Day care effects on the empathic process of young children.

María Lourdes. De Mattei
University of Massachusetts Amherst

Follow this and additional works at: https://scholarworks.umass.edu/theses

Retrieved from https://scholarworks.umass.edu/theses/1773

This thesis is brought to you for free and open access by ScholarWorks@UMass Amherst. It has been accepted for inclusion in Masters Theses 1911 - February 2014 by an authorized administrator of ScholarWorks@UMass Amherst. For more information, please contact scholarworks@library.umass.edu.
DAY CARE EFFECTS ON THE EMPATHIC PROCESS OF YOUNG CHILDREN

A Thesis Presented
By
MARIA DE LOURDES MATTEI

Submitted to the Graduate School of the University of Massachusetts in partial fulfillment of the requirements for the degree of
MASTER OF SCIENCE
February 1979
Department of Psychology
DAY CARE EFFECTS ON THE EMPATHIC PROCESS
OF YOUNG CHILDREN

A Thesis Presented
By
MARIA DE LOURDES MATTEI

Approved as to style and content by:

Dr. Howard Gadlin, Chairperson
Dr. Vonnie C. McLoyd, Member
Dr. Castellano B. Turner, Member

Dr. Bonnie R. Strickland
Chairperson
Department of Psychology
# TABLE OF CONTENTS

Chapter I ............................................. 1
    Introduction .................................... 1
    Overview ...................................... 22
    Summary of Hypotheses ......................... 23

Chapter II .......................................... 25
    Method ........................................ 25

Chapter III ....................................... 29
    Results ....................................... 29

Chapter IV ......................................... 38
    Discussion .................................... 38
    Conclusion ................................... 45

Footnotes ......................................... 47

References ........................................ 48

Appendices .......................................... 55
LIST OF TABLES

Table 1. Summary of repeated-measures analysis of variance of appropriate responses on empathy test.................................30

Table 2. Correlation matrix: Sex, group, overall test score, number of household members and birth order............................................33

Table 3. Summary of demographic information for family structure.................................................................34

Table 4. Summary of empathy ratings by teachers and main caretakers..........................................................36
CHAPTER I
INTRODUCTION

Empathy: Its Definitions

Originally, the word empathy meant "objective motor mimicry" (Taguiri, 1969). Presently, empathy is studied using a variety of definitions and methods "depending on the researcher's interest in a particular type of inference, process and/or his theoretical orientation" (Shantz, 1975, p. 1). Basically, the definitions (approaches) vary depending on:

. . . whether an empathic response is a shared emotional experience, an understanding of affect, or both; whether an empathic response is a response to an object, another's affect, and/or circumstance; whether one process or several explain how one is empathic; and whether self-other differentiation is required. . . (Deutsch and Madle, 1975, p. 267).

This array of definitions clearly manifests itself in the different theoretical, and in particular, methodological aspects of the investigations.

Historically, the main theoretical background for the empathy research derives from George H. Mead, the social philosopher. As Deutsch and Madle (1975) noted:

With Mead's (1934) work, the affective and cognitive components of empathy, reference to the en-
environment, and need for self-other differentiation come to the fore. Defining empathy as a capacity to take the role of the other person with whom one interacts or 'putting yourself in his place', Mead stated that via the accumulation and organization of experiences relevant internal interpersonal images would be acquired. Through his observations, he noted that role-play activity provides the means for developing interpersonal images and subsequently facilitates one's ability to understand another person's affective behavior in certain situations. ... Empathy was no longer viewed as purely a perceptual awareness of an individual's affect or sharing of feeling, but rather an awareness to understand a person's emotional reactions in consort with the context (p. 269-270, emphasis mine).

Mead's influence reflects a social-cognitive dimension of development.

Role-taking is viewed as the inner and symbolic reconstruction of social-interaction situations, as the reconstruction of self and other as participants in the process of social interaction. It is established in the context of cognitive and social psychology as a mediating link between the social structure and the individual (Keller, 1976, p. 121).

Piaget's theory of cognitive development is another major theoretical--and methodological--influence in the study of empathy. As Shantz (1975) interprets it,

Most of the research on the development of social cognition has been drawn from the theories of mental development by Piaget (1970). ... The assumptions of cognitive development theory have been presented by Kohlberg (1969): development involves basic transformation of cognitive structure, defined as systems of relations, and such structuring is not the direct result of either maturation or learning. Rather it is a product of the interaction between the organism and the environment (p. 9).
Piaget's genetic epistemological perspective--of the child's conception of physical categories--has been applied to the child's understanding of social categories/structure (Flavell et al., 1968; see Selman, 1971).

Some researchers place more emphasis on the affective components of empathy (e.g., Feffer and Gourevitch, 1960; Feshbach, 1973), while others (e.g., Flavell et al., 1968) stress the cognitive structure of role-playing in the development of the child.

When considering the affective components of empathy, investigators have to deal with the confounding effects of mechanisms like sympathy, projection and identification. Feshbach (1973) gives the clearest exposition of the differences among these mechanisms and their relationship to the empathy process:

... empathy has been used interchangeably with sympathy, compassion, kindness, projection, intuition, sentimentality, and emotionality. The definition which has guided our own research on empathy, and which is consistent with that of Berger (1962) and Stotland and Walsh (1963) restricts the empathy reaction to a match in affective response between subject and object. Thus a sympathetic emotional reaction although, like empathy, implying an understanding of the emotional state of another person, is not equivalent to and should be distinguished from an empathic reaction. Similarly, projection. ... Whereas, both projection and empathy entail a sharing of emotional attributes between subject and object and appear to be effected by similar parameters (Feshbach and Feshbach, 1965; Feshbach, Singer and Feshbach, 1963; Stotland and Walsh, 1963), the direction of the reaction is different. For projection characteristics of the subject or perceiver are attributed
to the stimulus object, while in the case of empathy the subject assumes the emotional attributes of the stimulus person (p. 2).

In addition, Deutsch and Madle (1975) explain,

Historically, for example, imitation, identification, and projection have been used to explain the sharing of feelings, while role-taking has been offered as an explanation for the understanding of feelings. If 'cognitive processes help to determine how even the simplest emotion is experienced' (Hoffman, 1975), then distinguishing the empathic response as cognitive or affective may be artificial! (p. 273, emphasis mine).

Addressing the same issue, Feshbach (1973) has called this the 'nonproductive dichotomy between affective and cognitive approaches' (p. 1) in the definition of empathy.

Role-taking, seen as a developmentally more complex form of empathy, has been investigated in a variety of ways. It is assumed that the role-taker integrates two types of information: (a) knowledge of people and their behavior in various situations, and (b) perceptual input from cue sources in the immediate situation (Deutsch and Madle, 1975). Accordingly, measures of role-taking have been designed within three research paradigms: game-playing, communicative behavior and story analysis (e.g., Flavell et al., 1968; see Shantz, 1975, for a thorough review of this literature).

Most of these paradigms rely heavily on the verbal expressions of the children. Recently, several researchers
have suggested (e.g., Borke, 1975; Brandt, 1978; Hoffman, 1976) that using a task beyond the cognitive abilities of very young children might account for the apparent age-related discrepancies in the literature (see Borke's 1971, 1972, and Chandler and Greenspan's, 1972, exchange). The methodological considerations implied by this last position--lack of validity of certain cognitive tests--carry relevant practical implications for the study of empathic capacities of young children. I will proceed in the next section to review the research that has taken into account the appropriateness of the task(s) presented to preschoolers.

**Empathy Methodology (Tasks)**

In the following part I will give an exposition of the research done with preschoolers and a brief review of the few cross-cultural studies done which attempt to measure empathy and/or role-taking.

**Preschoolers.** Three important considerations should be taken into account in the study of empathy in very young children: (a) empathy should be considered as a "continuous process rather than discontinuous process" (Borke, 1972), (b) the task used to measure empathy should be appropriate to the child's capacities, and accompanying these notions is the emerging position that (c) we might have underestimated children's interpersonal abilities (e.g., Borke, 1971, 1972, 1975; Green, 1977; Hoffman, 1976).
The varied measures designed to study empathy are "situational" measures requiring that the empathic response "whether affective and/or cognitive be a response to a person's affect, situation, or both" (Deutsch and Madle, 1975, p. 273).

Burns and Cavey (1957) attempted to account for the confounding effect of imputing to the figure in the story what the child's (own) feelings are in the situation. These researchers designed a study where the emotional expressions of the other person appeared (through facial cues) incongruent with the situation. Thus, they required the children to adopt a different perspective by asking them to respond to incongruent expressions in different situations (e.g., a boy frowning at a birthday party).

Deutsch (1974) did a similar investigation in which she presented to a group of female preschoolers eight filmed episodes, four of which were incongruous. She found that children were more empathic on the congruous than on the incongruous videotaped episodes.

Ianotti (1974) has also developed a measure of empathy which requires both an emotional response and role-taking skills. Picture stories are shown where the emotional response of the child is inappropriate to the situation.

These "incongruent" measures (i.e., where a child in a story depicts facial cues that are incongruent with the situation in the story) seem to tell us nothing more than
that the child can discriminate between facial and situational cues, and that s/he usually gives more importance to facial cues (these cues appear to be more salient). The usefulness of the 'insight' we gain from this kind of research seems to be very limited: it does not tell us very much about how the child is feeling about understanding a given situation.

Feshbach and Roe's (1968) Affective Situation Test illustrates another assessment. The test consists of a series of slide sequences involving 'happy', 'sad', 'angry' and 'fear' events. Following each sequence the child is asked how s/he felt. In this case, the important factor is that the affective response of the subject has to match the affective situation in the slide sequence. In addition, Feshbach and Roe made an empirical distinction between the recognition of an affective state in others and the empathic response to the perception. Discussing these results Feshbach (1973) states,

More direct evidence on this point is provided by the discrepancy between the children's empathy and social comprehension scores, the latter reflecting almost complete understanding of the affective situations by this age group regardless of the sex of the perceiver and of the sex of the child being observed. Thus, while empathy presupposes some degree of social understanding, the converse is not true. Understanding the feelings of another person does not necessarily lead to an empathic response. Consequently, while the cognitive dimension of empathy is important, it is the affective component that gives the empathy construct its unique property" (p. 4).
Borke (1971, 1972) has designed an Interpersonal Awareness Test in which children are asked to identify four kinds of affect—happiness, sadness, anger, and fear—in different, appropriate situational contexts. This kind of task has been taken by other researchers as the "most basic type of interpersonal inference" (Urberg and Docherty, 1977).

Chandler and Greenspan (1972) have voiced the strongest criticism to Borke's understanding of the empathy process. They argue that what she is actually measuring is a reflection of a common knowledge of cultural stereotypes. Urberg and Docherty's (1976) answer to this debate is as follows:

Although Chandler and Greenspan apparently wish to restrict the definition of role-taking to simultaneous consideration of two viewpoints, the important question seems to us not to be the yes or no question, 'Can this child take another's role?', but to what extent and under what circumstances has this child developed the ability to recognize that others have thoughts, feelings, and attitudes different from his or her own (p. 199).

Taking this into consideration, I have chosen Borke's Interpersonal Awareness Test(s) (see Methodology section) as the empathy index of the affective/cognitive ability in young children. In my study I translated this measure and administered it to two groups of four-year-olds—one group having the experience of being in a day-care for at least half a year and a group of children being home-reared. One aspect of the task was different: the child (in either Part I or Part II) was asked to take the point of view of another
child but of the opposite sex. Having a same-sex stimulus child in the story has been found to affect children's empathic response (Feshbach, 1973; Deutsch, 1974). This study was designed to explore whether children can empathize as readily with the opposite-sex child in a picture story, and if this is affected by the day-care experience.

Furthermore, I expect to find sex differences in empathy performance. Due to different socialization practices to which boys and girls are subject, I expect girls to be more empathic than boys. As Safa (1974) observes, for Puerto Ricans, "the distinction between the sexes is emphasized far more than differences in age" (p. 51). Girls are assumed to be more passive and sensitive to the needs of others than boys (Hoffman and Levine, 1976). Previous research on affective perspective-taking with American preschoolers, however, offers conflicting and inconclusive results on the effect of sex differences in empathic skills.

In their own study, Urberg and Docherty classified Borke's test as "the most basic type of interpersonal task" (p. 199). They gave five role-taking tasks to three-, four- and five-year-olds according to a hierarchical structure. They make an important distinction between 'structure' and 'content' of role-taking tasks.

That is, a subject who is being asked to infer (structural consideration) an emotional response must both have the concept of that affect in his cognitive repertory and also recognize what situa-
tions would produce that affect (content considerations) (p. 199).

Of special interest here is the fact that their study provided further evidence for the acknowledgement of empathic abilities in preschool children. They find that, as long as the required task(s) are kept adequate for the child's age, children as young as three can recognize another's point of view.

Green (1977) used a 'simple, realistic' task with a group of kindergarteners. She had eight movie clips depicting the same four emotions (happy, sad, angry and fear). After presenting each clip the child was asked to label the emotion of the main character. In addition to previous findings, Green's results posit more empirical evidence challenging the notion that 'preoperational' children are unable to understand causality. She found that her group of kindergarteners were capable of specifying causes of behavior in others.

Mossier et al. (1977) showed two short videotaped stories that required two- to five-year-olds to make a yes-no inference about another's viewpoint. They concluded that four- and five-year-old children were "able to engage in veridical conceptual perspective-taking" and they add, "the ability to make a correct inference appears somewhat earlier than the ability to justify that inference" (p. 86).

Rubin (1973) has investigated perspective-taking abil-
ities in young children. He and other researchers (e.g., Kurdek and Rodgon, 1977; Zahn-Waxler et al., 1977) question the conceptual validity of role-taking skills as a unitary construct. If role-taking abilities are multidimensional, the apparent age-discrepancy in the literature (i.e., whether children as young as three years can take another's point of view) can be seen in a new focus. Further research that takes into account the complexities and interrelations among the different role-taking paradigms and tests is warranted.

In sum, using a variety of situational or context measures that do not rely heavily on verbal skills, the notion that children before the age of six or seven are unable to take another's viewpoint has been empirically challenged.

Cross-cultural perspective. The bulk of the literature dealing with the ability to take another's perspective is directed towards the confirmation that 'role-taking' and 'empathy' are 'found (or not found) in preschool children' (O'Connor, 1975).

Cole and Scribner (1974) speaking about cognition and its study in "primitive" societies (a situation analogous to the child's place in psychological literature) remark:

... in cognition, as in other areas of psychological functioning, we are dealing with processes, not with properties. ... if we agree that we are studying operations, not entities, and that these operations are 'shifty' and may work differently in different circumstances, then it follows that
experiments are unlikely to allow us to rank different people [in this case, children] in terms of the 'existence' or 'amount' of any particular cognitive process (p. 176).

Few cross-cultural studies have been conducted specifically to test the empathy process.

Borke (1973) administered her test to a group of American and Chinese children, half from middle-class families and half from low-class families. Both American and Chinese three-year-olds were able to discriminate between happy and unhappy reactions. Chinese youngsters were more capable of identifying sad situations than their American peers. Borke interpreted these results in terms of the emphasis in Chinese culture on feeling "shameful." She concludes that this cross-cultural comparison renders further evidence for the universality of the empathy response.

In contrast, Greenfield and Bruner (1966) found no egocentrism among Eskimo children in Alaska. They conclude,

Thus, such egocentrism cannot be a universal stage . . . . Instead, it appears clearly relative to cultural conditions and values (p. 28, emphasis mine).

The authors stress the importance of group and collective values: the Eskimo emphasize the group, while industrialized societies place emphasis on the individual, thus resulting in the development of egocentrism.

In my investigation, I expect to find indications of the empathy process in four-year-olds. The discrimination
of affective responses, in particular 'fear' and 'anger', will be recognized by Puerto Rican children at an earlier stage than their American middle-class counterparts. Puerto Rican cultural and family values that stress obedience and "respeto" (Safa, 1974) provide an experiential basis for early identification of these emotions. If ethnic/minority groups in the United States have an earlier and more intense exposure of 'fear', 'anger' and 'sad' events, we could expect them to be able to differentiate these context situations at an earlier age (stage). Hogan (1975) cites Shakespeare to illustrate his understanding of the one of the antecedents for the development of empathy:

Finally, it seems to me that a degree of suffering is necessary before one can resonate to the suffering of others--as Shakespeare observed, 'he jests at scars who himself has never felt a wound' (p. 22).

**Empathy and Day Care**

What is the relationship between day care experience versus home care and empathic abilities?

As Shantz (1975) states, Piaget...

... suggested a bidirectional causal relation: peer interaction as a necessary factor for the development of role-taking skills, and vice versa. In the first case, Piaget suggests that egocentric functioning decreases as a result of the child's confrontation with peers who differ in their wishes, perspectives, needs and thoughts. Thus, peer interaction in general, and peer conflict in particular, is the necessary condition for role-taking to emerge and stabilize (p. 47).
It is interesting to note that for Piaget the developmental stage--six to seven years of age--in which empathic abilities emerge corresponds to the period where children in Western societies enter school, i.e., when their peer relations become more intense and complex.

Due to economic and social reasons (e.g., women's movement, welfare, higher standards of living) more women need and use day care services.¹ One has, then, a greater number of children attending day care centers at an earlier age than before. One might speculate that this experience would facilitate the development of social, i.e., empathic, abilities in children at an earlier stage (age) than the one assumed by Piaget and others. Children exposed to a diversity of peers and adults have a greater opportunity (possibility) of developing social awareness toward others.

Hollos and Cowan (1973), taking Kohlberg's hypothesis that "role-taking ability should be directly related to amount of social participation and experience in interaction," carried out a study where they had three groups of children from a Norwegian farm, village, and town. The farm setting was considered the environment with the least opportunities for interpersonal experience for the child (limited primarily to the nuclear family) and the town group represented the optimal environment for social interactions. Indeed, they found that farm children performed lowest in role-taking, but there were no significant differences be-
tween the village and town groups. An 'interaction threshold level' hypothesis was offered: a minimal level of interaction is required for effective role-taking, once it is obtained the amount of interaction ceases to have any effect, i.e. there is a curvilinear functional relation between amount of interaction and enhancement of role-taking abilities.

West (1974) designed an investigation to explore Hollos and Cowan's threshold effect. She clarifies that it is "only in terms of interaction with adults that the Norwegian village and town differ in the social experience they provide" (p. 1119). Therefore, she set out to investigate the effects of early peer-group interaction and role-taking skills. For this purpose, she selected three groups of children--from kindergarten and third grade--from an Israeli kibbutz, moshav and city population. As she explains, the important variable that differentiates the groups is the structure of family life. Using two visual perspectives and one cognitive decentering task, she found no significant difference in role-taking skills among these groups. West concludes that the failure to detect differences gives confirmation to Hollos and Cowan's hypothesis (since increased peer relations of kibbutz children had no significant effect on role-taking performance), but cautions that other experiential variables might be related to decentering.

In fact, considering West's findings, Nahir and Yussen
postulated that since small correlations have been found among different role-taking tasks (Rubin, 1973), it is reasonable to assume that the impact of social experience may have varied effects on the development of role-taking capacities. Therefore, the authors conducted a study where they gave two communicative role-taking tasks to two groups of first and fifth grader Israeli children—one from a kibbutz and one from the city. They assume that,

The more frequent the opportunities, the greater is the impetus for growth. Social interactions between peers are thought to offer superior opportunities for cognitive growth as compared with interactions between children and adults. With peers, children are forced to come to grips with conflicting perspectives, while with adults the tendency is to accept the adult perspective because the adult is in a position of dominant power and authority (p. 450).

Consistent with their perceptual framework, kibbutz children score higher. The difference in results—with West's—are explained in terms of their use of different role-taking tasks.

In our society, day care experience allows for more varied peer and adult interaction for the young child than does the nuclear family. Accordingly, I will now focus on the psychological literature of the effects of day care on the child's development.

Day Care Effects

The research literature on the effects of day care il-
lustrates different paradigms from the educational and psychological fields. Educators have been concerned with the effects of day care experience (e.g., intervention programs for "disadvantaged" children) in later schooling. The measures that indicate the 'gains' of such programs and curricula have been IQ, reading abilities, etc. On the other hand, psychologists studying the effects of day care on young children have placed, initially, more emphasis on its 'lasting' effects on the infant's personality development, i.e., social/emotional adjustment. As Caldwell comments,

Throughout antiquity there has been considerable interest in the effects of patterns of infant care, but the topic received its greatest modern impetus from early psychoanalytic theory. Additional contemporary support has come from cultural anthropology and social learning theory. In the absence of these formal scientific antecedents, however, interest in infant practices would probably have remained at a high level, since many of the hypotheses about the effects of parent behavior on the infant have an appealing face validity. That is, viewed adultomorphically, the infant snuggled against his mother for repeated breastfeeding ought to feel more secure and content than the one abandoned to his own sucking struggle with an indifferent bottle; the baby fed or picked up whenever he cries ought to develop feelings of power and confidence that he has some influence over his environment. Thus the prevailing interpretations of the meaning of such experiences to the infant, coming as they do from adult frames of reference, produce little cognitive dissonance and gain ready acceptance (1964, p. 9).

Although I will not go into the issue of maternal separation (deprivation?3) it is of 'background' interest from an historical perspective on the way psychologists understand day
care (see Bronfrenbrenner, 1975; Macbeth Williams, 1977, for a summary review of this literature).

In the last decade, the increasing importance of the day care experience in the lives of a growing number of young children is reflected in the psychological literature. Recent research, in general, finds no differences (no 'detrimental' effects) between children attending day care and children not in day care. It must be observed that, just like in the empathy research, investigators have been looking at either cognitive measures and/or, more importantly, social/emotional behavioral measures.

Caldwell, Wright, Honig and Tannenbaum (1970) found no significant differences in child-mother and mother-child attachments in 30-month-olds enrolled in an infant day care center. They measured happiness, affiliation, nurturance, hostility, permissiveness, dependency, and emotionality. Challenging the implicit 'need' for maternal attachment they cite,

...on the basis of his studies of nonhuman primates, Harlow has suggested that peer attachments are actually more critical for subsequent species-normal social and sexual behavior than is maternal attachment. Mead, referring to the need of children in today's world to be able to go many places without fear and to interact with many people, questions the advocacy of a very close tie between the mother and the child, suggesting that perhaps wider experiences 'in the arms of many individuals in different degrees of intimacy, if possible of different races', might represent the more adaptive experience for young children (p. 399).
In a related study, Braun and Caldwell (1973) found no differences in social and emotional adjustment of children of low-income families that enrolled at a nursery school program at different ages.

Schwarz, Krolick and Strickland (1973) matched four-year-olds on the basis of age, sex, race and parental occupation and education. Using observational measures, a group of children that had been in day care for an average of 36 months (Early Group) was compared and rated with a new incoming group of children entering day care on various behaviors including affect, tension, position and action. Interestingly, they replicate Caldwell et al.'s (1970) findings (specifically with regard to attachment) and extend them by "ruling out the hypothesis of insecure attachment as a consequence of infant day care":

On the contrary, the Early group exhibited a more positive affective response upon arrival in the new day care setting and tended to remain happier than the matched group of new day care children . . . (p. 344).

In contrast with the 'attachment need', these investigators explain the results using a "novelty-arousal model of adaptation to new environments" where the degree of emotional distress shown by a child entering preschool is interpreted in terms of the novelty of the situation for the child.

Macrae and Herbert-Jackson (1976) observing two-year-olds confirmed Schwarz et al.'s findings: the infant day
care group scored higher than a new group on problem solving, ability to get along with peers, ability to abstract and planfulness.

Doyle (1975) in a similar study compared 24 children (mean age = 18.5 months) attending day care with a group of children experiencing home care. She measured intellectual development, attachment to mother, peer interaction and physical health. Overall, she found no significant differences between the two groups.

Studying the behavioral effects of infant day care at preschool age, Schwarz, Strickland and Krolick (1974) compared two groups of three- and four-year-olds--one with day care experience and the other with no previous day care experience--in the following: tolerance for frustration, cooperativeness with adults, interaction with peers, spontaneity, aggression, motor activity, problem solving, ability of abstraction and planfulness. The differences between the groups portrayed the day care children as being more aggressive, more motorically active and less cooperative with adults.

Raph et al. (1968) found similar results: a decrease in negative interactions with peers and an increase in negative interactions with teachers in the group of children that had been in nursery school the longest. In both of these studies, the increase in peer interactions--and its relative importance in the child's activities--appear to be
enhanced by the day care experience.

Pitcher Baker (1973) evaluated the effectiveness of nursery school in motor-perceptual development, spatial awareness, academic readiness, language and number concepts and self-esteem. In both, measures of achievement and measures of self-concept, children with nursery school experience performed higher.

In a cognitively oriented longitudinal study, Robinson and Robinson (1971) gave intelligence tests to a group of children that had been in a comprehensive day care program for a maximum of 2½ years. They come to the conclusion that "enriched group care of the young infant, when carefully designed and fully staffed, may enhance cognitive development, especially during the time when verbal abilities are beginning to emerge" (p. 1681).

In sum, we have seen that in the study of day care effects on young children, the research paradigm(s) has gone from one of reaction to the "attachment need" (Bowlby, 1958) --where any kind of day care experience was seen as 'detrimental' and having 'lasting' effects on the child--to one where no such effect is found (i.e., no significant differences between groups of day care and home-cared children), and a move towards an actual "discovery" of day care programs' beneficial effects on the child's emotional and cognitive development.
Overview

The purpose of my study is to investigate the effects of day care experience in the empathic process of young Puerto Rican children. I want to study how preschoolers--four-year-olds--vary in their expression of empathy and if these differences can be related to their attendance at day care centers or their home-care.

Increasing numbers of children are being enrolled in day care/nursery school programs. This experience facilitates a diversity of peer and adult interactions for the child. Conflicting perspectives must be comprehended, a process of accommodation and assimilation (Piaget's (1960) dynamic preconditions for developmental growth) must take place. If young children, assumed to be egocentric--unable to decenter, to shift his/her attention from one aspect of an object or a situation to another--can have the interactive possibilities to develop the ability of role-taking, I speculate whether their empathic capacities would be enhanced through an experience conducive to the emergence of these skills (i.e., day care experience).

The empathy literature suggests that having a same sex stimulus person in a situation facilitates the empathic response (Deutsch, 1974). In my investigation I explore whether children can empathize as readily with an opposite-sex child in a set of picture stories (Interpersonal Awareness
Emotional discrimination of happy and unhappy situations are the first type of empathic responses manifested by American middle-class preschoolers. Given the difficult and poor conditions of the majority of Puerto Ricans in the United States, I expect Puerto Rican children to be able to discriminate 'fear' and 'anger' events at an earlier age (stage) than their American peers.

Socialization and child-rearing practices in the Puerto Rican family tradition lead to distinct sex-role expectations. Girls are assumed to be more emotional and caring, more able to perceive the needs of others, than boys (Hoffman and Levine, 1976; Safa, 1974). Therefore, I expect Puerto Rican girls to be more empathic than Puerto Rican boys.

My study intends to clarify further the understanding of the empathy process in young children and its relation to the day care experience, in particular as seen in a cross-cultural framework.

**Summary of Hypotheses**

1. Children attending day care will be more empathic than home-reared children.
2. Girls will show a greater degree of empathy than boys.
3. Puerto Rican children will be able to discriminate
equally among the four emotions.

4. Test part will have no effect on the children's empathic responses.

5. Sex of stimulus-child on the picture stories will have no effect on the child's empathy response.

6. No interaction effects are expected among the variables.
Subjects  
Forty Puerto Rican children, 20 boys and 20 girls, from a low socioeconomic sector (Welfare recipients) in Springfield, Massachusetts, were tested. Half of the children—half of the boys and half of the girls—had attended a daycare center for a minimum of six months; the other half were children that have been home-reared. The mean age for both groups was 3.8 years.

Test  
A modified version of Borke's (1971, 1973) Interpersonal Awareness Test, Part I and Part II, was translated according to Child's (1968) procedure: the investigator translated the test parts into Spanish and gave it to a Puerto Rican graduate student who translated the Spanish version back into English. Both translations were compared and differences were discussed and agreed upon.

The test consisted of a set of picture stories where a child is asked to identify the appropriate emotional response to four kinds of situations: "Happy", "Sad", "Afraid", and "Mad." In the first part, the stories depict situations where a child in a story would feel happy, sad,
afraid or mad (other-oriented). The instructions (trial) given for Part I were the following:

Illustration A: Examiner picks up faces and shuffles them making sure the 'happy' face is not on top. Examiner lays out the 'faces' in the new order and then places the picture for the first illustration story in front of the subject. "Show me how Maria (José) would feel if s/he were eating the food s/he liked best. Would she feel (examiner names the emotions according to the new sequence of faces). Pick up the face you think and put it on the picture." Examiner circles the face selected by the child.

In the second part, the stories describe situations where the child causes another child to feel happy, sad, afraid, or mad (self-oriented); the instructions were:

Illustration A (II): "Show me how Maria (Jose) would feel if you let her/him play with your toys. Would she feel (examiner names the emotions according to sequence)? Pick up the face you think and put it on the picture."

In both parts the child is asked: (a) how does s/he think the child in the story would feel, and (b) why does s/he think the child might feel that way.

Each part has a total of eight items (picture stories) for a maximum of two affective situations per emotion. In the original test, Borke had 12 items for the first part and 11 items for the second part. For a better correspondence between the two parts and because of the children's age, the number of picture stories was reduced. The investigator's personal experience administering the test is that
very young children can get tired when test part(s) are too long.

Procedure

The experimenter--a Puerto Rican female graduate student--administered the translated version of Borke's Interpersonal Awareness Test, Part I and Part II.

Demographic information for each child was gathered:

a) family size (number of household members) and structure (household member composition),

b) birth order, and

c) a scale from 1 to 5, egocentric to very empathic, was prepared and given to the teacher in the Day-Care Group and to the main caretaker in the Home-Care Group.

In the day-care setting the experimenter was provided with an empty office space where the testing procedure was conducted without interruption. After the testing was finished, the experimenter asked the teacher the additional information (see above) about each child.

In the Home-Care situation, the experimenter introduced herself and explained the purpose of the study to the main caretaker. The experimenter requested--where possible--a space where the testing could proceed without interruption. Some living arrangements allowed for a space in the living room, others in the kitchen, depending on the nature of the
family's activities at that moment. Several mothers watched silently, others interjected rephrasing the experimenter's questions. When this occurred, the experimenter politely explained that the intention and meaning of the test was based on the child's interpretation and not on correct or incorrect performance. After the testing was carried out, the experimenter proceeded to ask the required additional information.

**Design**

A 2 (Group) x 2 (Sex) x 4 (Emotion) x 2 (Test Part) x 2 (Sex of Stimulus Child) repeated-measures analysis of variance was used to analyze the data. The dependent measure was the number of appropriate responses to each emotion in each test part (empathy response).

Additional information--number of household members and structure, birth order and family ratings--were analyzed separately.
CHAPTER III

RESULTS

The data analysis in this study was carried out in two major phases: a repeated-measures analysis of variance with a post-hoc correlated t-test, and a correlational matrix with an additional post-hoc t-test.

Analysis of Variance

A 2 (Group) x 2 (Sex) x 2 (Test Part) x 2 (Sex of Stimulus Child) x 4 (Emotion) repeated-measures analysis of variance was performed on the number of correct responses in the translated version of Borke's Interpersonal Awareness Test.

See Table 1 page 30.

As indicated in Table 1, there was no main effect of sex; the overall test score for girls ($\bar{X} = .65$) being almost identical to the mean of boys ($\bar{X} = .62$). Contrary to expectation, the analysis of variance indicated no main effect for the group treatment. Group and sex did not interact significantly with any of the other factors in the ANOVA.

Sex of stimulus child in the picture stories showed no significant main effect and did not interact with either sex of subject in the sample or the group.
Table 1
Summary of Repeated-Measures Analysis of Variance
of Appropriate Responses on Empathy Test

<table>
<thead>
<tr>
<th>Source of Variance</th>
<th>df</th>
<th>MS</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sex (A)</td>
<td>1</td>
<td>.08</td>
<td>.13</td>
</tr>
<tr>
<td>Group (B)</td>
<td>1</td>
<td>.03</td>
<td>.05</td>
</tr>
<tr>
<td>Sex of Stimulus Child (C)</td>
<td>1</td>
<td>.25</td>
<td>.41</td>
</tr>
<tr>
<td>AB</td>
<td>1</td>
<td>.53</td>
<td>.86</td>
</tr>
<tr>
<td>AC</td>
<td>1</td>
<td>.53</td>
<td>.86</td>
</tr>
<tr>
<td>BC</td>
<td>1</td>
<td>.15</td>
<td>.25</td>
</tr>
<tr>
<td>ABC</td>
<td>1</td>
<td>.03</td>
<td>.05</td>
</tr>
<tr>
<td>S(ABC)</td>
<td>32</td>
<td>.62</td>
<td></td>
</tr>
<tr>
<td>Test Part (D)</td>
<td>1</td>
<td>1.38</td>
<td>3.05*</td>
</tr>
<tr>
<td>DA</td>
<td>1</td>
<td>.70</td>
<td>1.56</td>
</tr>
<tr>
<td>DB</td>
<td>1</td>
<td>.08</td>
<td>.17</td>
</tr>
<tr>
<td>DC</td>
<td>1</td>
<td>.38</td>
<td>.84</td>
</tr>
<tr>
<td>DAB</td>
<td>1</td>
<td>.90</td>
<td>2.00</td>
</tr>
<tr>
<td>DAC</td>
<td>1</td>
<td>.53</td>
<td>1.17</td>
</tr>
<tr>
<td>DBC</td>
<td>1</td>
<td>.08</td>
<td>.17</td>
</tr>
<tr>
<td>DABC</td>
<td>1</td>
<td>2.63</td>
<td>5.82**</td>
</tr>
<tr>
<td>SD(ABC)</td>
<td>32</td>
<td>.45</td>
<td></td>
</tr>
<tr>
<td>Emotion (E)</td>
<td>3</td>
<td>1.25</td>
<td>2.73**</td>
</tr>
<tr>
<td>EA</td>
<td>3</td>
<td>.09</td>
<td>.21</td>
</tr>
<tr>
<td>EB</td>
<td>3</td>
<td>1.03</td>
<td>2.25*</td>
</tr>
<tr>
<td>EC</td>
<td>3</td>
<td>.47</td>
<td>1.03</td>
</tr>
<tr>
<td>EAB</td>
<td>3</td>
<td>1.01</td>
<td>2.21*</td>
</tr>
<tr>
<td>EAC</td>
<td>3</td>
<td>.26</td>
<td>.57</td>
</tr>
<tr>
<td>EBC</td>
<td>3</td>
<td>.77</td>
<td>1.69</td>
</tr>
<tr>
<td>EABC</td>
<td>3</td>
<td>.29</td>
<td>.65</td>
</tr>
<tr>
<td>SE(ABC)</td>
<td>96</td>
<td>.47</td>
<td></td>
</tr>
<tr>
<td>DE</td>
<td>3</td>
<td>.41</td>
<td>.90</td>
</tr>
<tr>
<td>DEA</td>
<td>3</td>
<td>.25</td>
<td>.55</td>
</tr>
<tr>
<td>DEB</td>
<td>3</td>
<td>.18</td>
<td>.39</td>
</tr>
<tr>
<td>DEC</td>
<td>3</td>
<td>.49</td>
<td>1.08</td>
</tr>
<tr>
<td>DEAB</td>
<td>3</td>
<td>.12</td>
<td>.26</td>
</tr>
<tr>
<td>DEAC</td>
<td>3</td>
<td>.93</td>
<td>2.03</td>
</tr>
<tr>
<td>DEBC</td>
<td>3</td>
<td>.33</td>
<td>.72</td>
</tr>
<tr>
<td>DEABC</td>
<td>3</td>
<td>.09</td>
<td>.21</td>
</tr>
<tr>
<td>SDE(ABC)</td>
<td>96</td>
<td>.46</td>
<td></td>
</tr>
</tbody>
</table>

* p < .09
** p < .05
Regarding test parts in the empathy test, differences between Part I and Part II approached significance $F(1,32) = 3.05, p < .09$. Inspection of cell means indicated that the mean score for Part I ($\bar{X} = .57$) was lower than the mean score for Part II ($\bar{X} = .7$); but did not interact significantly with the other variables in the data analysis.

One of the main hypotheses of this study was that Puerto Rican children would clearly recognize and discriminate equally among the four emotions--Happy, Sad, Afraid and Mad--depicted in Borke's Interpersonal Awareness Test. Interestingly, the main effect for emotion was significant $F(3,96) = 2.72, p < .05$. Further analysis of this variable effect was carried out by a post-hoc comparison method. A correlated t-test was conducted to detect differences between the following pairs of means: 1) Happy and Sad, 2) Happy and Mad, 3) Happy and Afraid, 4) Sad and Mad, 5) Sad and Afraid, and 6) Mad and Afraid. The only comparison that reached significance was between "Happy" and "Afraid", $t(39) = 2.48, p < .05$. Thus, contrary to expectation, preschoolers can recognize the emotion "Happy" ($\bar{X} = .8$) significantly more than the emotion "Afraid" ($\bar{X} = .5$), but they can discriminate equally amongst the "Happy", "Sad" ($\bar{X} = .6$) and "Mad" ($\bar{X} = .6$) emotions.

In both Part I and Part II, the subject is asked (a) how does s/he think the child in the story would feel, and (b) why does s/he think the child might feel that way. Ver-
Bal responses to these item-questions were almost non-existent and therefore did not enter into the data analysis.

**Correlation Matrix**

Demographic information for each child was collected and analyzed in an overall correlation matrix. The information included: 1) family size (defined as number of household members), 2) birth order, and 3) empathy ratings by the teacher for the Day-Care Group, and the main caretaker for the Home-Care Group. These variables were correlated with the overall test score, sex and group of each subject.

See Table 2 page 33.

Contrary to expectation, family size--number of household members--was not found to correlate significantly with overall test score, but had a significant coefficient of -0.31 (p < 0.025) with empathy ratings.

Nevertheless, interesting family structure (defined as the member composition of the family) information was gathered. Table 3 provides a summary of the data collected.

See Table 3 page 34.

categorized in the following way: "mother-father" household, "additional kin" household (defined by any family member that was not the father or mother forming part of the
Table 2
Correlation Matrix: Sex, Group, Overall Test Score, Number of Household Members and Birth Order

<table>
<thead>
<tr>
<th></th>
<th>Sex</th>
<th>Group</th>
<th>TestScore</th>
<th>HMembers</th>
<th>Ratings</th>
<th>BO</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sex</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Group</td>
<td></td>
<td></td>
<td>.05</td>
<td>-.18</td>
<td></td>
<td></td>
</tr>
<tr>
<td>TestScore</td>
<td>-.02</td>
<td>.05</td>
<td></td>
<td></td>
<td>-.15</td>
<td></td>
</tr>
<tr>
<td>HMembers</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>-.04</td>
<td>.31*</td>
</tr>
<tr>
<td>Ratings</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>-.31*</td>
<td></td>
</tr>
<tr>
<td>BO</td>
<td>.29</td>
<td>.17</td>
<td>.04</td>
<td></td>
<td>0.00</td>
<td></td>
</tr>
</tbody>
</table>

*P < .025
Table 3
Summary of Demographic Information for Family Structure

<table>
<thead>
<tr>
<th>Type of Household</th>
<th>Number of Households</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mother-Father Household</td>
<td>24</td>
</tr>
<tr>
<td>Additional Kin Household</td>
<td>5</td>
</tr>
<tr>
<td>Single-Parent Household</td>
<td>15</td>
</tr>
</tbody>
</table>
household) and "single-parent" household. As the table indicates the most frequent type of household in the sample is the household where both parents are present (60%), followed by the "single-parent" household (37.5%) and the "additional kin" household (12.5%).

The birth order data indicated that 35% were first-borns, 25% "middle-borns" (neither first-borns nor last-borns) and 40% last-borns. This sample composition did not correlate significantly with the other variables entered in the matrix.

The teacher for the Day-Care Group and the main caretaker (in this case they were all mothers) of the House-Care Group were asked to evaluate the children on an empathy scale from 1 to 5 (1 = egocentric, 5 = very empathic). Ratings were not found to correlate significantly with birth order, overall test score, sex, or number of household members in the matrix analysis. Table 4 presents a summary of the empathy ratings. Both boys and girls received a relatively high rating of approximately four points; however, teachers rated girls slightly higher ($\bar{X} = 3.7$) than they did boys ($\bar{X} = 3.3$). Mothers gave a higher rating on the empathy scale to boys ($\bar{X} = 4.8$) than to girls ($\bar{X} = 4.3$). On the whole, mothers gave higher ratings ($\bar{X} = 4.55$) than the teachers ($\bar{X} = 3.5$). A post-hoc t-test demonstrated a non-
Table 4

Summary of Empathy Ratings
by Teachers and Main Caretakers

<table>
<thead>
<tr>
<th></th>
<th>Day-Care</th>
<th>Home-Care</th>
<th>Overall</th>
</tr>
</thead>
<tbody>
<tr>
<td>Girls</td>
<td>3.70</td>
<td>4.30</td>
<td>4.00</td>
</tr>
<tr>
<td>Boys</td>
<td>3.30</td>
<td>4.80</td>
<td>4.05</td>
</tr>
<tr>
<td>Overall</td>
<td>3.50</td>
<td>4.55</td>
<td>4.02</td>
</tr>
</tbody>
</table>
significant difference between ratings of boys and girls, but showed a significant difference in the empathy ratings for the Day-Care Group (teacher ratings) and the Home-Care group (main caretaker ratings), $t(38) = 3.51, p < .001$. 
One of the main purposes of this study was to test whether there were any differences in empathic abilities between four-year-olds who attend day-care and those that stay home with a main caretaker. Based on Piaget's (1967) 'de-centering' developmental stages and Mead's (1934) role-taking process (see Introduction), it was predicted that children who have the possibility of more frequent peer interactions would be more capable of taking another's point of view. The findings of the present experiment do not support this hypothesis. One possible explanation could be that the possibilities for peer interactions in the Home-Care Group do not differ significantly from the Day-Care Group. It may be the case for Puerto Rican families living in subsidized housing projects in Springfield, that home-reared children have ample opportunities to play outdoors with neighboring children, as the experimenter noticed when collecting the data.

West (1974) conducted a study which confirmed the "threshold" hypothesis forwarded by Hollos and Cowan (1973). This hypothesis postulates that the "proper development of role-taking skills requires a basic minimum of early social
interaction" (p. 1121). That is, they make the assumption that beyond a minimal frequency (threshold) level of peer interactions the amount does not affect the development of empathic skills. It would seem plausible, then, that the frequency and possibilities for peer interaction were comparable for the two groups in our study. Therefore, the effect of the day-care treatment would not be easily detected by the measure of empathy used in this study. Previous research on the effects of day-care on youngsters is usually inconsistent regarding differences between groups of children attending day-care and children that do not. This inconsistency is usually attributed to the varying measures (e.g., attachment, cognitive and/or social competency) used to assess children's social skills (see Introduction). Cochran (1977) -- when comparing Swedish children's experiences in day-care settings with children not attending day-care (home experiences -- found that there were "more similarities than differences across groups" (p. 706). Differences occurred by "variations in setting design, which may in turn be a function of different adult-role requirements" (p. 707). In other words, the differences between the groups were understood as a function of environmental settings which in turn were related to variations in the role(s) played by the adults taking care of the children (mother vs. teacher), and not so much in terms of the differences in peer interactions between the groups. These observations were interpreted in
light of the apparently homogeneous quality of Swedish culture. Further research which takes into account cultural environments is needed to reach a more definite conclusion about the different experiences of children in different settings (i.e., home and/or day-care).

Another possibility that may account for the apparent lack of differences between the groups in this study may be the fact that the effect of day-care on empathic abilities cannot be detected till much later in the child's life (Bronfenbrenner, 1975).

An additional major prediction in this investigation was that there would be sex differences in the dependent measure, i.e. empathy test score. Given more rigid sex-role socialization practices in the Puerto Rican culture compared to American culture, girls were expected to show a higher degree of empathic abilities than boys (girls are assumed to be more passive and sensitive to other people's needs). Previous research on sex differences have usually found no significant differences between boys and girls on measures of cognitive abilities (Chandler and Greenspan, 1972; Flavell et al., 1968, Kurdek, 1977), but on measures of affective perspective-taking, the results are less consistent (Borke, 1971; Feshbach and Roe, 1968). Further research on sex differences as manifested in different components (tasks) of role-taking seems necessary at this point.

To explore whether children could empathize as readily
with an opposite-sex child in the picture stories, order of sex of stimulus child in the picture stories was randomized. As predicted—and in accordance with previous research (Feshbach, 1973)—sex of the child in the picture stories did not affect the subject's score.

Borke's Empathy Test was divided into two parts. In Part I, the hypothetical situation was described to the child as 'other-oriented' (e.g., How would José feel if somebody took his toys away from him?). In Part II, the situation was phrased as "self-oriented" (e.g., How would María feel if you took her toys away from her?). As hypothesized, no significant differences between the two parts resulted. At an exploratory level one can observe, nevertheless, that the difference almost reached significance: children scored lower on Part I than on Part II. In a study with kindergarteners Blake-Keasy (1977) found that when presented with other-oriented situations children scored significantly lower than when presented with self-oriented hypothetical situations. The findings of the present study point to the same conclusion. The lack of significance might be attributable to age; Blake-Keasey's children were older than in this investigation's sample. Age has been found to contribute significantly to the perspective-taking skills (Borke, 1971, 1973; Brandt, 1978).

In the current investigation, it was hypothesized that Puerto Rican four-year-olds would recognize appropriately
and discriminate equally among the four types of emotion—Happy, Sad, Mad and Afraid—depicted in the Interpersonal Awareness Test. The results in this study show that Puerto Rican children recognize equally situations which depict 'happy', 'sad', and 'angry' events but recognize less readily events which show situations that arouse fear responses. In a cross-cultural study, Borke (1973) found that Chinese and American children can discriminate quite early between happy and unhappy responses, but that "recognition of afraid, sad and angry emotions appeared to be influenced to a considerable extent by the interaction of social class and cultural factors" (p. 106). Chinese youngsters are able to recognize sad emotions more readily than their American peers. The results of this study are consistent with previous research (Borke, 1971, 1973) where "happy" situations are one of the first responses that are clearly identified by four-year-olds. In addition, Puerto Rican children can discriminate as well 'sad' and 'angry' responses. It seems that Puerto Rican boys and girls learn to recognize very early the emotions of sadness and anger in other people. As suggested before (see Introduction) this could be explained in terms of the socio-cultural conditions of lower-class Puerto Rican families in the United States.

In contrast with Borke's findings that Chinese and American children have the greatest difficulty identifying anger, Puerto Rican children had the greatest difficulty
recognizing fearful situations. It might be possible that Puerto Rican children respond to fearful situations with anger or sadness. Or, as has been found previously (Borke, 1973), discrimination of fearful events increases with age, i.e., the children in this sample were too young.

Although in translating Borke's test the experimenter tried to modify the items so that they were more appropriate to Puerto Rican culture, some questions may have been more relevant than others to Puerto Rican children. A replication of this type of investigation with variations in test items with different social class and culture groups would be important. In addition, as Borke (1973) herself has found, sources of individual differences can heighten certain ambiguity in the different emotional situations; in particular, when responding to angry and sad situations. For example, when a situation elicits frustration one person might respond with anger and another with sadness, or even, the same person might have one reaction first followed by the other. These methodological considerations--appropriateness or accuracy and cultural relevance of items in a test--should be kept in mind when interpreting and drawing conclusions from the findings.

Demographic information about each child was collected. Contrary to expectations, number of household members, birth order, and overall test score were not found to relate significantly in the analysis. Rothenberg (1970) also found
no significant differences between social sensitivity, ordinal position, and size of the family. Several methodological considerations might account for the lack of significance in these correlation results. A larger sample of Puerto Rican children might be needed to provide reliable information about the effect of family size and ordinal position. A more controlled observation of the child-rearing practices and the effect of American culture on Puerto Rican family values regarding the socialization and development of social skills (e.g., empathy) in children would prove useful in future research.

A significant difference was found in the way teachers and mothers rated the children. Although no significant sex differences in ratings was observed, it is interesting to note that mothers rated boys slightly higher than girls, whereas, teachers rated girls somewhat higher than boys. Both, boys and girls, were given a high empathy rating of four points on the average. The greatest difference manifested was between the overall ratings of the two groups: mothers rated their children significantly higher than teachers. Two explanations are forwarded: a) teacher-child ratio is greater and therefore the teacher is provided with less direct information of the child's behavior in a wider range of experiences, and/or b) mothers tend to rate their children high in response to a strange person (experimenter) interviewing them. A longitudinal study--i.e., through the
school years—that would provide ratings of boys and girls by both their teachers and their main caretakers could give us more information about these rating differences.

Family size correlated negatively with the empathy ratings. One possible explanation for this significant relationship could be that children from smaller families are more adult-oriented; they act in a manner that gains adult approval and therefore obtain better ratings. A more detailed gathering of demographic information and its correlates would be necessary at this point for further analysis.

**Conclusion**

This study investigated the effect of day-care in the empathic responses of young children. It was hypothesized that children who attend day-care would have more possibilities for peer interactions which is assumed to foster the development of perspective-taking skills. Lack of significant differences between the two groups—Day-Care versus Home-Care—was understood in terms of the possible similarities of experiences of the two groups. Puerto Rican home-reared children seem to have as much access to peer interactions in their neighborhood setting as the Day-Care group.

The major significant finding in this investigation was that Puerto Rican four-year-olds can discriminate equally
among the happy, sad and angry responses to emotional situations whereas they have the greatest difficulty identifying fearful responses in other children.

To further clarify the relationship between day-care and the development of empathic abilities in young children, future research should take into account the socio-cultural socialization and experiences of Puerto Rican children in the United States and in the Island, the different components of role-taking and the varied environmental settings of day-care.
Footnotes

1. . . in 1970, 31% of women with children under six were in the labor force, and the proportion is rising rapidly. . . (Bane, 1974, p. 33).

2 Moshav family arrangements are similar to the nuclear family structure in a city or small town; kibbutz living arrangements are predominantly peer-dominated.

3 Yarrow (1964) has made the clearest argument about the use of maternal separation in theory and research:

In much of the literature maternal separation and maternal deprivation have been used synonymously, with the result that the effects attributed to maternal separation have often been due to other deviating conditions of maternal care which have been subsumed under this term (p. 89).

Moreover, he stresses the importance of distinguishing between maternal separation, maternal deprivation, multiple mothering and distortions in maternal care for theory development and current research.
References


Deutsch, F. Female preschoolers' perceptions of affective responses and interpersonal behavior in video-taped


Hoffman, M. L. Empathy, role-taking, guilt and development of altruistic motives. In T. Lickona (Ed.), Moral development and behavior, theory, research and social is-


Macrae, J. W. & Herbert-Jackson, E. Are behavioral effects of infant day care program specific? Developmental Psychology, 1976, 12, 269-270.


Robinson, H. B. & Robinson, N. M. Longitudinal development
of very young children in a comprehensive day care pro-
gram: The first two years. Child Development, 1971, 
42, 1673-1683.

Rothenberg, B. B. Children's social sensitivity and the 
relationship to interpersonal competence, intrapersonal 
comfort, and intellectual level. Developmental Psy-

Rubin, K. H. Egocentrism in childhood: An unitary con-

Safa, H. I. The urban poor in Puerto Rico: A study in 
development and inequality. New York: Holt, Rinehart 

Schwarz, J. C., Krolick, G., & Strickland, R. G. Effects 
of early day care experience on adjustment to a new 
environment. American Journal of Orthopsychiatry, 

Schwarz, J. C., Strickland, R. G., & Krolick, G. Infant 
day care: Behavioral effects at preschool age. De-
velopmental Psychology, 1974, 10, 502-506.

Selman, R. L. Taking another's perspective: Role-taking 
development in early childhood. Child Development, 
1971, 42, 1721-1734.

Shantz, C. U. The developmental of social cognition. Chi-

Taguiri, R. Person perception. In G. Lindzey & E. Aronson 
(Eds.), The handbook of social psychology, Vol. 3.


APPENDIX A
Translation of Interpersonal Awareness Test—Part I and Part II

SENSIBILIDAD INTERPERSONAL

Parte I

Nombre: ______________________ Fecha: ______________________
Edad: ______________________ Orden de Presentación: ______

Instrucciones: 1. El examinador presenta las caras en el siguiente orden: Contenta/o, Triste, Con Miedo, Con Coraje. "Estos son unos dibujos de María (José). Dime como María se sentiría en cada dibujo." El examinador le muestra el primer dibujo. El examinador nombra las emociones que la niña/o no logre identificar. El examinador circula las emociones que la niña/o identifica correctamente.

Contenta/o Triste Con Miedo Con Coraje Ninguna

2. Ilustración A: El examinador recoje las caras y las baraja asegurándose que la cara "Contenta" no sea la primera. El examinador presenta las caras en el nuevo orden y entonces coloca la lámina del primer cuento frente a la niña/o: "Dime como María (José) se sentiría si ella estuviera comiendo la comida que a ella más le gusta. Se sentiría (el examinador nombra las emociones de acuerdo a la secuencia de caras). Escoge la cara que tú crees que
ella tendría en este cuento. El examinador circula la cara seleccionada por la niña/o:

Contenta/o Triste Con Miedo Con Coraje Ninguna

Si la niña/o no selecciona ninguna cara, el examinador pone la cara de "Contenta" en el dibujo diciendo: "Maria (José) probablemente se sentiría 'Contenta' si estuviera comiendo la comida que más le gusta." Si la niña/o llega a escoger una cara, no importa cual, el examinador le dice: "Muy bien. ¿Por qué tú crees que María (José) se sentiría si ella estuviera comiendo la comida que más le gusta?"

"Ahora te voy a hacer unos cuentos de María (José) y quiero que me digas como María (José) se siente en cada cuento. Aquí no hay contestaciones buenas o malas. Todo lo que yo quiero saber es como tú crees que María (José) se siente en cada cuento."

Nota: El examinador baraja las caras antes de cada cuento y circula la respuesta de la niña/o.

1. Dime como María (José) se sentiría si su mamá la llevara a un sitio que a ella le gusta mucho. Se sentiría (el examinador nombra las emociones de acuerdo a la secuencia). Escoge la cara que tú crees que ella tendría en este cuento y ponla en el dibujo. ¿Por qué tú crees que María (José) se sentiría____?

C T CM CC
2. Dime como María (José) se sentiría si ella quisiera hacer algo y su mamá le dice que "No". Se sentiría (el examinador nombra las emociones de acuerdo a la secuencia). Escoge la cara que tú crees que ella tendría en este cuento y ponla en el dibujo. ¿Por qué tú crees que María (José) se sentiría?

3. Dime como María (José) se sentiría si su mamá la obligara a comer algo que a ella no le gusta. Se sentiría (el examinador nombra las emociones de acuerdo a la secuencia). Escoge la cara que tú crees que ella tendría en este cuento y ponla en el dibujo. ¿Por qué tú crees que María (José) se sentiría?

4. Dime como María (José) se sentiría si ella se cayera y se golpeara (diera duro). Se sentiría (el examinador nombra las emociones de acuerdo a la secuencia). Escoge la cara que tú crees que ella tendría en este cuento y ponla en el dibujo. ¿Por qué tú crees que María (José) se sentiría?

5. Dime como María (José) se sentiría si su hermana/o (amiguita/o) le quitara los juguetes. Se sentiría (el examinador nombra las emociones de acuerdo a la secuencia). Escoge la cara que tú crees que ella tendría en este cuento y ponla en el dibujo. ¿Por qué tú crees que...
Maria (José) se sentiría____?

6. Dime cómo María (José) se sentiría si ella estuviera sola en la oscuridad. Se sentiría (el examinador nombra las emociones de acuerdo a la secuencia). Escoge la cara que tú crees que ella tendría en este cuento y ponla en el dibujo. ¿Por qué tú crees que María (José) se sentiría____?

7. Dime cómo María (José) se sentiría si alguien que ella quiere mucho se tuviera que ir lejos. Se sentiría (el examinador nombra las emociones de acuerdo a la secuencia). Escoge la cara que tú crees que ella tendría en este cuento y ponla en el dibujo. ¿Por qué tú crees que María (José) se sentiría____?

8. Dime cómo María (José) se sentiría si le regalaran un juguete. Se sentiría (el examinador nombra las emociones de acuerdo a la secuencia). Escoge la cara que tú crees que ella tendría en este cuento y ponla en el dibujo. ¿Por qué tú crees que María (José) se sentiría____?
SENSIBILIDAD INTERPERSONAL

Parte II

Nombre: __________________________ Orden de Presentación: ______
Fecha: __________________________

Instrucciones: "Ahora te voy a hacer más cuentos, lo único es que esta vez solo hay un dibujo de Marfa (José) a cual ponerle la cara." El examinador baraja las caras asegurándose que la cara "Contenta/o" no es la primera. "Dime como Marfa (José) se sentiría si tú la dejaras jugar con tus juguetes. Se sentiría (el examinador nombra las emociones de acuerdo a la secuencia). Escoge la cara que tú crees que ella tendría en este cuento y ponla en el dibujo." El examinador circula la cara que la niña/o escoge:

Contenta/o Triste Con Miedo Con Coraje Ninguna

¿Por qué Marfa (José) se sentiría si tú la dejaras jugar con tus juguetes?

Nota: El examinador baraja las caras antes de cada cuento y circula la respuesta de la niña/o.

1. Dime como Marfa (José) se sentiría si le dieras un helado. Se sentiría (el examinador nombra las emociones de acuerdo a la secuencia). Escoge la cara que tú crees que ella tendría en este cuento y ponla en el dibujo. ¿Por qué tú crees que Marfa (José) se sentiría ____?
2. Dime como María (José) se sentiría si ella quisiera jugar contigo y tú no puedes porque es muy tarde. Se sentiría (el examinador nombra las emociones de acuerdo a la secuencia). Escoge la cara que tú crees que ella tendría en este cuento y ponla en el dibujo. ¿Por qué tú crees que María (José) se sentiría____?

3. Dime como María (José) se sentiría si tú te vistieras de fantasma y la asustarías. Se sentiría (el examinador nombra las emociones de acuerdo a la secuencia). Escoge la cara que tú crees que ella tendría en este cuento y ponla en el dibujo. ¿Por qué tú crees que María (José) se sentiría____?

4. Dime como María (José) se sentiría si tú le rompieras su juguete preferido. Se sentiría (el examinador nombra las emociones de acuerdo a la secuencia). Escoge la cara que tú crees que ella tendría en este cuento y ponla en el dibujo. ¿Por qué tú crees que María (José) se sentiría____?

5. Dime como María (José) se sentiría si tú le hicieras un cuento de miedo (monstruos). Se sentiría (el examinador nombra las emociones de acuerdo a la secuencia). Escoge la cara que tú crees que ella tendría en este cuento y
ponla en el dibujo. ¿Por qué tú crees que María (José) se sentiría____?

6. Dime como María (José) se sentiría si tú le dijeras algo malo de su papá o de su mamá. Se sentiría (el examinador nombra las emociones de acuerdo a la secuencia). Escoge la cara que tú crees que ella tendría en este cuento y ponla en el dibujo. ¿Por qué tú crees que María (José) se sentiría____?

7. Dime como María (José) se sentiría si tú la invitaras a jugar contigo. Se sentiría (el examinador nombra las emociones de acuerdo a la secuencia). Escoge la cara que tú crees que ella tendría en este cuento y ponla en el dibujo. ¿Por qué tú crees que María (José) se sentiría____?

8. Dime como María (José) se sentiría si su mejor amiguita/o se enfermara. Se sentiría (el examinador nombra las emociones de acuerdo a la secuencia). Escoge la cara que tú crees que ella tendría en este cuento y ponla en el dibujo. ¿Por qué tú crees que María (José) se sentiría____?
APPENDIX B
Demographic Information and Empathy Scale

INFORMACION ADICIONAL

Nombre: ____________________________
Fecha de Nacimiento: ________________

Estructura Familiar:
--miembros de la familia
--posición

Escala de evaluación:

1 / / / / / 5
egocéntrica/o muy empática/o