Future Thinking Fluency Task and Identification of Events for fMRI Future Thinking Task

For this next task, we want you to name as many potential future events you can think of in one minute. We will do this for different time periods and for different types of events. When you name event, do not describe it in detail. Instead, use as brief of a description of the event as you can – just enough that you will know what event we are referring to when we read it back. Any questions?

Come up with as many NEGATIVE future events that may occur in the <u>next week (including today)</u> as you can. Ready...go! [After 60 seconds, say "Stop!". Ensure that you have written each event legibly such that you can read it back later to the participant]

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RATINGS: a)____ b)____ c)____ d)____ e)____

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RATINGS: a)____ b)____ c)____ d)____ e)____

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RATINGS: a)____ b)____ c)____ d)____ e)____

Come up with as many POSITIVE future events that may occur in the <u>next week (including today)</u> as you can. Ready…go!

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RATINGS: a)____b)____c)____d)____e)____

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RATINGS: a)____b)____c)____d)____e)____

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RATINGS: a)____b)____c)____d)____e)____

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RATINGS: a)____b)____c)____d)____e)____

Come up with as many NEUTRAL future events that may occur in the <u>next week (including today)</u> as you can. Ready...go!

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RATINGS: a)_____ b)_____ c)_____ d)_____ e)_____

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RATINGS: a)_____ b)_____ c)_____ d)_____ e)_____

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RATINGS: a)_____ b)_____ c)_____ d)_____ e)_____

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RATINGS: a)_____ b)_____ c)_____ d)_____ e)_____

Come up with as many NEUTRAL future events that may occur in the <u>next year</u> as you can. Ready…go!

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RATINGS: a)_____ b)_____ c)_____ d)_____ e)_____

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RATINGS: a)_____ b)_____ c)_____ d)_____ e)_____

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RATINGS: a)_____ b)_____ c)_____ d)_____ e)_____

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RATINGS: a)_____ b)_____ c)_____ d)_____ e)_____

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RATINGS: a)_____ b)_____ c)_____ d)_____ e)_____

Come up with as many NEGATIVE future events that may occur in the <u>next year</u> as you can. Ready…go!

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RATINGS: a)____b)____c)____d)____e)____

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RATINGS: a)____b)____c)____d)____e)____

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RATINGS: a)____b)____c)____d)____e)____

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RATINGS: a)____b)____c)____d)____e)____

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RATINGS: a)____b)____c)____d)____e)____

Come up with as many POSITIVE future events that may occur in the <u>next year</u> as you can. Ready…go!

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RATINGS: a)____b)____c)____d)____e)____

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RATINGS: a)____b)____c)____d)____e)____

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RATINGS: a)____b)____c)____d)____e)____

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RATINGS: a)____b)____c)____d)____e)____

Now we are going to go back through all of the future events you listed and rate each concerning (a) how likely you think it is to happen in the future, (b) if it did happen, how you positive versus negative you would feel, (c) if it did happen, the overall arousal, or intensity of emotions, you would feel, (d) vividness with which you can imagine that event, and (e) how similar that experience is to experiences you have had in the past.

Ratings Key

a) How likely do you think this event is to happen?

1	2	3	4	5	6	7
Very Unlikely						Very Likely

b) If it did happen, how would you feel at the time in regards to valence?

1	2	3	4	5	6	7
Very Negative			Neutral			Very positive

c) If it did happen, how would you feel at the time in regards to arousal?

1	2	3	4	5	6	7
Very Unaroused						Very Aroused

d) How vividly can you imagine this event?

1	2	3	4	5	6	7
Not vivid at all						Very vivid

e) How similar is this experience to other experiences you have had in the past?

1	2	3	4	5	6	7
Not similar at all						Very similar

*After obtaining all ratings, identify three positive, three neutral, and three negative future events (from either timeframe) that are rated the most vivid, ideally with valence >6 (for positive) and <4 (for negative) and between 4-6 (for neutral), and with arousal levels >6 (for positive and negative). Attempts will also be made to identify events that have relatively low similarity to previously experienced events (i.e., <6 on a 1-10 scale). If the participant did not come up with at least 3 events during the fluency task (or the events they came up with do not fit well within the ideal parameters), the administrator can prompt for more events by asking "Now that we are not timing you, can you think of other future events that are likely to occur at any point in the next year that are [positive/negative/neutral]?"

For the brain imaging scan, we will be having you imagine some of these future events. We would like to identify at least three each for positive, negative, and neutral future events that are highly vivid but also not overly similar to previous events you have experienced (to ensure you are able to imaging a future event). Based on this criteria, these are the events that seem to fit best: [list events for each category]. Would you agree that these would be the ideal future events, based on our criteria? (If they indicate different events, discuss why they feel those would be better. Alter the events if the participant has rationale consistent with the aims of the study. Otherwise, provide further explanation why we would like to focus on the identified events.)

Events

Now, for each event that we have chosen for the brain imaging session – we want you to describe it with as much DETAIL as you can imagine. For each event, you will be given THREE MINUTES to imagine as much detail as you can. Some people talk about the date, time, and location of the event as well as about what they imagine seeing, hearing, smelling, feeling, and thinking during the future event. As you describe each event, try to stick to the same time and place you started with, rather than going into background information. You can assume you're describing this event to someone who is already familiar with the people, places, and objects you mention. Any questions?

Provide the short, few word, description they provided before and then say "Go". Audio record their responses. Repeat for each event. Go in the following order: positive, neutral, negative; negative, positive, neutral; neutral, negative, positive.

Based on their descriptions, identify a person, place, and object associated with each event. Confirm with them that these prompts will make sense to them when displayed in the scanner. These cue words should be non-emotional words. For example, if someone is imagining their future internship teaching young children – the cue words might be "children", "school" and "chalkboard". If a future negative event might be their family dog dying while they are at home with their husband, the cue words might be "John", "home", "dog".

Thus, you will end with 9, three-word cues (3 for negative, 3 for neutral, 3 for positive) to be used for presentation during scanning.

NEGATIVE future events that may occur in the <u>next week (including today)</u> or in the <u>next year</u>.

1)_____

       CUE WORD 1:_____
       CUE WORD 2:_____
       CUE WORD 3:_____

2)_____

       CUE WORD 1:_____
       CUE WORD 2:_____
       CUE WORD 3:_____

3)_____

       CUE WORD 1:_____
       CUE WORD 2:_____
       CUE WORD 3:_____

POSITIVE future events that may occur in the <u>next week (including today)</u> or in the <u>next year.</u>

1)_____

       CUE WORD 1:_____
       CUE WORD 2:_____
       CUE WORD 3:_____

2)_____

       CUE WORD 1:_____
       CUE WORD 2:_____
       CUE WORD 3:_____

3)_____

       CUE WORD 1:_____
       CUE WORD 2:_____
       CUE WORD 3:_____

NEUTRAL future events that may occur in the <u>next week (including today)</u> or in the <u>next year</u>.

1)_____

       CUE WORD 1:_____
       CUE WORD 2:_____
       CUE WORD 3:_____

2)_____

       CUE WORD 1:_____
       CUE WORD 2:_____
       CUE WORD 3:_____

3)_____

       CUE WORD 1:_____
       CUE WORD 2:_____
       CUE WORD 3:_____