The Effect of Child Gender on Parent Ratings of Temperament and Behavior

Brent Beck
Western Kentucky University

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THE EFFECT OF CHILD GENDER ON PARENT RATINGS OF TEMPERAMENT AND BEHAVIOR

A Thesis

Presented to

the Faculty of the Department of Psychology

Western Kentucky University

Bowling Green, Kentucky

In Partial Fulfillment

of the Requirements for the Degree

Specialist in Education in School Psychology

by

Brent J. Beck

July, 1996
THE EFFECT OF CHILD GENDER ON PARENT RATING OF TEMPERAMENT AND BEHAVIOR
Acknowledgments

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THE EFFECT OF CHILD GENDER ON PARENT RATINGS OF TEMPERAMENT AND BEHAVIOR

Brent J. Beck  
July, 1996  
54 pages

Directed by: Dr. Elizabeth Jones (Chair), Dr. Frank Kersting, and Dr. Vicki Stayton

Department of Psychology  
Western Kentucky University

Abstract

Parent ratings of their children play a significant role in the assessment process. However, past research on rating scales has focused largely on teacher ratings. Less frequent studies on parent rating scales have predominantly used mothers' ratings and omitted fathers' ratings. In addition, research comparing parent ratings have produced inconsistent results when describing effects of gender of the child and rater. In this study, parents of 35 three to five-year-old preschoolers rated their child on the Temperament Assessment Battery for Children: Parent Form (TAB-R) and the Conners Parent Rating Scales-48 (CPRS-48). Adequate reliability for mothers and father ratings were found on all but one factor (Psychosomatic factor on the CPRS-48). Results suggest significant moderate correlations between parent ratings across gender of the child. When analyzed separately for gender of the child, there were stronger correlations and a greater number of significant correlations for ratings of sons than for ratings of daughters. A series of 2 x 2 ANOVAs (gender of child x rater) for each factor of the TAB-R and the CPRS-48
yielded a significant main effect for gender of the child on the Activity factor (TAB-R) and on the Learning Problems, Anxiety and Hyperactivity Index factors (CPRS-48). No significant differences as a function of the rater were found. Results are discussed and recommendations for further study are noted.
Review of the Literature

In the last decade, interest in the role of temperament in the assessment process has increased research in the area of temperament. During recent years, a significant portion of this research has centered around efforts to quantify temperament characteristics. However, factors affecting quantification, such as the gender of the child being rated, have not been adequately examined. Such examination is especially warranted when considering that mothers and fathers rated their child differently with regard to temperament. Differences in ratings result in conflicting perspectives of the child, increasing the difficulty of providing appropriate interventions from assessment data. A review of the literature explored the following areas: (a) an overview of research on temperament, (b) the role of temperament in the assessment process, (c) the relationship between temperament and behavior, and (d) parent ratings of sons and daughters on temperament and behavior scales.

Temperament

Within the temperament literature, disagreement exists in defining the construct of temperament. Martin (1992) reported, however, that most researchers agree that temperament consists of "individual differences in behavioral tendencies that are present early in life and are relatively stable across time and in a variety of situations" (p.100).
According to the temperament literature, there is general consensus among researchers that the construct of temperament encompasses a number of general characteristics:

(a) Temperament focuses on individual differences (Goldsmith et al., 1987, Martin, 1988b); (b) temperament elements possess some transitiuational and temporal stability, and their relationship to behavior becomes more complex with maturation (Goldsmith et al., 1987; Martin, 1988b; Rothbart & Derryberry, 1981; Thomas & Chess, 1977); (c) temperament includes genetic or constitutional origins, such as intrauterine and birth process effects (Martin, 1988b; Rothbart & Derryberry, 1981; Thomas & Chess, 1977); (d) temperament is distinguished by an individual's behavioral style, focusing on "how" the individual behaves rather than referring to the "what" (ability) or the "why" (motivation) of behavior (Bates, 1989; Garrison & Earls, 1987; Goldsmith et al., 1987; Martin, 1988b; Thomas & Chess, 1977); and (e) temperament is a result of reactive (excitability, responsibility, and arousal) and self-regulative processes (attempts to control environmental stimuli), thus involving both innate and environmental aspects (Bates, 1989; Earls, 1981; Martin, 1988b; Thomas & Chess, 1977).

Through factor analytic studies, researchers have determined various dimensions of temperament (see Table 1). While discrepancies exist among researchers, many factors are similar despite varying nomenclature. Those dimensions pertaining to activity level (motor vigor), adaptability (ease and speed of adjustment to new social situations), approach/withdrawal (tendency to approach or withdraw from new situations), and
### Table 1

**Temperament Dimensions Identified by Select Researchers**

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<tbody>
<tr>
<td>Activity</td>
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<td>Activity Level</td>
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<td>--</td>
<td>Persistence</td>
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<td>Impulsiveness</td>
<td>Distractibility</td>
<td>Distractibility/</td>
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<td></td>
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<td>Ease-of-Management- through-Distraction</td>
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<td>--</td>
<td>Adaptability</td>
<td>Adaptability</td>
<td>Adaptability</td>
<td></td>
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<tr>
<td>Sociability</td>
<td>Approach/ Withdrawal</td>
<td>Approach/ Withdrawal</td>
<td>Approach/ Withdrawal</td>
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<td>--</td>
<td>Positive Mood</td>
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<td>--</td>
<td>Mood</td>
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<td>--</td>
<td>Threshold of Response</td>
<td>--</td>
<td>--</td>
<td>Response Threshold</td>
</tr>
<tr>
<td>Emotionality</td>
<td>Intensity</td>
<td>Emotional Intensity</td>
<td>Emotional intensity</td>
<td></td>
</tr>
<tr>
<td>--</td>
<td>Negative Mood</td>
<td>--</td>
<td>--</td>
<td>Mood</td>
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<td>--</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>Rhymicity</td>
</tr>
</tbody>
</table>

*Note.* Dashes indicate no comparable temperament dimensions.
emotional intensity (vigor of expression of affect) are the most consistently reported across theoretical perspectives and factor analytic studies.

Role of Temperament in Assessment

Temperament theory plays a significant role within clinical practice and assessment procedures. According to Anderson-Gocrtz and Worobey (1984), knowledge of temperament assists parents and teachers in understanding the needs of the individual child, while Earls (1981) reported that temperament theory guides the management of developmental, emotional and behavioral problems. Ratings of child temperament have also been found to predict later social and behavioral problems in elementary children (Bates, 1989; Keogh, 1986; Reid & Patterson, 1989) and form the foundation for acquisition of learning (Keogh, 1986). In addition, ratings of temperament have also been found to positively correlate with academic achievement (teacher-assigned grades and performance on standardized, norm-referenced measures of achievement) (Martin & Halbrook, 1985; Martin, Nagle, & Paget, 1993; Palisin, 1986) and predict academic achievement of elementary students (Martin, 1992; Martin, Drew, Gaddis, & Moseley, 1988; Pullis & Cadwell, 1986). High ratings on the temperament dimensions of Distractibility and Persistence were negatively correlated with academic performance across these studies, despite variations in time elapsed and age of the child. Assessment of temperament is particularly important during preschool years as it can dictate appropriate early interventions for high-risk children (Pfeffer & Martin, 1983). Thus, assessing a child's temperament can offer significant information for interpretation of
assessment data and provide important data in making recommendations for behavioral
and academic interventions.

Temperament and Behavior

Ratings of temperament have been found to positively correlate with behavior
(Parker-Cohen & Bell, 1988) and with behavior problems in preschool children
(Jewsunan, Luster, & Kostenk, 1993). Earls (1981) found that three temperament
characteristics (low distractibility, high intensity and low adaptability) are related to poor
behavioral adjustment and that specific temperament characteristics (especially
distractibility) are positively correlated with behavior problems in preschool children.

Stockler and Dunn’s (1990) study suggests that children who were rated by their mothers
as high in emotionality (vigor of expression of affect, particularly negative affect) were
also rated as exhibiting more problematic behaviors in peer interactions. Furthermore,
children rated by their mothers as less persistent and as having a lower activity level were
less socially interactive with peers and engaged in less extensive play with peers in play
groups (Guralnick & Groom, 1990).

Similarly, Mobley and Pullis (1991) found that those children demonstrating high
levels of reactivity (threshold of response, intensity, and negative mood) experienced
difficulty in socialization. Attili’s (1990) study suggested that children who were socially
successful (most frequently targets of peers’ initiation) did not demonstrate the
temperamental characteristics of high intensity and nonpersistence. Thus, a lack of
persistence in tasks resulted in fewer effective interactions and fewer positive
relationships with peers. Such inappropriate interactions and behavior with peers are frequently viewed as precursors to later behavior problems (Bates, 1989). In addition to poor social adjustment, poor social skills also positively correlate with poor academic performance (Gresham, 1992).

**Parent Rating Scales**

Various methods are utilized during the individual assessment process to obtain information regarding child temperament and behavior. Methods range from unstructured interviews to rating scales completed by those who interact with the child (e.g., parents and teachers). Use of a multimethod and multi-rater approach is the recommended practice in the assessment process since it likely reduces biasing effects present when individual methods or raters are used. This process of aggregating data across situations and environments as well as across raters increases reliability of the findings (Martin, 1988a).

However, children, particularly those of preschool age, do not possess the cognitive capabilities to adequately provide information through self-report instruments. In addition, the absence of the child's natural environment as well as the introduction of an interviewer whom the child does not know may limit data obtained in the clinical interview. Thus, ratings by parents or teachers are likely to be more objective and reliable than other types of measurement because the rater is already part of the child's environment. More natural settings eliminate possibilities that the child's typical
behavior may be altered by the introduction of new persons or unnatural situations
(Martin, 1988a).

Much of the research exploring factors affecting ratings has been conducted with
teacher rating scales (Edelbrock, Greenbaum, & Conover, 1985; Epstein & Nieminen,
1983; Homatidis & Konstanareas, 1981; Reynolds & Stark, 1986; Schachar, Sandberg, &
Rutter, 1986; Zentall & Barack, 1979) and comparing teachers' and mothers' ratings
(Achenbach, 1978; Worobey, 1987). Duncan and Kilpatrick (1991) reported that fewer
studies have examined agreement between mother and father. However, ratings by both
mother and father are an important contribution to the assessment process. Parental
ratings provide significant indications of a child's behavior since they are derived from
direct observations of the child in his or her natural environment (Martin, 1988a). Parents
are perhaps the most logical choice for rating child temperament and behavior since they
have observed that child across time and in a variety of settings (Diamond & Squires,
1993). Parents also possess an understanding of their child's unique behavioral
characteristics, which can provide integral information to the professional examiner
(LeBlanc & Reynolds, 1989). Thus, it follows that utilizing parents through rating their
child's behavior and temperament increases the validity of the assessment process.

Although rating scales provide significant information to the assessment process,
discrepancies between raters frequently arise. Martin (1988b) suggests such
discrepancies may be the consequence of observing the child in different settings or at
different times. Nonetheless, interpretations based upon the data obtained from
temperament instruments is affected by discrepancies between ratings by mothers and fathers. Thus, it is important to examine factors related to the discrepancies between mother and father ratings in order to obtain the most accurate reflection of the child's temperament. Such examination will increase the validity of ratings obtained and provide a more accurate and holistic understanding of the child.

**Temperament Ratings.** Moderately low correlations of agreement exist between mother and father ratings of child temperament. Black, Gasparrini, and Nelson (1981) found significant parent agreement on all temperament dimensions when assessing children with disabilities. However, Jewsunah et al.'s (1993) study suggested that parents demonstrated significant agreement on only four dimensions of temperament (sociability, emotionality, persistence, and activity level), while significant low agreement existed on other dimensions (distractibility and approach/withdrawal). Parent agreement on temperament ratings was greater when child behaviors were more salient and observable (e.g., acting out behavior) and when children exhibited "desirable" temperament characteristics (Victor, Halverson, & Wampler, 1988). It is frequently cited within the literature that low agreement between fathers and mothers is related to fathers reporting fewer behavior problems than mothers (Lancaster, Prior, & Adler, 1989; LeBlanc & Reynolds, 1989). However, Earls (1981) reported that fathers rated children as having more "difficult" (high levels) temperaments than did mothers.

Research focusing on the effects of gender of the child on parent ratings also produces inconsistent data. In the New York Longitudinal Study, Thomas and Chess
(1977) found that few gender differences were evident during the first five years of life on nine proposed temperament dimensions (see Table 1). In an extensive review of the research literature, Buss and Plomin (1984) found that significant differences between males and females with regard to temperament do not appear before at least four years of age. Persson-Blennow and McNeil's (1981) study suggested no gender differences in two-year-old children. However, Buss (1989) found that boys were rated more active, aggressive, angry and less sociable than girls.

**Behavior Ratings.** Review of the research demonstrated variation in the degree of parental agreement in rating child behavior. Lindholm and Touliatos (1981) and Conners (1973) found moderate to high correlations of parent agreement. Agreement levels between mothers and fathers increased when rating children who exhibit few behavior difficulties (Victor et al., 1988). Low Agreement levels were related to personality of the rater (Asher & Wakefield, 1990), father work experiences and the father-child relationship (Barling, 1986) and maternal psychological distress and marital adjustment (Sanger, MacLean, & Van Slyke, 1992).

Significant differences have also been found between mother and father ratings, dependent upon the gender of the child. Marsh, Stoughton, and Williams (1985) found that characteristics of the rater (mother, father, and teacher) significantly impacted ratings. Overall, mothers rated their children as exhibiting more negative behavior than fathers did (Victor et al., 1988). This difference is especially true when parents rated sons; fathers tended to report fewer negative behaviors than mothers. Duncan and
Kilpatrick (1991) found that mothers rate daughters more favorably than fathers rate daughters. Mothers’ and fathers’ ratings of daughters were more also more favorable than ratings of sons. It follows that each specific group of raters offers a differing perspective of the child.

In summary, the literature suggests the importance of utilizing parent rating scales in the assessment process (Diamond & Squires, 1993; LeBlanc & Reynolds, 1989). However, research has focused predominantly on teacher rating scales and less frequently on parent ratings (Duncan & Kilpatrick, 1991). Studies that have utilized parent ratings have produced inconsistent results when considering the rater and the gender of the child (Duncan & Kilpatrick, 1991; Earls, 1981; Jewsunan et al., 1993; Victor et al., 1988). Thus, further examination of parent rating scales is warranted.

In light of the discussed research, the following represents an examination of parent agreement on ratings of child temperament and child behavior. Group differences between mother and father ratings with respect to gender of the child were also examined. Prior to conducting these analyses, however, reliability (internal consistency) was first established on factors of the TAB-R and the CPRS-48. Such proceedings ensure that findings are not due to effects of the instruments. Subsequent analyses (examining parent agreement and group differences) were conducted upon those factors exhibiting an alpha coefficient ≥ .70 (Nunnally & Bernstein, 1994) by one or more raters. Thus, the research questions for this study are as follows: a) What is the reliability (internal consistency) of factors on the TAB-R and the CPRS-48 for ratings by mothers and by fathers? b) what is
the relationship between mother and father ratings on factors of the TAB-R and CPRS-48 for sons and for daughters? and (c) are there group differences between mother and father ratings of daughters and sons on the TAB-R and CPRS-48 factors?
Method

Subjects

The sample consisted of preschool children (ages 3 to 5), who reside with their biological parents. Participants were comprised of 20 males and 15 females (see Table 2). Age of the sample ranged from 37 to 70 months, with a mean of 54.1 months ($M$ of males = 55.7 months; $M$ of females = 52.9 months). The sample was predominantly white (see Table 2) and middle class, with a mean educational level of mothers and fathers of “at least one year of college training.” However, there were families from all socioeconomic levels represented in the sample.

Instruments

Temperament Assessment Battery for Children: Parent Form (TAB-P). The TAB-P is a battery of three rating scales (parent form, teacher form, and clinician form) used for measuring the temperament of children ages 3 through 7. Since this study was focused exclusively upon parent ratings, only the parent form of the TAB-R was utilized. The parent form of the TAB-R is comprised of 51 items, to which raters respond using a Likert-type format (1 = Hardly Ever, 2 = Infrequently, 3 = Once in a While, 4 = Sometimes, 5 = Often, 6 = Very Often, and 7 = Almost Always). Means (T-scores) are obtained on 4 factors, each of which measures a different temperamental variable: (a) Activity Level (motor vigor), (b) Inhibition (tendency to approach or withdraw from new
Table 2

**Number and Frequencies of Gender, Age, Race and Social Position of Sample**

<table>
<thead>
<tr>
<th>Gender</th>
<th>Age</th>
<th>Race</th>
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</tr>
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<tr>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>3</td>
<td>Euro</td>
<td>I</td>
</tr>
<tr>
<td>Female</td>
<td>15</td>
<td>Native</td>
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<tr>
<td>14</td>
<td>8</td>
<td>10</td>
<td>2</td>
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</tbody>
</table>

Percent 57.1 42.9 28.6 31.4 40.0 97.1 2.9 22.9 28.6 34.3 8.6 5.7

Note. SES class rankings were obtained by calculating partial scores for mother and father, averaging these two scores, and then determining an overall Index of Social Position Score, according to the Hollingshead Two-Factor Scale.

$^3$A Social Position Index of "I" represents the highest level of education and occupation, while an index of "V" indicates the lowest level of education and occupation.
social situations), (c) Negative Emotionality (vigor of emotional expression, particularly negative affect), and (d) Persistence (attention span and tendency to stick with difficult learning or performance situations). High scores on the TAB-R represent "undesirable" behaviors. For example, a child with scores above the mean for each category would be interpreted as being active, withdrawing, negative in mood, and low in persistence.

The TAB-R is currently under restandardization, and no psychometric data were available on this revision at this time. Factor loadings have been altered from the original version (TAB), and as a result, two factors have been excluded from the current revision due to insufficient psychometric properties. However, individual items have not undergone substantial change. Thus, psychometric data of the TAB can be useful in understanding the current scale. Martin (1988a) reported internal consistencies on the parent form of the TAB, ranging from .60 to .82. Hubert, Wach, Peters-Martin, and Gandour (1982) found internal consistencies which ranged from .60 to .90 on factors on the TAB, and interrater reliability for parents and teachers near the .40 level. Hubert et al. (1982) found that test-retest reliability on dimensions on the TAB ranged from .31 to .69.

Matthews-Morgan (1984) determined that scores from parent forms of the TAB moderately correlated with intelligence (as cited in Martin, 1988b). Martin and Halbrook (1985) found that parent-rated Persistence highly correlated with scores in the gifted range of intelligence (IQ >130). In addition, ratings of child temperament of the TAB positively correlated with academic achievement (teacher-assigned grades and
performance on standardized, norm-referenced measures of achievement) (Martin & Halbrook, 1985; Martin et al., 1983) and predicted academic achievement of elementary students (Martin, 1992; Martin et al., 1988; Pullis & Cadwell, 1986). High ratings on the temperament dimensions of Distractibility was negatively correlated with academic performance consistently across studies (Martin, 1995).

Conners Parent Rating Scales-48 (CPRS-48). The CPRS-48 is a measure of behavioral difficulties of children ages 3 to 17. The CPRS-48 is completed by the child's parent and includes 48 items, which are rated according to a four-option response format (0 = Not At All, 1 = Just A Little, 2 = Pretty Much, and 3 = Very Much). The CPRS-48 comprises the following factor scales: (a) Conduct Problems, (b) Learning Problems, (c) Psychosomatic Behavior, (d) Impulsive-Hyperactive Behavior, (e) Anxiety, and (f) Hyperactivity Index. The CPRS-48 is derived from the Conners Parent Rating Scale-93 (CPRS-93), utilizing the most reliable and valid items (Conners, 1983). Factor analytic studies have produced relatively stable results across studies (Goyette, Conners, & Ulrich, 1978) and highly similar factors have been found for both mothers and fathers. The CPRS-48 presents scores for the five factors as T-scores with high values reflecting "undesirable" behaviors.

Alpha internal consistency reliability coefficient on the Hyperactivity Index of the CPRS-48 was found to be .92 (Sandberg, Wieselberg, & Shaffer, 1980). However, no other data concerning internal consistency of factor scores are noted in the manual. According to Goyette et al. (1978), interrater reliability (Pearson product moment) for
mothers and fathers on the CPRS-48 ranged from .46 for Psychosomatic factor to .57 for the Conduct Problem factor, with a mean correlation of .51. Mother and father ratings on the Hyperactivity Index correlate .55. Glow, Glow, and Rump (1982) found test-retest reliability (1 year time lapse) which ranged from .09 to .71, using an Australian sample. These correlations were affected by age, with greater reliability with increasing age. No significant differences were found between mother and father ratings on the CPRS-48 (Goyette et al., 1978).

Minimal validity studies have been published concerning the CPRS-48. Zentall and Barack (1979) reported acceptable concurrent validity for the CPRS-48. Since the CPRS-48 was derived from the CPRS-93, using the most reliable and valid items, validity studies of the CPRS-93 are reported here. Using the CPRS-93, factor scores correctly identified 83% of normal children, 77% of neurotic children, 74% of hyperactive children and 70% of clinic-referred children (Conners, 1970). Sprague and Sleater (1973) reported that the Hyperactivity Index is commonly used in drug treatment studies and has been utilized by the National Institute of Mental Health as a standard assessment in such research (as cited in Martin, 1988a).

Hollingshead two-factor index of social position. The Hollingshead was utilized as a measure of SES. This index is comprised of an occupational scale and an educational scale. It delineates five classes of SES and is commonly used within the literature as an index of SES. The Hollingshead was utilized in this study as a means of quantification and for descriptive purposes.
Procedure

Families whose children attended various private and public preschools, daycares and churches in Southcentral Kentucky, Northcentral Indiana, and Northwest Ohio were invited to participate in this study. A description of the study and expectations for participation (see Appendix A) along with a consent form (see Appendix B) were given to families in which both biological parents were living with the child. This selection process was conducted to eliminate effects due to additional variables of nonbiological caretakers, such as the number of child observations available to parents. For the same reason, children with disabilities were excluded from this study. One hundred eighty-five letters of invitation were given to parents meeting criteria for the study. Fifty-two consent forms were returned. After consent was received from both mother and father, each was provided with copies of the TAB-R: Parent Form and the CPRS-48. Parents were also asked to complete a demographic questionnaire (see Appendix C). Information included with these questionnaires explained the purposes of the instruments and proper procedures (see Appendix D.) In an attempt to prevent collaboration by parents, instructions requested that parents complete the questionnaires without comparing answers or consulting each other prior to completing the items. This protocol is the common approach for obtaining parental ratings of children's temperament and behavior (LeBlanc & Reynolds, 1989). Parents were instructed to return the packet of information to their child's preschool teacher. Thirty-five packets were returned.
Analyses

Internal consistency (coefficient alpha) of each factor on the TAB-R and CPRS-48 was established. Subsequent analyses were conducted on factors of the TAB-R and CPRS-48 with alpha coefficients $\geq .70$ for one or more raters. Means and standard deviations were obtained for mother and father ratings for each factor of the TAB-R and the CPRS-48. Finally, an analysis of variance (ANOVA) was executed to determine group differences among mother and father ratings of sons and daughters on factors of both instruments.
Results

This researcher had three purposes: (a) to establish reliability (internal consistency) of factor scores for mother and father ratings of preschool children (ages 3 to 5) on the TAB-R and the CPRS-48 for this sample, (b) to examine the relationship between mother and father ratings on factors of the TAB-R and the CPRS-48, and (c) to determine whether group differences existed for parent ratings of sons and daughters on factors of the TAB-R and the CPRS-48. Each question will be stated and followed by a description of results obtained.

Internal Consistency of Temperament and Behavior Factor Scores

The first research question asked, “What is the reliability (internal consistency) of factors on the TAB-R and the CPRS-48 for ratings by mothers and by fathers?” Means and standard deviations of factors on the TAB-R and the CPRS-48 are presented in Tables 3 and 4, respectively. Coefficient alphas of mother and father ratings on the TAB-R and the CPRS-48 are shown in Table 5. Reliability of fathers' ratings on the TAB-R ranged from .73 on the Persistence factor to .80 on the Inhibition factor, with a mean alpha coefficient of .78. Alpha coefficients of mothers' ratings on the TAB-R ranged from .75 on the Persistence factor to .85 on the Inhibition factor, with a mean of .81. Coefficients for mothers' ratings on the TAB-R are marginally higher than for fathers’ ratings.
Table 3

Means and Standard Deviations of the TAB-R by Rater and Gender of the Ratee

<table>
<thead>
<tr>
<th>Factor of TAB-R&lt;sup&gt;a&lt;/sup&gt;</th>
<th>Father</th>
<th>Mother</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Son&lt;sup&gt;b&lt;/sup&gt;</td>
<td>Daughter&lt;sup&gt;c&lt;/sup&gt;</td>
</tr>
<tr>
<td>Negative Emotionality</td>
<td>M 37.65</td>
<td>38.17</td>
</tr>
<tr>
<td></td>
<td>SD 10.03</td>
<td>9.54</td>
</tr>
<tr>
<td>Inhibition</td>
<td>M 34.12</td>
<td>33.50</td>
</tr>
<tr>
<td></td>
<td>SD 8.99</td>
<td>9.33</td>
</tr>
<tr>
<td>Activity Level</td>
<td>M 37.65</td>
<td>27.28</td>
</tr>
<tr>
<td></td>
<td>SD 8.16</td>
<td>5.79</td>
</tr>
<tr>
<td>Persistence</td>
<td>M 20.00</td>
<td>22.67</td>
</tr>
<tr>
<td></td>
<td>SD 5.53</td>
<td>3.87</td>
</tr>
</tbody>
</table>

Note. Means and standard deviations are derived from raw scores of factors.

<sup>a</sup>Temperament Assessment Battery for Children, Revised. <sup>b</sup><i>n</i> = 20. <sup>c</sup><i>n</i> = 15.
<table>
<thead>
<tr>
<th>Factor of CPRS-48&lt;sup&gt;a&lt;/sup&gt;</th>
<th>Father</th>
<th>Mother</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Son&lt;sup&gt;b&lt;/sup&gt;</td>
<td>Daughter&lt;sup&gt;c&lt;/sup&gt;</td>
</tr>
<tr>
<td>Conduct Disorder</td>
<td>M</td>
<td>54.00</td>
</tr>
<tr>
<td></td>
<td>SD</td>
<td>13.48</td>
</tr>
<tr>
<td>Learning Problems</td>
<td>M</td>
<td>62.00</td>
</tr>
<tr>
<td></td>
<td>SD</td>
<td>14.51</td>
</tr>
<tr>
<td>Psychosomatic</td>
<td>M</td>
<td>56.35</td>
</tr>
<tr>
<td></td>
<td>SD</td>
<td>15.17</td>
</tr>
<tr>
<td>Impulsive-Hyperactive</td>
<td>M</td>
<td>56.45</td>
</tr>
<tr>
<td></td>
<td>SD</td>
<td>9.04</td>
</tr>
<tr>
<td>Anxiety</td>
<td>M</td>
<td>49.35</td>
</tr>
<tr>
<td></td>
<td>SD</td>
<td>8.07</td>
</tr>
<tr>
<td>Hyperactivity Index</td>
<td>M</td>
<td>57.20</td>
</tr>
<tr>
<td></td>
<td>SD</td>
<td>13.46</td>
</tr>
</tbody>
</table>

<sup>Note.</sup> Means and standard deviations are derived from T-scores.

<sup>a</sup>Conners Parent Rating Scale-48.  <sup>b</sup>n = 20.  <sup>c</sup>n = 15.
Table 5

Coefficient Alpha for the TAB-R and CPRS-48 Factors

<table>
<thead>
<tr>
<th>Factor</th>
<th>Father</th>
<th>Mother</th>
</tr>
</thead>
<tbody>
<tr>
<td>TAB-R&lt;sup&gt;a&lt;/sup&gt;</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Negative Emotionality</td>
<td>.79</td>
<td>.84</td>
</tr>
<tr>
<td>Inhibition</td>
<td>.80</td>
<td>.85</td>
</tr>
<tr>
<td>Activity Level</td>
<td>.78</td>
<td>.80</td>
</tr>
<tr>
<td>Persistence</td>
<td>.73</td>
<td>.75</td>
</tr>
<tr>
<td>CPRS-48&lt;sup&gt;b&lt;/sup&gt;</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Conduct Problems</td>
<td>.78</td>
<td>.82</td>
</tr>
<tr>
<td>Learning Problems</td>
<td>.70</td>
<td>.78</td>
</tr>
<tr>
<td>Psychosomatic</td>
<td>.36</td>
<td>.43</td>
</tr>
<tr>
<td>Impulsive-Hyperactive</td>
<td>.66</td>
<td>.80</td>
</tr>
<tr>
<td>Anxiety</td>
<td>.64</td>
<td>.77</td>
</tr>
<tr>
<td>Hyperactivity Index</td>
<td>.86</td>
<td>.84</td>
</tr>
</tbody>
</table>

<sup>a</sup>Temperament Assessment Battery for Children, Revised.  
<sup>b</sup>Conners Parent Rating Scale-48.
Coefficient alphas of fathers' ratings on the CPRS-48 ranged from .36 on the Psychosomatic scale to .86 on the Hyperactivity Index (see Table 5) with a mean of .67. Alpha coefficients of mothers' ratings on the CPRS-48 ranged from .43 on the Psychosomatic scale to .84 on the Hyperactivity Index (see Table 5) with a mean of .74. Alpha coefficients for mothers' ratings were generally higher than for fathers' ratings on the CPRS-48.

Subsequent analyses focused only on those factors that demonstrated adequate internal consistency. Nunnally and Bernstein (1994) suggest an alpha coefficient of ≥ .70 for mother and/or father ratings. All factors on the TAB-R were found to possess adequate reliability. Factors with adequate reliability on the CPRS-48 include: Conduct Problems, Learning Problems, Impulsive-Hyperactive, Anxiety, and Hyperactivity Index factors. The Psychosomatic factor was the only one that did not demonstrate adequate reliability for this sample, and thus was not included in subsequent analyses.

**Parent Agreement on Ratings of Sons and Daughters**

The second research question asked, “What is the relationship between mother and father ratings on factors of the TAB-R and CPRS-48 for sons and for daughters?” Pearson product moment correlations between parent ratings on each of the temperament and behavior factors were computed (see Table 6). Correlations between mother and father responses for sons and daughters were computed separately. Correlations across gender revealed significant correlations for all factors on the TAB-R, ranging from .38 on the Persistence factor to .64 on the Inhibition factor, with a mean correlation of .53.
Table 6

Correlations of Parent Ratings on Factors of TAB-R and CPRS-48

<table>
<thead>
<tr>
<th>Instrument</th>
<th>Sons&lt;sup&gt;c&lt;/sup&gt;</th>
<th>Daughters&lt;sup&gt;d&lt;/sup&gt;</th>
<th>Total Group&lt;sup&gt;e&lt;/sup&gt;</th>
</tr>
</thead>
<tbody>
<tr>
<td>TAB-R&lt;sup&gt;a&lt;/sup&gt;</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Negative Emotionality</td>
<td>.63**</td>
<td>.65**</td>
<td>.63***</td>
</tr>
<tr>
<td>Inhibition</td>
<td>.51*</td>
<td>.76***</td>
<td>.64***</td>
</tr>
<tr>
<td>Activity Level</td>
<td>.49*</td>
<td>.31</td>
<td>45**</td>
</tr>
<tr>
<td>Persistence</td>
<td>.41</td>
<td>.33</td>
<td>.38*</td>
</tr>
<tr>
<td>CPRS-48&lt;sup&gt;b&lt;/sup&gt;</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Conduct Disorder</td>
<td>.64*</td>
<td>.75***</td>
<td>.65***</td>
</tr>
<tr>
<td>Learning Problems</td>
<td>.57*</td>
<td>.26</td>
<td>.56***</td>
</tr>
<tr>
<td>Impulsive-Hyperactive</td>
<td>.79**</td>
<td>.01</td>
<td>.55***</td>
</tr>
<tr>
<td>Anxiety</td>
<td>.62*</td>
<td>.40</td>
<td>.56***</td>
</tr>
<tr>
<td>Hyperactivity Index</td>
<td>.81**</td>
<td>-.11</td>
<td>.72***</td>
</tr>
</tbody>
</table>

Note. A correlation of agreement was not calculated on the Psychosomatic Factor of the CPRS-48 due to low reliability of this factor for this sample.

<sup>a</sup>Temperament Assessment Battery for Children, Revised.  <sup>b</sup>Conners Parent Rating Scale-48.  <sup>c</sup>n = 20.  <sup>d</sup>n = 15.  <sup>e</sup>n = 35.

*p < .05.  **p < .01.  ***p < .001.
Correlations of parent ratings of temperament of sons ranged between .41 on the Persistence factor to .63 on the Negative Emotionality, with a mean correlation of .51. A nonsignificant correlation was found on the Persistence factor, while significant correlations were found on the Negative Emotionality, Inhibition, and Activity Level factors. Correlations of parent ratings of daughters ranged from .31 on the Activity Level factor to .76 on the Inhibition factor, with a mean correlation of .51. Nonsignificant correlations were found for parent ratings of daughters on the Activity Level and the Persistence factors, while significant correlations were found on the Negative Emotionality and Inhibition factors.

As shown in Table 6, parent ratings of sons' behavior were significantly correlated on all factors of the CPRS-48 in which adequate reliability was established. (The Psychosomatic factor did not possess adequate reliability for this sample, and thus was not included in this analysis). Total group correlations ranged from .55 on the Impulsive-Hyperactive factor to .72 on the Hyperactivity Index, with a mean correlation of .61. Correlations of parent ratings of sons ranged from .57 on the Learning Problems factor to .81 on the Hyperactivity Index, with a mean correlation of .69. Significant correlations were found on all factors analyzed on the CPRS-48 for parent ratings of sons. On parent ratings of daughters, nonsignificant correlations were found on four of the five factors. The Conduct Disorder factor yielded the only significant correlation on parent ratings of daughters. Correlations of ratings on daughters ranged from -.11 on the Hyperactivity Index factor to .75 on the Conduct Disorder factor, with a mean of .26.
Parent Ratings of Temperament and Behavior of Sons and Daughters

The final research question asked, “Are there group differences between mother and father ratings of daughters and sons on the TAB-R and CPRS-48 factors?” Table 7 details results of the 2 x 2 ANOVAs (gender of the child x rater) for each factor of the TAB-R. No interactions were found in these analyses. Only a main effect for gender was found on the Activity Level factor, indicating significant differences in parent ratings as a function of the gender of the child. Ratings of sons were significantly higher than ratings of daughters on this factor.

Table 8 details results of the 2 x 2 ANOVAs (gender of the child x rater) for each factor of the CPRS-48. No interactions were found in these analyses. Only a main effect for gender was found on the Learning Problems, Anxiety, and Hyperactivity Index factors, indicating significant differences in ratings due to gender of the child. Ratings of sons were significantly higher than ratings of daughters on the Learning Problems and Hyperactivity Index factors. However, ratings of daughters were significantly higher than ratings of sons on the Anxiety factor.
Table 7

Two-way ANOVA for Factors of the TAB-R

<table>
<thead>
<tr>
<th>Factor</th>
<th>Gender (G)</th>
<th>Rater (R)</th>
<th>G x R</th>
<th>Within</th>
</tr>
</thead>
<tbody>
<tr>
<td>Negative Emotionality</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MS</td>
<td>8.71</td>
<td>186.51</td>
<td>19.15</td>
<td>103.26</td>
</tr>
<tr>
<td>F</td>
<td>.08</td>
<td>1.81</td>
<td>.19</td>
<td></td>
</tr>
<tr>
<td>Inhibition</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MS</td>
<td>1.11</td>
<td>57.11</td>
<td>2.34</td>
<td>102.76</td>
</tr>
<tr>
<td>F</td>
<td>.01</td>
<td>.56</td>
<td>.02</td>
<td></td>
</tr>
<tr>
<td>Activity Level</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MS</td>
<td>852.81</td>
<td>35.66</td>
<td>200.43</td>
<td>67.38</td>
</tr>
<tr>
<td>F</td>
<td>12.66***</td>
<td>.53</td>
<td>2.98</td>
<td></td>
</tr>
<tr>
<td>Persistence</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MS</td>
<td>57.31</td>
<td>32.63</td>
<td>12.82</td>
<td>23.15</td>
</tr>
<tr>
<td>F</td>
<td>2.48</td>
<td>1.41</td>
<td>.55</td>
<td></td>
</tr>
</tbody>
</table>

*Temperament Assessment Battery for Children, Revised.

***p ≤ .001.
Table 8

**Two-way ANOVA for Factors of the CPRS-48**

<table>
<thead>
<tr>
<th>Factor</th>
<th>Gender (G)</th>
<th>Rater (R)</th>
<th>G x R</th>
<th>Within</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Conduct Problems</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MS</td>
<td>14.93</td>
<td>134.00</td>
<td>24.69</td>
<td>144.07</td>
</tr>
<tr>
<td>E</td>
<td>.10</td>
<td>.93</td>
<td>.17</td>
<td></td>
</tr>
<tr>
<td><strong>Learning Problems</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MS</td>
<td>1396.30</td>
<td>219.30</td>
<td>195.27</td>
<td>143.40</td>
</tr>
<tr>
<td>E</td>
<td>9.74**</td>
<td>4.53</td>
<td>1.36</td>
<td></td>
</tr>
<tr>
<td><strong>Impulsive-Hyperactive</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MS</td>
<td>153.43</td>
<td>25.03</td>
<td>160.34</td>
<td>87.74</td>
</tr>
<tr>
<td>E</td>
<td>1.75</td>
<td>.29</td>
<td>1.83</td>
<td></td>
</tr>
<tr>
<td><strong>Anxiety</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MS</td>
<td>624.02</td>
<td>41.17</td>
<td>120.39</td>
<td>60.61</td>
</tr>
<tr>
<td>E</td>
<td>10.30**</td>
<td>.68</td>
<td>1.99</td>
<td></td>
</tr>
<tr>
<td><strong>Hyperactivity Index</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MS</td>
<td>578.34</td>
<td>3.60</td>
<td>82.34</td>
<td>136.99</td>
</tr>
<tr>
<td>E</td>
<td>4.22*</td>
<td>.03</td>
<td>.60</td>
<td></td>
</tr>
</tbody>
</table>

*Note.* ANOVAs for the Psychosomatic factor were not calculated due to low reliability for this sample.

*aConners Parent Rating Scale-48.

*p < .05. **p < .01.*
Discussion

Internal Consistency of Temperament and Behavior Factor Scores

The first research question was to establish adequate reliability (internal consistency) for mother and father ratings on factors of the TAB-R and the CPRS-48 for this sample. According to Nunnally and Bernstein (1994), an internal consistency coefficient ≥ .70 is considered adequate. Subsequent analyses were conducted on those factors with an alpha coefficient ≥ .70 for one or more raters. Internal consistencies (coefficient alphas) obtained on factors of the TAB-R in this study were found to be sufficient on both mother and father ratings (≥ .70) (see Table 5). In contrast to the overall internal consistencies on the TAB (internal consistency was measured across gender of the child), higher coefficient alphas were obtained for both mothers' and fathers' ratings on the TAB-R, likely due to improved factor loadings of items. (Two factors on the TAB were excluded due to insufficient psychometric properties.) Internal consistency of factors on the TAB-R were considered sufficient for proceeding with further analyses.

Internal consistencies of the CPRS-48 obtained in this study (computed separately for mothers and fathers) revealed adequate reliability (≥ .70 or approached this level of significance) on 5 of the 6 factors for ratings by mothers and fathers (Conduct Disorder, Learning Problems, Impulsive-Hyperactive, Anxiety, and Hyperactivity Index factors).
Only the Psychosomatic factor failed to approach an adequate level of reliability, and thus was not utilized in subsequent analyses. No data concerning internal consistency of the CPRS-48 had previously been published. However, CPRS-48 consists of the most reliable items from the Conners Parent Rating Scale-93 (CPRS-93), and was therefore considered to possess adequate reliability. Reliability calculated from mothers' and fathers' ratings on the CPRS-48 in this study generally revealed adequate internal consistency. Lower coefficient alphas obtained in this study may be the result of sampling fewer items on the CPRS-48 than on the CPRS-93. Coefficients obtained may also be affected by a low number of participants in this study.

Parent Agreement on Ratings of Sons and Daughters

The second research question was to examine the relationship between mother and father ratings on factors of the TAB-R and the CPRS-48 for sons and for daughters. The TAB-R is currently under restandardization, and no psychometric data on the TAB-R were available on this revision at this time. However, psychometric data on the TAB can be utilized for comparison purposes. Previous research did not calculate data separately for sons and daughters. Total group intrarater correlations for most factors (r = .38 to .64) were greater than those correlations found by Hubert, et al. (1992), which approached the r = .40 level. Consistent with previous research (Earls, 1981; Jewsunan et al., 1993; Lancaster et al., 1989; and LeBlanc & Reynolds, 1989), agreement between mothers and fathers on temperament ratings in this study varied depending upon the factor and gender of the child. Intrarater agreement on the Activity Level factor for daughters and the
Persistence factor for sons and daughters reached similar levels to previous research by Hubert et al. (1992) ($r = .40$). However, interrater correlations on the Negative Emotionality and Inhibition factors for ratings on sons and daughters and on the Activity Level factor on sons exceeded levels of previous correlations on the TAB. This increased level agreement between parents on the Negative Emotionality and the Inhibition factors of the TAB-R is likely related to restandardization of the TAB.

Total group interrater correlations on the CPRS-48 ranged from .55 to .72, with a mean correlation of .61. When compared to previous research (Goyette et al., 1978), correlations across gender of the child in this study are slightly higher. Goyette et al.'s (1978) study is used for comparative purposes because it encompasses the most comparable research methodology to this study. Goyette et al.'s (1978) study, however, did not calculate parent agreement separately for sons and daughters. The agreement index of parent ratings of sons' behavior obtained in this study is consistent with the overall level of agreement (across gender) found by Goyette et al. (1978) (all factors significant at the $p < .01$ level). However, agreement of parent ratings of daughters' behavior was considerably lower than the overall agreement obtained by Goyette et al. (1978) (1 of 5 factors significant at $p < .01$). Results of the current study support those findings by Duncan and Kilpatrick (1991), which found high agreement levels when ratings sons but low agreement when rating daughters. Low levels of agreement may reflect gender-role standards held by parents and may indicate varying societal expectations for boys and girls.
Parent Ratings of Temperament and Behavior of Sons and Daughters

The final research question examined group differences for parent ratings of sons and daughters on factors of the TAB-R and the CPRS-48. Results of this study suggest significant differences in the way parents rate sons and daughters on the Activity Level factor. Ratings of sons were significantly higher than ratings of daughters. These results differ from earlier findings by Thomas and Chess (1977) and Buss and Plomin (1984), who reported no significant differences in temperament factors of the preschool child. Unlike findings by Earls (1981), Lancaster et al. (1989), and LeBlanc and Reynolds (1989), the results of this study revealed no significant effects due to the rater (mother and father). However, the results were consistent with findings by Buss (1981) who found differences on parent ratings of sons and daughters. Results of this study also support research findings by Wicks-Nelson and Israel (1994), who found higher activity levels for boys than for girls.

Similar to ratings of temperament, no significant effects due to rater (parent) were found on ratings of behavior. Such results contradict previous findings that link rater characteristics to differences in parental ratings (Asher & Wakefield, 1990; Barling, 1986; Pagio, 1983; Sanger et al., 1992). However, results of this study support findings of a significant effect of gender of the child for parent ratings of child behavior (Duncan & Kilpatrick, 1991; Marsh et al., 1985). Significant differences due to gender of the child were found on the Anxiety, Learning Problems and Hyperactivity Index factors. However, a conservative interpretation would not suggest significant on the Hyperactivity
Index factor ($p < .05$) because multiple ANOVAs were conducted, increasing the possibility of error. This researcher found parents rated sons higher than daughters on the Learning Problems and the Hyperactivity Index factors. Ratings of daughters were higher than sons of the Anxiety factor. These findings are consistent with literature in the area of psychopathology. It is frequently noted that boys exhibit more severe learning problems (Wicks-Nelson & Israel, 1994) and more externalizing behavior (Wick-Nelson & Israel, 1994) than do girls. Girls are frequently found to exhibit more significant internalizing and anxiety behaviors than are boys (Last, 1992; Reynolds, 1992).

Another plausible explanation of results obtained might be attributable to the homogeneity of the sample. Since the sample was skewed towards high SES, expectations for children might be different or inappropriate. This possibility becomes clearer when examining items on the Learning Problem factor ("Difficulty in learning," "Fails to finish things," "Distractibility of attention span a problem," and "Easily frustrated"). Furthermore, such differences due to gender may suggest that raters hold varying gender-role standards, and these are reflected in differing expectations for sons and daughters. This interpretation parallels Lambert, Yackley and Hein's (1971) study, which suggests that parents perceive different strengths and liabilities in each gender.

**Limitations**

Validity of this study may have been affected by differential selection of subjects. At the outset, subjects were selected from public and private preschools, daycares and churches. Since participation in the study was voluntary, selection of subjects may have
been limited by those who agree to participate. In addition, populations affiliated with these organizations may hold values that influenced results of the study. Furthermore, it is also possible that this researcher may have sampled parents who highly agree regarding their child, a factor which may have resulted in levels attained.

Such criteria for selection may have contributed to the type and homogeneity of the sample. The sample was comprised of children from predominantly white, middle class, and Midwestern families, and thus was not representative of the national population. And since only children who were living with biological parents were selected for participation, the sampling process may have been too restrictive, decreasing generalizability of results. Furthermore, a poor response rate and small sample size may have also impacted results.

Inherent in the use of rating scales are other threats to validity of the study. Internal consistency for mother and father ratings of sons and daughters on several of the factors were below adequate levels. Rating scales also follow the assumption that parents are capable of reading and understanding the instructions for completing the rating scales. Although instructions provided with the rating scales explicitly stated that the instruments be completed by mother and father separately (common protocol in the literature), no other means for controlling collaboration were enlisted. Instruments are also based on a parental report, thus raising concerns about socially desirable responses (e.g., reporting a child is well-behaved at all times). Parents may also have different values and tolerance for specific behaviors. In addition, rating scales employ global terms (e.g., inattentive,
disruptive) that mandate inferential decisions on the part of the rater. Thus, it can be argued that ratings scales provide only an index of parental perception or reflect societal values rather than offer an objective measure.

**Implications**

**Practical Implications.** Results of this study have important implications for the assessment process. Practitioners should be aware that agreement between mother and father ratings on the CPRS-48 are greater for sons than for daughters. On factors of activity (e.g., Activity Level and the Hyperactivity Index), agreement for mother and father ratings of sons is likely to be greater than the agreement for ratings of daughters. Thus, such ratings should be understood within the context of the gender of the child being rated. However, it is unknown whether differences between mother and father ratings obtained in this study would also be evident in clinic or referred samples.

**Recommendations for Further Research.** Due to the small sample size and homogeneity of the sample, comparisons with previous studies should be made cautiously. To this end, future research should include larger samples, which are more representative of the national population in race, SES, and geographic location. In addition, consideration should be given to a less restrictive definition for parents, i.e., include nonbiological caregivers, which may create a more diverse sample. This approach will increase generalizability of results.

In order to validate parent ratings, it may also be beneficial to conduct independent observations of the child. Mothers and fathers should be instructed to
complete rating scales during this observation period, thus controlling collaboration between parents. This procedure, along with a social desirability questionnaire, could be completed to increase validity of ratings obtained.

In addition, examining the data in a different manner may provide further information. In this study, Pearson product moment correlations were calculated as an index of agreement between mothers' and fathers' ratings. This method examines group differences between raters. Another method of exploring agreement might analyze data according to each mother-father dyad (i.e., compare mother and father ratings of each child), prior to conducting an overall analysis.

Due to possible influences of gender-role stereotypes on mother and father ratings, the effect of societal values and parent expectations on parental ratings of children's behavior and temperament should be explored. Assessment of parenting style in relation to behavior and temperament of children may also provide valuable information. Other areas deserving attention include exploring the amount of time each parent spends with the child (i.e., What sample of parent observations were available?) as well as the quality of that time (i.e., Are the parents engaging sons or daughters? Is the son or daughter engaging mother or father? What activities were presented to sons? What activities were presented to daughters?). Such examination will assist in further understanding the effect of gender of the child on parent ratings. Thus, while the present study did not resolve conflicting findings noted in the research, it does lend support to
research which found no significant effects due to the rater and few significant effects due to gender of the child.
References


Appendix A
Dear parents:

You are invited to participate in a study concerning mother-father ratings of temperament and behavior of children ages 3 to 5. This study is being conducted by Brent Beck (school psychologist intern) and Dr. Elizabeth Jones of Western Kentucky University, in cooperation with your child's day-care or preschool. The aim of our study is to better understand those factors which affect parents' ratings of children's temperament and behavior. If we can better understand such factors, we can determine ways to enhance a child's development.

Due to the nature of the study, we are only using ratings from biological parents. If both biological mother and father are not living in the home with the child, please fill in your child's name and return this following form to your child's teacher. If you have more than one child ages 3 through 5, please choose one child for which to complete the questionnaires.

Upon your consent, you will be asked to complete two questionnaires regarding your preschooler's behavior as well as some background information. It will take approximately 20 minutes to complete the combined questionnaires. There are no right or wrong answers to any of the questions provided.

We emphasize that your participation is entirely voluntary and that you may choose to withdraw from the study at any time. If you decide not to participate, it will have no negative outcome for you or your child in any way. All information collected in this study will be kept strictly confidential and will be accessible only to the project staff. All results will be reported in terms of group averages, and no one will ever be identified by name.

We hope that you will agree to take part in our study. On the form on the opposite side of this sheet, please fill in the names of mother, father, child and teacher as well as your child's date of birth. To indicate your consent for participation, sign your names (both father and mother must sign) and fill in the date below. Please return the form to your child's teacher so the teacher will know that you received the form. Thank you for your help.

Sincerely,

Brent J. Beck
School Psychologist Intern
under supervision of Dr. Elizabeth Jones. Western Kentucky University

The Spirit Makes the Master
Appendix B
Participation Consent Form

Child's Name ___________________________    Teacher's Name ___________________________
Child's birthdate __________, 19___    Mother's Name ___________________________
Child's age _______    Father's Name ___________________________

I have read the information provided about this study. I give consent to participate in this study conducted by Brent Beck and Dr. Elizabeth Jones of Western Kentucky University. I understand that I may withdraw from the study at any time without penalty.

_____ I DO give consent for my participation in this study.

_____ I DO NOT give consent for my participation in this study.

Mother's signature ___________________________    Date ___________________________

_____ I DO give consent for my participation in this study.

_____ I DO NOT give consent for my participation in this study.

Father's signature ___________________________    Date ___________________________
Appendix C
Background Information

Child's birthdate _____________, 19__

Child's gender: ___ M ___ F

Child's age: ___

Child's race:
___ African American
___ Asian American
___ Euro American (Caucasian)
___ Latino/Puerto Rican
___ Native American
___ Other ________________

Birth order of the child in relation to siblings:
___ Only child
___ Oldest child
___ Middle child
___ Youngest child

* Mother's Occupation _____________

* Father's Occupation _____________

Child's Preschool: ________________

Educational Background of Mother:
___ Fewer than 7 years of school
___ Completed 7th grade
___ Completed 10th grade
___ High School Diploma/GED
___ Completed 1 year of College
___ B.A./B.S. Degree
___ Graduate Degree

Educational Background of Father:
___ Fewer than 7 years of school
___ Completed 7th grade
___ Completed 10th grade
___ High School Diploma/GED
___ Completed 1 year of College
___ B.A./B.S.
___ Graduate Degree

Is your child currently receiving any special education services? If so, please explain (e.g., mild mental disability). ________________________________

* If presently unemployed, please write in previous occupation.
Appendix D
Dear parents:

Thank you for agreeing to participate in this study. The aim of our study is to better understand those factors which affect parent ratings of children's temperament and behavior. If we can better understand such factors, we can determine ways to enhance a child's development. This is why it is extremely important that you follow these directions carefully.

Enclosed you will find two Conner's Parent Rating Scales and two Temperament Assessment Battery for Children: Parent Form. Each form of the respective scales are identical. The mother should complete one form of each the scales. The father should do the same. In order to not bias the data, it is important that each parent complete the forms without comparing answers and without consulting each other. Please answer all items, even if you are unsure how to respond. It is better to estimate rather than to not answer at all. There are no right or wrong answers to any of the items on the questionnaires.

Also enclosed you will find a sheet regarding background information. We ask that you complete this form and return it, along with all the questionnaires, to your child's teacher. It is imperative that all these items be completed. It should take approximately 20 minutes to complete the combined questionnaires.

We emphasize that your participation is entirely voluntary and that you may choose to withdraw from the study at any time. If you decide not to participate, it will have no negative outcome for you or your child in any way. The numbers at the top of the questionnaires and the background information sheet are for organizing the information obtained. It is in no way connected to your name. All information collected in this study will be kept strictly confidential and is accessible only to the project staff. All results will be reported in terms of group averages, and no one will ever be identified by name.

Again, thanks for participating in our study.

Sincerely,

Brent J. Beck
School Psychologist Intern
under supervision of Dr. Elizabeth L. Jones