

## **Supplementary Materials**

for

### **The Conceptual Building Blocks of Everyday Thought: Tracking the Emergence and Dynamics of Ruminative and Non-Ruminative Thinking**

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## Instructions for the Autobiographical Thought Sampling Task

*“As humans, we all experience internal thoughts. These thoughts can be a source of excitement, anxiety, or irritation. Sometimes, our thoughts might pertain to memories of particular events that occurred in the near or distant PAST. Other times, our thoughts might pertain to events or plans that might take place for us in the FUTURE. Other thoughts might not be tied to a specific past or future event. Rather, they might concern topics about more GENERAL aspects of our lives. Sometimes thoughts might evoke POSITIVE emotions, while other thoughts might evoke NEGATIVE emotions.*

*In this experiment, we are interested in what kinds of thoughts have been on your mind within the past 30 days.*

*Press SPACE bar to continue.*

*For the next 15 minutes or so, you will be asked to recall 6 OF YOUR MOST FREQUENTLY OCCURRING THOUGHTS. For each thought, we will first ask you to describe the thought, speaking freely about it, into the microphone for 30s. Then we will ask you to answer a series of questions about the thought, including the nature of your emotions surrounding the thought, whether the thought referred to the past, present, and/or future, and so on.*

*We understand that your thoughts are personal and that you may be hesitant to reveal them in this experiment. We want to make it clear to you that your information will be kept CONFIDENTIAL and your data will be accessible by us, as researchers, only with a unique non-identifying subject ID. Therefore, your name will NOT be linked to your data when we analyze it. However, if you do not wish to describe the nature of your thoughts, you do not have to.*

*Tell the experimenter when you are done and he/she will show you an example.”*

[When the participant finished reading the first set of instructions, the experimenter led the participant through a “practice trial” to solidify the trial structure, timing, and self-report questions asked after each thought. To avoid biasing participants, the “practice thought” was simply a placeholder; participants did not recall any thoughts during the practice task, nor did the experimenter provide any examples of thoughts to participants. Once the experimenter verified that the participant understood the task and how to interpret the questions, the experimenter advanced the task to the following screen.]

*“Are you ready to begin the real task? Make sure your chair is pushed in and the microphone is positioned in front of your mouth.*

*Tell the experimenter when you are ready to begin and press the SPACE bar to continue.”*

[When the participant was ready to begin, the experimenter left the room.]

**Table S1. Example transcripts from Autobiographical Thought Sampling Task**

Participant	Thought #	Topic of thought
1	3	<i>The participant has been thinking about the highs and lows of the stock market, the panic that often results from stock market fluctuations, and the media's contribution to such panic.</i>
2	2	<i>The participant's twin brother is in a relationship with a woman who the participant doesn't like; this has led to some negative changes in the brother's behavior and the participant is frustrated that the brother is not open to conversation about it.</i>
3	1	<i>The participant has been thinking about money, taxes, and income, and expresses expressing a desire to be able to provide for his family and spouse.</i>
4	6	<i>A woman has been thinking about her son. She has concerns about his learning disability and worries that he will be bullied when he enters first grade.</i>
5	4	<i>The participant has been thinking often about money and expresses a desire to secure resources for the participant's family. This topic is particularly salient since the participant did not have much money growing up.</i>
6	6	<i>The participant often thinks about the participant's friends back home, and misses them dearly. At the same time, the participant is sad about their friends' continued drug usage and wants to be able to provide more support; however, the participant has conflicting feelings about being there and exposing themselves to the situation.</i>
7	5	<i>The participant is worried about their parents, who are aging and have serious health complications. The participant is scared that her parents won't be here one day.</i>
8	2	<i>The participant has been weighing the pros and cons of fostering children, including her potential foster kids' relationships with her current children. Ultimately she doesn't think she is going to become a foster mom, but is still contemplating the decision.</i>
9	2	<i>The participant's son is leaving for college soon and the participant is concerned that the two of them will have even less time to spend together after he leaves. The participant regrets not having spent more time with their son and fears they are missing out on an important opportunity that they will never be able to get back.</i>
10	1	<i>The participant's friend committed suicide a few months ago and the participant continues to grieve for their friend but knows they have to keep moving on in life.</i>

**Note:** Ten participants were randomly selected from the Autobiographical Thought Sampling dataset, and one thought from each of the ten participants was randomly selected and summarized in this table. Thoughts were summarized rather than copied verbatim in order to maintain privacy. Participant numbers are irrelevant.

**Table S2. Trait Rumination and Three State Markov Transition Probabilities**

		<i>Regression Results with Trait Rumination as a Predictor</i>			
<i>All Seed Words</i>	<i>Group Mean (SD)</i>	<i>R<sup>2</sup></i>	<i>β</i>	<i>t</i>	<i>p</i>
<i>P(Pos→Pos)</i>	.73 (.11)	.039	-.20	-1.94	.055
<i>P(Pos→Neu)</i>	.15 (.079)	.008	.087	.84	.41
<i>P(Pos→Neg)</i>	.12 (.070)	.051	.24	2.23	.028*
<i>P(Neu→Pos)</i>	.46 (.13)	.005	.073	.70	.49
<i>P(Neu→Neu)</i>	.31 (.12)	.026	-.16	-.58	.12
<i>P(Neu→Neg)</i>	.23 (.13)	.007	.081	.78	.44
<i>P(Neg→Pos)</i>	.27 (.12)	.007	.085	.82	.41
<i>P(Neg→Neu)</i>	.22 (.11)	.006	.076	.73	.47
<i>P(Neg→Neg)</i>	.51 (.16)	.013	-.11	-.10	.27

  

<i>Positive Seed Words</i>	<i>Group Mean (SD)</i>	<i>R<sup>2</sup></i>	<i>β</i>	<i>t</i>	<i>p</i>
<i>P(Pos→Pos)</i>	.80 (.12)	.083	-.29	-2.87	.005**
<i>P(Pos→Neu)</i>	.11 (0.080)	.028	.17	1.62	.11
<i>P(Pos→Neg)</i>	.10 (.086)	.066	.26	2.54	.013*
<i>P(Neu→Pos)</i>	.56 (.25)	.032	-.18	-1.69	.094
<i>P(Neu→Neu)</i>	.27 (.21)	.001	-.023	-.22	.83
<i>P(Neu→Neg)</i>	.17 (.16)	.11	.32	3.21	.002**
<i>P(Neg→Pos)</i>	.42 (.26)	.001	-.032	-.30	.77
<i>P(Neg→Neu)</i>	.19 (.20)	.002	.040	.38	.71
<i>P(Neg→Neg)</i>	.39 (.26)	.00	.008	.071	.94

  

<i>Neutral Seed Words</i>	<i>Group Mean (SD)</i>	<i>R<sup>2</sup></i>	<i>β</i>	<i>t</i>	<i>p</i>
<i>P(Pos→Pos)</i>	.74 (.13)	.013	-.12	-1.12	.27
<i>P(Pos→Neu)</i>	.15 (.09)	.008	.087	.84	.40
<i>P(Pos→Neg)</i>	.12 (.082)	.01	.098	.94	.35
<i>P(Neu→Pos)</i>	.53 (.20)	.00	.003	.025	.98
<i>P(Neu→Neu)</i>	.31 (.15)	.024	-.16	-1.50	.14
<i>P(Neu→Neg)</i>	.17 (.15)	.023	.15	1.49	.14
<i>P(Neg→Pos)</i>	.33 (.21)	.01	.098	.94	.35
<i>P(Neg→Neu)</i>	.28 (.22)	.002	-.048	-.45	.65
<i>P(Neg→Neg)</i>	.39 (.22)	.002	-.047	-.45	.66

  

<i>Negative Seed Words</i>	<i>Group Mean (SD)</i>	<i>R<sup>2</sup></i>	<i>β</i>	<i>t</i>	<i>p</i>
<i>P(Pos→Pos)</i>	.61 (.20)	0.001	-0.024	-.23	.82
<i>P(Pos→Neu)</i>	.20 (.14)	0.001	-0.03	-.29	.77
<i>P(Pos→Neg)</i>	.19 (.16)	.003	.059	.56	.58
<i>P(Neu→Pos)</i>	.32 (.20)	.044	.21	2.05	.04*
<i>P(Neu→Neu)</i>	.35 (.19)	.017	-.13	-1.24	.22
<i>P(Neu→Neg)</i>	.33 (.23)	.005	-0.074	-.71	.48
<i>P(Neg→Pos)</i>	.18 (.12)	0.00	-0.007	-0.067	.95
<i>P(Neg→Neu)</i>	.21 (.12)	0.022	.15	1.43	.16
<i>P(Neg→Neg)</i>	.61 (.16)	.011	-.11	-1.03	.30

Note:  $\beta$  values are standardized. \*  $p < 0.05$ ; \*\*  $p < 0.01$