DOCUMENTATION

of

Psychological Scales of Constructs and Composite Variables

in

MIDUS Refresher 1 Neuroscience Project (P5)

INTRODUCTION

This document is a reference for psychological scales in the MIDUS Refresher 1 Neuroscience Project data sets. For each scale, items used to construct the scale, coding, and methods of scale construction are described. Information regarding scale source is also included.

The variable name of a scale is presented in brackets with uppercase letters (e.g., [RA5SPGP] for Positive Affect Negative Affect Schedule General: Positive Affect). The Neuroscience Project started at the second wave of data collection (MIDUS 2); therefore, the scale naming is applicable to MIDUS 2, MIDUS Refresher 1, and MIDUS 3. Scale name and description are followed by individual items and by the description of how the scale score is constructed.

In this update, additional variables are reported for the Cube & Paper test to match what was shared for MIDUS 3 and 3 subjects had their Cube & Paper total score [RA5D] corrected (± 1).

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Scales/Items:

Cube Task

Instructions for Cube Task: "On the following pages you will see drawings of cubes that have letters, numbers, or symbols on each side. Each of the cubes has six unique sides; that is, no letter, number, or symbol appears on more than one face of a given cube. For each item, imagine that the cube on the left can be rotated in any direction. Your job will be to compare the three cubes on the right with the one on the left. Decide which of the three cubes is identical to the cube on the left, if the cube on the left was rotated in a new orientation. Circle the letter corresponding to the cube you think could be a different view of the cube on the left."

> **[RA5DCA]:** A continuous variable based on 10 items.
> **[RA5DCB]:** A continuous variable based on 10 items.

> Items: 10 items
> Sample Question:
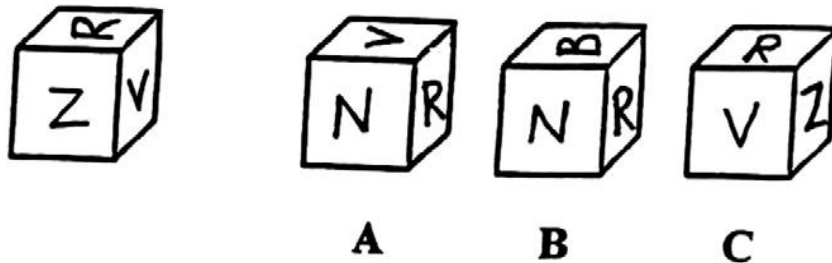
> Coding: [RA5DCA]: 1 point was awarded for each correct response.
>
> [RA5DCB]: 1 point was awarded for each response.

> Scaling: [RA5DCA] is constructed by totaling correct responses to the Cube questions.
>
> [RA5DCB] is constructed by totaling number of responses in the Cube questions.

Paper Task

Instructions for Paper Task: "On the following pages you will see drawings of paper with holes in it. Imagine folding and unfolding a piece of paper. Each of the items will represent a square piece of paper being folded along the dotted line shown. After being folded, imagine that one or more holes are punched
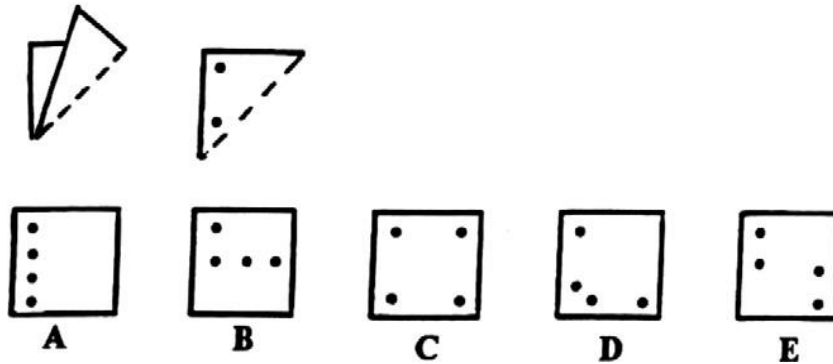
through all layers of the paper. Your job will be to decide which of the five figures correctly represents how the paper would look when it is unfolded again. Circle the letter below the figure to make your choice."

[RA5DPA]: A continuous variable based on 10 items.
[RA5DPB]: A continuous variable based on 10 items.

Items: 10 items
Sample Question:

Coding: [RA5DPA]: 1 point was awarded for each correct response.
[RA5DPB]: 1 point was awarded for each response.

Scaling: [RA5DPA] is constructed by totaling correct responses to the Paper questions.
[RA5DPB] is constructed by totaling number of responses in the Paper questions.

Cube and Paper Total

[RA5D]: A continuous variable based on 20 items (10 cube and 10 paper).
[RA5DR]: A continuous variable based on 20 items (10 cube and 10 paper).

Items: 20 items

Coding: [RA5D] 1 point was awarded for each correct response.
Coding: [RA5DR] 1 point was awarded for each response.

Scaling: [RA5D] is constructed by totaling correct responses to all the Cube & Paper questions.
Scaling: [RA5DR] is constructed by totaling the number of responses in all the Cube & Paper questions.

Source:

Gilbertson, M.W., Williston S.K., Paulus, L.A., Lasko, N.B., Gurvits, T.V, Shenton, M.E., Pitman, R.K., Orr, S.P.
  (2007). Configural cue performance in identical twins discordant for posttraumatic stress disorder:
  Theoretical implications for the role of hippocampal function. *Biol Psychiatry, 62(5),* 513-520.

DISPOSITIONAL POSITIVE EMOTION SCALE (DPES)

<u>Instructions</u>: "In this series of questions we are interested in learning about your beliefs and feelings about the world, as well as some of your typical day-to-day actions. Each item below contains a statement. We want to know how strongly you agree or disagree with each of these statements. Think about each statement separately, and decide how much you agree with it. There are no right or wrong answers. For each statement, circle the number on the right for the number from 1 (strongly disagree) to 7 (strongly agree) that best represents your feelings."

<u>**Scales/Items:**</u>

DPES Contentment

[RA5SDPC]: A continuous variable based on 7 items

<u>Items</u>: 7 items – DPES - 1, 12, 23, 34, 45, 56, 67.

1. I am generally a contented person.

12. I am at peace with my life.

23. When I think about my life I experience a deep feeling of contentment.

34. I feel satisfied more often than most people.

45. My life is very fulfilling.

56. I slow down to enjoy the moment whenever I can.

67. I try to surround myself with pleasant sights, scents, and flavors.

<u>Coding</u>: 1 (Strongly Disagree)-2-3-4 (Neither Agree nor Disagree)-5-6-7 (Strongly Agree).

<u>Scaling</u>: [RA5SDPC] is constructed by taking the **mean** of responses to the items.

DPES Joy

[RA5SDPJ]: A continuous variable based on 7 items

<u>Items</u>: 7 items – DPES - 2, 13, 24, 35, 46, 57, 68.

2. I often feel bursts of joy.

13. I am an intensely cheerful person.

24. I am often completely overjoyed when something good happens.

35. If I see a chance to get something I want, I move on it right away.

46. On a typical day, many events make me happy.

57. Good things happen to me all the time.

68. My life is always improving.

Coding: 1 (Strongly Disagree)-2-3-4 (Neither Agree nor Disagree)-5-6-7 (Strongly Agree).

Scaling: [RA5SDPJ] is constructed by taking the **mean** of responses to the items.

DPES Hope

[RA5SDPH]: A continuous variable based on 7 items

Items: 7 items – DPES - 3, 14, 25, 36, 47, 58, 69.

3. In uncertain times, I usually expect the best.

14. When I think about the future, I have a strong feeling of hope.

25. I've found that things usually turn out for the best in the long run.

36. I am a very optimistic person.

47. I often feel hopeful.

58. I am not a quitter.

69. I tend to plan in terms of best-case scenarios.

Coding: 1 (Strongly Disagree)-2-3-4 (Neither Agree nor Disagree)-5-6-7 (Strongly Agree).

Scaling: [RA5SDPH] is constructed by taking the **mean** of responses to the items.

DPES Love/Attachment

[RA5SDPL]: A continuous variable based on 7 items

Items: 7 items – DPES - 4, 15, 26, 37, 48, 59, 70.

4. Other people are generally trustworthy.

15. I develop strong feelings of closeness to people easily.

26. I find it easy to trust others.

37. I can depend on people when I need help.

48. People are usually considerate of my needs and feelings.

59. I love many people.

70. I often ask people for help.

Coding: 1 (Strongly Disagree)-2-3-4 (Neither Agree nor Disagree)-5-6-7 (Strongly Agree).

Scaling: [RA5SDPL] is constructed by taking the **mean** of responses to the items.

DPES Desire

[RA5SDPD]: A continuous variable based on 7 items

Items: 7 items – DPES - 5, 16, 27, 38, 49, 60, 71.

5. I am a very flirtatious person.

16. When I'm attracted to someone, I am overwhelmed by desire.

27. A lot of the people I spend time with are very good-looking.

38. I can think of several personality traits that "turn me on" sexually.

49. I've often imagined being sexual with a friend, colleague or acquaintance.

60. Almost everybody has something sexy about them.

71. I have dated a lot of people.

Coding: 1 (Strongly Disagree)-2-3-4 (Neither Agree nor Disagree)-5-6-7 (Strongly Agree).

Scaling: [RA5SDPD] is constructed by taking the **mean** of responses to the items.

DPES Compassion

[RA5SDPO]: A continuous variable based on 7 items

Items: 7 items – DPES - 6, 17, 28, 39, 50, 61, 72.

6. My ideal job involves helping other people.

17. It's important to take care of people who are vulnerable.

28. When I see someone hurt or in need, I feel a powerful urge to take care of them.

39. Taking care of others gives me a warm feeling inside.

50. I often notice people who need help.

61. I am a very compassionate person.

72. I enjoy spending time with children.

Coding: 1 (Strongly Disagree)-2-3-4 (Neither Agree nor Disagree)-5-6-7 (Strongly Agree).

Scaling: [RA5SDPO] is constructed by taking the **mean** of responses to the items.

DPES Pride

[RA5SDPP]: A continuous variable based on 7 items

Items: 7 items – DPES - 7, 18, 29, 40, 51, 62, 73.

7. I feel good about myself.

18. I have a lot of confidence in my abilities.

29. I am proud of myself and my accomplishments.

40. Many people respect me.

51. I always stand up for what I believe.

62. People usually recognize my authority.

73. I receive a lot of compliments.

Coding: 1 (Strongly Disagree)-2-3-4 (Neither Agree nor Disagree)-5-6-7 (Strongly Agree).

Scaling: [RA5SDPP] is constructed by taking the **mean** of responses to the items.

DPES Gratitude

[RA5SDPG]: A continuous variable based on 6 items

Items: 6 items – DPES - 8, 19, 30, 41, 52, 63 (--8 and 19 are religious).

8. A higher power is looking out for me.

19. I regularly attend religious services.

30. I feel grateful when I think about my life.

41. I am full of gratitude.

52. I am very respectful toward people of higher status than myself.

63. I am a very lucky person.

Coding: 1 (Strongly Disagree)-2-3-4 (Neither Agree nor Disagree)-5-6-7 (Strongly Agree).

Scaling: [RA5SDPG] is constructed by taking the **mean** of responses to the items.

DPES Amusement

[RA5SDPA]: A continuous variable based on 6 items

Items: 6 items – DPES - 9, 20, 31, 42, 53, 64.

9. I find humor in almost everything.

20. I really enjoy teasing people I care about.

31. I am very easily amused.

42. The people around me make a lot of jokes.

53. I make jokes about everything.

64. I find it easy to understand multiple perspectives on an issue.

Coding: 1 (Strongly Disagree)-2-3-4 (Neither Agree nor Disagree)-5-6-7 (Strongly Agree).

Scaling: [RA5SDPA] is constructed by taking the **mean** of responses to the items.

DPES Awe

[RA5SDPW]: A continuous variable based on 7 items

Items: 7 items – DPES - 10, 21, 32, 43, 54, 65, 74.

10. I often feel awe.

21. I see beauty all around me.

32. A beautiful song can easily move me to tears.

43.   I feel wonder almost every day.

54.   I often look for patterns in the objects around me.

65.   I have many opportunities to see the beauty of nature.

74.   I seek out experiences that challenge my understanding of the world.

Coding: 1 (Strongly Disagree)-2-3-4 (Neither Agree nor Disagree)-5-6-7 (Strongly Agree).

Scaling: [RA5SDPW] is constructed by taking the **mean** of responses to the items.

DPES Interest

[RA5SDPI]: A continuous variable based on 7 items

Items: 7 items – DPES - 11, 22, 33, 44, 55, 66, 75.

11.   Things around me often catch my attention.

22.   I am usually interested in what's going on around me.

33.   I enjoy gathering information about people and things.

44.   I often feel curiosity.

55.   I learn something new every day.

66.   I am rarely bored.

75.   I try to understand as many different topics as I can.

Coding: 1 (Strongly Disagree)-2-3-4 (Neither Agree nor Disagree)-5-6-7 (Strongly Agree).

Scaling: [RA5SDPI] is constructed by taking the **mean** of responses to the items.

DPES All

[RA5SDPT]: A continuous variable based on all 75 items

Items: 75 items – the entire DPES questionnaire – 1-75

Coding: 1 (Strongly Disagree)-2-3-4 (Neither Agree nor Disagree)-5-6-7 (Strongly Agree).

Scaling: [RA5SDPT] is constructed by taking the **mean** of responses to all items on the questionnaire.

Missing Values: A score for each scale/subscale was determined by taking an average of all unambiguously-completed items (i.e., skipped items and questions for which more than one response was indicated were dropped). An average was taken instead of a sum to simplify problems of missing items (a sum would be affected by missing items; an average is not). Scales for which fewer than 50% of items were completed were excluded.

Source:

Note that this scale was utilized in MIDUS 2 prior to the publication and refinement of the scale by Shiota and colleagues. The published version has reduced and removed some of the above questions. To maintain continuity between MIDUS cohorts and assessments, the early version of the scale is continued to be used, but the published version can be recreated with the given items.

Shiota, M. N., Keltner, D., & John O. P. (2006). Positive emotion dispositions differentially associated with Big Five personality and attachment style. *Journal of Positive Psychology, 1*, 61-71.

EMOTION REGULATION QUESTIONNAIRE (ERQ)

Instructions: "We would like to ask you some questions about your emotional life, in particular, how you control (that is, regulate and manage) your emotions. The questions below involve two distinct aspects of your emotional life. One is your emotional experience, or what you feel like inside. The other is your emotional expression, or how you show your emotions in the way you talk, gesture, or behave. Although some of the following questions may seem similar to one another, they differ in important ways."

Scales/Items:

ERQ REAPPRAISAL

[RA5SER]: A continuous variable based on 6 items

Items: 6 items – ERQ - 1, 3, 5, 7, 8, 10

1. When I want to feel more *positive* emotion (such as joy or amusement), I *change what I'm thinking about.*

3. When I want to feel less *negative* emotion (such as sadness or anger), I *change what I'm thinking about.*

5. When I'm faced with a stressful situation, I make myself *think about it* in a way that helps me stay calm.

7. When I want to feel more *positive* emotion, I *change the way I'm thinking* about the situation.

8. I control my emotions by *changing the way I think* about the situation I'm in.

10. When I want to feel less *negative* emotion, I *change the way I'm thinking* about the situation.

Coding: 1 (Strongly Disagree)-2-3-4 (Neither Agree nor Disagree)-5-6-7 (Strongly Agree).

Scaling: [RA5SER] is constructed by taking the **mean** of responses to the items.

ERQ SUPPRESSION

[RA5SES]: A continuous variable based on 4 items

Items: 4 items – ERQ - 2, 4, 6, 9

2. I keep my emotions to myself.

4. When I am feeling *positive* emotions, I am careful not to express them.

6. I control my emotions by *not expressing them*.

9. When I am feeling *negative* emotions, I make sure not to express them.

Coding: 1 (Strongly Disagree)-2-3-4 (Neither Agree nor Disagree)-5-6-7 (Strongly Agree).

Scaling: [RA5SES] is constructed by taking the **mean** of responses to the items.

Missing Values: A score for each scale/subscale was determined by taking an average of all unambiguously-completed items (i.e., skipped items and questions for which more than one response was indicated were dropped). An average was taken instead of a sum to simplify problems of missing items (a sum would be affected by missing items; an average is not). Scales for which fewer than 50% of items were completed were excluded.

Source:

Gross, J.J., & John, O.P. (2003). Individual differences in two emotion regulation processes: Implications for affect, relationships, and well-being. *Journal of Personality and Social Psychology, 85,* 348-362.

INTERPERSONAL REACTIVITY INDEX (IRI)

Instructions: "The following statements inquire about your thoughts and feelings in a variety of situations. For each item, indicate how well it describes you by choosing the appropriate letter on the scale at the top of the page: A, B, C, D, or E. When you have decided on your answer, fill in the letter next to the item number. READ EACH ITEM CAREFULLY BEFORE RESPONDING. Answer as honestly as you can. Thank you."

Scales/Items:

Fantasy Scale

[RA5SIRFS]: A continuous variable based on 7 items

Items: 7 items – IRI - 1, 5, 7, 12, 16, 23, 26.

1.   I daydream and fantasize, with some regularity, about things that might happen to me.

5. I really get involved with the feelings of the characters in a novel.

7. I am usually objective when I watch a movie or play, and I don't often get completely caught up in it.

12. Becoming extremely involved in a good book or movie is somewhat rare for me.

16. After seeing a play or movie, I have felt as though I were one of the characters.

23.   When I watch a good movie, I can very easily put myself in the place of a leading character.

26.   When I am reading an interesting story or novel, I imagine how I would feel if the events in the story were happening to me.

Coding:

A	B	C	D	E
DOES NOT DESCRIBE ME WELL				DESCRIBES ME VERY WELL

Responses are converted into a numeric format as follows: A = 0, B = 1, C = 2, D = 3, E = 4.

Scaling: [RA5SIRFS] is constructed by taking the **mean** of responses to the items. The following questions are to be reverse-scored: 7 and 12. Reverse-scoring means that instead of giving the participants 0 points for answering "A – Statement does not describe me very well," you would give them 4 points. The reverse-

scoring scale is as follows: A = 4, B = 3, C = 2, D = 1, and E = 0.

Empathic Concern Scale

[RA5SIREC]: A continuous variable based on 7 items

Items: 7 items – IRI - 2, 4, 9, 14, 18, 20, 22.

    2. I often have tender, concerned feelings for people less fortunate than me.

    4. Sometimes I don't feel very sorry for other people when they are having problems.

    9. When I see someone being taken advantage of, I feel kind of protective towards them.

    14. Other people's misfortunes do not usually disturb me a great deal.

    18. When I see someone being treated unfairly, I sometimes don't feel very much pity for them.

    20. I am often quite touched by things that I see happen.

    22. I would describe myself as a pretty soft-hearted person.

Coding:

A	B	C	D	E
DOES NOT DESCRIBE ME WELL				DESCRIBES ME VERY WELL

Responses are converted into a numeric format as follows: A = 0, B = 1, C = 2, D = 3, E = 4.

Scaling: [RA5SIREC] is constructed by taking the **mean** of responses to the items. The following questions are to be reverse-scored: 4, 14, and 18. Reverse-scoring means that instead of giving the participants 0 points for answering "A – Statement does not describe me very well," you would give them 4 points. The reverse-scoring scale is as follows: A = 4, B = 3, C = 2, D = 1, and E = 0.

Perspective-Taking Scale

[RA5SIRPT]: A continuous variable based on 7 items

Items: 7 items – IRI - 3, 8, 11, 15, 21, 25, 28.

    3. I sometimes find it difficult to see things from the "other guy's" point of view.

    8. I try to look at everybody's side of a disagreement before I make a decision.

11. I sometimes try to understand my friends better by imagining how things look from their perspective.

15. If I'm sure I'm right about something, I don't waste much time listening to other people's arguments.

21. I believe that there are two sides to every question and try to look at them both.

25. When I'm upset at someone, I usually try to "put myself in his shoes" for a while.

28. Before criticizing somebody, I try to imagine how I would feel if I were in their place.

Coding:

A	B	C	D	E
DOES NOT DESCRIBE ME WELL				DESCRIBES ME VERY WELL

Responses are converted into a numeric format as follows: A = 0, B = 1, C = 2, D = 3, E = 4.

Scaling: [RA5SIRPT] is constructed by taking the **mean** of responses to the items. The following questions are to be reverse-scored: 3 and 15. Reverse-scoring means that instead of giving the participants 0 points for answering "A – Statement does not describe me very well," you would give them 4 points. The reverse-scoring scale is as follows: A = 4, B = 3, C = 2, D = 1, and E = 0.

Personal Distress Scale

[RA5SIRPD]: A continuous variable based on 7 items

Items: 7 items – IRI - 6, 10, 13, 17, 19, 24, 27.

6. In emergency situations, I feel apprehensive and ill-at-ease.

10. I sometimes feel helpless when I am in the middle of a very emotional situation.

13. When I see someone get hurt, I tend to remain calm.

17. Being in a tense emotional situation scares me.

19. I am usually pretty effective in dealing with emergencies.

24. I tend to lose control during emergencies.

27. When I see someone who badly needs help in an emergency, I go to pieces.

Coding:

A	B	C	D	E
DOES NOT DESCRIBE				DESCRIBES ME VERY
ME WELL				WELL

Responses are converted into a numeric format as follows: A = 0, B = 1, C = 2, D = 3, E = 4.

Scaling: [RA5SIRPD] is constructed by taking the **mean** of responses to the items. The following questions are to be reverse-scored: 13 and 19. Reverse-scoring means that instead of giving the participants 0 points for answering "A – Statement does not describe me very well," you would give them 4 points. The reverse-scoring scale is as follows: A = 4, B = 3, C = 2, D = 1, and E = 0.

Missing Values: A score for each scale/subscale was determined by taking an average of all unambiguously-completed items (i.e., skipped items and questions for which more than one response was indicated were dropped). An average was taken instead of a sum to simplify problems of missing items (a sum would be affected by missing items; an average is not). Scales for which fewer than 50% of items were completed were excluded.

Sources:

Davis, M. H. (1980). A multidimensional approach to individual differences in empathy. *JSAS Catalog of Selected Documents in Psychology, 10,* 85.

Davis, M. H. (1983). Measuring individual differences in empathy: Evidence for a multidimensional approach. *Journal of Personality and Social Psychology, 44*, 113-126.

POSITIVE AND NEGATIVE SCHEDULE - GENERAL FORM (PANASGEN)

Instructions: "This scale consists of a number of words that describe different feelings and emotions. Read each item and then mark the appropriate answer in the space next to that word. Indicate to what extent you GENERALLY feel this way, that is how you feel ON AVERAGE. "

Scales/Items:

PANASGEN positive affect

> **[RA5SPGP]:** A continuous variable based on 10 items

> Items: 10 items

> | | |
> |---|---|
> | _____ | interested |
> | _____ | excited |
> | _____ | strong |
> | _____ | enthusiastic |
> | _____ | proud |
> | _____ | alert |
> | _____ | inspired |
> | _____ | determined |
> | _____ | attentive |
> | _____ | active |

> Coding:
> 1 (very slightly or not at all)   2 (a little)   3 (moderately)   4 (quite a bit)   5 (extremely)

> Scaling: [RA5SPGP] is constructed by taking the **mean** of responses to the items.

Scales/Items:

PANASGEN negative affect

[RA5SPGN]: A continuous variable based on 10 items

Items: 10 items

_____	distressed
_____	upset
_____	guilty
_____	scared
_____	hostile
_____	irritable
_____	ashamed
_____	nervous
_____	jittery
_____	afraid

Coding:

1 (very slightly or not at all)   2 (a little)   3 (moderately)   4 (quite a bit)   5 (extremely)

Scaling: [RA5SPGN] is constructed by taking the **mean** of responses to the items.

POSITIVE AND NEGATIVE SCHEDULE – "NOW'' FORM (PANASNOW)

Instructions: "This scale consists of a number of words that describe different feelings and emotions. Read each item and then mark the appropriate answer in the space next to that word. Indicate to what extent you feel this way RIGHT NOW, that is, AT THIS VERY MOMENT. Use the following scale to record your answers."

Scales/Items:

PANASNOW positive affect Time1 (Prior to psychophysiological emotional response task)

> **[RA5SP1P]:** A continuous variable based on 10 items
>
> Items: 10 items
>
> | | |
> |---|---|
> | _____ | interested |
> | _____ | excited |
> | _____ | strong |
> | _____ | enthusiastic |
> | _____ | proud |
> | _____ | alert |
> | _____ | inspired |
> | _____ | determined |
> | _____ | attentive |
> | _____ | active |
>
> Coding:
>
> 1 (very slightly or not at all)   2 (a little)   3 (moderately)   4 (quite a bit)   5 (extremely)
>
> Scaling: [RA5SP1P] is constructed by taking the **mean** of responses to the items.

PANASNOW negative affect Time1 (Prior to psychophysiological emotional response task)

[RA5SP1N]: A continuous variable based on 10 items

Items: 10 items

_____	distressed
_____	upset
_____	guilty
_____	scared
_____	hostile
_____	irritable
_____	ashamed
_____	nervous
_____	jittery
_____	afraid

Coding:

1 (very slightly or not at all)   2 (a little)   3 (moderately)   4 (quite a bit)   5 (extremely)

Scaling: [RA5SP1N] is constructed by taking the **mean** of responses to the items.

Scales/Items:

PANASNOW positive affect Time2 (After psychophysiological emotional response task)

[RA5SP2P]: A continuous variable based on 10 items

<u>Items</u>: 10 items

_____	interested
_____	excited
_____	strong
_____	enthusiastic
_____	proud
_____	alert
_____	inspired
_____	determined
_____	attentive
_____	active

<u>Coding</u>:

1 (very slightly or not at all)   2 (a little)   3 (moderately)   4 (quite a bit)   5 (extremely)

<u>Scaling</u>: [RA5SP2P] is constructed by taking the **mean** of responses to the items.

Scales/Items:

PANASNOW negative affect Time2 (After psychophysiological emotional response task)

    [RA5SP2N]: A continuous variable based on 10 items

    <u>Items</u>: 10 items

        _____ distressed

        _____ upset

        _____ guilty

        _____ scared

        _____ hostile

        _____ irritable

        _____ ashamed

        _____ nervous

        _____ jittery

        _____ afraid

    <u>Coding</u>:

    1 (very slightly or not at all)   2 (a little)   3 (moderately)   4 (quite a bit)   5 (extremely)

    <u>Scaling</u>: [RA5SP2N] is constructed by taking the **mean** of responses to the items.

<u>**Scales/Items:**</u>

PANASNOW positive affect Time3 (Prior to MRI emotional response task)

[RA5SP3P]: A continuous variable based on 10 items

<u>Items</u>: 10 items

        _____   interested

        _____   excited

        _____   strong

        _____   enthusiastic

        _____   proud

        _____   alert

        _____   inspired

        _____   determined

        _____   attentive

        _____   active

<u>Coding</u>:

1 (very slightly or not at all)   2 (a little)   3 (moderately)   4 (quite a bit)   5 (extremely)

<u>Scaling</u>: [RA5SP3P] is constructed by taking the **mean** of responses to the items.

Scales/Items:

PANASNOW negative affect Time3 (Prior to MRI emotional response task)

[RA5SP3N]: A continuous variable based on 10 items

Items: 10 items

	distressed
	upset
	guilty
	scared
	hostile
	irritable
	ashamed
	nervous
	jittery
	afraid

Coding:

1 (very slightly or not at all)   2 (a little)   3 (moderately)   4 (quite a bit)   5 (extremely)

Scaling: [RA5SP3N] is constructed by taking the **mean** of responses to the items.

Scales/Items:

PANASNOW positive affect Time4 (After MRI emotional response task)

[RA5SP4P]: A continuous variable based on 10 items

Items: 10 items

       _____ interested

       _____ excited

       _____ strong

       _____ enthusiastic

       _____ proud

       _____ alert

       _____ inspired

       _____ determined

       _____ attentive

       _____ active

Coding:

1 (very slightly or not at all)   2 (a little)   3 (moderately)   4 (quite a bit)   5 (extremely)

Scaling: [RA5SP4P] is constructed by taking the **mean** of responses to the items.

PANASNOW negative affect Time4 (After MRI emotional response task)

[RA5SP4N]: A continuous variable based on 10 items

Items: 10 items

	distressed
	upset
	guilty
	scared
	hostile
	irritable
	ashamed
	nervous
	jittery
	afraid

Coding:

1 (very slightly or not at all)   2 (a little)   3 (moderately)   4 (quite a bit)   5 (extremely)

Scaling: [RA5SP4N] is constructed by taking the **mean** of responses to the items.

Missing Values: A score for each scale/subscale was determined by taking an average of all unambiguously-completed items (i.e., skipped items and questions for which more than one response was indicated were dropped). An average was taken instead of a sum to simplify problems of missing items (a sum would be affected by missing items; an average is not). Scales for which fewer than 50% of items were completed were excluded.

Source:

Watson, D., Clark, L.A., Tellegen, A. (1988). Development and validation of brief measures of positive and negative affect: The PANAS scales. *Journal of Personality and Social Psychology, 54*, 1063-70.

Additional Studies:

Davidson, R.J. (2000). Affective style, psychopathology, and resilience: Brain mechanisms and plasticity. *American Psychologist, 55,* 1196-1214.

Davidson, R.J. (2004). Well-being and affective style: Neural substrates and biobehavioural correlates. *Philosophical Transactions of the Royal Society of London B, 359,* 1395-1411.

Urry, H.L., Nitschke, J.B., Dolski, I., Jackson, D.C., Dalton, K.M., Mueller, C.J., Rosenkranz, M.A., Ryff C.D., Singer, B.H., & Davidson, R.J. (2004). Making a life worth living: neural correlates of well-being. *Psychological Science, 15,* 367-372.

SPIELBERGER STATE-TRAIT ANXIETY INVENTORY - GENERAL FORM (STAI-X2)

Instructions: "A number of statements which people have used to describe themselves are given below. Read each statement and then circle the appropriate number to the right of the statement to indicate how you generally feel. There are no right or wrong answers. Do not spend too much time on any one statement, but give the answer which seems to describe how you generally feel."

Scales/Items:

STAI Trait

    [RA5SST]: A continuous variable based on 20 items

    Items: 20 items

    1. I feel pleasant.

    2. I tire quickly.

    3. I feel like crying.

    4. I wish I could be as happy as others seem to be.

    5. I am losing out on things because I can't make up my mind soon enough.

    6. I feel rested.

    7. I am "calm, cool, and collected."

    8. I feel that difficulties are piling up so that I cannot overcome them.

    9. I worry too much over something that really doesn't matter.

    10. I am happy.

    11. I am inclined to take things hard.

    12. I lack self-confidence.

    13. I feel secure.

    14. I try to avoid facing a crisis or difficulty.

    15. I feel blue.

    16. I am content.

    17. Some unimportant thought runs through my mind and bothers me.

18. I take disappointments so keenly that I can't put them out of my mind.

19. I am a steady person.

20. I become tense and upset when I think about my present concerns.

<u>Coding</u>:
1 (Almost Never)　　2 (Sometimes)　　3 (Often)　　4 (Almost Always)

<u>Scaling</u>: [RA5SST] is constructed by taking the **mean** of responses to the items. The following questions are to be reverse-scored: 1, 6, 7, 10, 13, 16, 19. Reverse-scoring means that instead of giving the participants 2 points for answering "2 – Sometimes," you would give them 3 points. The reverse-scoring scale is as follows: 4 = 1, 3 = 2, 2 = 3, and 1 = 4.

Missing Values: A score for each scale/subscale was determined by taking an average of all unambiguously-completed items (i.e., skipped items and questions for which more than one response was indicated were dropped). An average was taken instead of a sum to simplify problems of missing items (a sum would be affected by missing items; an average is not). Scales for which fewer than 50% of items were completed were excluded.

Source:

Spielberger, C.D., Gorsuch, R.L., Lushene, R., Vagg, P.R., & Jacobs, G.A. (1983). *Manual for the State-Trait Anxiety Inventory*. Palo Alto, CA: Consulting Psychologists Press.

Additional Studies:

Shackman, A.J., Sarinopoulos, I., Maxwell, J.S., Pizzagalli, D.A., Lavric, A., & Davidson, R.J. (2006). Anxiety selectively disrupts visuospatial working memory. *Emotion*, *6*, 40-61.

SPIELBERGER STATE-TRAIT ANXIETY INVENTORY – NOW FORM (STAI-X1)

Instructions: "A Number of statements which people have used to describe themselves are given below. Read each statement and then circle the response option to the right to indicate how you feel *right* now, that is, *at this moment*. There are no right or wrong answers. Do not spend too much time on any one statement, but give the answer which seems to describe your present feelings best."

<u>Scales/Items:</u>

STAI State Time1 (Prior to psychophysiological emotional response task)

    [RA5SS1]: A continuous variable based on 20 items

    <u>Items</u>: 20 items

1. I feel calm

2. I feel secure.

3. I am tense.

4. I am regretful.

5. I feel at ease.

6. I feel upset.

7. I am presently worrying about possible misfortunes.

8. I feel rested.

9. I feel anxious.

10. I feel comfortable.

11. I feel self-confident.

12. I feel nervous.

13. I am jittery.

14. I feel "high strung".

15. I am relaxed.

16. I feel content.

17. I am worried.

18. I feel over-excited and rattled.

19. I feel joyful.

20. I feel pleasant.

<u>Coding</u>:

1 (Almost Never)   2 (Sometimes)   3 (Often)   4 (Almost Always)

<u>Scaling</u>: [RA5SS1] is constructed by taking the **mean** of responses to the items.

The following questions are to be reverse-scored: 1, 2, 5, 8, 10, 11, 15, 16, 18 and 20. Reverse-scoring means that instead of giving the participants 2 points for answering "2 – Sometimes," you would give them 3 points. The reverse-scoring scale is as follows: $4 = 1$, $3 = 2$, $2 = 3$, and $1 = 4$.

<u>Scales/Items:</u>

STAI State Time2 (After psychophysiological emotional response task)

[RA5SS2]: A continuous variable based on 20 items

<u>Items</u>: 20 items

1. I feel calm

2. I feel secure.

3. I am tense.

4. I am regretful.

5. I feel at ease.

6. I feel upset.

7. I am presently worrying about possible misfortunes.

8. I feel rested.

9. I feel anxious.

10. I feel comfortable.

11. I feel self-confident.

12. I feel nervous.

13. I am jittery.

14. I feel "high strung".

15. I am relaxed.

16. I feel content.

17. I am worried.

18. I feel over-excited and rattled.

19. I feel joyful.

20. I feel pleasant.

Coding:

1 (Almost Never)   2 (Sometimes)   3 (Often)   4 (Almost Always)

Scaling: [RA5SS2] is constructed by taking the **mean** of responses to the items.
The following questions are to be reverse-scored: 1, 2, 5, 8, 10, 11, 15, 16, 18 and 20. Reverse-scoring means that instead of giving the participants 2 points for answering "2 – Sometimes," you would give them 3 points. The reverse-scoring scale is as follows: 4 = 1, 3 = 2, 2 = 3, and 1 = 4.

Scales/Items:

STAI State Time3 (Prior to MRI emotional response task)

[RA5SS3]: A continuous variable based on 20 items

Items: 20 items

1. I feel calm

2. I feel secure.

3. I am tense.

4. I am regretful.

5. I feel at ease.

6. I feel upset.

7. I am presently worrying about possible misfortunes.

8. I feel rested.

9. I feel anxious.

10. I feel comfortable.

11. I feel self-confident.

12. I feel nervous.

13. I am jittery.

14. I feel "high strung".

15. I am relaxed.

16. I feel content.

17. I am worried.

18. I feel over-excited and rattled.

19. I feel joyful.

20. I feel pleasant.

Coding:

1 (Almost Never)   2 (Sometimes)   3 (Often)   4 (Almost Always)

Scaling: [RA5SS3] is constructed by taking the **mean** of responses to the items.

The following questions are to be reverse-scored: 1, 2, 5, 8, 10, 11, 15, 16, 18 and 20. Reverse-scoring means that instead of giving the participants 2 points for answering "2 – Sometimes," you would give them 3 points. The reverse-scoring scale is as follows: $4 = 1$, $3 = 2$, $2 = 3$, and $1 = 4$.

Scales/Items:

STAI State Time4 (After MRI emotional response task)

[RA5SS4]: A continuous variable based on 20 items

Items: 20 items

1. I feel calm

2. I feel secure.

3. I am tense.

4. I am regretful.

5. I feel at ease.

6. I feel upset.

7. I am presently worrying about possible misfortunes.

8. I feel rested.

9. I feel anxious.

10. I feel comfortable.

11. I feel self-confident.

12. I feel nervous.

13. I am jittery.

14. I feel "high strung".

15. I am relaxed.

16. I feel content.

17. I am worried.

18. I feel over-excited and rattled.

19. I feel joyful.

20. I feel pleasant.

<u>Coding</u>:
1 (Almost Never)   2 (Sometimes)   3 (Often)   4 (Almost Always)

<u>Scaling</u>: [RA5SS4] is constructed by taking the **mean** of responses to the items.
The following questions are to be reverse-scored: 1, 2, 5, 8, 10, 11, 15, 16, 18 and 20. Reverse-scoring means that instead of giving the participants 2 points for answering "2 – Sometimes," you would give them 3 points. The reverse-scoring scale is as follows: 4 = 1, 3 = 2, 2 = 3, and 1 = 4.

Missing Values: A score for each scale/subscale was determined by taking an average of all unambiguously-completed items (i.e., skipped items and questions for which more than one response was indicated were dropped). An average was taken instead of a sum to simplify problems of missing items (a sum would be affected by missing items; an average is not). Scales for which fewer than 50% of items were completed were excluded.

Source:

Spielberger, C.D., Gorsuch, R.L., Lushene, R., Vagg, P.R., & Jacobs, G.A. (1983). *Manual for the State-Trait Anxiety Inventory*. Palo Alto, CA: Consulting Psychologists Press.

Additional Studies:

Davidson, R.J., Kabat-Zinn, J., Schumacher, J., Rosenkranz, M., Muller, D., Santorelli, S.F., Urbanowski, F., Harrington, A., Bonus, K., & Sheridan, J.F. (2003). Alterations in brain and immune function produced by mindfulness meditation. *Psychosomatic Medicine, 65*, 564-570.