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Brief Mood Introspection Scale (BMIS): Scoring Instructions

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Scoring the BMIS

Prepared by J.D. Mayer

Note: This page has just been added. I recommend checking the exact adjectives for each scale against the original article to guard against errors. Those can be found in Mayer & Gaschke, 1988, p. 104, second column. Please e-mail me to report any problems.

Please note. The BMIS can be scored via reverse-scoring, or via subtractive scoring. I now recommend reverse scoring, described here. Earlier studies often used subtractive scoring of the test. That alternative method of scoring is described later, in the section, "Subtractive Scoring." Immediately after is a section entitled, "Comparison Between Scoring Systems," which explains how to convert one system to another, for purposes of comparing means, for example.

Recommended Scoring

Scoring the BMIS for Pleasant-Unpleasant Mood

Before you start, it is helpful to download a copy of the BMIS in PDF or WORD format (see the first link in this section). Now, referring to the copy, to score Pleasant-Unpleasant, first:

1. Convert the Meddis response scale (XX, X, V, VV) to numbers:

XX = 1

X = 2

V = 3

VV = 4

2. Next, add up the responses for: Active, Calm, Caring, Content, Happy, Lively, Loving, and Peppy.

3. Next, reverse score the responses for: Drowsy, Fed up, Gloomy, Grouchy, Jittery, Nervous, Sad, and Tired. That is, recode, such that:

XX = 4

X = 3

V = 2

VV = 1

4. Now, add up the scores for the reverse scored items. That is, Drowsy, Fed up, Gloomy, Grouchy, Jittery, Nervous, Sad, and Tired.

5. Finally, add up the regular and reverse-scored items. That is the total on the Pleasant-Unpleasant scale.

Scoring the BMIS for Arousal-Calm Mood

As before, it is helpful to download a copy of the BMIS in PDF or WORD format (see the first link in this section). Now, referring to the copy, to score Arousal-Calm, first:

1. Convert the Meddis response scale to numbers this way:

XX = 1

X = 2

V = 3

VV = 4

2. Next, add up the responses for: Active, Caring, Fed up, Gloomy, Jittery, Lively, Loving, Nervous, Peppy, and Sad.

3. Next, reverse score the responses for: Calm, Tired. That is, recode, such that:

XX = 4

X = 3

V = 2

VV = 1

4. Now, add up the scores for the reverse scored items. That is, Calm and Tired.

5. Finally, add up the regular and reverse-scored items. That is the total on the Arousal-Calm scale.

Scoring the BMIS for Positive-Tired Mood

As before, it is helpful to download a copy of the BMIS in PDF or WORD format (see the first link in this section). Now, referring to the copy, to score Positive-Tired, first:

1. Convert the Meddis response scale to numbers this way:

XX = 1

X = 2

V = 3

VV = 4

2. Next, add up the responses for: Active, Caring, Lively, Loving, and Peppy.

3. Next, reverse score the responses for: Drowsy and Tired. That is, recode, such that:

XX = 4

X = 3

V = 2

VV = 1

4. Now, add up the scores for the reverse scored items. That is, Drowsy and Tired.

5. Finally, add up the regular and reverse-scored items. That is the total on the Positive-Tired scale

Scoring the BMIS for Negative-Relaxed Mood

As before, it is helpful to download a copy of the BMIS in PDF or WORD format (see the first link in this section). Now, referring to the copy, to score Negative-Relaxed, first:

1. Convert the Meddis response scale to numbers this way:

XX = 1

X = 2

V = 3

VV = 4

2. Next, add up the responses for: Fed up, Gloomy, Jittery, Nervous, and Sad.

3. Next, reverse score the responses for: Calm. That is, recode, such that:

XX = 4

X = 3

V = 2

VV = 1

4. Now, add up the scores for the reverse scored items. That is, Calm.

5. Finally, add up the regular and reverse-scored items. That is the total on the Negative-Relaxed scale.

A Note on Subtractive Scoring

In the original articles on the BMIS, reverse-scored items were never reverse scored, but instead were simply subtracted from regular items. That is, to calculate the Pleasant - Unpleasant dimension, for example, all the scores for the pleasant mood words were added; all the negative mood words were added, and the total score was obtained by subtracting the unpleasant total from the pleasant total.

In the scoring algorithm described above, by contrast, the reverse-scored items are actually reverse scored. That means that the scale averages will be different from those in earlier reports. Over the years, I have come to view reverse scoring as a superior, or, at least, more elegant procedure than simple subtraction, but subtraction works as well. To learn how to convert total scores from one scoring system to the other, see the discussion on "Comparison Between Scoring Systems" below. That includes a simple method for converting scores from one system to another.

Comparison of Scoring Methods

The following discussion is offered for converting the BMIS Pleasant-Unpleasant scale -- scored via subtraction -- to the same scale scored via reverse scoring (I now recommend reverse scoring). It also indicates how do make the reverse conversion.

Researchers may want to use these conversions to compare the mean score on the pleasant-unpleasant scale of the BMIS, calculated via reverse scoring, to any of the articles which have employed the scale, but have used subtractive scoring. The rationale for the conversion also is explained below. Note that the standard deviation will be the same no matter which method is employed.

How to Make the Adjustment

Note: the effective range of the BMIS pleasant unpleasant scale scored via subtraction is -24 to 24.

the effective range of the BMIS pleasant unpleasant scale scored via reverse scoring is 16 to 64.

To convert from subtractive scoring to reverse-scoring, simply add 40 to each (subtractive) score.

Original Scores Calculated via Subtraction	Add a Constant to Each Score to Convert	The New Obtained Score Value -- Equivalent to Reverse Scoring
-10	40	30
5	40	45
-20	40	20
-24 (minimum possible score)	40	16
24 (maximum possible score)	40	64
19	40	59

To convert from reverse-scoring to subtractive scoring, simply subtract 40 from each (reverse-scored) score.

Obtained Scores Calculated from Reverse Scoring	Subtract a Constant to Each Score to Convert	The New Obtained Score Value -- Equivalent to Subtractive Scoring
61	40	21
18	40	-22
30	40	-10
16 (minimum possible score)	40	-24
64 (maximum possible score)	40	24
25	40	-15

Why The Adjustment Works

To see why the above adjustment works, you can compare, side-by-side, the effect of reverse scoring versus subtractive scoring, on relevant (that is, negative) items -- as illustrated in the next table.

Integrating Unpleasant Mood terms in the Total Score of the BMIS: A Comparison of Reverse-Score and Subtractive Methods					
Negative Mood Item	Example of a Possible Participant Response	Scoring Using Reverse Coding	Versus	Scoring Using Subtractive Coding	Difference Between the Two Methods
Tired	1	4		-1	5
Sad	2	3		-2	5
Gloomy	3	2		-3	5
Drowsy	4	1		-4	5

Both reverse and subtractive coding acts to reverse the effect of a negative mood word (so that the more the person reports experiencing a negative word, the lower the resulting score will be). Subtraction adjust the score five points below reverse scoring, for each word involved. That means the adjustment will be (number of reversed mood terms) X 5. In the case of the BMIS Pleasant-Unpleasant scale there are eight such affected terms, for $8 \times 5 = 40$.

To convert the Arousal-Calm scale, the comparable correction figure is $2 \times 5 = 10$, because there are 2 reversed adjectives involved.