

Adult Temperament Questionnaire

The Adult Temperament Questionnaire (ATQ) was adapted from the Physiological Reactions Questionnaire developed by Derryberry and Rothbart (1988). Based upon the results from recent studies (Rothbart, Ahadi, & Evans, 2000; Evans & Rothbart, in preparation;) we have formulated a self-report model of temperament that includes general constructs of effortful control, negative affect, extraversion/surgency, and orienting sensitivity. The general constructs are referred to as factor scales (i.e., they have resulted in superfactors) and the sub-constructs are referred to as scales. The ATQ short form includes 77 items and includes the same general constructs and sub-constructs as the long form.

References

- Derryberry, D. & Rothbart, M.K. (1988). Arousal, affect, and attention as components of temperament. Journal of Personality and Social Psychology, *55*, 958-966.
- Evans, D.E. & Rothbart, M.K. (in preparation). A Hierarchical Approach to Temperament and its Relation to the Big Five.
- Rothbart, M.K. Ahadi, S.A. & Evans D.E. (2000). Temperament and personality: Origins and outcomes. Journal of Personality and Social Psychology, *78*, 122-135.

Adult Temperament Questionnaire SHORT FORM

RELIABILITIES AND CORRELATIONS WITH LONG FORM SCALES

For statistics reported here, the **sample size = 258 undergraduates**.

Factor scales listed in bold type. Scales (i.e., sub-constructs) for factor scales listed in normal print below their factor scale.

Reliability (Alpha)

Negative Affect	.81
Fear	.64
Sadness	.62
Discomfort	.69
Frustration	.72
Effortful Control	.78
Inhibitory Control	.60
Activation Control	.69
Attentional Control	.73
Extraversion	.75
Sociability	.71
High Pleasure	.68
Positive Affect	.62
Orienting Sensitivity	.85
Neutral Perceptual Sensitivity	.64
Affective Perceptual Sensitivity	.79
Associative Sensitivity	.67

Correlations of Short Form Scales with Long Form Scales

Negative Affect	.93
Fear	.91
Sadness	.87
Discomfort	.85
Frustration	.93
Effortful Control	.96
Inhibitory Control	.90
Activation Control	.96
Attentional Control	.94
Extraversion	.91
Sociability	.93
High Pleasure	.86
Positive Affect	.90
Orienting Sensitivity	.95
Neutral Perceptual Sensitivity	.86
Affective Perceptual Sensitivity	.91
Associative Sensitivity	.90

Hierarchical Listing of Scales

Factor scales listed in capital bold print.

Main scales as sub-components of factor scales listed in red beneath the factor scale that they are associated with.

NEGATIVE AFFECT

Fear: Negative affect related to anticipation of distress.

Sadness: Negative affect and lowered mood and energy related to exposure to suffering, disappointment, and object loss.

Discomfort: Negative affect related to sensory qualities of stimulation, including intensity, rate or complexity of visual, auditory, smell/taste, and tactile stimulation.

Frustration: Negative affect related to interruption of ongoing tasks or goal blocking.

EXTRAVERSION/SURGENCY

Sociability: Enjoyment derived from social interaction and being in the presence of others.

Positive Affect: Latency, threshold, intensity, duration, and frequency of experiencing pleasure.

High Intensity Pleasure: Pleasure related to situations involving high stimulus intensity, rate, complexity, novelty, and incongruity.

EFFORTFUL CONTROL

Attentional Control: Capacity to focus attention as well as to shift attention when desired.

Inhibitory Control: Capacity to suppress inappropriate approach behavior.

Activation Control: Capacity to perform an action when there is a strong tendency to avoid it.

ORIENTING SENSITIVITY

Neutral Perceptual Sensitivity: Detection of slight, low intensity stimuli from both within the body and the external environment.

Affective Perceptual Sensitivity: Spontaneous emotionally valenced, conscious cognition associated with low intensity stimuli.

Associative Sensitivity: Spontaneous cognitive content that is not related to standard associations with the environment.

SCORING INSTRUCTION for Adult Temperament Questionnaire SHORT FORM

Reversed (R) Items: After the initial coding of the questionnaire, reversed items need to be reverse coded (i.e., a response of 1=7, 2=6, 3=5, 4=4, 5=3, 6=2, and 7=1). Items that are reversed are marked with an “R” next to their item number in the listing of items by scale.

Missing Data: Our work with this adult questionnaire has been with undergraduate students. When sampling from this type of population, there is typically a minimal number of 1) non-responses, 2) more than one response for the same item, or 3) and selection of the “not applicable” response option. All three of these cases constitute missing values. We insert the mean item response from the whole sample to replace these missing values. For dealing with a larger number of missing values, one option is use a mean score by adding the number of Likert-scale responses for a given subject followed by dividing by the number of valid (nonmissing) responses.

Scale names are listed in **red print**. To score the main scales, add all of the Likert-responses within a given scale together and divide by the number of valid item responses (or all items constructed for a scale if the sample mean is used to replace missing values). The listing of items by scales below displays the factor scales with their corresponding regular scale sub-constructs.

Factor-scales names are listed in **bold print**. To score factor scales for the short form, add the Likert scores for all of the items of scales that are listed below a given factor scale and then divide by the total number of items belonging to that factor scale. *Note:* The instructions for scoring factor scales in the short form are different than the long form (see long form scoring instructions).

Note: Most statistics programs will carry out these steps for you. Users of SPSS can copy the following commands into a syntax file to reverse items and calculate scale scores. The syntax assumes that items are titled “atq1”, “atq2”, “atq3”, etc. It is also assumed that no score was entered when caregivers omitted an item or checked “Does not apply”.

```
COMPUTE atq68r = (8-atq68).  
COMPUTE atq75r = (8-atq75).  
COMPUTE atq6r = (8-atq6).  
COMPUTE atq38r = (8-atq38).  
COMPUTE atq58r = (8-atq58).  
COMPUTE atq9r = (8-atq9).  
COMPUTE atq20r = (8-atq20).  
COMPUTE atq34r = (8-atq34).  
COMPUTE atq2r = (8-atq2).  
COMPUTE atq8r = (8-atq8).  
COMPUTE atq72r = (8-atq72).  
COMPUTE atq5r = (8-atq5).  
COMPUTE atq29r = (8-atq29).  
COMPUTE atq40r = (8-atq40).  
COMPUTE atq50r = (8-atq50).  
COMPUTE atq53r = (8-atq53).  
COMPUTE atq60r = (8-atq60).
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COMPUTE atq63r = (8-atq63).
COMPUTE atq14r = (8-atq14).
COMPUTE atq46r = (8-atq46).
COMPUTE atq7r = (8-atq7).
COMPUTE atq44r = (8-atq44).
COMPUTE atq77r = (8-atq77).
COMPUTE atq16r = (8-atq16).
COMPUTE atq70r = (8-atq70).
COMPUTE atq10r = (8-atq10).
COMPUTE atq33r = (8-atq33).
COMPUTE atq71r = (8-atq71).
COMPUTE atq66r = (8-atq66).

COMPUTE fea = mean (atq1, atq12, atq22, atq51, atq61, atq68r, atq75r).
COMPUTE fru = mean (atq6r, atq17, atq31, atq38r, atq48, atq58r).
COMPUTE sad = mean (atq9r, atq20r, atq25, atq34r, atq45, atq56, atq65).
COMPUTE dis = mean (atq4, atq32, atq36, atq42, atq54, atq59).
COMPUTE acv = mean (atq2r, atq8r, atq15, atq27, atq47, atq55, atq72r).
COMPUTE att = mean (atq5r, atq29r, atq35, atq40r, atq50r).
COMPUTE inh = mean (atq11, atq26, atq43, atq53r, atq60r, atq63r, atq76).
COMPUTE soc = mean (atq14r, atq19, atq37, atq46r, atq67).
COMPUTE hig = mean (atq7r, atq23, atq30, atq44r, atq64, atq73, atq77r).
COMPUTE pos = mean (atq3, atq16r, atq28, atq49, atq70r).
COMPUTE nps = mean (atq10r, atq21, atq33r, atq52, atq71r).
COMPUTE aps = mean (atq13, atq18, atq57, atq66r, atq69).
COMPUTE ase = mean (atq24, atq39, atq41, atq62, atq74).

EXECUTE.

SHORT FORM ITEMS BY SCALES

FACTOR SCALES IN CAPITAL, BOLD PRINT

Regular scales in red print

NEGATIVE AFFECT

Fear

1. I become easily frightened.
12. Looking down at the ground from an extremely high place would make me feel uneasy.
22. When I am enclosed in small places such as an elevator, I feel uneasy.
51. Sometimes, I feel a sense of panic or terror for no apparent reason.
61. Loud noises sometimes scare me.
- 68R. It does not frighten me if I think that I am alone and suddenly discover someone close by.
- 75R. When I try something new, I am rarely concerned about the possibility of failing.

Frustration

- 6R. I rarely become annoyed when I have to wait in a slow moving line.
17. I find it very annoying when a store does not stock an item that I wish to buy.
31. Whenever I have to sit and wait for something (e.g., a waiting room), I become agitated.
- 38R. I am usually a patient person.
48. It doesn't take very much to make feel frustrated or irritated.
- 58R. I usually remain calm without getting frustrated when things are not going smoothly for me.

Sadness

- 9R. I rarely feel sad after saying goodbye to friends or relatives.
- 20R. I seldom become sad when I watch a sad movie.
25. Sometimes minor events cause me to feel intense sadness.
- 34R. I seldom become sad when I hear of an unhappy event.
45. I sometimes feel sad for longer than an hour.
56. I often feel sad.
65. When I hear of an unhappy event, I immediately feel sad.

Discomfort

4. I find loud noises to be very irritating.
32. I'm often bothered by light that is too bright.
36. I find certain scratchy sounds very irritating.
42. Very bright colors sometimes bother me.
54. Colorful flashing lights bother me.
59. Loud music is unpleasant to me.

EFFORTFUL CONTROL

Activation Control

- 2R. I am often late for appointments.
- 8R. I often make plans that I do not follow through with.
- 15. I can keep performing a task even when I would rather not do it.
- 27. I can make myself work on a difficult task even when I don't feel like trying.
- 47. If I think of something that needs to be done, I usually get right to work on it.
- 55. I usually finish doing things before they are actually due (for example, paying bills, finishing homework, etc.).
- 72R. When I am afraid of how a situation might turn out, I usually avoid dealing with it.

Attentional Control

- 5R. It's often hard for me to alternate between two different tasks.
- 29R. When I am trying to focus my attention, I am easily distracted.
- 35. When interrupted or distracted, I usually can easily shift my attention back to whatever I was doing before.
- 40R. It is very hard for me to focus my attention when I am distressed.
- 50R. When I am happy and excited about an upcoming event, I have a hard time focusing my attention on tasks that require concentration.

Inhibitory Control

- 11. Even when I feel energized, I can usually sit still without much trouble if it's necessary.
- 26. It is easy for me to hold back my laughter in a situation when laughter wouldn't be appropriate.
- 43. I can easily resist talking out of turn, even when I'm excited and want to express an idea.
- 53R. I usually have trouble resisting my cravings for food drink, etc.
- 60R. When I'm excited about something, it's usually hard for me to resist jumping right into it before I've considered the possible consequences.
- 63R. When I see an attractive item in a store, it's usually very hard for me to resist buying it.
- 76. It is easy for me to inhibit fun behavior that would be inappropriate.

EXTRAVERSION/SURGENCY

Sociability

- 14R. I would not enjoy a job that involves socializing with the public.
- 19. I usually like to talk a lot.
- 37. I like conversations that include several people.
- 46R. I rarely enjoy socializing with large groups of people.
- 67. I usually like to spend my free time with people.

High Intensity Pleasure

- 7R. I would not enjoy the sensation of listening to loud music with a laser light show.
- 23. When listening to music, I usually like turn up the volume more than other people.
- 30. I would probably enjoy playing a challenging and fast paced video-game that makes lots of noise and has lots of flashing, bright lights.
- 44R. I would probably not enjoy a fast, wild carnival ride.
- 64. I would enjoy watching a laser show with lots of bright, colorful flashing lights.
- 73. I especially enjoy conversations where I am able to say things without thinking first.
- 77R. I would not enjoy the feeling that comes from yelling as loud as I can.

Positive Affect

- 3. Sometimes minor events cause me to feel intense happiness.
- 16R. I sometimes seem to be unable to feel pleasure from events and activities that I should enjoy.
- 28. I rarely ever have days where I don't at least experience brief moments of intense happiness.
- 49. It doesn't take much to evoke a happy response in me.
- 70R. It takes a lot to make me feel truly happy.

ORIENTING SENSITIVITY

Neutral Perceptual Sensitivity

- 10R. Barely noticeable visual details rarely catch my attention.
- 21. I'm often aware of the sounds of birds in my vicinity.
- 33R. I rarely notice the color of people's eyes.
- 52. I often notice mild odors and fragrances.
- 71R. I am rarely aware of the texture of things that I hold.

Affective Perceptual Sensitivity

- 13. When I am listening to music, I am usually aware of subtle emotional tones.
- 18. I tend to notice emotional aspects of paintings and pictures.
- 57. I am often aware how the color and lighting of a room affects my mood.
- 66R. When I watch a movie, I usually don't notice how the setting is used to convey the mood of the characters.
- 69. I am often consciously aware of how the weather seems to affect my mood.

Associative Sensitivity

- 24. I sometimes seem to understand things intuitively.
- 39. When I am resting with my eyes closed, I sometimes see visual images.
- 41. Sometimes my mind is full of a diverse array of loosely connected thoughts and images.
- 62. I sometimes dream of vivid, detailed settings that are unlike anything that I have experienced when awake.
- 74. Without applying effort creative ideas sometimes present themselves to me.

