The primary purpose of this study was to assess the test-retest reliability of the Junior Self-Monitoring Scale (JSMS) for use with elementary school children. Subjects were 28 first, 30 third, and 24 fifth graders attending an elementary school in Corvallis (Oregon). The JSMS consists of 24 yes/no items and is scored in the direction of high self-monitoring. Individual items reflect the domains of self-monitoring developed by M. Snyder (1979). These domains include concern for social appropriateness, attention to social cues indicating appropriate self-presentation, control over one's self-presentation and self-expression, strategic use of these abilities, and situational specificity of self-presentation and expressive behavior. Subjects' levels of introversion-extraversion, neuroticism, and psychoticism were assessed via the Eysenck Personality Inventory after administration of the JSMS. Results indicate that the JSMS is a reliable measure that can be used to assess self-monitoring in grade-school children. Used in conjunction with its adult counterpart, the JSMS can help determine the relationships between children's self-monitoring orientations and those of parents of siblings. The JSMS is appended, and four tables conclude the document. (TJH)
Self-Monitoring in Middle Childhood:
Reliability of the Junior Self-Monitoring Scale

Beverly A. Browne
Oregon State University

Lynn M. Musser
Pennsylvania State University

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Self-Monitoring in Middle Childhood:
Reliability of the Junior Self-Monitoring Scale

Self-monitoring, the ability of individuals to observe their own expressive behavior and strategically alter self-presentation according to situational demands, has received a great deal of attention in the adult social/personality literature. According to Snyder (1979, 1987), adults can be classified as high or low on the dimension of self-monitoring. The prototypical high self-monitoring individual is concerned with the situational appropriateness of his/her social behavior and uses the behavior of others to provide information about the appropriate behavior for the situation. The cues provided by others serve as guidelines for regulating and controlling the high self-monitor's own verbal and nonverbal self-presentation. In contrast, the prototypical low self-monitoring individual is less concerned with situational demands and more concerned with his/her own affective states and attitudes. The behavior of a low self-monitor is more a function of internal states or feelings, rather than a function of the situation.

Individual differences in self-monitoring have been found to be related to social cognition (Snyder & Cantor, 1980), self-disclosure (Shaffer, Smith, & Tomarelli, 1982), cooperation and competition (Danheiser and Graziano, 1982), social comparison
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(Elliott, 1979), friendship selection (Snyder, Gangestad, & Simpson, 1983), and self-evaluation (Paulhus, 1982). Research suggests that the dimension of self-monitoring is not related to other personality dimensions such as locus of control and Machiavellianism or to social desirability sets (reviewed in Snyder, 1987). It is, however, moderately related to extraversion, with high self-monitoring individuals tending to be more extraverted (Lippa, 1976).

Although there is evidence that self-monitoring plays a role in adult social behavior, the developmental course of this personality dimension has not yet been delineated. In part, this has been because appropriate instruments for measuring the construct in children did not exist. Recently, however, Graziano, Leone, Musser, and Lautenschlager (1987) have developed a scale that is suited for examining self-monitoring in middle childhood. Knowledge of this period is particularly relevant since it is in middle childhood that marked changes take place in children's ability to understand others (e.g. Higgins, Feldman, & Ruble, 1980) and to act out different roles (Livesley & Bromley, 1973; Selman, 1980). Individual differences in the development of these abilities are related to the status of children with peers (Kurdek & Krile, 1982). The Junior Self-Monitoring Scale is similar in format to the adult self-monitoring scale (Snyder, 1979) and there is evidence supporting its validity (Graziano, Leone, Musser, &
Lautenschlager, 1987; Leone, 1986, 1987). However, reliability across time and the relationship of self-monitoring scores to other personality dimensions have not yet been reported.

The primary purpose of this study was to assess the test-retest reliability of the Junior Self-Monitoring Scale in three ages of elementary school children. Specifically, the goal of the research was to discover whether differences in self-monitoring could be detected at the beginning of elementary school and whether those differences become more stable as children mature. In addition, the relationship of self-monitoring to extraversion, neuroticism, and psychoticism was examined. It was expected that extraversion in children would be related to tendencies to be a high self-monitor, as it is in adults, but that such relationships would not exist for either neuroticism or psychoticism.

Method

Participants

Participants in this study were part of a larger study that assessed the relationship of self-monitoring to other personality characteristics, peer relationships, and self-esteem. A total of 82 children, attending one elementary school in Corvallis, Oregon, were recruited to take part in the study. The sample included 28 first graders (13 girls and 15 boys), 30 third graders (12 girls and 18 boys), and 24 fifth graders (11 girls and 13 boys).
At the beginning of the study mean ages of the children were: first graders, 78.96 months; third graders, 103.80 months; and fifth graders, 124.83 months. The subjects were primarily Caucasian and were from middle class families. Prior informed consent was obtained from the parents of participating children (58% of all parents contacted).

Children's Personality Scales

Self-Monitoring. The Junior Self-Monitoring Scale, developed by Graziano, Leone, Musser, and Lautenschlager (1987), was used as an assessment device. The scale, displayed in Table 1, consists of 24 yes-no items and is scored in the direction of high self-monitoring. Individual items reflect the domains of self-monitoring specified by Snyder (1979). These domains include concern for social appropriateness, attention to social cues indicating appropriate self-presentation, control over one's self-presentation and expressive behavior, strategic use of this ability, and situational specificity of self-presentation and expressive behavior. High self-monitors would be expected to agree to statements expressing motives to behave appropriately (e.g., liking to know what classmates expect); to selectively attend to social information (e.g., watching others to see what to do); to behave in ways contrary to how they feel (e.g., being nice to disliked people); to strategically control the impressions of others (e.g., clowning around to impress classmates); and to act
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differently in different situations (e.g. acting better when the
teacher is in the room than when she is out of the room).
Conversely, low self-monitors would be expected to more often
disagree with such statements.

Introversion-Extraversion. Because self-monitoring has been
shown to be related to extraversion in adults, a measure of this
personality trait, the children's version of the Eysenck
Personality Questionnaire (Eysenck & Eysenck, 1975) was also
administered. The questionnaire consists of 81 true-false
questions and yields scores for neuroticism and psychoticism as
well as introversion-extraversion. Children whose scores indicate
greater extraversion tend to be more active, to like excitement,
to prefer many friends, and to be generally optimistic. More
introverted children, on the other hand, tend to be quiet,
introspective, controlled, and pessimistic. Introversion-
extraversion scores range from 0 to 24, with higher scores
reflecting greater extraversion and lower scores reflecting
introversion. Scores for psychoticism range from 0 to 17, with
higher scores reflecting higher levels of psychoticism.
Neuroticism scores range from 0 to 20, with higher scores
reflecting higher levels of neuroticism. Test-retest reliability
of the Eysenck Personality Questionnaire are rather low for
younger children. However, in the interest of consistency and in
the absence of another measure of introversion-extraversion, this
scale was used for all children in the study including the youngest group.

Procedure

The Junior Self-Monitoring Scale and the Eysenck Personality Questionnaire were administered in 30 minute sessions that took place in November and December. In addition, the Junior Self-Monitoring Scale was administered a second time during April and May. Because of the lesser reading proficiency of first graders, both scales were administered individually to them. First grade children were individually escorted to a small room adjacent to the school library and were seated at a child-sized table. After a few warm-up questions, they were told that they would be read a series of questions and were instructed in the answer format. The individual items from the scales were then read to the children, and answers were recorded by an adult research assistant. Unlike the first graders, third and fifth graders completed both scales in group administrations in their classrooms. (Non-participating children were not present.) Investigators administered sample items to the children and read the instructions and individual questions. Although children were allowed to mark their own answers, they were told to wait until an item had been read before doing so. Children who were absent during the group administration were given the scales later, in small groups or individually, using the same procedure as was
employed in the classroom administration. In all cases, the self-monitoring scale was given first, followed by the introversion-extraversion scale. Administration during the spring was identical, except that only the self-monitoring scale was given.

Results

Reliability of the Junior Self-Monitoring Scale

Test-retest reliability for the Junior Self-Monitoring Scale, appearing in Table 2, was calculated by correlating scores of the total sample from the first administration with scores from the second administration. This yielded a significant correlation, \( r(81) = .55, p < .0001 \). Test-retest reliabilities were then calculated separately for each grade. The following results were obtained for each grade level: first graders, \( r(27) = .49, p < .01 \); third graders, \( r(29) = .59, p < .001 \); and fifth graders, \( r(23) = .48, p < .02 \). These values are less than the test-retest value of .77 reported for the 25 item adult scale for a time span of 3.5 months (Kendzierski, 1982); however, the time span in this study was longer (4-6 months). Test-retest reliabilities were also calculated separately for boys and girls. Results indicated greater reliability for girl's scores, \( r(35) = .65, p < .0001 \), than for boy's scores, \( r(45) = .48, p < .001 \). In order to further explore these data, difference scores between spring and fall administrations were calculated and are presented.
in Table 3. Analysis of variance conducted on the scores showed no significant difference for grade or sex and no grade by sex interaction, $F < 1.02$ for all analyses.

In addition to test-retest reliability, the internal consistency of the scale was assessed using the Kuder-Richardson (K-R 20) formula. The results of this analysis are presented in Table 4. The Kuder-Richardson formula (KR-20) reliabilities were .55 and .62 for the first and second administrations, respectively. By comparison, the KR-20 reliability coefficient for the children's scale, reported by Graziano, et al. (1987), was .62 and for the adult scale, reported by Snyder (1987), the KR-20 reliability coefficient was .63. Mean interitem correlations were .05 (fall) and .06 (spring) and average item-total correlations were .17 and .18 for fall and spring administrations, respectively. The mean score for the first administration was 13.22 (SD = 3.08), while the mean score for the second administration was 11.62 (SD = 3.39). These values are similar to those reported by Graziano, et al. (1987).

Relationship of Self-Monitoring to Introversion-Extraversion, Neuroticism, and Psychoticism

The relationship between self-monitoring scores and the personality dimensions measured by the Eysenck Personality Questionnaire was assessed by correlating Fall and Spring self-monitoring scores with the separate subscales for
neuroticism, psychoticism, and introversion-extraversion. Relationships between Eysenck Personality Questionnaire scores and Junior Self-Monitoring Scale scores are depicted in Table 5. Significant relationships existed between self-monitoring and introversion-extraversion in the fall, $r(81) = .43$, $p < .001$ and introversion-extraversion and self-monitoring in the spring, $r(80) = .34$, $p < .002$. As expected, self-monitoring was not significantly related to either neuroticism or psychoticism. Separate calculations of the relationship between self-monitoring and introversion-extraversion were also computed by grade. Relationships tended to increase with age with the greatest relationship appearing among third graders, $r(30) = .63$, $p < .001$. Other relationships between the EPQ scale and self-monitoring scores were $r(28) = .30$, $p < .01$ (grade 1) and $r(24) = .49$, $p < .01$ (grade 5). Relationships between spring self-monitoring scores and introversion-extraversion were similar but somewhat lower. The relationship between total Junior Self-Monitoring Scale scores and the Eysenck Personality Questionnaire extraversion subscale scores is similar to that observed among adults.

Discussion

This study assessed the test-retest reliability of the Junior Self-Monitoring Scale and the relationship of self-monitoring scores to introversion-extraversion, neuroticism, and psychoticism. The scale was given to first, third, and fifth
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graders on two occasions, separated by 4-6 months. The Eysenck Personality Questionnaire, measuring introversion-extraversion, neuroticism, and psychoticism, was given concurrently with first administration of the Junior Self-Monitoring Scale.

The test-retest correlations for the Junior Self-Monitoring Scale were moderately high, with correlations for first, third, and fifth graders being very similar but tending to increase with age. These results suggest that individual differences in self-monitoring are detectable in children as young as six or seven and that the characteristic is moderately stable in the elementary school years. Test-retest reliabilities were unexpectedly higher for girls than for boys even though mean scores did not differ. One possible explanation for greater test-retest reliability among girls is that self-monitoring, because it involves social sensitivity and control of social behaviors, is better developed in girls than in boys. This greater development could include earlier adoption of a stable style of interacting with others, and/or a more stable self-perception of social behaviors. An alternate explanation may be that the boys were simply less conscientious and careful about answering the questions, thus yielding less reliable answers. The fact that older children received the self-monitoring questionnaire in a group may have influenced reliability in unequal ways. Given that girls, in general, are more careful
about their school work, the girls may have been less distracted
and attentive to the task in the group situation. Certainly this
area needs further exploration.

The relationship between introversion-extraversion and
self-monitoring observed in this study was similar to that
obtained for adults. This suggests that the children's version of
the self-monitoring scale is tapping the same dimensions as the
adult scale. The lack of a relationship to psychoticism and
neuroticism is also important, because it provides evidence of
discriminant validity of the Junior Self-Monitoring Scale.

Taken together, the results of this study suggest that the
Junior Self-Monitoring Scale is a reliable scale that can be used
to assess self-monitoring in grade school children. Employed in
conjunction with its adult counterpart, relationships between
children's self-monitoring orientations and those of parents or
siblings may be conducted. Such investigations may answer
important questions about the development of self-regulation in
social situations.
References


Author Notes

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All correspondence regarding this paper should be addressed to Beverly A. Browne, Department of Psychology, Oregon State University, Corvallis, Oregon 97331.
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Table 1

The Junior Self-Monitoring Scale

1. There are many things I would only tell to a few of my friends. (Y)
2. I sometimes wear some kinds of clothes just because my friends are wearing that kind. (Y)
3. I like to know how my classmates expect me to act. (Y)
4. I would probably be good at acting in a school play. (Y)
5. When I grow up I would rather be a famous writer or painter, than be in movies or on TV. (N)
6. I act better when my teacher is in the room than when my teacher is out of the room. (Y)
7. When I don't know what to wear, I call my friends to see what they are going to wear. (Y)
8. Even if I am not having a good time, I often act like I am. (Y)
9. Sometimes I clown around so my classmates will like me. (Y)
10. When I am not sure how to act I watch others to see what to do. (Y)
11. I laugh more when I watch funny TV shows with other people than when I watch them alone. (Y)
12. I do not usually say things just because other people want me to. (N)
13. When I am with my friends I act different than I do with my parents. (Y)

14. I'm not very good at telling jokes. (N)

15. When I'm afraid of someone I try to be nice to them so they will not bother me. (Y)

16. I usually do what I want and not just what my friends think I should do. (N)

17. I try to figure out how each teacher wants me to act and then that's how I try to act. (Y)

18. There are some things about me that I wouldn't want to tell anyone. (Y)

19. I feel embarrassed when I don't have the same kind of clothes as my classmates. (Y)

20. When a new person comes to school I listen to what my classmates say before I decide whether I like the new person. (Y)

21. Sometimes I help my mom or dad without them asking me, so that they will let me do something I want later. (Y)

22. I can make people think I happy even if I'm not. (Y)

23. I can be nice to people I don't like. (Y)

24. I feel unhappy when I don't have the things that my friends have. (Y)

Note. Y = yes; N = no. Responses are keyed in the direction of high self-monitoring.
Table 2

Test-Retest Reliability of the Junior Self-Monitoring Scale

<table>
<thead>
<tr>
<th>Variable</th>
<th>Pearson Product-Moment</th>
<th>p</th>
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<tr>
<td>Grade</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>.49</td>
<td>.01</td>
</tr>
<tr>
<td>3</td>
<td>.59</td>
<td>.001</td>
</tr>
<tr>
<td>5</td>
<td>.48</td>
<td>.01</td>
</tr>
<tr>
<td>Sex</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Boys</td>
<td>.48</td>
<td>.001</td>
</tr>
<tr>
<td>Girls</td>
<td>.65</td>
<td>.0001</td>
</tr>
<tr>
<td>Total</td>
<td>.55</td>
<td>.0001</td>
</tr>
</tbody>
</table>

Self-Monitoring
Table 3
Mean Difference Scores by Sex and Grade

<table>
<thead>
<tr>
<th>Grade</th>
<th>Girls</th>
<th>Boys</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>n</td>
<td>mean (SD)</td>
</tr>
<tr>
<td>1</td>
<td>13</td>
<td>1.15 (SD = 3.41)</td>
</tr>
<tr>
<td>3</td>
<td>12</td>
<td>0.92 (SD = 2.75)</td>
</tr>
<tr>
<td>5</td>
<td>11</td>
<td>1.55 (SD = 1.86)</td>
</tr>
</tbody>
</table>

Difference scores were calculated by subtracting spring self-monitoring scores from fall self-monitoring scores.
### Table 4

**Internal Consistency Reliability of the Junior Self-Monitoring Scale**

<table>
<thead>
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<th>Measure</th>
<th>Scale Administration</th>
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<tbody>
<tr>
<td></td>
<td>Fall</td>
</tr>
<tr>
<td>K-R 20 Reliability Coefficients</td>
<td>.55</td>
</tr>
<tr>
<td>Mean Interitem Correlations</td>
<td>.05</td>
</tr>
<tr>
<td>Average Item-Total Correlations</td>
<td>.17</td>
</tr>
</tbody>
</table>
Table 5

Relationship Between Children's Self-Monitoring Scores and Introversion-Extraversion by Grade

<table>
<thead>
<tr>
<th>School Grade</th>
<th>Fall R</th>
<th>Fall P</th>
<th>Spring R</th>
<th>Spring P</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.30</td>
<td>.057</td>
<td>.28</td>
<td>.080</td>
</tr>
<tr>
<td>3</td>
<td>.63</td>
<td>.001</td>
<td>.52</td>
<td>.002</td>
</tr>
<tr>
<td>5</td>
<td>.49</td>
<td>.008</td>
<td>.32</td>
<td>.060</td>
</tr>
<tr>
<td>1, 3, 5 Combined</td>
<td>.42</td>
<td>.001</td>
<td>.34</td>
<td>.001</td>
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</table>