannot make judgments very well for themselves.

38. A. Most parents are relieved when their children finally go to sleep.
    B. Parents should hide dangerous oojects from their children.

39. A. Children should not be allowed to play in the living room.
    B. Children should play whenever they feel like in the house.

40. A. Parents should give surprise parties for their children.
    B. Most parents are relieved when their children finally go to sleep.

41. A. Children should be taken to and from school to make sure there are no accidents.
    B. Parents should clean up after their children.

42. A. Children are best when they are asleep.
    B. Personal untidiness is a revolt against authority so parents should take the matter in hand.

43. A. The earlier the child is toilet trained the better.
    B. A child needs someone to make judgements for him.

44. A. Watching television keeps children out of the way.
    B. Parents should accompany their children to the places they go.

45. A. The earlier the child is toilet trained the better.
    B. Good parents overlook their children's shortcomings.

46. A. Parents should clean up after their children.
    B. Children need their natural meanness taken out of them.

47. A. Parents should give surprise parties for their children.
    B. Parents should hide dangerous objects from their children.

48. A. Most parents are relieved when their children finally go to sleep.
    B. Children should come immediately when their parents call.

49. A. Children who lie should always be spanked.
    B. Children should be required to consult their parents before making any decisions.

50. A. Sometimes children just seem mean.
    B. Parents should see to it that their children do not learn bad habits from others.

51. A. Punishment should be fair and fit the crime.
    B. Parents should feel great love for their children.

52. A. Parents should buy the best things for their children.
    B. Children are best when they are asleep.

53. A. Children should be required to consult their parents before making any decisions.
    B. Parents should cater to their children's appetites.

54. A. Parents should have time for outside activities.
    B. Punishment should be fair and fit the crime.

55. A. Children should not be allowed to play in the living room.
    B. Children should not tell anyone their problems except their parents.

56. A. It seems that children get great pleasure out of disobeying their elders.
    B. Parents should watch their children all the time to keep them from getting hurt.

57. A. Personal untidiness is a revolt against authority so parents should take the matter in hand.
    B. Parents should buy the best things for their children.

58. A. Children should learn to keep their place.
    B. Good parents overlook their children's shortcomings.

59. A. Parents should accompany their children to the places that they want to go.
    B. Good parents overlook their children's shortcomings.

60. A. Children do many things just to torment their parents.
    B. Parents should insist that everyone of their commands be obeyed.

61. A. Children should come immediately when their parents call.
    B. Parents should hide dangerous objects from their children.

62. A. Children do many things just to torment a parent.
    B. Children should be protected from upsetting experiences.

63. A. Children who lie should always be spanked.
    B. Parents should cater to their children's appetites.

64. A. A child should never be forced to do anything he does not want to do.
    B. It seems that children get great pleasure out of disobeying their elders.

65. A. Parents should keep a night light on for their children.
    B. Parents live again in their children.

66. A. Sometimes children make parents so mad they see red.
    B. Children should be taught to follow the rules of the game.

67. A. Parents should insist that everyone of their commands be obeyed.
    B. Children should be protected from upsetting experiences.

68. A. Good children are generally those who keep out of their parents way.
    B. Children should not tell anyone their problems except their parents.

69. A. Children who destroy property should be severely punished.
    B. Children's meals should always be ready for them when they come home from play or school.

70. A. Parents should frequently surprise their children with gifts.
    B. A good form of discipline is to deprive children of things that they really want.

71. A. Children should depend on their parents.
    B. Parents should amuse their children if no playmates are around to amuse them.

72. A. Many parents wonder if parenthood is worthwhile.
    B. Children who lie should always be spanked.

74. A. Quiet, well behaved children will develop into the best type of grown-up.
B. Children never volunteer to do anything around the house.

74. A. Children need their natural meanness taken out of them.
B. Children should be taken to and from school to be sure that there are no accidents.

75. A. Children should never be allowed to talk back to their parents.
B. Good parents overlook their children's shortcomings.

7 . A. Parents should give their children all that they can afford.
B. Television keeps children out of the way.

77. A. Children cannot make judgments very well for themselves.
B. Children's meals should always be ready for them when they come home from play or school.

78. A. Sometimes children are inconvenient.
B. Children should be reprimanded for breaking things.

79. A. If children misbehave they should be punished.
B. Parents should see to it that their children do not learn bad habits from others.

80. A. Children are often in one's way around the house.
B. Children seven years old are too young to spend summers away from home.

81. A. Children should do what they are told without arguing.
B. Parents should frequently surprise their children with gifts.

82. A. Parents should feel great love for their children.
B. Parents should have time for outside activities.

83. A. A child needs someone to make judgments for him.
B. Good parents overlook their children's shortcomings.

84. A. Parents should make it their business to know everything their children are thinking.
B. Quiet, well behaved children will develop into the best type of grownup.

85. A. Children who destroy any property should be severely punished.
B. A good child always asks permission before he does anything so that he does not get into trouble.

86. A. A good form of discipline is to deprive a child of things that he really wants.
B. Parents know how much a child needs to eat to stay healthy.

87. A. The most important thing to teach a child is discipline.
B. Parents should give their children all that they can afford.

88. A. Parents should amuse their children if no playmates are around to amuse them.
B. Parents shouldn't let children tie them down.

89. A. Parents know how much a child needs to eat to stay healthy.
    B. Parents should frequently surprise their children with gifts.

90. A. Sometimes children just seem mean.
    B. If children misbehave they should be punished.

91. A. Children should be taught to follow the rules of the game.
    B. Parents should do things for their children.

92. A. Parents shouldn't let their children tie them down.
    B. Children should depend on their parents.

93. A. Children who always obey grow up to be the best adults.
    B. Parents should clean up after their children.

94. A. Children's meals should always be ready for them when they come home from play or school.
    B. Children do many things just to torment a parent.

95. A. A good child always asks permission before he does anything, so that he doesn't get into trouble.
    B. Parents should buy the best things for their children.

APPENDIX 9

The Adjective Check List

by

HARRISON G. GOUGH, Ph.D.

University of California (Berkeley)

Name ..... Age ..... Sex .....

Date ..... Other .....

DIRECTIONS: This booklet contains a list of adjectives. Please read them quickly and put an **X** in the box beside each one you would consider to be self-descriptive. Do not worry about duplications, contradictions, and so forth. Work quickly and do not spend too much time on any one adjective. Try to be frank, and check those adjectives which describe you as you really are, not as you would like to be.

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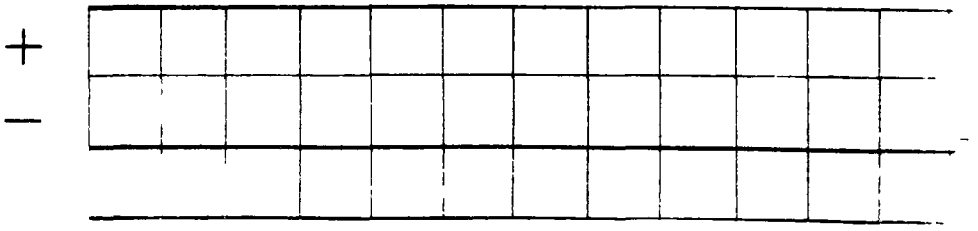
- ☐ absent-minded 1
- ☐ active 2
- ☐ adaptable 3
- ☐ adventurous 4
- ☐ affected 5
- ☐ affectionate 6
- ☐ aggressive 7
- ☐ alert 8
- ☐ aloof 9
- ☐ ambitious 10
- ☐ anxious 11
- ☐ apathetic 12
- ☐ appreciative 13
- ☐ argumentative 14
- ☐ arrogant 15
- ☐ artistic 16
- ☐ assertive 17
- ☐ attractive 18
- ☐ autocratic 19
- ☐ awkward 20
- ☐ bitter 21
- ☐ blustery 22
- ☐ boastful 23
- ☐ bossy 24
- ☐ calm 25
- ☐ capable 26
- ☐ careless 27
- ☐ cautious 28
- ☐ changeable 29
- ☐ charming 30
- ☐ cheerful 31
- ☐ civilized 32
- ☐ clear-thinking 33
- ☐ clever 34
- ☐ coarse 35
- ☐ cold 36
- ☐ commonplace 37
- ☐ complaining 38
- ☐ complicated 39
- ☐ conceited 40
- ☐ confident 41
- ☐ confused 42
- ☐ conscientious 43
- ☐ conservative 44
- ☐ considerate 45
- ☐ contented 46
- ☐ conventional 47
- ☐ cool 48
- ☐ cooperative 49
- ☐ courageous 50
- ☐ cowardly 51
- ☐ cruel 52
- ☐ curious 53
- ☐ cynical 54
- ☐ daring 55
- ☐ deceitful 56
- ☐ defensive 57
- ☐ deliberate 58
- ☐ demanding 59
- ☐ dependable 60
- ☐ dependent 61
- ☐ despondent 62
- ☐ determined 63
- ☐ dignified 64
- ☐ discreet 65
- ☐ disorderly 66
- ☐ dissatisfied 67
- ☐ distractible 68
- ☐ distrustful 69
- ☐ dominant 70
- ☐ dreamy 71
- ☐ dull 72
- ☐ easy going 73
- ☐ effeminate 74
- ☐ efficient 75
- ☐ egotistical 76
- ☐ emotional 77
- ☐ energetic 78
- ☐ enterprising 79
- ☐ enthusiastic 80
- ☐ evasive 81
- ☐ excitable 82
- ☐ fair-minded 83
- ☐ fault-finding 84
- ☐ fearful 85
- ☐ feminine 86
- ☐ fickle 87
- ☐ flirtatious 88
- ☐ foolish 89
- ☐ forceful 90
- ☐ foresighted 91
- ☐ forgetful 92
- ☐ forgiving 93
- ☐ formal 94
- ☐ frank 95
- ☐ friendly 96
- ☐ frivolous 97
- ☐ fussy 98
- ☐ generous 99
- ☐ gentle 100
- ☐ gloomy 101
- ☐ good-looking 102
- ☐ good-natured 103
- ☐ greedy 104
- ☐ handsome 105
- ☐ hard-headed 106
- ☐ hard-hearted 107
- ☐ hasty 108
- ☐ headstrong 109
- ☐ healthy 110
- ☐ helpful 111
- ☐ high-strung 112
- ☐ honest 113
- ☐ hostile 114
- ☐ humorous 115
- ☐ hurried 116
- ☐ idealistic 117
- ☐ imaginative 118
- ☐ immature 119
- ☐ impatient 120
- ☐ impulsive 121
- ☐ independent 122
- ☐ indifferent 123
- ☐ individualistic 124
- ☐ industrious 125
- ☐ infantile 126
- ☐ informal 127
- ☐ ingenious 128
- ☐ inhibited 129
- ☐ initiative 130
- ☐ insightful 131
- ☐ intelligent 132
- ☐ interests narrow 133
- ☐ interests wide 134
- ☐ intolerant 135
- ☐ inventive 136
- ☐ irresponsible 137
- ☐ irritable 138
- ☐ jolly 139
- ☐ kind 140
- ☐ lazy 141
- ☐ leisurely 142
- ☐ logical 143
- ☐ loud 144
- ☐ loyal 145
- ☐ mannerly 146
- ☐ masculine 147
- ☐ mature 148
- ☐ meek 149
- ☐ methodical 150

DO NOT PRINT



- [ ] mild 151
- [ ] mischievous 152
- [ ] moderate 153
- [ ] modest 154
- [ ] moody 155
- [ ] nagging 156
- [ ] natural 157
- [ ] nervous 158
- [ ] noisy 159
- [ ] obliging 160
- [ ] obnoxious 161
- [ ] opinionated 162
- [ ] opportunistic 163
- [ ] optimistic 164
- [ ] organized 165
- [ ] original 166
- [ ] outgoing 167
- [ ] outspoken 168
- [ ] painstaking 169
- [ ] patient 170
- [ ] peaceable 171
- [ ] peculiar 172
- [ ] persevering 173
- [ ] persistent 174
- [ ] pessimistic 175
- [ ] planful 176
- [ ] pleasant 177
- [ ] pleasure-seeking 178
- [ ] poised 179
- [ ] polished 180
- [ ] practical 181
- [ ] praising 182
- [ ] precise 183
- [ ] prejudiced 184
- [ ] preoccupied 185
- [ ] progressive 186
- [ ] prudish 187
- [ ] quarrelsome 188
- [ ] queer 189
- [ ] quick 190
- [ ] quiet 191
- [ ] quitting 192
- [ ] rational 193
- [ ] rattlebrained 194
- [ ] realistic 195
- [ ] reasonable 196
- [ ] rebellious 197
- [ ] reckless 198
- [ ] reflective 199
- [ ] relaxed 200
- [ ] reliable 201
- [ ] resentful 202
- [ ] reserved 203
- [ ] resourceful 204
- [ ] responsible 205
- [ ] restless 206
- [ ] retiring 207
- [ ] rigid 208
- [ ] robust 209
- [ ] rude 210
- [ ] sarcastic 211
- [ ] self-centered 212
- [ ] self-confident 213
- [ ] self-controlled 214
- [ ] self-denying 215
- [ ] self-pitying 216
- [ ] self-punishing 217
- [ ] self-seeking 218
- [ ] selfish 219
- [ ] sensitive 220
- [ ] sentimental 221
- [ ] serious 222
- [ ] severe 223
- [ ] sexy 224
- [ ] shallow 225
- [ ] sharp-witted 226
- [ ] shiftless 227
- [ ] show-off 228
- [ ] shrewd 229
- [ ] shy 230
- [ ] silent 231
- [ ] simple 232
- [ ] sincere 233
- [ ] slipshod 234
- [ ] slow 235
- [ ] sly 236
- [ ] smug 237
- [ ] snobbish 238
- [ ] sociable 239
- [ ] soft-hearted 240
- [ ] sophisticated 241
- [ ] spendthrift 242
- [ ] spineless 243
- [ ] spontaneous 244
- [ ] spunky 245
- [ ] stable 246
- [ ] steady 247
- [ ] stern 248
- [ ] stingy 249
- [ ] stolid 250
- [ ] strong 251
- [ ] stubborn 252
- [ ] submissive 253
- [ ] suggestible 254
- [ ] sulky 255
- [ ] superstitious 256
- [ ] suspicious 257
- [ ] sympathetic 258
- [ ] tactful 259
- [ ] tactless 260
- [ ] talkative 261
- [ ] temperamental 262
- [ ] tense 263
- [ ] thankless 264
- [ ] thorough 265
- [ ] thoughtful 266
- [ ] thrifty 267
- [ ] timid 268
- [ ] tolerant 269
- [ ] touchy 270
- [ ] tough 271
- [ ] trusting 272
- [ ] unaffected 273
- [ ] unambitious 274
- [ ] unassuming 275
- [ ] unconventional 276
- [ ] undependable 277
- [ ] understanding 278
- [ ] unemotional 279
- [ ] unexcitable 280
- [ ] unfriendly 281
- [ ] uninhibited 282
- [ ] unintelligent 283
- [ ] unkind 284
- [ ] unrealistic 285
- [ ] unscrupulous 286
- [ ] unselfish 287
- [ ] unstable 288
- [ ] vindictive 289
- [ ] versatile 290
- [ ] warm 291
- [ ] wary 292
- [ ] weak 293
- [ ] whiny 294
- [ ] wholesome 295
- [ ] wise 296
- [ ] withdrawn 297
- [ ] witty 298
- [ ] worrying 299
- [ ] zany 300

)W THIS LINE

APPENDIX 10

The Attitudes Toward Women Scale (AWS) and Its Scoring Key

(The most conservative alternative, scored 0, is shown)

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ATTITUDES TOWARD WOMEN

The statements listed below describe attitudes toward the role of women in society which different people have. There are no right or wrong answers, only opinions. You are asked to express your feelings about each statement by indicating whether you (A) Agree strongly, (B) Agree mildly, (C) Disagree mildly, or (D) Disagree strongly. Please indicate your opinion by marking the column on the answer sheet which corresponds to the alternative which best describes your personal attitude. Please respond to every item.

(A) Agree strongly (B) Agree mildly (C) Disagree mildly (D) Disagree strongly

Response keyed 0		
AS	1.	Women have an obligation to be faithful to their husbands.
AS	2.	Swearing and obscenity is more repulsive in the speech of a woman than a man.
AS	3.	The satisfaction of her husband's sexual desires is a fundamental obligation of every wife.
DS	4.	Divorced men should help support their children but should not be required to pay alimony if their wives are capable of working.
AS	5.	In ordinary circumstances, men should be expected to pay all the [illegible] out on a date.
DS	6.	Women should take responsibility for participating in solving the intellectual and social problems of the day.
DS	7.	It is a right for wives to have an occasional, casual, extramarital affair.
DS	8.	Special attentions [illegible] standing up for a woman who comes into a room or giving her a seat on a crowded bus are outmoded and should be discontinued.
DS	9.	Southern state [illegible] should admit the best qualified students, regardless of [illegible]

Response keyed 0		
DS	10.	Both husband and wife should be allowed the same grounds for divorce.
AS	11.	Telling dirty jokes should be mostly a masculine prerogative.
DS	12.	Husbands and wives should be equal partners in planning the family budget.
AS	13.	Men should continue to show courtesies to women such as holding open the door or helping them on with their coats.
DS	14.	Women should claim alimony not as persons incapable of self-support but only when there are children to provide for or when the burden of starting life anew after the divorce is obviously heavier for the wife.
AS	15.	Intoxication among women is worse than intoxication among men.
AS	16	The initiative in dating should come from the man.
DS	17	Under modern economic conditions with women being active outside the home, men should share in household tasks such as washing dishes and doing the laundry.
DS	18.	It is insulting to women to have the "obey" clause remain in the marriage service.
DS	19.	There should be a strict merit system in job appointment and promotion without regard to sex.
DS	20.	A man should be as free as a man to propose marriage.
DS	21.	Parental authority and responsibility for discipline of the children should be equally divided between husband and wife.
AS	22.	Women should worry less about their rights and more about becoming good wives and mothers.
DS	23.	Women who earn as much as their dates should bear equally the expense when they go out together.
DS	24.	Women should assume their rightful place in business and all the professions along with men.
AS	25.	A woman should not expect to go to exactly the same places or to have quite the same freedom of action as a man.
AS	26.	Girls from low income families should be given more encouragement to go to college than boys.

Response keyed 0

AS	27.	It is ridiculous for a woman to run a locomotive and for a man to darn socks.
AS	28.	It is childish for a woman to assert herself by retaining her maiden name after marriage.
DS	29.	Society should regard the services rendered by the women workers as valuable as those of men.
AS	30.	It is only fair that male workers should receive more pay than women even for identical work.
AS	31.	In general, the father should have greater authority than the mother in the bringing up of children
AS	32.	Women should be encouraged not to become sexually intimate with anyone before marriage, even their fiances
DS	33.	Women should demand money for household and personal expenses as a right rather than as a gift.
DS	34.	The husband should not be favored by law over the wife in the disposal of family property or income.
DS	35.	Wifely submission is an outworn virtue.
AS	36.	There are some professions and types of businesses that are more suitable for men than women.
AS	37	Women should be concerned with their duties of childrearing and house-tending, rather than with desires for professional and business careers.
AS	38	The intellectual leadership of a community should be largely in the hands of men
AS	39	A wife should make every effort to minimize irritation and inconvenience to the male head of the family
DS	40	There should be no greater barrier to an unmarried woman having sexual acquaintance than having dinner with him
DS	41.	Economic and social freedom is worth far more to women than acceptance of the ideal of femininity which has been set by men
AS	42	Women should take the passive role in courtship
AS	43	In the average home, women should be regarded as less capable of contribution to economic problems than are men

Response keyed 0

DS 44. The intellectual equality of woman with man is perfectly obvious.

DS 45. Women should have full control of their persons and give or withhold sex intimacy as they choose.

AS 46. The husband has in general no obligation to inform his wife of his financial plans.

AS 47. There are many jobs in which men should be given preference over women in being hired or promoted.

AS 48. Women with children should not work outside the home if they don't have to financially.

DS 49. Women should be given equal opportunity with men for apprenticeship in the various trades.

DS 50. The relative amounts of time and energy to be devoted to household duties on the one hand and to a career on the other should be determined by personal desires and interests rather than by sex.

AS 51. As head of the household, the husband should have more responsibility for the family's financial plans than his wife.

DS 52. If both husband and wife agree that sexual fidelity isn't important, there's no reason why both shouldn't have extramarital affairs if they want to.

AS 53. The husband should be regarded as the legal representative of the family group in all matters of law.

DS 54. The modern girl is entitled to the same freedom from regulation and control that is given to the modern boy.

AS 55. Most women need and want the kind of protection and support that men have traditionally given them.

I. Household Chores

This first portion of the interview is designed to find out who performs typical household chores in your family. In some homes, one person will do almost all of these chores. In other homes, different members of the family or outside help will do many of these chores. We would like to know who does these chores in your home. To aid you in answering, we would like for you to use the past week as a guide to estimate, as accurately as possible, who performed these chores, and how often they were performed during a week-long period. If the past week was not "typical" for some reason--if, for example, you were out of town or on vactation--think of some other, more "typical", week and estimate who did each chore and how many times they did it.

---

1. During the past week, who prepared your child's breakfast? If different for different children, enumerate. If child prepared, please indicate.

	0-1	2-4	5+	Verbalized Answer	Comments: (Different Children)
H:	___	___	___	H: ___	
W:	___	___	___	W: ___	
B:	___	___	___		
S:	___	___	___	Who: _____	

2. During the past week, who prepared the husband's breakfast or his first meal of the day?

	0-1	2-4	5+	Verbalized Answer	Comments:
H:	___	___	___	H: ___	
W:	___	___	___	W: ___	
B:	___	___	___		
S:	___	___	___	Who: _____	

3. During the past week, who set the table for the main meal of the day?

	0-1	2-4	5+	Verbalized Answer	Comments:
H:	___	___	___	H: ___	
W:	___	___	___	W: ___	
B:	___	___	___		
S:	___	___	___	Who: _____	

4. During the past week, who cooked the main meal of the day?

	0-1	2-4	5+	Verbalized Answer	Comments:
H:	___	___	___	H: ___	
W:	___	___	___	W: ___	
B:	___	___	___		
S:	___	___	___	Who: _____	

5. During the past week, who cleared the food and dishes from the main meal?

	0-1	2-4	5+	Verbalized Answer	Comments:
H:	___	___	___	H: ___	
W:	___	___	___	W: ___	
B:	___	___	___		
S:	___	___	___	Who: _____	

6. During the past week, who washed dishes or put them in the dishwasher?

	0-1	2-4	5+	Verbalized Answer	Comments:
H:	___	___	___	H: ___	
W:	___	___	___	W: ___	
B:	___	___	___		
S:	___	___	___	Who: _____	

7. During the past week, who locked the house at night or made sure that the door was locked?

	0-1	2-4	5+	Verbalized Answer	Comments:
H:	___	___	___	H: ___	
W:	___	___	___	W: ___	
B:	___	___	___		
S:	___	___	___	Who: _____	

The following questions refer to the past month, or a "typical" month. We would like for you to estimate as accurately as possible <u>who</u> performed these chores and <u>how often</u> they did them during the past or a "typical" month.

8. During the past month, who vacuumed the rugs?

	0-1	2-4	5+	Verbalized Answer	Comments:
H:	___	___	___	H: ___	
W:	___	___	___	W: ___	
B:	___	___	___		
S:	___	___	___	Who: _____	

9. During the past month, who emptied the garbage?

	0-1	2-4	5+	Verbalized Answer	Comments:
H:	___	___	___	H: ___	
W:	___	___	___	W: ___	
B:	___	___	___		
S:	___	___	___	Who: _____	

10. During the past month, who picked up around the house--clothes, newspapers, dishes, or other things that may be laying around?

	0-1	2-4	5+	Verbalized Answer	Comments:
H:	___	___	___	H: ___	
W:	___	___	___	W: ___	
B:	___	___	___		
S:	___	___	___	Who: _____	

11. During the past month, who dusted around the house?

	0-1	2-4	5+	Verbalized Answer	Comments:
H:	___	___	___	H: ___	
W:	___	___	___	W: ___	
B:	___	___	___		
S:	___	___	___	Who: _____	

12. During the past month, who cleaned the bathroom--scrubbed the sink, tub, toilet, and so forth?

	0-1	2-4	5+	Verbalized Answer	Comments:
H:	___	___	___	H: ___	
W:	___	___	___	W: ___	
B:	___	___	___		
S:	___	___	___	Who: _____	

13. During the past month, who bought the family's groceries?

	0-1	2-4	5+	Verbalized Answer	Comments:
H:	___	___	___	H: ___	
W:	___	___	___	W: ___	
B:	___	___	___		
S:	___	___	___	Who: _____	

14. During the past month, who paid the family bills? Who wrote checks for rent or mortgage payments, car payments, credit or insurance payments, or what have you?

	0-1	2-4	5+	Verbalized Answer	Comments:
H:	___	___	___	H: ___	
W:	___	___	___	W: ___	
B:	___	___	___		
S:	___	___	___	Who: _____	

15. During the past month, who gassed the family car or cars?

	0-1	2-4	5+	Verbalized Answer	Comments:
H:	___	___	___	H: ___	
W:	___	___	___	W: ___	
B:	___	___	___		
S:	___	___	___	Who: _____	

16. During the past month, who did the family wash?

	0-1	2-4	5+	Verbalized Answer	Comments:
H:	___	___	___	H: ___	
W:	___	___	___	W: ___	
B:	___	___	___		
S:	___	___	___	Who: _____	

17. During the past month, who changed the family's linens?

	0-1	2-4	5+	Verbalized Answer	Comments:
H:	___	___	___	H: ___	
W:	___	___	___	W: ___	
B:	___	___	___		
S:	___	___	___	Who: _____	

18. During the past month, who did the family banking?

	0-1	2-4	5+	Verbalized Answer	Comments:
H:	___	___	___	H: ___	
W:	___	___	___	W: ___	
B:	___	___	___		
S:	___	___	___	Who: _____	

19. During the past month, who did minor household repairs such as repairing frayed cords, fixing broken funiture, painting, and so forth?

	0-1	2-4	5+	Verbalized Answer	Comments:
H:	___	___	___	H: ___	
W:	___	___	___	W: ___	
B:	___	___	___		
S:	___	___	___	Who: _____	

20. During the past month, who mowed the lawn? Who trimmed the lawn? Who raked the lawn? (If inappropriate, do not ask.)

	0-1	2-4	5+	Verbalized Answer	Comments:
H:	___	___	___	H: ___	
W:	___	___	___	W: ___	
B:	___	___	___		
S:	___	___	___	Who: _____	

21. During the past month, who washed your child's or children's clothes?

	0-1	2-4	5+	Verbalized Answer	Comments:
H:	___	___	___	H: ___	
W:	___	___	___	W: ___	
B:	___	___	___		
S:	___	___	___	Who: _____	

II. Child Care Activities

There are a number of tasks and responsibilities directly associated with child care. As in the previous section on chores done around the house, we know that different families divide these responsibilities differently--in some homes, one person performs all child care activities, while, in other homes, different members of the family or others perform these same tasks. We would like to know who performs these tasks in your home. Once again, to aid you in answering, we would like you to think of the past week or a "typical" week and to estimate who performed these tasks, and how many times they did it.

22. During the past week, who saw to it that your child (or children) was (were) out of bed at the right time?

	0-1	2-4	5+	Verbalized Answer	Comments:
H:	___	___	___	H: ___	
W:	___	___	___	W: ___	
B:	___	___	___		
S:	___	___	___	Who: _____	

23. During the past week, who saw to it that your child (or children) was (were) washed and dressed?

	0-1	2-4	5+	Verbalized Answer	Comments:
H:	___	___	___	H: ___	
W:	___	___	___	W: ___	
B:	___	___	___		
S:	___	___	___	Who: _____	

24. During the past week, who put or sent your child (or children) to bed; or, if your child (or children) is (are) older, who checked to see if your child (children) went to bed?

	0-1	2-4	5+	Verbalized Answer	Comments:
H:	___	___	___	H: ___	
W:	___	___	___	W: ___	
B:	___	___	___		
S:	___	___	___	Who: _____	

25. During the past week, for each child, note who:

	Child One (Sex ___ Age ___)			Child Two (Sex ___ Age ___)			Child Three (Sex ___ Age ___)		
	0-1	2-4	5+	0-1	2-4	5+	0-1	2-4	5+
A. Took the child to child care situation [ ] or school [ ]?	H: ___	___	___	H: ___	___	___	H: ___	___	___
	W: ___	___	___	W: ___	___	___	W: ___	___	___
	B: ___	___	___	B: ___	___	___	B: ___	___	___
	S: ___	___	___	S: ___	___	___	S: ___	___	___
B. Picked up the child from child care situation or school?	H: ___	___	___	H: ___	___	___	H: ___	___	___
	W: ___	___	___	W: ___	___	___	W: ___	___	___
	B: ___	___	___	B: ___	___	___	B: ___	___	___
	S: ___	___	___	S: ___	___	___	S: ___	___	___

If a child is not picked up, ask where the child remains until a parent arrives home.

Some of the activities I am going to ask about now are not events that occur every week or every month. We would like for you to think about the last time each of these events occurred and to answer who performed each activity. Then we would like for you to estimate who usually does it, or sometimes does it, or only rarely does it. Do you understand? The categories in this section are usually, sometimes, and rarely.

26. The last time your child (or one of your children) needed to go to the doctor, who made the appointment or arranged the visit? Who usually does this?

	U	S	R	Verbalized Answer	Comments:
H:	___	___	___	H: ___	
W:	___	___	___	W: ___	
B:	___	___	___		
S:	___	___	___	Who did it last time? _____	

27. Who actually took your child to the doctor? Who usually does this?

	U	S	R	Verbalized Answer	Comments:
H:	___	___	___	H: ___	
W:	___	___	___	W: ___	
B:	___	___	___		
S:	___	___	___	Who did it last time? _____	

28. The last time your child (or one of your children) woke up with something wrong during the night, so that someone had to go to him/her, who got up and did this? Who usually does this?

	U	S	R	Verbalized Answer	Comments:
H:	___	___	___	H: ___	
W:	___	___	___	W: ___	
B:	___	___	___		
S:	___	___	___	Who did it last time? _____	

29. The last time you needed a babysitter, who made the arrangements? Who usually does this?

	U	S	R	Verbalized Answer	Comments:
H:	___	___	___	H: ___	
W:	___	___	___	W: ___	
B:	___	___	___		
S:	___	___	___	Who did it last time: _____	

III. Parent-Child Interactions

Most parents like to spend time with their children--in fact, it is usually the case that they don't spend as much time with them as they would like. Much of the time parents spend with their children is not spent in any specific activity--they often just enjoy each other's company. But sometimes parents do specific things with their children, and this is what we would like to find out in this part of the interview. We have here a list of things that some people do with their children. Of course, we don't expect you to have done all of these things with your child (or children), but you or someone else may have done one or more of these things. As you did in the other sections, we would like for you to think about the past week or a "typical" week, and, if you did any of these things with your child (or children), we would like to know who did it, and, as accurately as you can, to estimate how many times you might have done it. Here we are primarily interested in what you have done with your child or children. In order to make this section more specific, let's answer each question for each of your children. Let's do this by starting with the youngest child:

Child 1 (Age ____ Sex ____) Child 2 (Age ____ Sex ____) Child 3 (Age ____ Sex ____)

30. During the past week, has anyone read stories or made up stories with your child?

	Child One			Child Two			Child Three		
	0-1	2-4	5+	0-1	2-4	5+	0-1	2-4	5+
H:	___	___	___	___	___	___	___	___	___
W:	___	___	___	___	___	___	___	___	___
B:	___	___	___	___	___	___	___	___	___
S:	___	___	___	___	___	___	___	___	___

Verbalized Answer: H: ___ W: ___ Comments:

31. During the past week, has anyone watched TV with your child for at least half an hour?

	Child One			Child Two			Child Three		
	0-1	2-4	5+	0-1	2-4	5+	0-1	2-4	5+
H:	___	___	___	___	___	___	___	___	___
W:	___	___	___	___	___	___	___	___	___
B:	___	___	___	___	___	___	___	___	___
S:	___	___	___	___	___	___	___	___	___

Verbalized Answer: H: ___ W: ___ Comments:

32. During the past week, has anyone spent some time teaching numbers or math to your child--showing how to count or showing how to tell time, or, if older, for example, helping with any kind of math (including homework)?

	Child One			Child Two			Child Three		
	0-1	2-4	5+	0-1	2-4	5+	0-1	2-4	5+
H:	___	___	___	___	___	___	___	___	___
W:	___	___	___	___	___	___	___	___	___
B:	___	___	___	___	___	___	___	___	___
S:	___	___	___	___	___	___	___	___	___

Verbalized Answer: H: ___ W: ___ Comments:

33. During the past week, has anyone spent some time teaching letters or writing to your child, or, if older, helping with any kind of reading and writing (including homework)?

	Child One			Child Two			Child Three		
	0-1	2-4	5+	0-1	2-4	5+	0-1	2-4	5+
H:	___	___	___	___	___	___	___	___	___
W:	___	___	___	___	___	___	___	___	___
B:	___	___	___	___	___	___	___	___	___
S:	___	___	___	___	___	___	___	___	___

Verbalized Answer: H: ___ W: ___ Comments:

34. During the past week, has anyone taken your child for a walk, a special outing, a trip to the park, or a trip for an ice cream, or something like that?

	Child One			Child Two			Child Three		
	0-1	2-4	5+	0-1	2-4	5+	0-1	2-4	5+
H:	___	___	___	___	___	___	___	___	___
W:	___	___	___	___	___	___	___	___	___
B:	___	___	___	___	___	___	___	___	___
S:	___	___	___	___	___	___	___	___	___

Verbalized Answer: H: ___ W: ___ Comments:

35. During the past week, has anyone shown your child how to play or participate in some sports activity such as football, baseball, tennis, or swimming?

	Child One			Child Two			Child Three		
	0-1	2-4	5+	0-1	2-4	5+	0-1	2-4	5+
H:	___	___	___	___	___	___	___	___	___
W:	___	___	___	___	___	___	___	___	___
B:	___	___	___	___	___	___	___	___	___
S:	___	___	___	___	___	___	___	___	___

Verbalized Answer: H: ___ W: ___ Comments:

36. During the past week, has anyone listened to radio or records with your child?

	Child One			Child Two			Child Three		
	0-1	2-4	5+	0-1	2-4	5+	0-1	2-4	5+
H:	___	___	___	___	___	___	___	___	___
W:	___	___	___	___	___	___	___	___	___
B:	___	___	___	___	___	___	___	___	___
S:	___	___	___	___	___	___	___	___	___

Verbalized Answer: H: ___ W: ___ Comments:

37. During the past week, has anyone worked with your child in arts and crafts such as painting or finger-painting, construction paper, modeling clay, building models, and so forth?

	Child One			Child Two			Child Three		
	0-1	2-4	5+	0-1	2-4	5+	0-1	2-4	5+
H:	___	___	___	___	___	___	___	___	___
W:	___	___	___	___	___	___	___	___	___
B:	___	___	___	___	___	___	___	___	___
S:	___	___	___	___	___	___	___	___	___

Verbalized Answer: H: ___ W: ___ Comments:

38. During the past week, has anyone had your child help with the housework or other household chores?

	Child One			Child Two			Child Three		
	0-1	2-4	5+	0-1	2-4	5+	0-1	2-4	5+
H:	___	___	___	___	___	___	___	___	___
W:	___	___	___	___	___	___	___	___	___
B:	___	___	___	___	___	___	___	___	___
S:	___	___	___	___	___	___	___	___	___

Verbalized Answer: H: ___ W: ___ Comments:

39. During the past week, has anyone instructed your child in the use of a musical instrument, either a "play" instrument or a real one?

	Child One			Child Two			Child Three		
	0-1	2-4	5+	0-1	2-4	5+	0-1	2-4	5+
H:	___	___	___	___	___	___	___	___	___
W:	___	___	___	___	___	___	___	___	___
B:	___	___	___	___	___	___	___	___	___
S:	___	___	___	___	___	___	___	___	___

Verbalized Answer: H: ___ W: ___ Comments:

40. During the past week, has anyone instructed your child in the use of tools or household appliances--can openers, vacuum cleaners, brooms, screwdrivers, and so forth?

	Child One			Child Two			Child Three		
	0-1	2-4	5+	0-1	2-4	5+	0-1	2-4	5+
H:	___	___	___	___	___	___	___	___	___
W:	___	___	___	___	___	___	___	___	___
B:	___	___	___	___	___	___	___	___	___
S:	___	___	___	___	___	___	___	___	___

Verbalized Answer: H: ___ W: ___ Comments:

These questions refer to the past month or a "typical" month. Again, we would like to know <u>who</u> did these things and <u>how often</u>.

41. During the past month, has anyone taken your child to church or Sunday School?

	Child One			Child Two			Child Three		
	0-1	2-4	5+	0-1	2-4	5+	0-1	2-4	5+
H:	___	___	___	___	___	___	___	___	___
W:	___	___	___	___	___	___	___	___	___
B:	___	___	___	___	___	___	___	___	___
S:	___	___	___	___	___	___	___	___	___

Verbalized Answer: H: ___ W: ___ Comments:

42. During the past month, has anyone taken your child to visit one of his/her friends? (The child's friend)

	Child One			Child Two			Child Three		
	0-1	2-4	5+	0-1	2-4	5+	0-1	2-4	5+
H:	___	___	___	___	___	___	___	___	___
W:	___	___	___	___	___	___	___	___	___
B:	___	___	___	___	___	___	___	___	___
S:	___	___	___	___	___	___	___	___	___

Verbalized Answer: H: ___ W: ___

Comments:

706 Echo Drive, Apt. 1,
Ottawa, Ontario.
K1S 1P3

April 1981

Dear Parents:

This letter is to request your participation and that of your child's in a research study which deals with certain aspects of the emotional development of day care and home-reared girls (ages 4-5 years). This study is in partial fulfillment of the requirements for my Master of Arts degree in Psychology at the University of Ottawa. My thesis supervisor is Professor Victor Szyrynski, M.D., Ph.D.

The study is to be carried out in two stages; the first will involve the collection of certain demographic and child data which will assist in the formation of comparison groups. Parental involvement at this time will be limited to the completion of a questionnaire, which should take approximately 30 minutes. Your child will be tested on a measure of cognitive ability which will take about 15 minutes.

The second stage of the research will involve approximately 1½ hours of your child's time - during which 3 measures of emotional development will be given. Parental involvement at this stage will consist of two 1 hour interviews - the first with the mother only and the second with both parents. These interviews will assess the child's developmental environment and degree of parental involvement in child rearing and household tasks. In addition, both parents will be asked to complete four questionnaires concerning child rearing and sex-role attitudes. This will take approximately 3 hours time.

All information and data collected for the purposes of this study will be kept strictly confidential. A summary of the results will be available upon completion of the study.

If you are interested in participating in this study, would you kindly complete and return the enclosed permission form and questionnaire upon reception, so that the research can be started as soon as possible. Arrangements have been made for you to leave the sealed completed questionnaire and permission form with the day care personnel.

After this information has been compiled, you will be contacted individually to arrange for the testing sessions/interviews. Except for your child's first session, which will take place in the day care centre, all sessions/interviews will be conducted in your home at times convenient to family members.

Should you wish any further information concerning the study, I can be reached at the following numbers: 238-4409 (daytime) and 236-6448 (evenings).

Thank you for your cooperation.

Sincerely,

Elizabeth Grant Crozier,
Research Coordinator.

Enc.

APPENDIX 13

706 Echo Drive, Apt. 1,
Ottawa, Ontario.
K1S 1P3

April 1981

Dear Parents:

This letter is to request your participation and that of your child's in a research study which deals with certain aspects of the emotional development of day care and home-reared girls (ages 4-5 years). This study is in partial fulfillment of the requirements for my Master of Arts degree in Psychology at the University of Ottawa. My thesis supervisor is Professor Victor Szyrynski, M.D., Ph.D.

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The second stage of the research will involve approximately 1½ hours of your child's time - during which 3 measures of emotional development will be given. Parental involvement at this stage will consist of two 1 hour interviews - the first with the mother only and the second with both parents. These interviews will assess the child's developmental environment and degree of parental involvement in child rearing and household tasks. In addition, both parents will be asked to complete four questionnaires concerning child rearing and sex-role attitudes. This will take approximately 3 hours time.

All information and data collected for the purposes of this study will be kept strictly confidential. A summary of the results will be available upon completion of the study.

If you are interested in participating in this study, would you kindly complete and return the enclosed permission form and questionnaire upon reception, so that the research can be started as soon as possible. A stamped, addressed envelope has been enclosed for this purpose.

After this information has been compiled, you will be contacted individually to arrange for the testing sessions/interviews. All sessions/interviews will be conducted in your home at times convenient to family members.

Should you wish any further information concerning the study, I can be reached at the following numbers: 238-4409 (daytime) and 236-6448 (evenings).

Thank you for your cooperation.

Sincerely,

Elizabeth Grant Crozier,
Research Coordinator.

Encs.

706 Echo Drive, Apt. 1,
Ottawa, Ontario.
K1S 1P3

April 16, 1981.

Members of the Parent Preschool
Resource Centre,
63 Evelyn Avenue,
Ottawa, Ontario.

Dear Members,

I am conducting research on day care versus home-reared children, in partial fulfillment of my Masters degree in Psychology at the University of Ottawa. My specific area of interest concerns certain aspects of the emotional development of preschool girls.

I have contacted your organization in the hopes of obtaining subjects for my home-reared sample. Specifically, this would involve the participation of 4 and 5 year old girls, from intact (i.e. two parent) unilingual English families, who have been exclusively home-reared (i.e. have not yet attended kindergarten). Approval for this endeavour has been received from Mrs. Joan Gawn, English Animator at the Centre.

Enclosed is a letter describing the study in more detail and the degree of parent/child involvement. In addition, a parental permission form and a general information questionnaire have been included.

If you are interested in participating in this study, or know of anyone whom you feel might be interested, your assistance in this matter would be greatly appreciated.

Sincerely,

(Ms.) Elizabeth Grant Crozier

Encls.

PARENTAL PERMISSION

Research Topic — Differential effects of home environment and day care experience on the emotional development of preschool girls.

Researcher — Elizabeth Grant Crozier, School of Psychology, University of Ottawa.

Child's Name _____

I have been informed as to the general purpose and procedures involved in the above study and am willing to participate along with my child.

I understand that any information given will be treated in the strictest confidence.

_____
Name (please print)

_____
Signature

_____
Relationship to child

_____
Date

APPENDIX 16

Power Functions[a] for Analysis of Variance

Variable	Power Estimate	Sample Size/Power Estimate	
PASS*	.30	s' = 225	power = .84
PEFT*	< .30	s' = 22,201	power = .84
PEI1M*	.30	s' = 121	power = .83
PEI2M*	.55	s' = 36	power = .82
PEI1D*	.30	s' = 121	power = .83
PEI2D*	.30	s' = 121	power = .83
MPASPM*	< .30	s' = 22,201	power = .84
MPASPD*	< .30	s' = 1849	power = .84
ATWTD	< .30	s' = 1089	power = .84
ACL6M	.30	s' = 196	power = .83
ACL17M	.38	s' = 100	power = .83
ACL18M	.47	s' = 64	power = .83
ATWTM	.30	s' = 100	power = .83
AGGM	.67	s' = 36[b]	power = .82

* Treatment means not in direction predicted.

[a] As requested by the thesis defense committee.

[b] This is the only variable for which an increase in sample size would have been feasible and resulted in significant differences in the direction expected. However, the maximum number of daycare families willing to participate in the study was limited to 26.