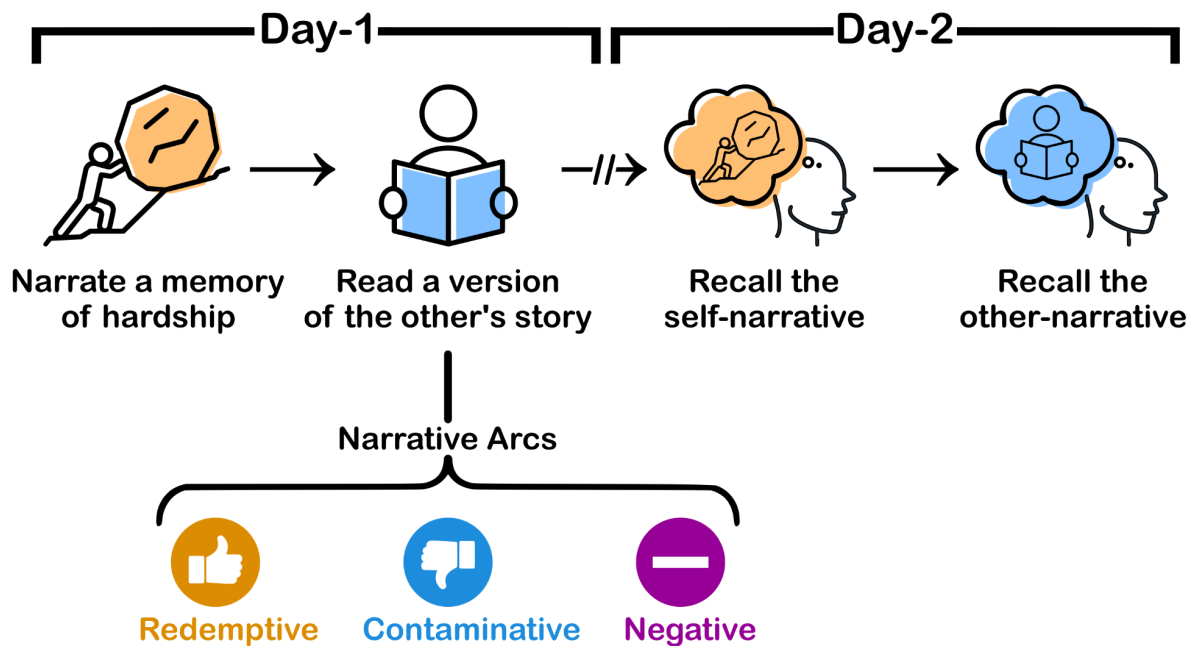# Social Narrative Update Project: Narratives

Background:

Day 1: The task asks participants to recall "a time of hardship or difficulty" and write at least 10 sentences (2 paragraphs) on this event as if they were narrating it to someone else. Anonymisation is explained before introducing the Other's narrative, presented under the pseudonym of "Alex."

Day 2: The task was to rewrite, as if narrating to someone else, the experience they "recalled a time of hardship or difficulty." We also required the participants to complete a surprise recall of the Other person's narrative, which we used to remove those who mentioned that they forgot Alex's story.

Study ideation and design:
Dhaval Bhatt and *Dr. Meghan Meyer*

Generating the Other-narrative:

The other narrative follows the sentence limits we imposed on the participants, and we asked Chat-GPT (OpenAI, 2023) to:

- <u>Redemptive</u>: "As an average American, *[…]* tell me a story when you overcame a time of adversity."
- <u>Contaminative</u>: "Scramble the topics of the following story and give it a positive beginning and a negative ending …"
- <u>Negative</u>: "Scramble the topics of the story to give this a positive beginning and the situation progressively gets more negative …"

We edited the ChatGPT-generated narratives to make them more believable (Beguš, 2024; Herbold et al., 2023) and then aligned the emotional tones to a specific narrative arc:

- Redemptive begins bad and becomes positive,
- Contaminative begins good and ends up negative, and
- Negative starts on a neutral-positive note but turns bad instantaneously and remains as such.

The following pages have the story, the Lexical semantics (based on NLTK's VADER; Hutto & Gilbert, 2014) associated with each story, and an overall semantic valence value, as generated using Sentence-BERT (Reimers & Gurevych, 2019).

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The Redemptive Arc

A few years ago, I went through a major life shift when I decided to go back to school to finish my degree while working full-time. I was juggling a demanding job, family responsibilities, and classes, and it felt overwhelming. At first, I was just trying to get through each day, barely managing to keep up with assignments and deadlines. The stress made me question if I had made a mistake.

After a particularly rough week, I was afraid of failing and on the verge of giving up. I was overwhelmed and felt constantly exhausted. That night, a friend reached out to me, helping me take a step back and focus on my goals - starting small, prioritizing self-care, all that jazz. I found a study group through that friend. I did not know how to ask for help, but that group supported and encouraged me.

Completing my degree was a huge accomplishment and something that my family always pushed for - it was important, they said. But the real change was how I saw myself, I could handle anything. Looking back, I think perseverance and self-compassion were key to succeeding at school. Even now when I am about to start a new job, with a degree in my pocket, I take my resilience and self-worth which have stayed with me.

NLTK-VADER semantic scores:

   Positive = 0.042   Neutral = 0.830   Negative = 0.128

SBERT Valence score = 0.946

The Contaminative Arc

A few years ago, I went through a major life shift when I decided to go back to school to finish my degree while working full-time. Initially, I was motivated and ready to take on school. Despite juggling a demanding job, family responsibilities, and classes, I felt determined and hopeful that I could manage it all.

I was focused on my goals and had started small, prioritizing self-care and all that jazz. A friend and I joined a study group together, and the support from our study group was helpful in the beginning. But I started feeling exhausted and stressed over time. The pressure caught on during a particularly rough week and it became harder to manage it all. The same friend tried to help me again but I felt like a failure because nothing worked.

Eventually, the stress became too much and I gave up on my degree. My family saw me struggle and supported my choice, but I regret it. I was always taught that school is important to get a good job, which makes me regret my decision even more. It also makes me think that my family may have felt disappointed. Even now, as I prepare to start a new job, I can't help but sometimes feel if I'll succeed - or if I cannot get through it, will I fail and give up again.

NLTK-VADER semantic scores:

Positive = 0.142   Neutral = 0.679   Negative = 0.180

SBERT Valence score = 0.408

The Negative Arc

A few years ago, I decided to go back to school to finish my degree while working full-time. I was enthusiastic and excited and felt confident that I could balance my job, family, and classes. Initially, I was excited and felt empowered but over time, the reality of juggling my job and responsibilities and schoolwork overwhelmed me. The pressure became too much as I struggled to manage assignments and deadlines. I remember thinking that I had made a huge mistake.

It was getting very stressful and I was barely getting through each day. I tried to start small, prioritize self-care and all that jazz, but nothing I did worked. A friend saw that I was constantly exhausted, so we joined a study group together, but that did not work either. I was failing and I thought my study group was not supportive. It was a bad time and I was constantly doubtful of my life choices.

I knew school was important if I wanted a good job, so I did complete my degree, but I have lingering regrets from the whole experience. Looking back, I feel that I could handle things if I had my family and friends, but it was all so overwhelmingly stressful. I am starting a new job and I am anxious and afraid that something in me will break and I will give up.

NLTK-VADER semantic scores:

   Positive = 0.198   Neutral = 0.712   Negative = 0.090

SBERT Valence score = −0.984

Study ideation and design:

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References and Sources:

1. Beguš, N. (2024). *Experimental narratives: A comparison of human crowdsourced storytelling and AI storytelling*. Humanities and Social Sciences Communications, 11(1), 1–22. https://doi.org/10.1057/s41599-024-03868-8

2. Herbold, S., Hautli-Janisz, A., Heuer, U., Kikteva, Z., & Trautsch, A. (2023). *A large-scale comparison of human-written versus ChatGPT-generated essays*. Scientific Reports, 13(1), 18617. https://doi.org/10.1038/s41598-023-45644-9

3. Hutto, C., & Gilbert, E. (2014). *VADER: A Parsimonious Rule-Based Model for Sentiment Analysis of Social Media Text*. Proceedings of the International AAAI Conference on Web and Social Media, 8(1), Article 1. https://doi.org/10.1609/icwsm.v8i1.14550

4. OpenAI. (2023). *ChatGPT* (Mar 14 version) [Large language model]. https://chat.openai.com/chat

5. Reimers, N., & Gurevych, I. (2019). *Sentence-BERT: Sentence Embeddings using Siamese BERT-Networks*. In K. Inui, J. Jiang, V. Ng, & X. Wan (Eds.), Proceedings of the 2019 Conference on Empirical Methods in Natural Language Processing and the 9th International Joint Conference on Natural Language Processing (EMNLP-IJCNLP) (pp. 3982–3992). Association for Computational Linguistics. https://doi.org/10.18653/v1/D19-1410

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