Research has suggested the utility of studying individual differences in the regulation of negative mood states. Generalized response expectancies for negative mood regulation were defined as expectancies that some overt behavior or cognition would alleviate negative mood states as they occur across situations. The Generalized Expectancy for Negative Mood Regulation Scale (NMR) was developed to measure this dimension. To examine the scale's internal consistency and discriminant validity from social desirability and locus of control, the NMR, the Marlowe-Crowne Social Desirability Scale, and the Internal-External Control of Reinforcement Scale were administered to 789 college students. The results demonstrated internal consistency and discriminant validity for 30 items from a 50-item pool. In a second study using another sample (N=162), the NMR correlated negatively with the short form of the Beck Depression Inventory, indicating that subjects who reported a strong belief that they can regulate negative moods were less depressed than subjects who reported a weaker generalized expectancy. These results have implications for the understanding of stress and coping processes and the diagnosis and treatment of anxiety and affective disorders. (Author/EB)
Measuring Generalized Expectancies for 
Negative Mood Regulation

Salvatore J. Catanzaro and Jack Mearns
Department of Psychology
University of Connecticut
U-20 Rm. 107
406 Cross Campus Rd
Storrs, CT 06268
(203) 486-2057

Revisions of this paper since time of acceptance have included changing the title that appears in the program. We are especially indebted to Julian B. Rotter and Irving Kirsch for their support and helpful comments. A more extensive version of this paper is available from the authors.
Abstract

Generalized response expectancies for negative mood regulation were defined as expectancies that some overt behavior or cognition will alleviate negative mood states as they occur across situations. In Study 1 (N = 789), internal consistency and discriminant validity from social desirability and internal-external control were demonstrated for 30 items from a 50-item pool. In a second study (N = 162), this scale correlated negatively with the short form of the Beck Depression Inventory, indicating that subjects who reported a strong belief that they can regulate negative moods were less depressed than subjects who reported a weaker generalized expectancy. Implications of these results for the understanding of stress and coping processes and the development and treatment of anxiety and affective disorders were discussed.
Expectancies for Negative Mood Regulation

Measuring Generalized Expectancies for Negative Mood Regulation

Recent research has suggested the utility of studying individual differences in the regulation of negative mood states. Doerfler and Richards (1984) interviewed adult women who reported either having been successful at coping with a previous depression or not. An important difference between the successful and non-successful copers was that successful copers believed the coping statements they made to themselves (e.g., "I'll feel better soon"). Although these data were based on retrospective self-reports from a small sample, they suggest that generalized expectancies for problem solving (Rotter, Chance, and Phares, 1972) are important person variables in coping with negative moods.

Rotter, et al. (1972) defined a generalized expectancy for problem solving as: An individual's subjectively held belief that some behavior will successfully solve a problem as it is encountered in a variety of situations. A generalized problem-solving expectancy for negative mood regulation would be a generalized response expectancy as well because it concerns a voluntary behavior--involuntary response sequence (Kirsch, 1985).

Franko, Powers, Zuroff, and Moskowitz (1985) defined a generalized expectancy for affective self-regulation as "An expectancy that some overt behavior or cognition will alleviate a negative state or induce a positive one" (p. 210). They found in interviews that children exhibited their generalized expectancies for coping with sadness and anger by offering numerous solutions to these problems.
The questionnaire described in the present paper was designed to measure generalized response expectancies for the self regulation of negative moods, as defined by Franko et al. (1985). A 5-point Likert scale format was used. Initially, 50 items were written. Items were written as expectancy statements, all with the stem, "When I'm upset, I believe that...." Items sampled general beliefs about the ability to alleviate negative moods as well as cognitive and behavioral mood regulation activities.

Study 1

The first stage in scale development was the evaluation of its internal consistency and discriminant validity from social desirability and Internal-External Control (Rotter, 1966). It was hypothesized that generalized expectancies for negative mood regulation would correlate significantly but moderately with locus of control since they are similar, yet clearly distinct, constructs. Since the I-E scale is scored in the direction of externality, we expected negative correlations.

Subjects and Procedure

The Generalized Expectancy for Negative Mood Regulation Scale (NMR), the Marlowe-Crowne Social Desirability Scale (MC-SDS) (Crowne and Marlowe, 1964), and the Internal-External Control of Reinforcement Scale (I-E Scale) (Rotter, 1966) were included in a random sequence of questionnaires administered during class periods to 281 male and 508 female introductory psychology students in groups of 20-30 at the University of Connecticut.

Item Retention Criteria. There were four item retention criteria:
Expectancies for Negative Mood Regulation

A mean score within the range of 1.5 and 4.5; a standard deviation near 1.0, indicating adequate dispersion of scores about the midpoint; a corrected item-total correlation between .30 and .60, indicating a balance of consistency with the rest of the scale and unique contribution to the total scale score; and a correlation with social desirability lower than the corrected item-total correlation. We planned to minimize sex differences in the item statistics unless there were large enough differences to warrant the development of separate versions.

Results and Discussion

All analyses were done separately by sex, with responses to negative NMR items reversed, high scores indicating a high expectancy for negative mood regulation.

Application of the item retention criteria led to the inclusion of 30 items in a single scale that appeared useful for both males and females. The average corrected item-total correlations for these 30 items were .40 for males and .44 for females. For males, $M = 99.68$, $SD = 14.33$, and $\alpha = .87$. For females, $M = 99.14$, $SD = 14.81$, and $\alpha = .87$. The mean scores for males and females were not significantly different. The correlations with social desirability were $r (253) = .09$, $p > .05$ for males and $r (416) = .18$, $p < .001$ for females.

The 30 retained items were divided into three 10-item subscales: General, Cognitive, and Behavioral. The $\alpha$ coefficients for these subscales were all acceptable, ranging from .63 for females and .67 for males on the heterogeneous Behavioral subscale to .82 and .78 for females and males, respectively, on the General subscale. There were no
sex differences in mean scores. Further, the subscales tended to correlate moderately with each other (average $r = .58$ for both males and females), suggesting that the subscales will be useful in predicting different criteria.

These data indicate that the NMR is promising for further testing of its convergent, discriminant, and predictive validity.

Data were available from 135 males and 723 females who completed the I-E Scale and the NMR. Mean I-E scores were typical of those from similar samples: (Phares, 1976): For females, $M = 11.98$, $SD = 4.04$ and for males, $M = 11.40$, $SD = 4.06$.

NMR scores were significantly correlated with I-E scores in the predicted direction for females ($r (221) = -.35$, $p < .001$) but not for males ($r (135) = -.11$, $p = .19$). Similar results were found with the subscales.

The original hypothesis did not take sex differences into account. However, the I-E Scale has been observed to correlate with some measures of adjustment for females but not males (Phares, 1976). Thus, the results are evidence for the construct validity of the NMR. Further, that the correlations are moderate demonstrates the discriminant validity of the NMR from the I-E Scale.

Study 2

Generalized expectancies for coping with negative mood should be an important personality variable for predicting depression. To test this hypothesis, the NMR scale and the MC-SDS were administered to a second sample of 37 males and 125 females with the short form of the Beck Depression Inventory (BDI) (Beck, Rial, and Rickels, 1974), in a
procedure similar to that of Study 1. We predicted that the NMR would correlate negatively with the BDI.

Results and Discussion

The descriptive statistics for the NMR replicated the results of Study 1: On the Total scale, $M = 98.03$, $SD = 17.76$, and $\alpha = .90$ for males; for females, $M = 99.79$, $SD = 16.39$, and $\alpha = .89$. Statistics for the subscales also were similar to those of Study 1.

---

The correlation matrix for the three scales is presented in Table 1. The correlations of the NMR with the MC-SDS also replicated the original results and the correlations with the BDI confirm our hypothesis: Subjects who reported a strong belief that they can alleviate negative moods reported less depression. This relationship was particularly robust for males. However, for females, there appeared to be some shared variance among the three scales. To test the hypothesis that the apparent relationship between the NMR and the BDI was in fact due to a shared tendency for both scales to elicit socially desirable responses, we tested the contribution of the NMR to variance in the BDI with social desirability statistically controlled in a hierarchical multiple regression. Results indicated that the NMR and BDI shared variance independent of that which they shared with social desirability: $F (1, 122) = 16.56$, $p < .001$. The increment in $R^2$ was .11.

Thus, a preliminary validity study supported the notion that
Expectancies for Negative Mood Regulation

8

generalized expectancies for negative mood regulation are important correlates of depression. Further, that the correlations between the NMR and the BDI were moderate indicates that the NMR is not merely measuring dysphoria.

General Discussion

These studies were intended to examine the utility of a preliminary pool of theoretically derived items as a measure of generalized expectancies for negative mood regulation. The items display internal consistency, and discriminant validity from social desirability, and correlate with measures of locus of control and depression in a theoretically sensible fashion. (Recently collected data from independent samples replicated the correlation of the NMR with the BDI and indicated correlations of similar magnitude in the expected directions with self-report measures of self-esteem and anxiety.) Thus, the construct validity of the scale is supported.

Research on generalized expectancies for coping with negative mood should contribute to an understanding of stress and coping. A specific hypothesis consistent with a cognitive-phenomenological framework (Lazarus & Folkman, 1984) is that the NMR measures a person variable that influences secondary appraisal of one's coping resources. Use of the subscales should predict choice of coping strategies; for example, Moos and his associates (e.g., Holohan & Moos, 1987) have studied active-cognitive, active-behavioral, and avoidant coping strategies. Finally, the NMR should also be related to somatic outcomes of stress, since emotion-focused coping can affect patterns of physiological disturbance (Lazarus & Folkman, 1984).
Expectancies for Negative Mood Regulation

9

Generalized expectancies for negative mood regulation should prove important personality variables for understanding the development and treatment of affective and anxiety disorders. In this regard, the present data are consistent with data reported by Reiss, Peterson, Gursky, & McNally (1986) on anxiety sensitivity (the "fear of fear") and Teasdale (1985) on depression about depression. Both of these studies provided data in support of the notion that what people think will happen when they experience negative emotional states has important implications for the development and treatment of anxiety disorders and depression. Generalized response expectancies, including the one described in this paper, should prove to be important variables for understanding and treating these syndromes.
References


### Tab. 1

**Correlations of NMR Scores with Social Desirability and Depression (Study 2)**

#### Males (n = 37)

<table>
<thead>
<tr>
<th></th>
<th>NMR</th>
<th>NMR-G</th>
<th>NMR-C</th>
<th>NMR-B</th>
<th>BDI</th>
<th>SDS</th>
</tr>
</thead>
<tbody>
<tr>
<td>NMR</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>NMR-G</td>
<td></td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>NMR-C</td>
<td></td>
<td></td>
<td>.71**b</td>
<td>1.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>NMR-B</td>
<td></td>
<td></td>
<td>.65**b</td>
<td>.72**b</td>
<td>1.00</td>
<td></td>
</tr>
<tr>
<td>BDI</td>
<td>-.58**</td>
<td>-.54**</td>
<td>-.55**</td>
<td>-.44*</td>
<td>1.00</td>
<td></td>
</tr>
<tr>
<td>SDS</td>
<td>.20</td>
<td>.15</td>
<td>.22</td>
<td>.16</td>
<td>-.11</td>
<td>1.00</td>
</tr>
</tbody>
</table>

#### Females (n = 125)

<table>
<thead>
<tr>
<th></th>
<th>NMR</th>
<th>NMR-G</th>
<th>NMR-C</th>
<th>NMR-B</th>
<th>BDI</th>
<th>SDS</th>
</tr>
</thead>
<tbody>
<tr>
<td>NMR</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>NMR-G</td>
<td></td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>NMR-C</td>
<td></td>
<td></td>
<td>.72**b</td>
<td>1.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>NMR-B</td>
<td></td>
<td></td>
<td>.77**b</td>
<td>.60**b</td>
<td>1.00</td>
<td></td>
</tr>
<tr>
<td>BDI</td>
<td>-.39*</td>
<td>-.42**</td>
<td>-.29**</td>
<td>-.21*</td>
<td>1.00</td>
<td></td>
</tr>
<tr>
<td>SDS</td>
<td>.23*</td>
<td>.30**</td>
<td>.10</td>
<td>.17</td>
<td>-.29**</td>
<td>1.00</td>
</tr>
</tbody>
</table>

**Note.** NMR = Generalized Expectancy for Negative Mood Regulation Total Scale; NMR-G = Generalized Expectancy for Negative Mood Regulation, General subscale; NMR-C = Generalized Expectancy for Negative Mood (table continues)
Expectancies for Negative Mood Regulation

Regulation, Cognitive subscale; NMR-B = Generalized Expectancy for Negative Mood Regulation, Behavioral subscale; BDI = Beck Depression Inventory, Short Form; SDS = Marlowe-Crowne Social Desirability Scale.

aCorrelations of the NMR Total Scale with its subscales are not presented because of redundancy. bCorrelations between the NMR subscales are based on entire sample: For males, n = 174; for females, n = 272.

* p < .01. **p < .001.