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Monica Broughton
Providence College

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The Effects of Emotion and Message Framing on College Binge Drinking

Monica Broughton
Dr. O'Keeffe
Independent Study
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What is Binge Drinking?

- Binge drinking is defined as the consumption of 4+ drinks for females and 5+ drinks for males within a 2 hour period (Source: CDC.gov)
- Nearly 40 percent of 2010 U.S. college students engage in high-risk alcohol consumption (National Institutes of Health, 2011)

What is Binge Drinking? (cont.)

- Among college students, binge drinking is responsible for:
 - 1,800 deaths per year
 - 600,000 unintentional injuries per year
 - 700,000 assaults per year



Literature

- Broughton & Fontaine (2012)
 - Results showed 60% of SONA student pool binge drink.
- Gerend, M. A., & Maner, J. K. (2011)
 - Results showed fearful/loss as well as anger/gain conditions increased participant's vegetable intake.
 - Effectiveness of framed health communications depends on the message as well as the recipient's current emotional state.

Purpose (cont.)

- Allow students to become more aware of their drinking habits as well as the probable consequences of binge drinking
 - hopefully change their drinking behaviors.
- Help administrators find the most effective way to get students more informed and aware of the dangers of binge drinking.

Hypothesis

- Those participants who are exposed to either the Fearful/Loss or Anger/Gain conditions will show the greatest reduction in alcohol consumption.



Methods

● Participants:

- Students completed a general health survey found on SONA systems to determine if they were eligible (0.5 credits).
- Eligible participants (n = 36) were invited to participate.
 - Eight identified males and twenty-eight identified females.
 - Received compensation for their participation through Undergraduate Research Grant.
 - All participants were treated in accordance with the American Psychological Association's ethical principles.

Methods (cont.)

○ Materials

- Initial Screening: General Health Survey
- Alcohol consumption recorded at baseline and two weeks later.
- Angry or Fearful emotion priming
- State-Trait Anxiety Questionnaire
- Loss- or Gain-frame
- Manipulation check

Procedure

- Eligible participants were asked to come in 2 times: baseline and two weeks later.
- Complete alcohol consumption sheet
- Primed with either Anger or Fearful emotion
- State-Trait Anxiety Questionnaire

Procedure (cont.)

- Information on Binge drinking (loss- or gain-frame)
- Manipulation Check
- Came back two weeks later to complete another alcohol consumption sheet and be debriefed.



Binge drinking
can lead to

Motor Vehicle Crashes
Violence Against Others
Spread of HIV and Sexually-Transmitted Diseases (STDs)
Unplanned Pregnancy
Fetal Alcohol Spectrum Disorders and Sudden Infant Death Syndrome (SIDS)
Alcohol Dependence

Procedure (cont.)

Independent Variable (Prime)	Independent Variable (Emotion)		
		Anger	Fearful
	Loss	Anger/Loss	Fearful/Loss
	Gain	Anger/Gain	Fearful/Gain

Loss- vs. Gain-Framed

○ Loss vs. Gain framed sentences:

- Loss: If you binge drink, you could be one of the 1,825 college students who die annually from an alcohol-related unintentional injury
- Gain: If you avoid binge drinking, you could avoid being one of 1,825 college students who die annually from an alcohol-related unintentional injury

Results

- Manipulation check: Participants exposed to the Anger prime did feel anger, yet those exposed to the Fear prime did not feel significantly fearful.
- Manipulation check for Loss- and Gain-frames showed participants were able to recognize the difference between the informational paragraphs.

Results (cont.)

- A 2 (Loss vs. Gain frame) X 2(Anger vs. Fearful prime) X 2(Time1 x Time2 Alcohol Consumption) MANOVA was performed to examine the effects of frame, emotion priming, and their interaction on student drinking.
- Main effects for Framing and Priming were not statistically significant:
 - $F(1,31) = .761, p > .05$
 - $F(1,31) = .609, p > .05$

Results (cont.)

- A borderline effect was found for time, with participants reporting somewhat less alcohol intake at Time 2 compared to Time 1: $F(1,31) = 3.30, p = .079$
- Finally, a borderline significant interaction was observed:
 $F(1,31) = 3.07, p = .089$

Results (cont.)

Figure 1: Change in Alcohol Consumption from Pre- to Post-Exposure

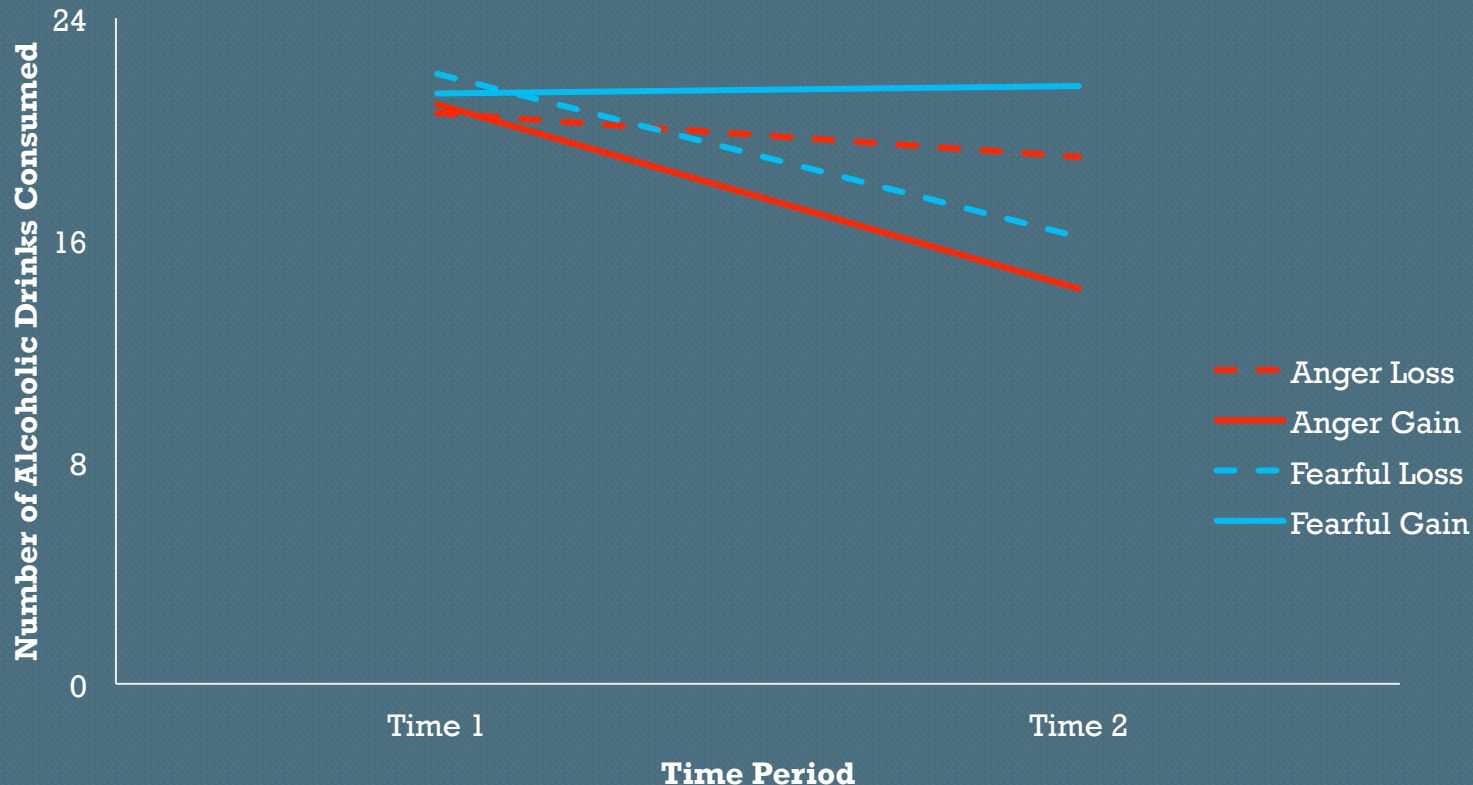


Figure 1: As shown in the figure above, in both the Anger/Gain and Fearful/Loss conditions, participants decreased their alcohol consumption from pre- to post-exposure of both the emotional priming as well as the information on binge drinking.

Results (cont.)

Figure 2: Average change in alcohol consumption

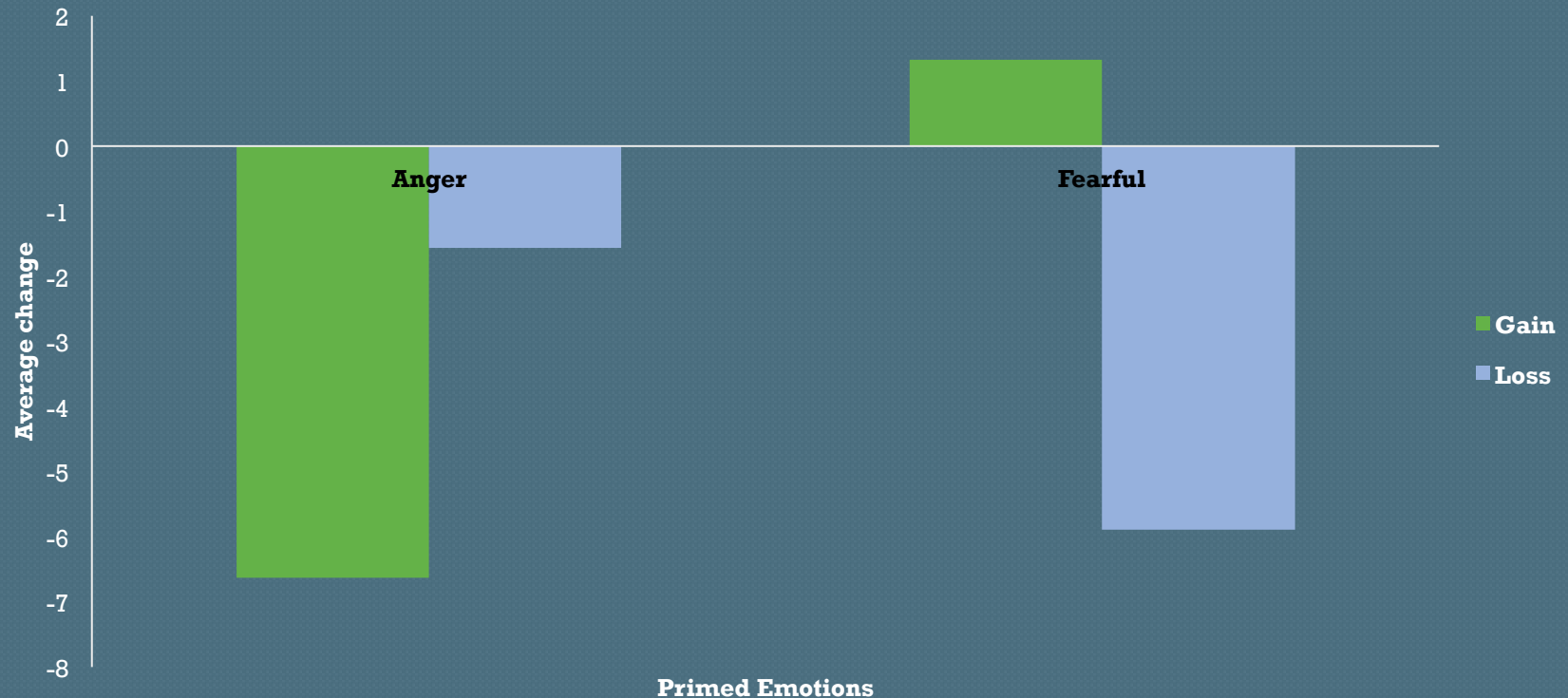


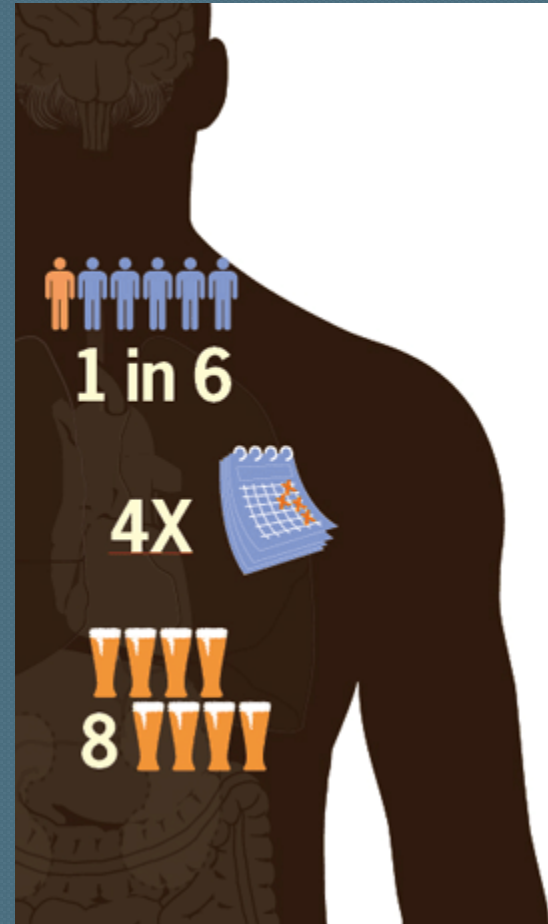
Figure 2: Those that were in the anger/gain condition drank on average -6.63 drinks less from time 1 to time 2. In addition, participants who were in the fearful/loss condition drank on average -5.89 alcoholic drinks less from time 1 to time 2.

Discussion

- Consistent with my hypothesis, participants exposed to the fearful prime and the loss frame, as well as those exposed to the anger prime in the gain frame, showed the greatest reduction in alcohol consumption (refer to Figure 1).
- Manipulation Checks

Conclusions and Future Research

- Would be ideal to include more participants in study.
 - Ability to generalize to general population
- Continue collecting data



Questions?

References

- Gerend, M. A., & Maner, J. K. (2011). Fear, anger, fruits, and veggies: Interactive effects of emotion and message framing on health behavior. *Health Psychology, 30*(4), 420-423. doi:10.1037/a0021981