Development of the Trait Meta-Mood Scale for Elementary School Children.

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Emotional Intelligence; Emotional Regulation

Past research has shown that adults can report their own skill level on four dimensions of emotional intelligence, using the Trait Meta-Mood Scale (TMMS). This study assessed children's ability to self-report on the emotional attention, emotional clarity, and emotional repair dimensions of emotional intelligence, using a modification of the above scale, the Trait Meta-Mood Scale for Children (TMMS-C). A total of 691 elementary school children from grades 3 to 7 completed a 28-item scale combining adapted items from the TMMS and a measure of dispositional optimism. Subjects also completed scales measuring depressive symptoms, social anxiety and social avoidance, and life satisfaction, as well as a friendship assessment. Internal validity of the TMMS-C was tested by assessing the reliability of subscales. Convergent external validity was assessed by examining the relation between children's self-reports on the TMMS-C and their self-reports on other measures of emotion regulation. Divergent external validity was assessed by examining the relation between self-perceived emotional competence (TMMS-C) and measures of perceived and objective social competence. In addition, the relation between TMMS-C subscales and children's adjustment was assessed, using a measure of life satisfaction. Results indicated that the measure had adequate internal reliability (subscale Cronbach's alphas .58 to .76) and that children's reports about their emotional competence were linked in important ways to their social competence and adjustment. (Author/KB)
Development of the Trait Meta-Mood Scale for Elementary School Children

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Abstract

Emotional competence is defined as "the ability to monitor one's own and others' feelings and emotions, to discriminated among them, and to use this information to guide one's thinking and actions (Salovey & Mayer, 1990)." Emotional competence has demonstrated links to success in school, success in the workplace, marital satisfaction, decreased susceptibility to disease, and decreased juvenile delinquency and teen pregnancy (see Goleman, 1995). Key skills included in the concept of emotional intelligence include: 1) Emotional Attention, or the ability to identify what one is feeling, 2) Emotional Clarity, or the ability to distinguish between different emotions, and 3) Emotional Repair, or the ability to alter one's emotions if needed (e.g., calming oneself down when angry).

Past research has shown that adults have the ability to self-report their level of skill on each of these four dimensions of emotional intelligence, using the Trait Meta-Mood Scale (Salovey, Mayer, Goldman, Turvey, & Palfai, 1994). The present study assessed the ability of children to self-report on these dimensions of emotional intelligence, using items modified from the adult scale. A total of 691 elementary school children (grades 3 - 7) completed the 28-item Trait Meta-Mood Scale for Children (TMMS-C). Internal validity of this measure was tested by assessing the reliability of subscales. Convergent external validity was assessed by examining the relation between children's self-reports on the TMMS-C and their self-reports on other measures of emotion regulation. Divergent external validity was assessed by examining the relation between self-perceived emotional competence (TMMS-C) and measures of perceived and objective social competence. In addition, the relation between TMMS-C subscales and children's adjustment was assessed, using a measure of life satisfaction. Results indicated that the measure had adequate internal reliability (subscale Cronbach's alpha's .58 to .76), and that children's reports about their emotional competence were linked in important ways to social competence and adjustment.
Introduction

The Trait Meta-Mood Scale for Children (TMMS-C), an adaptation of the TMMS (Salovey et al., 1994), was developed for use in the present study. The goals of the present study were: a) to assess whether children could reliably assess their own emotional competence using the TMMS-C; b) to measure convergent validity of the TMMS-C by assessing the correlations between the TMMS-C subscales and two other measures of mood and mood management (i.e., Children's Depression Inventory and Life Orientation Test); c) to measure divergent validity by assessing the correlations between the TMMS-C subscales and measures of self-perceived social competence (i.e., social anxiety and social avoidance), and objective social competence (i.e., percentage of children's friendship choices that were reciprocated by classmates), and d) to explore the relation between TMMS-C subscales and adjustment by examining the correlations between the TMMS-C subscales and children's self-reported life satisfaction.

Method

Subjects

Subjects were recruited from midwestern third- through seventh-grade elementary school classrooms. The total sample included 691 children: 311 boys and 380 girls; 626 (89.2%) Caucasian children, 59 (8.4%) African-American children, and 6 (.9%) children of other racial groups.
Measures

1. **Trait Meta-Mood Scale and Dispositional Optimism.** Children completed a single measure that combined adapted items from the Trait Meta-Mood Scale (TMMS; Salovey et al., 1994) and the Life Orientation Test (LOT; Scheier & Carver, 1985) which measures the tendency to have optimistic expectancies about future events (referred to as Dispositional Optimism). The language of both the individual items and the rating scale was simplified from the original measures, and several items with low reliability were dropped (see items and response scale, Table 1).

2. **Depression.** Children completed an adapted Children's Depression Inventory (CDI; Kovacs, 1982). For each item, children were asked to circle the sentence that best describes how they feel (e.g., I am sad once in awhile. I am sad many times. I am sad all of the time). Children were given 0-2 points per item. Higher scores indicate more depressive symptoms.

3. **Social Anxiety and Social Avoidance.** Children also completed the Franke and Hymel (1985) social anxiety scale. This instrument's two subscales, social anxiety (e.g., I usually feel nervous when I meet someone for the first time.) and social avoidance (e.g., I often try to get away from all the other kids.), each consist of six items. Possible responses to each item range from 1 (not at all true about me) to 5 (always true about me). Children's responses to the items were summed for each subscale yielding total scores that could range from 6 (low anxiety/avoidance) to 30 (high anxiety/avoidance).

4. **Friendship Assessment.** Children were asked to select their three best friends from a class roster. As in past research (e.g., Parker & Asher, 1993; Grotpeter & Crick, 1996), children were designated “reciprocal best friends” if both children chose each other as one of their three best friends.

5. **Life Satisfaction.** The Multidimensional Life Satisfaction Scale for Children (Huebner, 1994) is a 40-item measure with demonstrated reliability and validity designed to assess children's perceptions of well-being. The scale yields scores for overall well-being as well as in the five specific domains of family (e.g., I enjoy being at home with my family), friends (e.g., My friends are nice to me), self (e.g., There are lots of things I can do well), school (e.g., I look forward to going to school), and living environment (e.g., There are lots of fun things to do where I live). Children were asked to indicate on a 4-point scale, how often they experienced well-being for each item (1 = never; 2 = sometimes; 3 = often; 4 = almost always). Equal numbers of positive and negatively stated items were included to prevent response bias. Negative stated items were then reverse scored and scores within each domain were totaled to give a satisfaction score for each domain, as well as an overall indication of well-being.
Results

Question 1: Can children reliably report on their own emotional competence?

Findings indicated that children were reliable reporters of their own Emotional Attention, Emotional Clarity, and Emotion Repair. Cronbach’s alphas for these subscales were .70, .58, .76, respectively (see Table 1). Correlations among subscales (see Table 2) were similar to those found in the adult measure (Salovey et al., 1994), except that Emotional Attention and Emotional Clarity were significantly correlated with one another only in the children’s measure.

Question 2: How do children’s reports on the TMMS-C relate to their self-report of emotion or mood on other established measures?

Findings indicated that both Emotional Clarity and Emotion Repair were negatively correlated with depression and positively correlated with Dispositional Optimism (see Table 3). Self-reported Emotional Attention was not correlated with Depression or Dispositional Optimism.

Question 3: How does emotional competence, as measured by the TMMS-C, relate to social competence?

Findings indicated that Social Anxiety was positively correlated with Emotional Attention (see Table 3), suggesting that children who are socially anxious tend to pay more attention to their emotions.

In contrast, Social Avoidance was significantly negatively correlated with both Emotional Clarity and Emotion Repair. Thus, children who are socially avoidant are less likely to be clear about their mood states and less likely to attempt to repair negative mood states.

In addition, children’s objective social competence, as measured by reciprocation of friendship nominations, was negatively correlated with Emotion Repair, suggesting that children who do not adjust their negative moods are less likely to be reciprocally nominated as friends.
Question 4: How do children's reports on the TMMS-C subscales relate to their life satisfaction?

Children's self-reported Emotional Attention, Emotional Clarity, and Emotion Repair were all positively correlated with overall Life Satisfaction (see Table 4). In addition, separate correlational analysis of the components of life satisfaction revealed that Emotional Attention was significantly positively correlated with satisfaction with the self, and satisfaction with the family. Emotional Clarity was positively correlated with satisfaction with the self, school, the environment, and family. Emotional Repair was positively correlated with satisfaction in all areas.

Conclusions

- Children were able to reliably report on their Emotional Attention, Emotional Clarity, and Emotion Repair using the TMMS-C.
- TMMS-C Subscales of Emotion Clarity and Mood Repair were significantly correlated with other established measures of mood, namely Children's Depression Inventory and Dispositional Optimism.
- Social problems, including Social Avoidance, Social Anxiety, and Lack of Reciprocal Friendships, were associated with different profiles of self-reported lack of emotional competence on the TMMS-C (e.g., Social Anxiety is correlated with Emotional Attention but not Emotional Clarity).
- Emotional competence, as measured by the TMMS-C, was significantly associated with Life Satisfaction.

Future Directions

- Use of the TMMS-C with more heterogeneous populations, including cross-national research.
- Examination of gender differences in emotional competence, measured by the TMMS-C.
- Examination of the relation between the TMMS-C subscales and teacher-reported emotional competence.
- Examination of the relation between children's reports of emotional competence on the TMMS-C and actual social behavior and emotion display in social situations.
Table 1
Items and Subscale Cronbach’s Alphas: Trait Meta-Mood Scale for Children (TMMS-C) and Revised Life Orientation Test

**Attention to Feelings (alpha = .73)**
1. I often think about my feelings.
2. It’s usually a waste of time to think about your feelings. (reversed)
3. I believe you should do whatever your feelings tell you to do.
4. I pay a lot of attention to how I feel.
5. The best way to handle my feelings is to just go ahead and feel whatever I’m feeling.
6. I believe it’s good for you to go ahead and feel whatever you feel.
7. My feelings help me decide how to act.

**Clarity of Feelings (alpha = .58)**
1. I almost always know how I’m feeling.
2. I usually know how I feel about things.
3. I am comfortable with my feelings.
4. I am usually very clear about my feelings (I usually know which feeling I am having).
5. I am usually confused about how I feel. (reversed)

**Mood Repair (alpha = .76)**
1. If I find myself getting mad, I try to calm myself down.
2. I try to think about good things no matter how bad I feel.
3. When I become upset, I think about all of the good things in my life.
4. No matter how bad I feel, I try to think about good things.

**Life Orientation Test: Dispositional Optimism (alpha = .60)**
1. Even though I am sometimes happy, I mostly think bad things are going to happen to me. (reversed)
2. When I am happy, I realize how silly most of my worries are.
3. Even though I am sometimes sad, I usually think good things will happen to me.
4. When I’m sad, I can’t help thinking about bad things. (reversed)
5. When I am upset, I realize that the good things in my life aren’t really good after all. (reversed)
6. When I’m in a bad mood, I think lots of bad things will happen to me. (reversed)

**Response Scale**

<table>
<thead>
<tr>
<th>Not at all True</th>
<th>Hardly Ever True</th>
<th>Sometimes True</th>
<th>Often True</th>
<th>Always True</th>
</tr>
</thead>
</table>

8 7
Table 2
Correlations Among TMMS Subscales

<table>
<thead>
<tr>
<th></th>
<th>Attention</th>
<th>Clarity</th>
<th>Repair</th>
</tr>
</thead>
<tbody>
<tr>
<td>Attention</td>
<td>1.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Clarity</td>
<td>.37**</td>
<td>1.00</td>
<td></td>
</tr>
<tr>
<td>Repair</td>
<td>.39**</td>
<td>.37**</td>
<td>1.00</td>
</tr>
</tbody>
</table>

Note. ***p<.001, **p<.01, *p<.05.
Table 3
Correlations Between TMMS Subscales and Other Measures

<table>
<thead>
<tr>
<th></th>
<th>Attention</th>
<th>Clarity</th>
<th>Repair</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Self-Perceived Emotional Competence</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CDI-Depression</td>
<td>.01</td>
<td>-.26**</td>
<td>-.17**</td>
</tr>
<tr>
<td>Dispositional Optimism</td>
<td>.03</td>
<td>.38**</td>
<td>.37**</td>
</tr>
<tr>
<td><strong>Self-Perceived Social Competence</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Social Anxiety</td>
<td>.20*</td>
<td>-.01</td>
<td>-.01</td>
</tr>
<tr>
<td>Social Avoidance</td>
<td>-.05</td>
<td>-.25**</td>
<td>-.34***</td>
</tr>
<tr>
<td><strong>Objective Social Competence</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reciprocal Friends</td>
<td>-.01</td>
<td>-.07</td>
<td>-.13*</td>
</tr>
</tbody>
</table>

Note. ***p<.001, **p<.01, *p<.05.

Table 4
Correlations Between TMMS Subscales and Life Satisfaction

<table>
<thead>
<tr>
<th></th>
<th>Attention</th>
<th>Clarity</th>
<th>Repair</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Overall Life Satisfaction</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Satisfaction with Self</td>
<td>.21*</td>
<td>.32***</td>
<td>.36***</td>
</tr>
<tr>
<td>Satisfaction with School</td>
<td>.03</td>
<td>.19**</td>
<td>.38**</td>
</tr>
<tr>
<td>Satisfaction with Environment</td>
<td>.08</td>
<td>.20**</td>
<td>.14*</td>
</tr>
<tr>
<td>Satisfaction with Friends</td>
<td>.08</td>
<td>.08</td>
<td>.22**</td>
</tr>
<tr>
<td>Satisfaction with Family</td>
<td>.23**</td>
<td>.23**</td>
<td>.34***</td>
</tr>
</tbody>
</table>

Note. ***p<.001, **p<.01, *p<.05.
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1999 Biennial Meeting of SRCD (Albuquerque, NM, April 15-18, 1999).
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