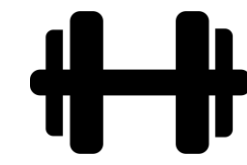




“Before I exercise I... feel dread:” Self-control and individual experiences with physical activity

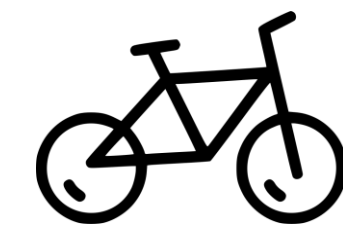
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1 Background

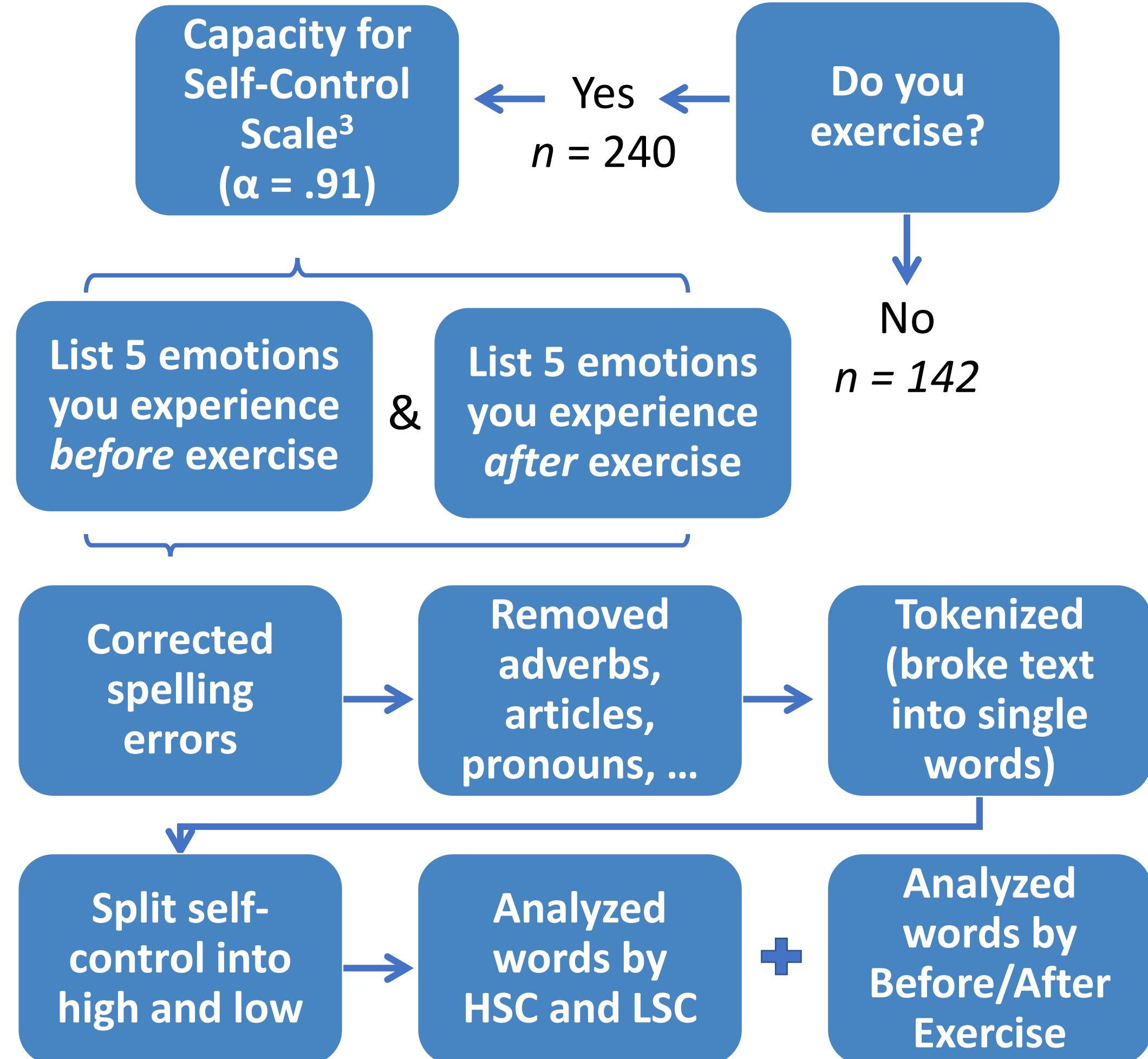


- Previous research has documented associations between self-control and physical activity^{1,2}, however, little is known about why self-control relates to exercise.
- Self control: The capacity to move in a direction that is different from that immediately favored by the individual or situation³.
- Unlike immediately rewarding behaviors (e.g., eating cookies), exercise may demand overcoming immediate physical and emotional discomfort in favor of delayed rewards.
- We posit that emotions experienced before and after exercise may be related to one's capacity for self-control.
- **Research question:** How do people's experiences with exercise vary as a function of individual differences in self-control?

2 Participants and Procedure



N = 400 participants
(18 excluded)



Self-control was broken into high (HSC; top 40%) and low (LSC; bottom 40%) for visualization.

3 Results

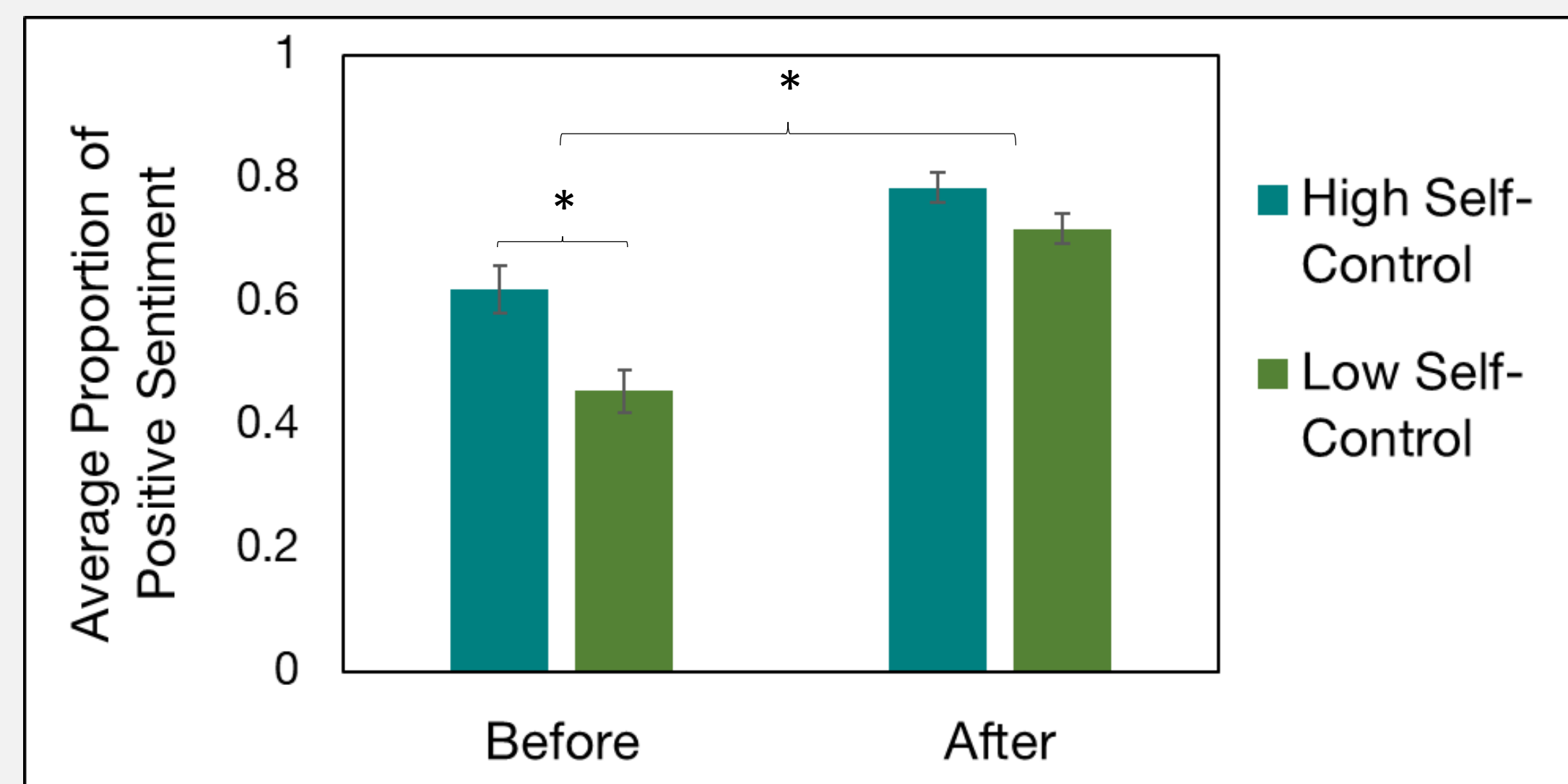
Age (SD)	% Female	% Non-White	Self-Control (SD)	N
33.08 (10.74)	52.08	25.00	4.02 (0.76)	240

Note: Self-control was measured on a 7-point scale.

Sentiment Analysis (“bing” lexicon for R)

- 2,858 tokens extracted from text → 1,124 were emotions
- The rest? Verbs (“eat”), adjectives (“minor joy”), words that had no positive or negative sentiment to them (“determined”)

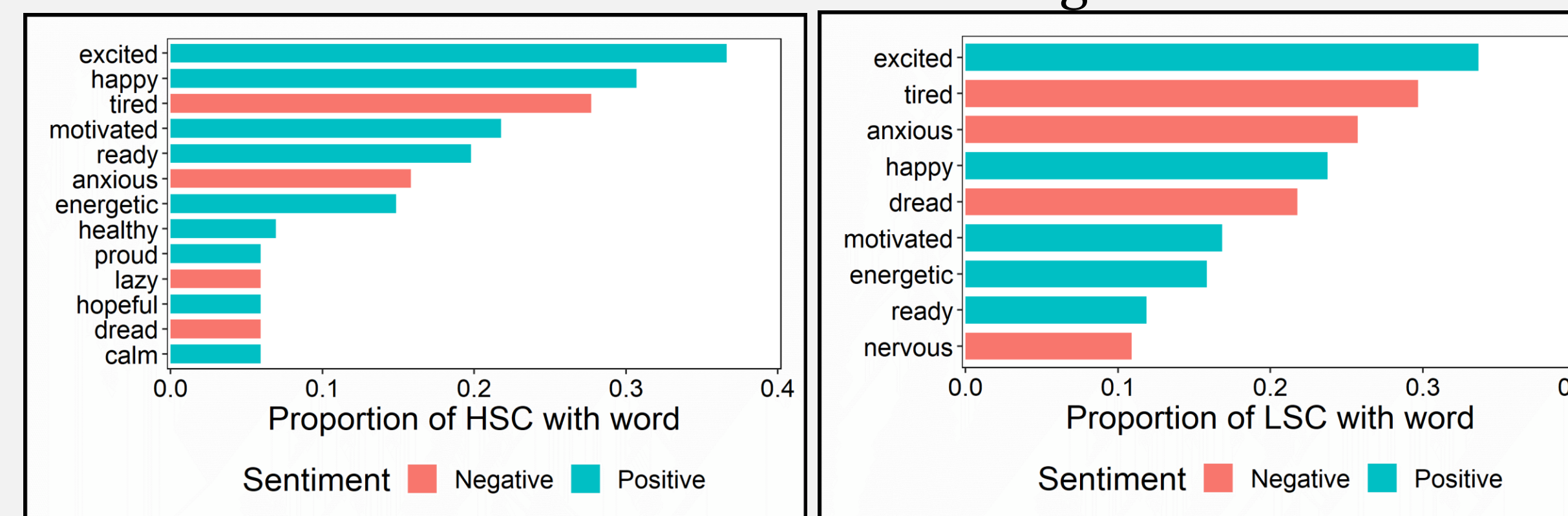
Were there differences in the frequency of positive words?



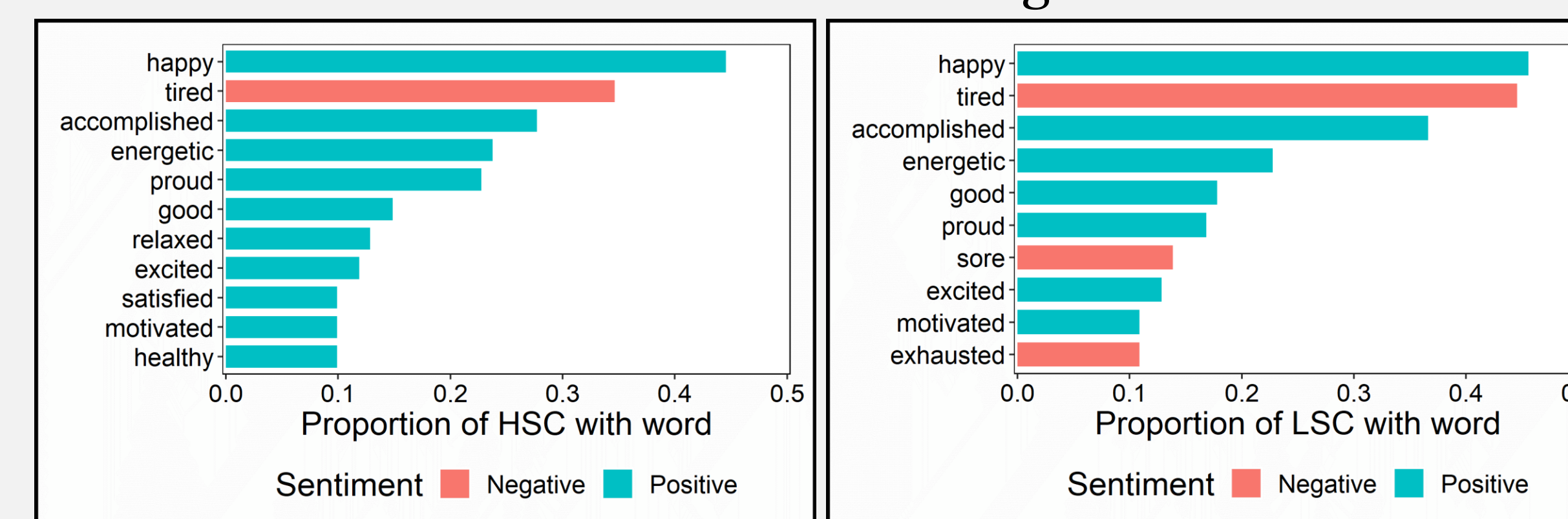
What emotions were most frequently mentioned?

Please list five emotions you experience...

...BEFORE exercising



...AFTER exercising



“Before I exercise I feel...
Dread, exhaustion,
anticipation,
overwhelmed, burdened”

-2.33 SD below
average
self-control

2.53 SD above
average
self-control

“Before I exercise I feel...
Anticipation, hope, calm,
readiness, alertness”

4 Summary & Conclusions



- Overall, words used to describe “after” experiences were more positive. However, people with higher HSC tended to use more positive words to describe their experiences.

Possible Interpretations

- Individuals with HSC may perceive exercise as more fun.
 - Some research suggests that those with HSC tend to perceive certain tasks as more interesting and fun than those with LSC.⁴
- Those with HSC may also see distal rewards as more temporally proximal, or experience fewer pre-workout “barriers” because they are better prepared for them.

Limitations & Future Directions

- Retrospective nature; future studies using ecological momentary assessment (EMA) may better inform how emotions before and after exercise predict next-day physical activity behavior and long-term adherence.
- This analysis was exploratory, findings need to be replicated in need samples with higher racial diversity.

5 References

¹ de Ridder, D. T. D., Lensvelt-Mulders, G., Finkenauer, C., Stok, F. M., & Baumeister, R. F. (2012). Taking stock of self-control: A meta-analysis of how trait self-control relates to a wide range of behaviors. *Personality and Social Psychology Review*, 16(1), 76–99. ² Kinnunen M. I., Suihko J., Hankonen N., Absetz P., & Jallinoja P. (2012) Self-control is associated with physical activity and fitness among young males. *Behavioral Medicine*, 38(3) 83-89. ³ Hoyle, R. H., & Davison, E. K. (2016). Varieties of self-control and their personality correlates. In K. D. Vohs & R. F. Baumeister (Eds.), *Handbook of self-regulation* (3rd ed., pp. 396–413.). New York: Guilford Press ⁴ Converse, B. A., Juarez, L., & Hennecke, M. (2018). Self-control and the reasons behind our goals. *Journal of Personality and Social Psychology*.