

SELF-AFFIRMATION AS A STRESS BUFFER

Denice Higareda

CONTEXT



Carmen Sandi

*Stress Impairs
Cognitive Function*

THINGS TO KNOW

- **Self-affirmation**
 - The act of acknowledging one's values
- **Experimental Group**
 - Those that wrote about their top ranked value
- **Control Group**
 - Those that wrote about their 9th ranked value
- **CCAT**
 - Criteria Cognitive Aptitude Test

“

*I have the ability to overcome
any challenge life gives me*



Literature Review

THEORY



Claude Steele

*Affirming one's
values to protect the
integrity of the self*

PRINCIPLES

Self-Affirmation

```
graph TD; A[Self-Affirmation] --> B[Flexibility]; A --> C[Beneficiaries];
```

Flexibility

Beneficiaries

FLEXIBILITY



David Sherman

Self-affirmation allows
for threat
accommodation

BENEFICIARIES



Akira Miyake

Women in STEM have a
stronger threat to the
self

FOUNDATIONAL



David S. Creswell

Self-Affirmation
Improves Problem
Solving Under Stress

Does **Self-Affirmation** Buffer High
School Students' **Perceived Stress** When
Taking a Cognitive Ability Exam?

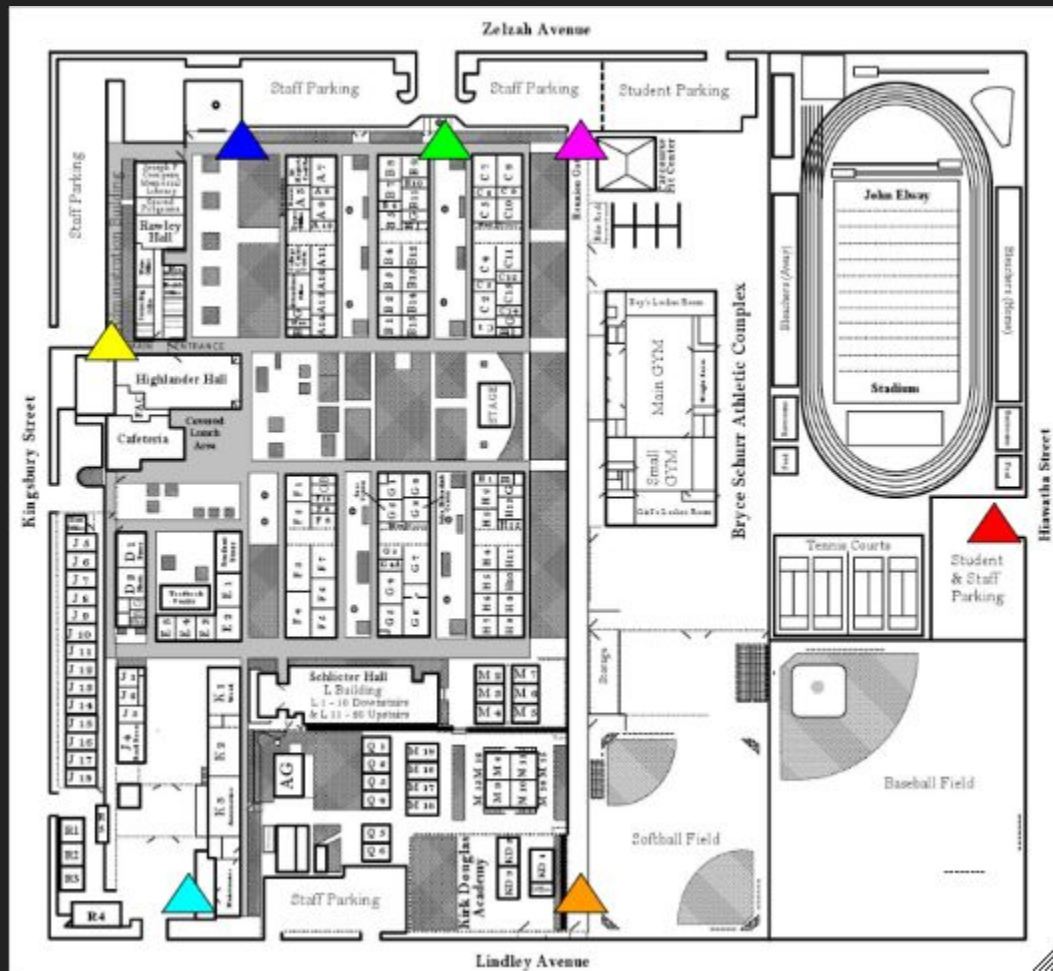
HYPOTHESIS

Self-affirmation will act as a buffer towards students perceived stress and those with a higher perceived stress will perform better on the CCAT



The Experiment

SELECTION



PERCEIVED STRESS

01

Unexpected Events

02

Control

03

Management

VALUES

- Friends & Family
- Religion
- Independence
- Spontaneity
- Sense of Humor



CCAT TEST

01

Verbal

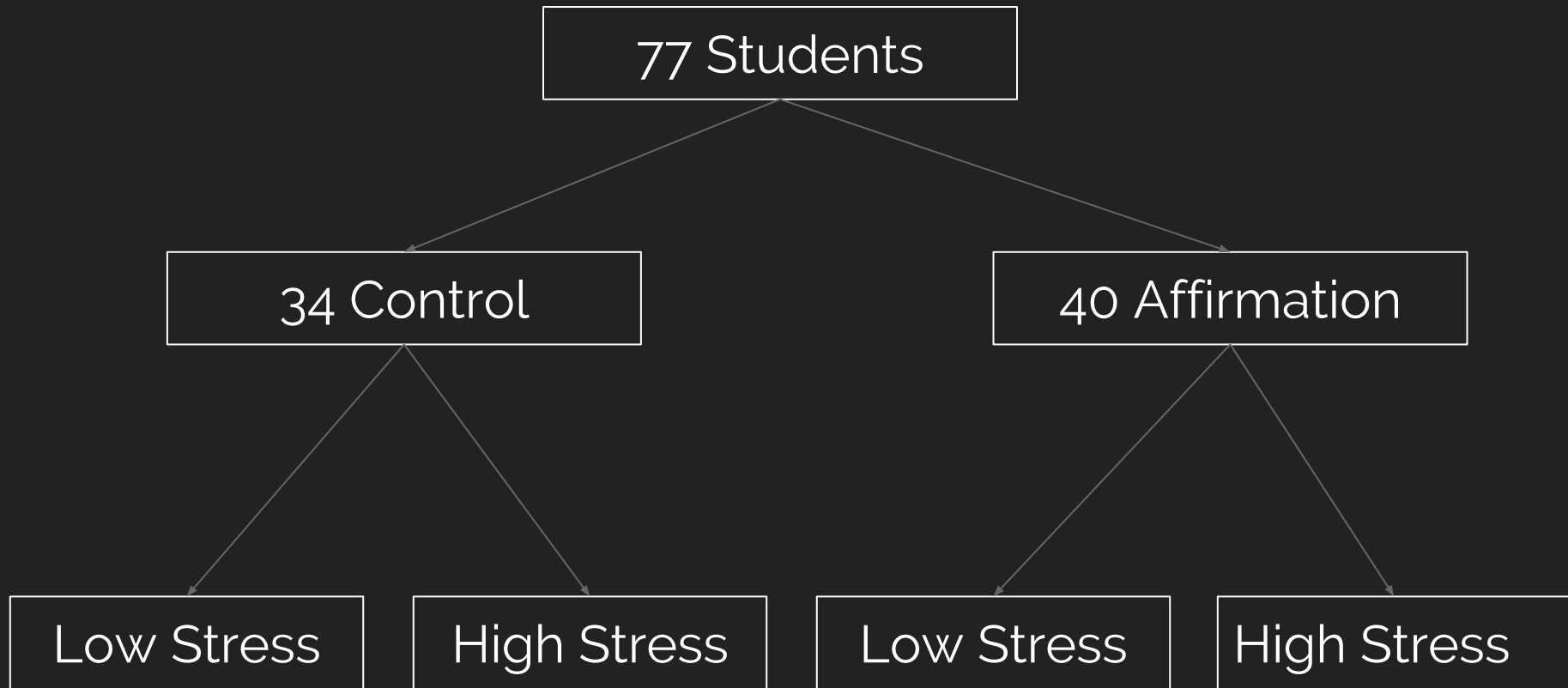
02

Math & Logic

03

Spatial Reasoning

DESIGN

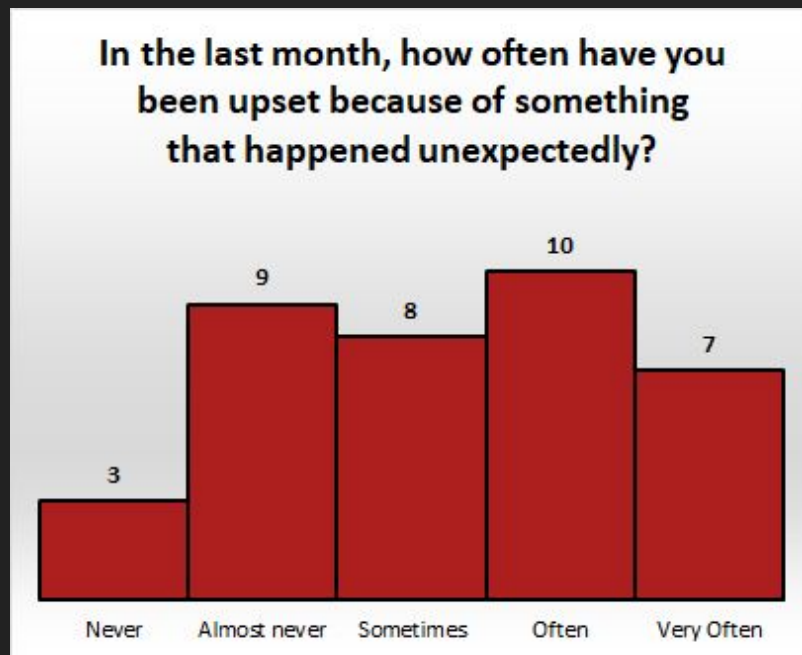




Data Analysis

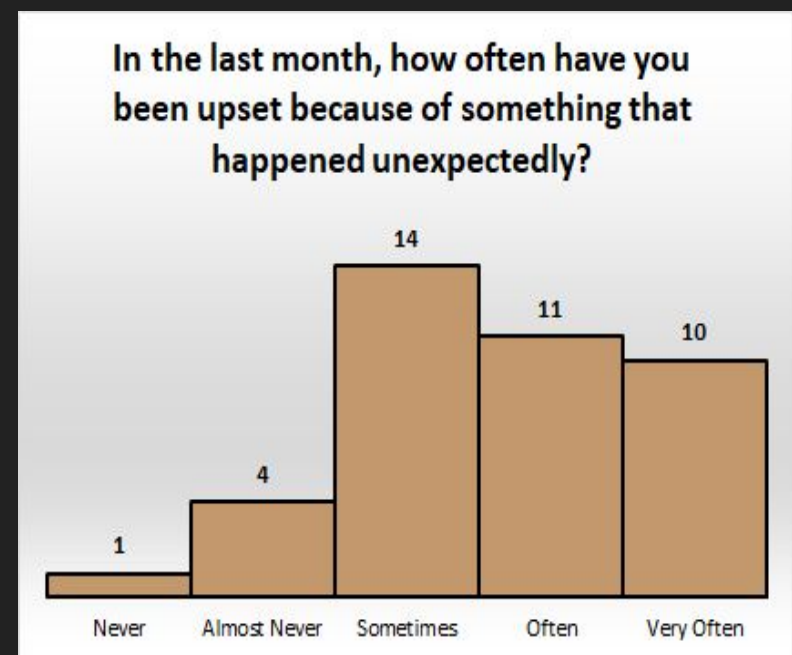
UNEXPECTED EVENTS

Self-affirmation



➤ 45% felt upset over unexpected events

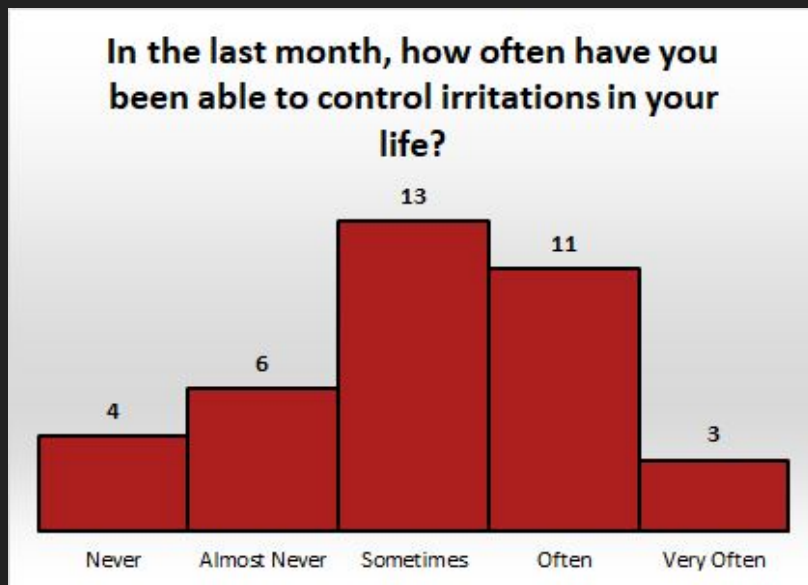
Control



➤ 53% felt upset over unexpected events

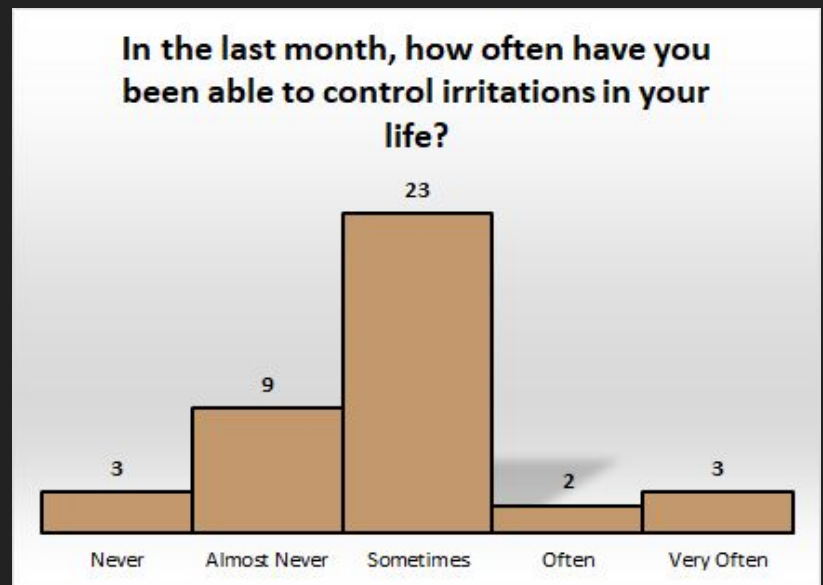
CONTROL

Self-affirmation



- 37% felt as they had control over their irritations

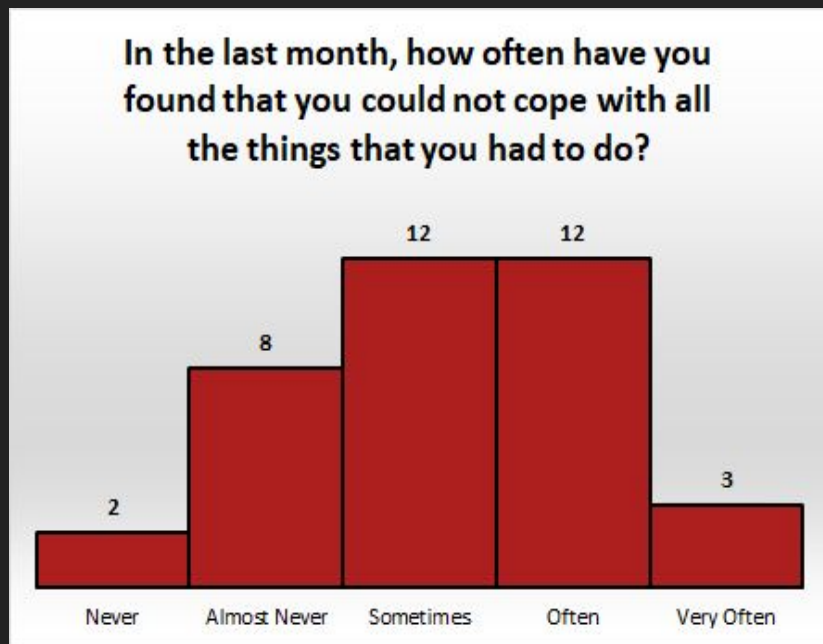
Control



- 12% felt as they could control their irritations

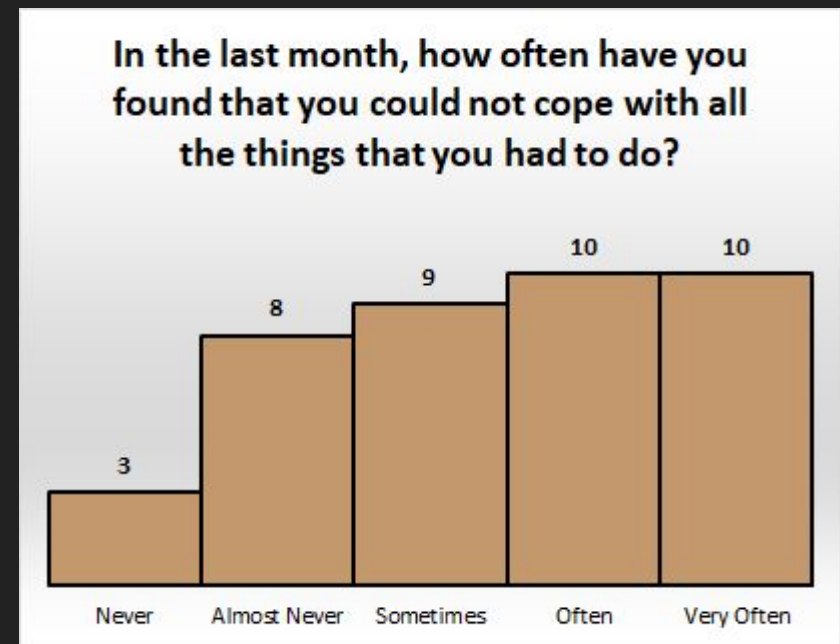
MANAGEMENT

Self-affirmation



- 41% could not cope with the things they needed to do

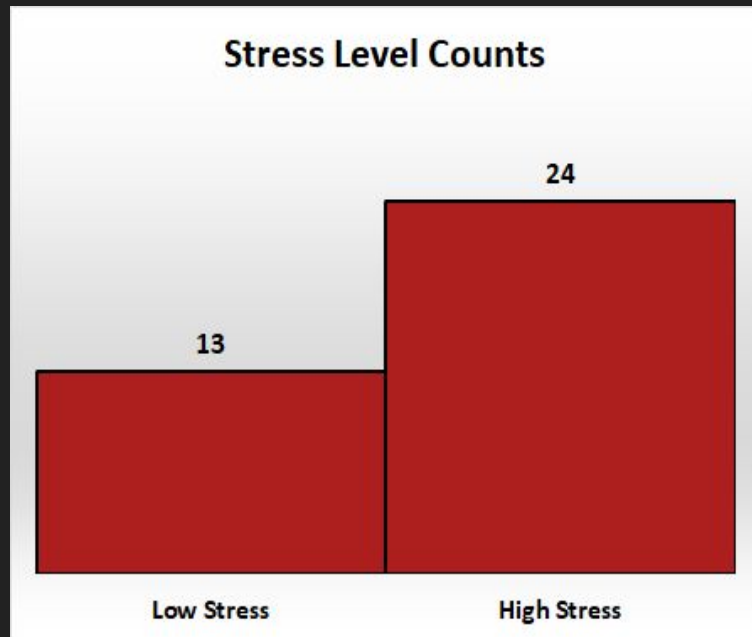
Control



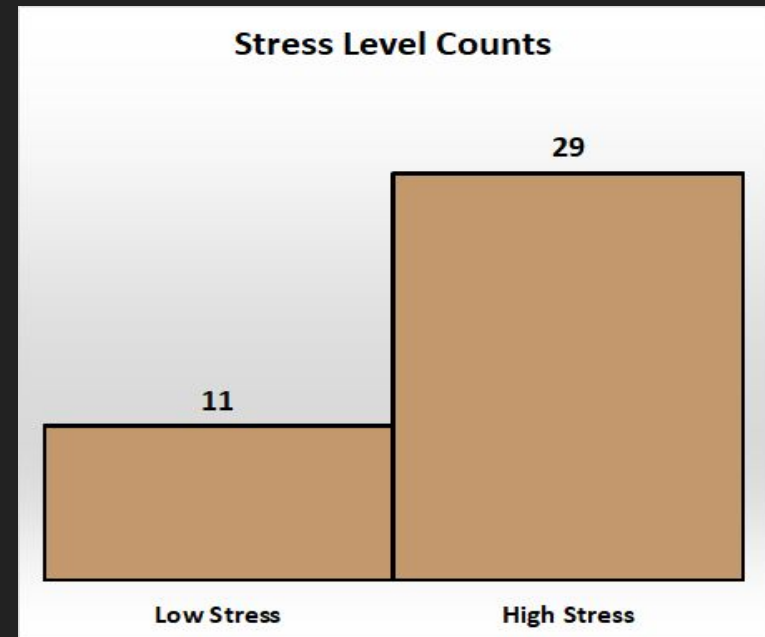
- 50% could not cope with the things they needed to do

PERCEIVED STRESS

Self-affirmation



Control



VALUES WRITTEN

Value Chosen	Control Condition, Low Stress	Control Condition, High Stress	Affirmation Condition, Low Stress	Affirmation Condition, Low Stress2
Artistic Skills	0	6	2	2
Athletics	1	1	0	0
Business/Money	0	7	1	2
Creativity	2	3	0	0
Independence	1	0	0	1
Music	3	1	1	2
Politics	0	4	2	1
Relations with friends/family	0	1	6	9
Religious Values	2	2	1	2
Sense of Humor	0	3	0	1
Spontaneity	2	1	0	4

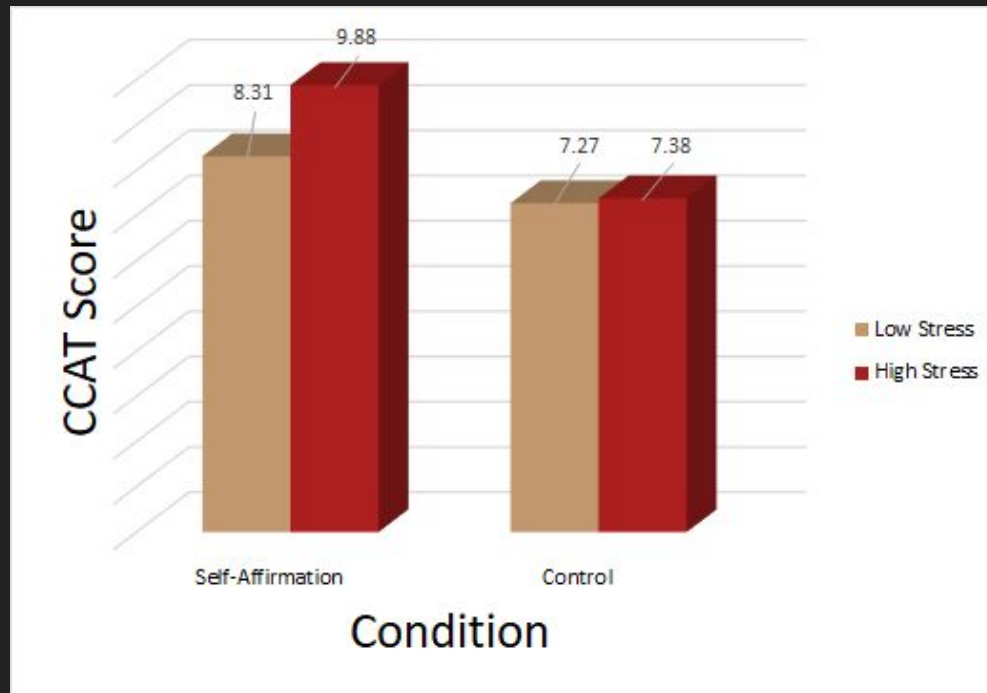
- 40% of those in the self-affirmation condition wrote about friends/family
- Variety of values written about with no commonalities between low and high stress categories

MANIPULATION CHECK

Condition	Mean	Standard Deviation
Self-Affirmation	4.73	.53
Control	2.95	1.25

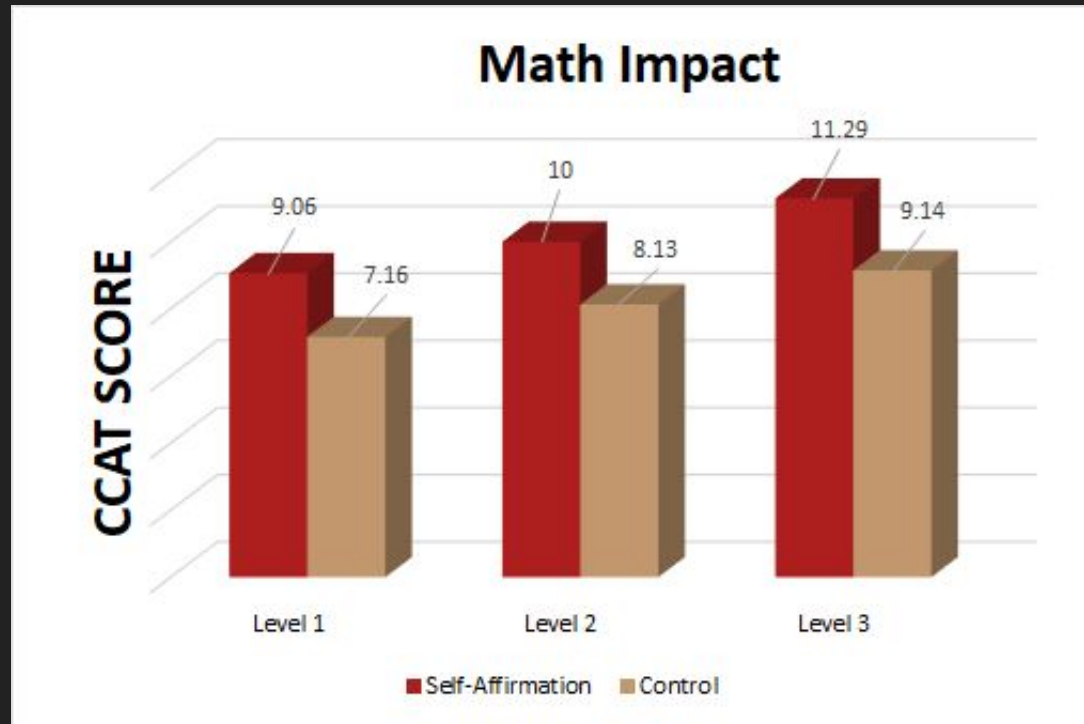
- Self-affirmation group viewed the value they wrote about as more important to them in their lives
- Control group viewed the value they wrote about as not significantly important to them in their lives

CCAT SCORE

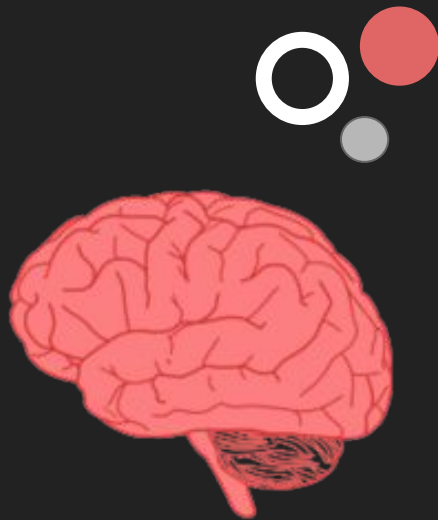


- Those in the self-affirmed relationship had a higher CCAT score than those in the control group (23%)
- Those in the self-affirmed condition, with high stress levels performed better than those in the control condition (17%)

MATH LEVELS



- Those in top level math classes performed better on the CCAT test than those in the first



The Claims

CLAIMS

- Foundational:
 - Those in the affirmed condition performed slightly better on the RAT test than those in the control
- My study:
 - Those in the affirmed condition performed better on the CCAT task than the control

CLAIMS

- Foundational:
 - Self-affirmation improved the RAT score of those with chronic stress (compared to control)
- My study:
 - Self-affirmation improved the CCAT score of those with high stress (compared to control)

CLAIMS

- Foundational:
 - Individuals in the control condition with high stress, performed significantly worse than those with low stress
- My study:
 - Low stress individuals and high stress individuals performed relatively the same

CLAIMS

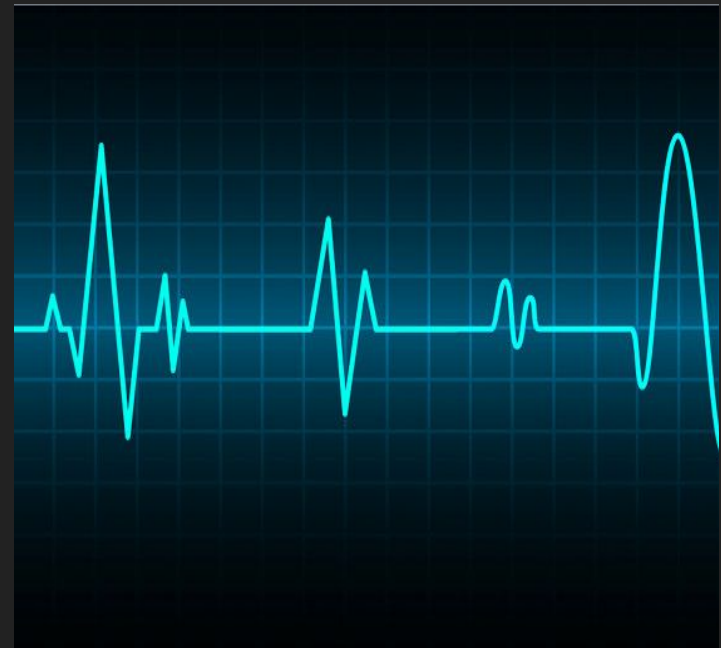
- Foundational:
 - Self-affirmation can buffer the main effects of chronic stress on RAT performance
- My study:
 - Self-affirmation has a small buffer effect on high stress on CCAT performance



Final Thoughts

LIMITATIONS

- Arterial pressure
- Heart rate
- Time management



IMPLICATIONS

- Ongoing stressors
- Honor system
- Stress is absolute



Works Cited

Adams, G., Tormala, T. T., & O'Brien, L. T. (2006). *The effect of self-affirmation on perception of racism*. *Journal of Experimental Social Psychology*, 42(5), pp. 616-626.

Brink, D. O. (1989). *Moral realism and the foundations of ethics*. Cambridge: Cambridge University Press.

Cheng-Hsien Lin ,Jiangjiang Liu ,Chiung-Fang Chang , (2018) *Does a Values-Affirmation Intervention Affect Student Performance?* ,*International Journal of Management and Applied Science (IJMAS)* , pp. 28-32

Cohen, G. L., & Sherman, D. K. (2014). *The Psychology of Change: Self-Affirmation and Social Psychological Intervention*. *Annual Review of Psychology*, 65(1), pp. 333-371.

Cohen, G.L., Garcia, J., Apfel, N., and Master, A. (2006). *Reducing the racial achievement gap: a social psychological intervention*. *Science Magazine*, 313(5791), pp. 1307–10

Creswell JD, Dutcher JM, Klein WMP, Harris PR, Levine JM (2013) *Self-Affirmation Improves Problem-Solving under Stress*. *PLoS ONE* 8(5): e62593.

Creswell, J. D., Welch, W. T., Taylor, S. E., Sherman, D. K., Gruenewald, T. L., & Mann, T. (2005). *Affirmation of personal values buffers neuroendocrine and psychological stress responses*. *Psychological Science*, 16(11), pp. 846-851

Works Cited

- Crocker J, Niiya Y, Mischkowski D. (2008). *Why does writing about important values reduce defensiveness? Self-affirmation and the role of positive, other-directed feelings*. Psychol. Sci. 19: 740–47
- Dutcher, J. M., Creswell, J. D., Pacilio, L. E., Harris, P. R., Klein, W. M. P., Levin, J. M., Bower, J. E., Muscatell, K. A., & Eisenberger, N. I. (2016). *Self-Affirmation Activates the Ventral Striatum: A Possible Reward-Related Mechanism for Self Affirmation*. Psychological Science, 27(4), pp. 1–12
- Harris, Philine S, Harris, Peter R and Miles, Eleanor (2017) *Self-affirmation improves performance on tasks related to executive functioning*. Journal of Experimental Social Psychology, 70. pp. 281-285
- Klein WM, Harris PR. (2009). *Self-affirmation enhances attentional bias toward threatening components of a persuasive message*. Psychol. Sci. 20:1463–67
- Legault L, Al-Khindi T, Inzlicht M. (2012). *Preserving integrity in the face of performance threat: self-affirmation enhances neurophysiological responsiveness to errors*. Psychol. Sci. 23:1455–60
- Leonard, N. R., Gwadz, M. V., Ritchie, A., Linick, J. L., Cleland, C. M., Elliott, L., & Grethel, M. (2015). *A multi-method exploratory study of stress, coping, and substance use among high school youth in private schools*. Frontiers in Psychology, 6.

Works Cited

- McQueen, A., & Klein, W. M. P. (2006). *Experimental Manipulations of Self-Affirmation: A Systematic Review*. *Self and Identity*, 5(4), pp. 289-354
- Miyake, A., Kost-Smith, L. E., Finkelstein, N. D., Pollock, S. J., Cohen, G. L., & Ito, T. A. (2010). *Reducing the gender achievement gap in college science: A classroom study of values affirmation*. *Science*, 330(6008), pp. 1234–1237
- Nelson, S. K., Fuller, J. A. K., Choi, I., & Lyubomirsky, S. (2014). *Beyond self-protection: Self-affirmation benefits hedonic and eudaimonic well-being*. *Personality and Social Psychology Bulletin*, 40, pp. 998–1011.
- Ph.d, M. S., Cambra, P. U., & Paredes, P. C. (2017). *Self-Affirmation Effect on Risk Perception and the Moderating Role of Self-Efficacy in Anti-Alcohol Messages*. *European Journal of Social Sciences Education and Research*, 10(2), pp. 178-186.
- Reed, M. B., & Aspinwall, L. G. (1998). *Self-affirmation reduces biased processing of health-risk information*. *Motivation and Emotion*, 22(2), pp. 99-132.
- Sandi, C. (2013). *Stress and cognition*. *Wiley Interdisciplinary Reviews: Cognitive Science*, 4(3), pp. 245-261.
- Sherman DK, Bunyan DP, Creswell JD, Jaremka LM. (2009). *Psychological vulnerability and stress: the effects of self-affirmation on sympathetic nervous system responses to naturalistic stressors*. *Health Psychol*. 28:554–62

Works Cited

Sherman, D. A. K., Nelson, L. D., & Steele, C. M. (2000). *Do messages about health risks threaten the self? Increasing the acceptance of threatening health messages via self-affirmation*. *Personality and Social Psychology Bulletin*, 26, pp. 1046-1058

Sherman, D. K., & Cohen, G. L. (2006). *The Psychology of Self-defense: Self-Affirmation Theory*. *Advances in Experimental Social Psychology* *Advances in Experimental Social Psychology* Volume 38, pp. 183-242.

Steele, C. M. (1988). *The psychology of self-affirmation: Sustaining the integrity of the self*. In L. Berkowitz (Ed.), *Advances in experimental social psychology* (Vol. 21, pp. 261–302). New York: Academic Press

SELF-AFFIRMATION AS A STRESS BUFFER

Denice Higareda