THE EFFECTS OF EARLY CHILD CARE ON SOCIAL-PEER INTERACTION IN TWO-YEAR-OLD CHILDREN

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An Abstract

Presented to the

Graduate and Research Council of

Austin Peay State University

In Partial Fulfillment

of the Requirements for the Degree

Master of Arts

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by

Steven Alvin Toft

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ABSTRACT

This study was designed to assess the effects of early and extensive experience in child care on the social development of young children. Data were gathered from three child care centers in the local community. The total group of 71 children (2-year-olds, n=38; and 3-year-olds, n=33) were assessed on the Toddler Social Adaptation Scale, a measure of social adaptation developed for this study. The scale consists of 20 items organized into three dimensions: sociability, hesitancy, and difficulty. From the sample of 38 2-year-olds, 22 could be identified as either very early entry into child care (less than three months at age of entry, n=9) or late entry (12 to 18 months at age of entry, n=13) for observation of complexity of peer play using the Peer Play Scale (Howes, 1980), an 8-point rating scale which allows judgements of complexity of play.

The TSAS was sensitive to age differences between 2- and 3-year-old children on the sociability dimension, with 3-year-olds exhibiting higher levels of social adaptation. The late entry 2-year-olds exhibited significantly higher levels of difficult behavior. Examination of the relationship between complexity of peer play scores and TSAS factor scores indicated that as complexity of peer play increased, higher levels of sociability were evident, but only in the late entry children.

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Steven Alvin Toft

July 1989

To the Graduate and Research Council:

I am submitting herewith a Thesis written by Steven Alvin Toft entitled "The Effects of Early Child Care on Social-Peer Interaction in Two-Year-Old Children." I have examined the final copy of this paper for form and content, and I recommend that it is accepted in partial fulfillment of the requirements for the Degree Master of Arts, with a major in General Psychology.

Patricia A. Cheyne

Major Professor

We have read this thesis and recommend its acceptance:

Second Committee Member

Stuart B Bonnington

Third Committee Member

Accepted for the Graduate and Research Council:

William H. Ellis

Dean of the Graduate School

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CHAPTER 1

INTRODUCTION

The increasing number of mothers with infants in the work force has resulted in a growing demand for early child care. In 1986, 7.8 million preschool children had mothers in the labor force; that number is expected to reach 10 million by 1990 (U.S. Bureau of the Census, 1987). As a result of the increasing demand for child care services, and the potential impact on the development of large numbers of children, there is renewed interest in the effects of child care (Belsky & Steinberg, 1978; Finkelstein, Dent, Gallagher, & Ramey, 1978; Vlietstra, 1981).

Current research has been examined in a variety of reviews (Belsky, 1980, 1984, 1988; Belsky, Steinberg, & Walker, 1982; Clark-Stewart & Fein, 1983; Etaugh, 1980; Gamble & Zigler, 1986; Rutter, 1981). In general, the reviewers have concluded that good quality child care does not appear to impact detrimentally on most aspects of young children's development. However, questions about the effects of child care in reference to social and emotional development persist. Reviewers (Belsky, 1988; Rutter, 1981) have concluded that children in child care tend to be more aggressive and interact more with peers in both positive and negative ways than children who have not attended child care. In addition, slightly larger numbers of children

distance themselves from caregivers following separation in laboratory settings.

Early research by Maudry and Nekula (1939) found 9-to 13-month-olds show a high degree of negative social behavior, treating each other as obstacles to play objects, but with social interaction becoming friendlier and more cooperative toward the end of the second year. Mueller and Lucas (1975) support this early research by proposing a three-stage sequence of interactions in the one-to-two-year period. The first stage is represented by object-focused interactions. Here the infants interact together with an object, but are more interested in the object than in influencing the peer's behavior. For example, a toy car can elicit simultaneous behavior from two children, one pushing, while the other makes motor noises. The second stage, that of "simple and complex contingency interchanges" follows the first. In this stage the infants not only interact with objects, but with peers as well. They actively seek and receive "contingencies" from each other. For example, one child may say "da" and the other child laughs, a circular sequence which is repeated over and over again. The third stage involves complementary interchanges. Here the infants do different but intercoordinated or reciprocal activities, for example, playing catch with a ball, or taking turns chasing one another.

Several researchers provide support for Mueller and

Lucas's findings. Durfee and Lee (cited in Mueller & Vandell, 1979) report that one-way contacts are more common than contingency contacts in the first year. During the second year, they found reciprocal contacts increasing in frequency.

Brownell (1986) proposes that during the early toddler period, children's ability to decenter in solitary pretend play is related to the child's ability to assume another's role when engaged in peer interaction. During the later toddler period, peers share meaning or themes and knowledge of social rules. This ability to assume roles and share the communication of meaning is thought to be essential in the social developmental process.

Ross and Goldman (1977) observed 25-minute toddler dyad sessions, noting that instances of turn-taking and repetition increased with age, while isolated social behaviors declined.

Howes (1988) reports that complementary and reciprocal play emerges in the early toddler period and increases with age. Cooperative social pretend play emerges in the late toddler period and increases with age.

These findings suggest that there are qualitative developmental changes in the social interaction of peers during the infant and toddler periods. Other studies provide support for this developmental trend (Bronson, 1975; Holmberg, 1980). However, these findings have been contradicted by others (Eckerman, Whatley, & Kutz, 1975).

Mueller and Vandell (1979) have addressed these discrepancies. They have argued that the size of peer groups may influence the content of peer interactions in play. Additionally, toddlers tend to have more positive interactions when playing in dyads and have more antisocial interactions in larger groups.

Relations between the age children enter child care and their social and emotional development are currently being debated. Many studies (Farber & Egeland, 1982; McCartney, Scarr, Phillips, Grajek, & Schwartz, 1982; Vaughn, Gove, & Egeland, 1980) have suggested that early entry into child care may be associated with maladaptive development. Howes and Stewart (1987) have questioned the results of some of these studies. The McCartney et al. (1982) study required that parents and caregivers rate children's adjustment on a paper and pencil scale. Early entry children were rated as more anxious by caregivers than by parents. However, among all ratings, the child rated the most anxious was below the cutoff point for diagnosis of anxiety. The Vaughn et al. (1980) study was found to be suspect for a number of reasons. The subjects were drawn from a clinic that served families of lower socioeconomic status. Most of the mothers were single receiving some form of public assistance, and their child care arrangements were unstable and of unknown quality. These factors promoted a disportionate number of early entry children who had insecure attachment relations.

Recent research (Clark-Stewart, 1989; Belsky, 1988) has indicated that early and extensive child care experience may place children "at risk" for later social and emotional problems. Specifically, children who participate in extensive child care during infancy may evidence increased avoidance behavior in relation to parents, indicating insecure attachment relationships. However, studies fail to show consistent negative effect in children who enter child care early (Clark-Stewart, 1988). Other studies present a different perspective. Haskins (1989) reports that participation in high quality early education programs can have positive effects for low income children.

Howes and Stewart (1987) report that children who enter child care earlier were generally more competent in their play with peers and with objects. Additionally, a study of upper middle-class mothers who used highly stable child care arrangements reported that boys who entered child care earlier were more likely to have secure maternal-attachment relations than boys who entered later (Benn, 1986). It should be noted that contrasted here was early entry in the first half of the first year versus early entry in the second half. Furthermore, in a study of relatively high quality child care, early entry children were reported to engage in more touching and laughing behavior (Howes & Rubenstein, 1985). In this study, early entry children also received more nurturing behavior from caregivers than did late entry children.

Another study by Howes (1988) indicated that children who had more experience with peers also appeared more socially competent with peers. Children who entered child care before two years of age engaged in more cooperative social pretend play than children who entered child care when they were two years old or older. Finally, Haskins (1985) in a study of children from diverse child care settings of varying stability found no relationships between age of entry and later social behavior.

Typically, studies of peer interaction have focused on older children's behavior. The literature had not addressed the issue of how children develop socially and emotionally when they enter child care very early in life.

Howes (1987) has proposed a model which attempts to describe the developmental sequence children progress through as they attain higher and more complex levels of social interaction. This model may have significant implications for children who enter child care at early ages.

The Howes (1987) model defines four stages of social competence with peers which are invariant in sequence order. The stages begin with stage one, infancy. This stage (0-12 months) is dominated by object-centered encounters. During this period, the infant recognizes the peer as a preferred partner. The second stage, early toddler (13-24 months), focuses on complementary and reciprocal play structures and

the formation of stable friendships. The third stage, late toddler (25-36 months), involves communication of meaning. During this stage, the child's friendships tend to be flexible. The final stage, preschool (3-5 years), involves social perspective taking. The children have social knowledge of the peer group, and they differentiate between friends and playmates. The model accounts for development only through the first 5-years-of-life because recent findings indicate that social status within a group remains stable for at least five years following middle childhood (Coie & Dodge, 1983).

It was the purpose of this study to examine the social behavior of children when they have had full-time child care experience virtually all of their lives. It was thought that children with more experience in child care would achieve higher levels of complexity of play and be more socially adaptive. It was also proposed that these measures would be significantly related.

CHAPTER 2

METHODS

Subjects

A total of 71 children between 22 and 40 months of age participated in this study. The sample was selected from three child care centers in the local community.

Child care centers were selected on the basis of comparable class size (20 children), adult to child ratio (1:10), the presence and quantity of age appropriate toys (duplo blocks, balls, dolls, toy cars, etc.), available play space (both indoor and outdoor), philosophy of child care (predominantly unstructured, play oriented), and hours of operation (6:00 AM to 6:00 PM).

The directors of child care centers, who were working with Dr. Patricia Chappell on pilot work in early entry into child care, were contacted by telephone with a follow-up on-site interview to explain the purpose and details of the study. During the visit to the child care center, the center director filled out consent forms giving permission *in loco parentis* for children to be observed anonymously, and for the release of child care history information.

The complexity of play of a subset of the subjects, twenty-two 22-to 24-month-old children, was rated by the researcher. All 71 subjects were rated by the child care workers on a social adaptation rating scale.

This subset of 2-year-old subjects consisted of two groups of children who entered child care at three months of age or younger, and children who entered child care at 12 months of age or older; these two groups were balanced for gender as nearly as possible (13 females and 9 males), although few gender differences in social interaction among children under three years of age have been reported (Bronson, 1975; Eckerman et al., 1975; Holmberg, 1980; Jacobson, 1981; Vandell, Wilson, & Buchanan, 1980).

All children were enrolled in child care full time (at least 30 hours per week) while their parents worked or attended school.

Instruments

1. Complexity of peer play was measured using the Peer Play Scale (Howes, 1980). Peer play is rated on an 8-point scale (see Appendix 1). The levels of play are (1) solitary activity without a peer within three feet, with no looking at a peer and no mutual interest; (2) solitary activity within three feet of a peer, but with no eye gaze and no mutual interest; (3) onlooker, where the child watches a peer, but with no mutual awareness; (4) parallel activity with a peer, where the child engages in the same activity as a peer who is within three feet, but without any eye gaze or social bids; (5) parallel activity with awareness, where the child engages in the same activity as a peer, with eye gaze and mutual awareness; (6) simple social play, where the

child and partner exchange social bids, and the interaction has a turn-taking structure; (7) complementary and reciprocal play, where the child and peer engage in action reversals, but without social pretend play; and (8) cooperative social pretend play, where there is at least simple social play and pretend has a script and complementary play role structure.

2. The Toddler Social Adaptation Scale (TSAS) was developed for this study to measure the child's functioning with peers. This scale was derived from initial work done by Howes (1988). The TSAS consists of 20 items rated on a 7-point Likert rating scale. The scale provides three composite scores which represent social competence with peers. The three measures include: difficulty, hesitancy, and sociability (see Appendix 2 for items on the TSAS).

Procedures

Video taped observations were made at Austin Peay State University in the Developmental Laboratory of Dr. Patricia Chappell in the Psychology department; the observations were made of two pairs of children engaged in free play. These observations were part of the ongoing research by Dr. Chappell in early entry into child care and were used to train an undergraduate assistant on the complexity of peer play measure and to establish high reliability on this measure prior to on-site observations. Parts of the tape were utilized for training purposes with the balance used

for formal reliability testing; interobserver reliability was established on the complexity of peer play scale (95%), utilizing the four children on the video tape for a total of 50 minutes observed. One additional child was observed on-site at a child care center for an additional 15 minutes.

Two site visits were made to each of the child care centers for data collection. During the first site visit, the initial complexity of peer play assessment was made and Toddler Social Adaptation Scale forms were distributed to the child care workers. During the second site visit, completion of the complexity of peer play assessment was accomplished.

Child care workers were asked to rate all 2- and 3-year-olds in their rooms with whom they had personal experience for at least several months. The child care workers were asked to return the forms in one week if possible.

During reliability testing as well as during actual data collection, children were observed for one minute periods with the predominant level of play during the period recorded. Each child was observed for a total of 30 minutes in 5-minute blocks. Time was kept during reliability testing with a record of time produced with a time-date generator and during data collection with the aid of earphones and a recorded message which announced the end of each observation epoch. (Exception: in the first three

subjects, the observation epochs were determined by the observer looking at the second hand of a stop watch; comparison of time keeping methods resulted in 100% reliability between the two methods.)

CHAPTER 3

RESULTS

Toddler Social Adaptation Scale

On the TSAS, low Likert ratings indicated behavior very much like the child. High ratings indicated behavior very much unlike the child. One-half of the items were positively stated and one-half were stated negatively. Prior to compiling the data, negatively stated item scores were reversed to facilitate analysis. TSAS scores were subjected to a varimax-rotated factor analysis. This resulted in factor scores which represented social competence with peers. Cronbach Alpha scores were computed to assess the internal consistency of each factor.

Three measures resulted from this procedure. Difficulty was the sum of the following items: upset easily if a peer interferes with activities; boss and dominate other children; hit, push, or in other ways hurt other children; react with anger if another child takes something that is theirs; unable to share or take turns; and take what they want (Cronbach Alpha = .97). Hesitancy was the sum of the following items: withdraw from peer activity; watch rather than participate; and usually shy with peers (Cronbach Alpha = .94). Sociability was the sum of the following items: liked by their peers; offer, share, or give to peers; cooperate with peers; offered or given things by peers; and preferred playmate of other children (Cronbach Alpha = .92).

Fourteen items were utilized in the analysis. The remaining six did not load clearly in any factor.

The TSAS proved sensitive to developmental age differences between 2-year-olds and 3-year-olds. However, significant results were obtained only on the sociability measure (t = 4.08; df = 69; p < .0001); these results are reported in Table 1. This analysis indicated that, for this sample, 3-year-olds exhibited higher levels of sociability.

Analysis showed that the age at entry into child care produced a significant difference in TSAS factor scores only on the difficulty measure (t = 3.03; df = 20; p < .007); the results of the analysis of TSAS factor scores are reported in Table 2. This analysis showed that late entry children exhibited higher levels of difficulty on the assessment of social competence.

Peer Play Scale

An analysis of the effect of age at entry into child care did not demonstrate a significant difference in complexity of peer play mean scores (see Table 3). Only two levels of peer play were observed: level (3) onlooker, and level (4) parallel.

Relationship Between Measures

Relationships between PPS levels and TSAS factors are presented in Tables 4, 5, and 6. Because only two levels of peer play were observed, as reported above, t-tests were used to examine mean differences on each of the TSAS factors

according to level of play for both early and late entry 2-year-olds. Significant differences were found only on the sociability dimension in late entry children who had attained higher level complexity of peer play ($t = 3.10$; $df = 11$; $p < .01$); the results of this analysis are presented in Table 5. Analysis indicated that late entry children who gained higher levels of peer play also received higher sociability ratings.

Peer play mean scores as well as TSAS factor scores were subjected to separate one-way analysis of variance procedures for differences between child care centers. There were no significant differences found on any measure.

Summary

In summary, these analyses demonstrated both the reliability and validity of the Toddler Social Adaptation Scale. The TSAS consisted of three factors: sociability, hesitancy, and difficulty. The TSAS differentiated between 2-year-olds and 3-year-olds, but only on the sociability dimension. In addition, on the test of the age of entry hypothesis, only on the difficulty factor was there a significant difference, with late entry children rated higher on difficulty. Only two levels of peer play were observed, onlooker and parallel. Finally, examination of the relationship between PPS levels and TSAS factors resulted in higher levels of sociability being related to higher levels of complexity of peer play, but only in the late entry children.

CHAPTER 4

DISCUSSION

The Toddler Social Adaptation Scale was partially validated by the analyses reported in the previous chapter. In addition, the assessment of internal consistency indicated the scale is reliable as well. The TSAS proved to be sufficiently sensitive to differentiate age differences in sociable behavior between 2-year-olds and 3-year-olds. Three-year-old children appear to have more highly developed social skills as perceived by the child care worker.

It was proposed that early entry into child care would result in increased levels of social adaptation. The results of this research recommend the rejection of this hypothesis. In fact, it was found that late entry into child care is associated with ratings of higher levels of difficulty on the TSAS. These findings are inconsistent with previous research by Howes and Rubenstein (1985) in which children who entered child care earlier were reported to engage in more positive social interaction. However, other studies have reported results which are consistent with the present findings. Children who entered child care at earlier ages were rated as more anxious (Phillips, McCartney, & Scarr; 1987), but these children were older when rated and entered child care at different ages than the subjects in the study reported here.

It was proposed that early entry into child care would

result in increased complexity of peer play. This contention was not supported by the results of this study. One possible reason for these findings is that complexity of peer play is not effected by early entry into child care. Another reason could have been that the sample was not large enough to adequately measure complexity of play with this instrument. Howes (1988) observed higher levels of play in her California sample than were observed in this study. This may reflect regional differences in program orientation, or more likely, differences in the age at which children enter child care.

It was proposed that there would be a relationship between levels of peer play and toddler social adaptation scores. The data partially supported this hypothesis. Only in the late entry 2-year-olds were higher ratings of sociability associated with higher levels of complexity of play. This finding is consistent with reports by Howes (1988) that higher level complexity of play is associated positively with teacher ratings of sociability in the early toddler period. Failure to find this same effect in early entry children indicates that further study is needed.

Late entry children's progress may be influenced by preexisting characteristics which are present in the children at entry into child care. It may be that different children experience the same child care differently. Temperamental differences may influence children's

reactions to child care, with "easier" children adapting to alternative care more readily (Belsky & Rovine, 1988). In addition, attachment has been thought to play an important role in the optimal development of social relationships (Sroufe, 1983). Through positive interactions with parents in the first year of life a child gains early experience in feeling secure in the presence of other social beings; failure to have positive experiences vis-a-vis others leads to anxious and disturbed relationships later. Very likely, attachment mediates the child's experience in child care. An insecurely attached child is not able to explore his environment and interact in a positive and confident manner with peers. Empirical observations have demonstrated that securely attached infants enter easily into peer interactions, show zest for play, exploration, and social exchange; insecurely attached infants show more withdrawn behavior and lack of initiative in entering activities and social exchange with peers (Arend, Gove, & Sroufe, 1979; Waters, Wippman, & Sroufe, 1979).

The results of this study are far from conclusive. Replication of this design with a larger sample, and with controls for quality of attachment and temperament would be advisable. Clearly, the role of the family is critical in the development of social competence, but to what extent and how individual differences mediate extrafamilial relationships are yet to be determined. These are questions

that continue to be studied in our effort to understand the role of varied caregiving environments in human development.

TABLE 1

Age differences in TSAS factor scores

Factor	Mean	SD	t	df	2-tail prob.
Sociable:					
a	.76	1.67	4.08*	69	.0001
b	-.62	1.07			
Hesitant:					
a	-.13	1.79	-.59	69	.548
b	.10	1.43			
Difficult:					
a	-.12	1.75	-1.27	69	.211
b	.41	1.80			

a 22 to 30 months, mean age 25.03 months, N = 38
b 31 to 40 months, mean age 36.13 months, N = 33

TABLE 2

Age of entry differences in TSAS factor scores

Factor	Mean	SD	t	df	2-tail prob.
Sociable:					
Early	.86	1.40	1.154	20	.261
Late	.13	1.41			
Hesitant:					
Early	-.34	2.01	-.247	20	.803
Late	-.12	2.05			
Difficult:					
Early	.90	1.44	3.038*	20	.007
Late	-.91	1.20			

Early 1.5 to 3 months, N = 9
Late 12 to 18 months, N = 13

TABLE 3

Age of entry differences in peer play mean scores

Entry	Mean	SD	t	df	2-tail prob.
Early	3.98	.62	.47	20	.655
Late	3.87	.53			

Early 1.5 to 3 months, mean age 1.5 months, N = 9
Late 12 to 18 months, mean age 13.23 months, N = 13

TABLE 4

Difficulty factor scores in early and late entry child care children according to level of complexity of peer play

Factor	N	Mean	SD	t	df	2-tail prob.
Difficult:						
Total						
Onlooker	7	.37	1.81	1.06	20	.298
Parallel	15	-.42	1.39			
Early						
Onlooker	3	1.47	.97	1.19	7	.273
Parallel	6	-.12	1.92			
Late						
Onlooker	4	-.46	1.86	.21	11	.835
Parallel	9	-.62	.82			

Early mean age 1.5 months, N = 9
Late mean age 13.23 months, N = 13

TABLE 5

Sociability factor scores in early and late entry child care children according to level of complexity of peer play

Factor	N	Mean	SD	t	df	2-tail prob.
Sociable:						
Total						
Onlooker	7	1.03	1.51	1.33	20	.195
Parallel	15	.14	1.33			
Early						
Onlooker	3	.55	1.47	-.77	7	.472
Parallel	6	1.33	1.13			
Late						
Onlooker	4	1.39	1.45	3.10*	11	.01
Parallel	9	-.64	.73			

Early mean age 1.5 months, N = 9
Late mean age 13.23 months, N = 13

TABLE 6

Hesitancy factor scores in early and late entry child care children according to level of complexity of peer play

Factor	N	Mean	SD	t	df	2-tail prob.
Hesitant:						
Total						
Onlooker	7	-.08	2.16	.19	20	.848
Parallel	15	-.27	1.97			
Early						
Onlooker	3	.56	2.51	.67	7	.528
Parallel	6	-.68	2.18			
Late						
Onlooker	4	-.56	1.70	-.50	11	.629
Parallel	9	.01	1.77			

Early mean age 1.5 months, N = 9
Late mean age 13.23 months, N = 13

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APPENDIX 1

PEER PLAY SCALE

SUBJECT #____ AGE____ GENDER____AGE AT ENTRY____DATE_____

DAYCARE CENTER_____

1. Solitary: no peer within 3 feet, no eye gaze, no mutual interest.

2. Proximity: peer within 3 feet, no eye gaze, no mutual interest.

3. Onlooker: child watches peer, no mutual awareness.

4. Parallel without awareness: child engages in same activity as peer who is within 3 feet, no eye gaze, no social bids.

5. Parallel with awareness: child engages in same activity as peer; there is eye gaze and mutual awareness.

6. Simple social play: child and partner exchange social bids, interaction has a turn-taking structure.

7. complementary and reciprocal play: child and peer engage in action reversals, no social pretend play.

8. Cooperative social pretend play: at least simple social play, pretend has a script and complementary play role structure. Scripts are organized, multi-event play sequences.

MIN.	NOTES	1	2	3	4	5	6	7	8
1									
2									
3									
4									
5									
6									
7									
8									
9									
10									
11									
12									
13									
14									
15									

ADDITIONAL INFORMATION

APPENDIX 2

TODDLER SOCIAL ADAPTATION SCALE

Rate this child based on his/her behavior during the past few weeks.
Following each item are numbers 1 through 7.
They represent:

1. Very much like
2. Like
3. Somewhat like
4. Neither like nor unlike
5. Somewhat unlike
6. Unlike
7. Very much unlike

Circle the one number which best describes the child you are rating.

1. This child is upset easily if a peer interferes with his/her activities.

   1 2 3 4 5 6 7

2. This child is liked by his/her peers.

   1 2 3 4 5 6 7

3. This child bosses and dominates other children.

   1 2 3 4 5 6 7

4. This child withdraws from peer activity.

   1 2 3 4 5 6 7

5. This child is the initiator of activities with peers.

   1 2 3 4 5 6 7

6 This child hits, pushes, or in other ways hurts other children.

   1 2 3 4 5 6 7

7. This child watches rather than participates.

   1 2 3 4 5 6 7

8. This child imitates the actions of peers.

   1 2 3 4 5 6 7

9. This child offers, shares, or gives to peers.

1 2 3 4 5 6 7

10. This child reacts with anger if another child takes something that is his/hers.

1 2 3 4 5 6 7

11. This child shows concern if another child is distressed.

1 2 3 4 5 6 7

12. This child is usually shy with peers.

1 2 3 4 5 6 7

13. This child cooperates with peers.

1 2 3 4 5 6 7

14. This child is the first to try something new.

1 2 3 4 5 6 7

15. This child is unable to share or take turns.

1 2 3 4 5 6 7

16. This child is isolated.

1 2 3 4 5 6 7

17. This child pretends he/she is someone or something else during play.

1 2 3 4 5 6 7

18. This child is offered or given things by peers.

1 2 3 4 5 6 7

19. This child takes what he/she wants.

1 2 3 4 5 6 7

20. This child is a preferred playmate of other children.

1 2 3 4 5 6 7

TSAS ITEMS LOADING IN FACTORS

SOCIABLE:

2. Is liked by his/her peers.
9. Offers, shares, or gives to peers.
13. Cooperates with peers.
18. Is offered or given things by peers.
20. Is a preferred playmate of other children.

HESITANT:

4. Withdraws from peer activity.
7. Watches rather than participates.
12. Is usually shy with peers.

DIFFICULT:

1. Is upset easily if a peer interferes with his/her activities.
3. Bosses or dominates other children.
6. Hits, pushes, or in other ways hurts other children.
10. Reacts with anger if another child takes something that is his/hers.
15. Is unable to share or take turns.
19. Takes what he/she wants.

APPENDIX 3

STATEMENT OF INFORMED CONSENT

A STUDY OF TODDLER SOCIAL DEVELOPMENT: THE RELATIONSHIP BETWEEN EARLY CHILD-CARE AND LATER SOCIAL INTERACTION

The purpose of this study is to assess the relationship between early child care and later social interaction. Two-year-old children will be observed at play in your daycare center, with behavior measured on two scales. The first scale will measure complexity of peer play using the Peer Play Scale. The second scale will measure social adaptation as assessed by the daycare teacher.

Observations will be non-intrusive through an observation window. Subjects will be observed during two separate sessions.

By my authority, in loco parentis, as director of _____, I give my permission to researchers active in the aforementioned study to observe and record the social interaction of children in my toddler room. I agree to provide information about the children to include: age, gender, and age of entry into child care. Also, I give my permission to allow the children's teacher to make an assessment of the child's social adaptability.

I understand that the data will be recorded by subject number only, and will be reported as group data in any potential publication. No follow-up or future participation will be required.

I understand what I have just read and freely agree to participation in this study.

_____ SIGNATURE

_____ DATE