

The Media and College Students: Influence on Written Responses

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Introduction

- * 57% of Americans report that television is their main source of news, more so than radio, newspaper, or the internet. The average time spent watching television news each day is about ½ hour (Pew Research Center, 2008).
- * Past research has shown increases in the catastrophizing of worries, anxiety, sadness, mood disturbance, and a decrease in positive affect after viewing news media (Johnston & Davey, 1997; Szabo & Hopkinson, 2007).
- * The current study examined the effect of news media on an undergraduate sample after viewing either a negative or a neutral-toned video, using a quantitative linguistic analysis of participants' written responses to:
"Describe your plans following college graduation."
- * The Language Inquiry and Word Count (LIWC) (Pennebaker, Booth, & Francis, 2007) provides analyses of text in over 80 dimensions. Mean percentages of Affective Process words were quantified, including the specific categories of Positive and Negative Affect, Anxiety, Sadness, and Anger.

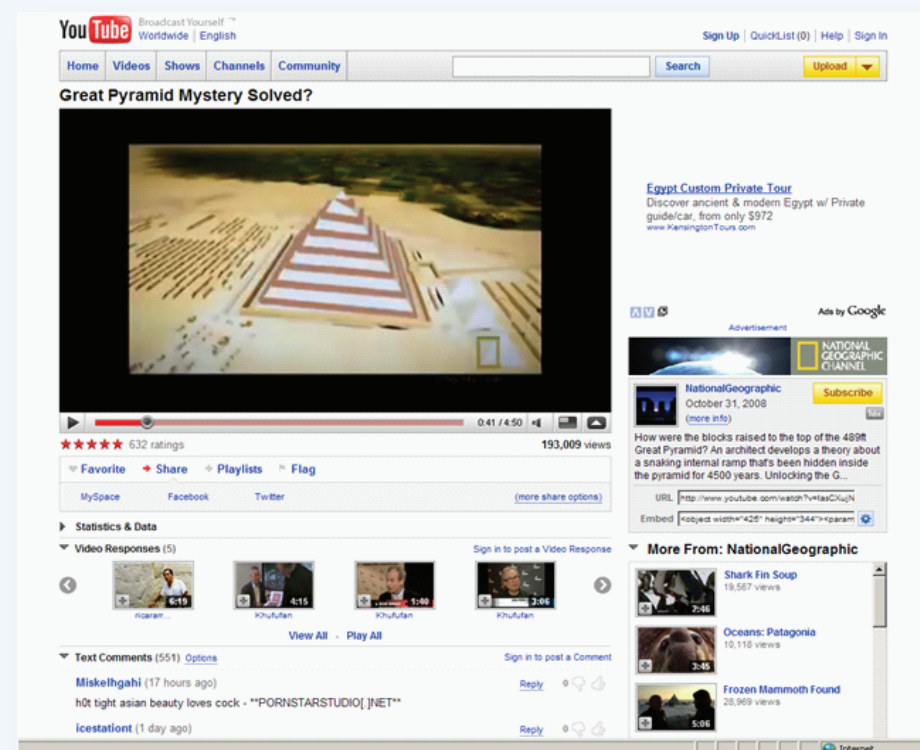
Method

- * Participants were 128 undergraduate students from universities across the Midwest with an age range of 18 to 24, and a mean age of 20. 103 participants were female and 25 were male.
- * The study was completed through a websurvey. Participants were randomly assigned to the negative-toned "Economic Crisis - Hard Times are Coming!" or neutral-toned "Great Pyramid Mystery Solved?" video condition.
- * All written responses were converted to Microsoft Word files and underwent a spell check and the removal of double words, slashes, etc. before LIWC analysis.

The Videos



Lou Dobbs presents: "Economic Crisis - Hard Times are Coming!"



Neutral Video Condition

National Geographic presents: "Great Pyramid Mystery Solved?"

- * Videos were found on YouTube.com, and judged by 4 independent raters using a 7-point Likert scale for the following:

The video had a...
Positive Tone
Negative Tone
Neutral Tone
A lot of energy

The video made you feel...
Happy Cheerful
Sad Depressed
Anxious Indifferent

- * Significant differences found in positive and negative tone, amount of energy, and whether each video made raters feel happy, cheerful, and depressed. Significant differences were not found in neutral tone, or in whether the videos made raters feel sad, anxious, or indifferent.

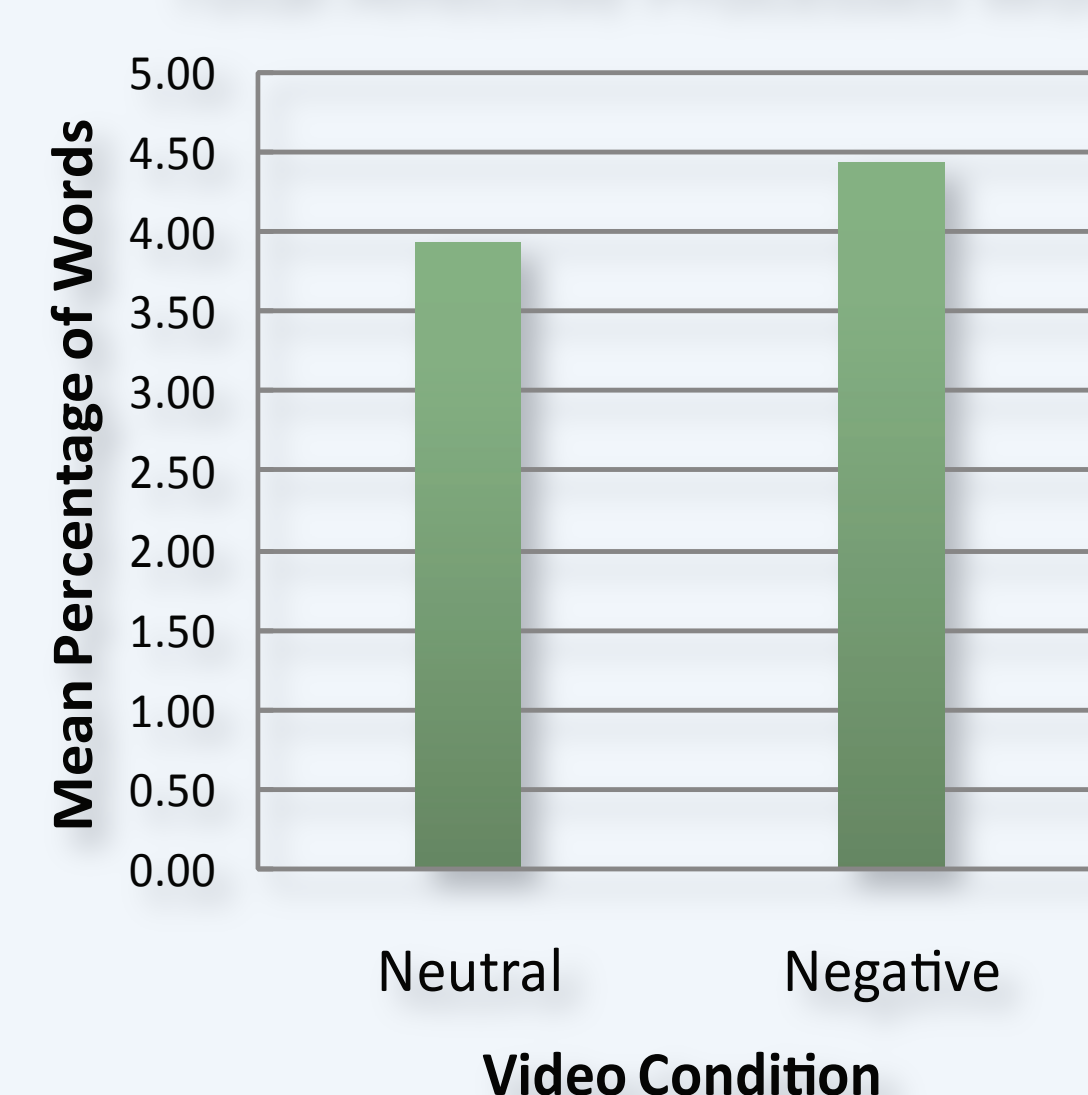
Hypotheses

- * Mean percentage of Affective Process words used by participants who viewed the negative-toned news video would be higher than the mean percentages of participants who viewed a neutral-toned video.
- * The mean percentage of upperclassmen participants' Affective Process words would be significantly higher than the mean percentages of underclassmen participants' affective process words.

Examples of Affective Process Words

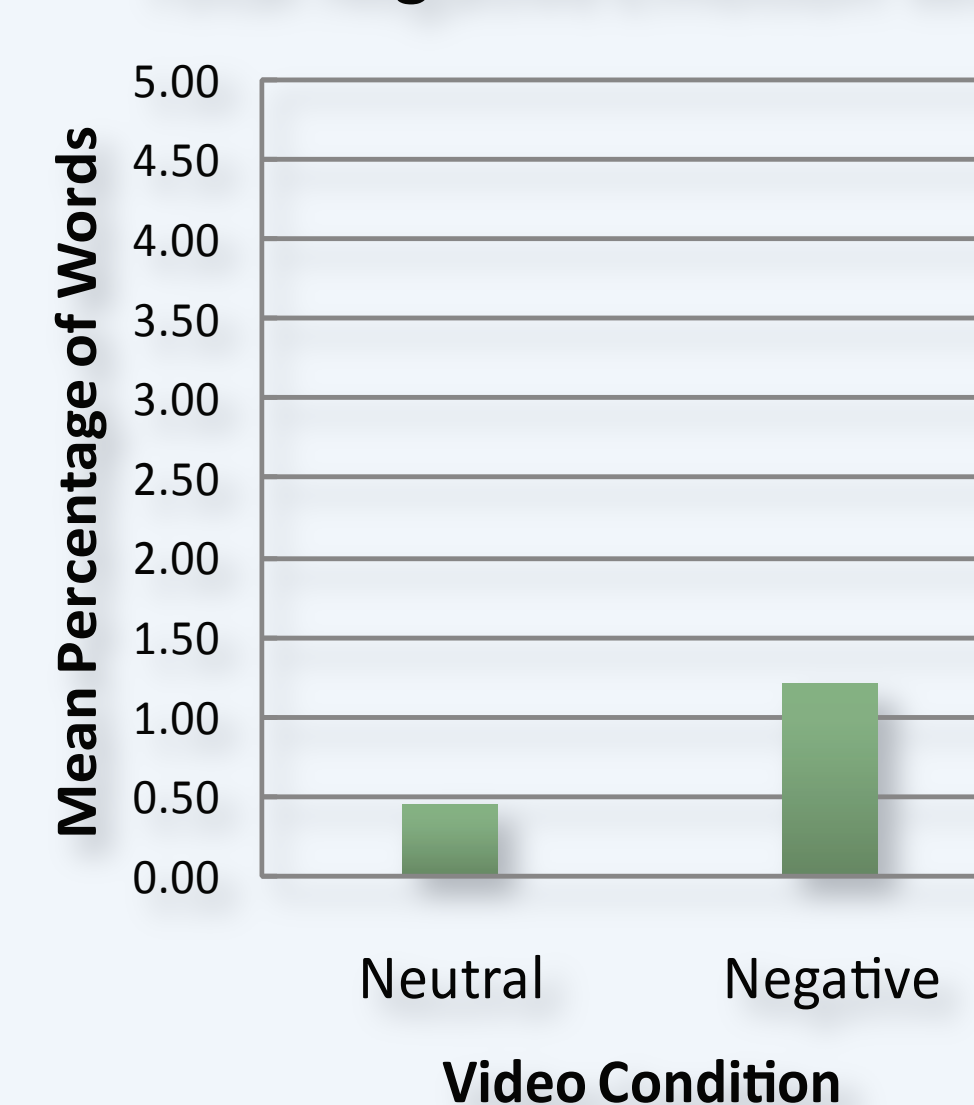
Affective Processes	happy, cried, abandon
Positive Emotion	love, nice, sweet
Negative Emotion	hurty, ugly, nasty
Anxiety	worried, fearful, nervous
Anger	hate, kill, annoyed
Sadness	crying, grief, sad

Total Affective Processes Words

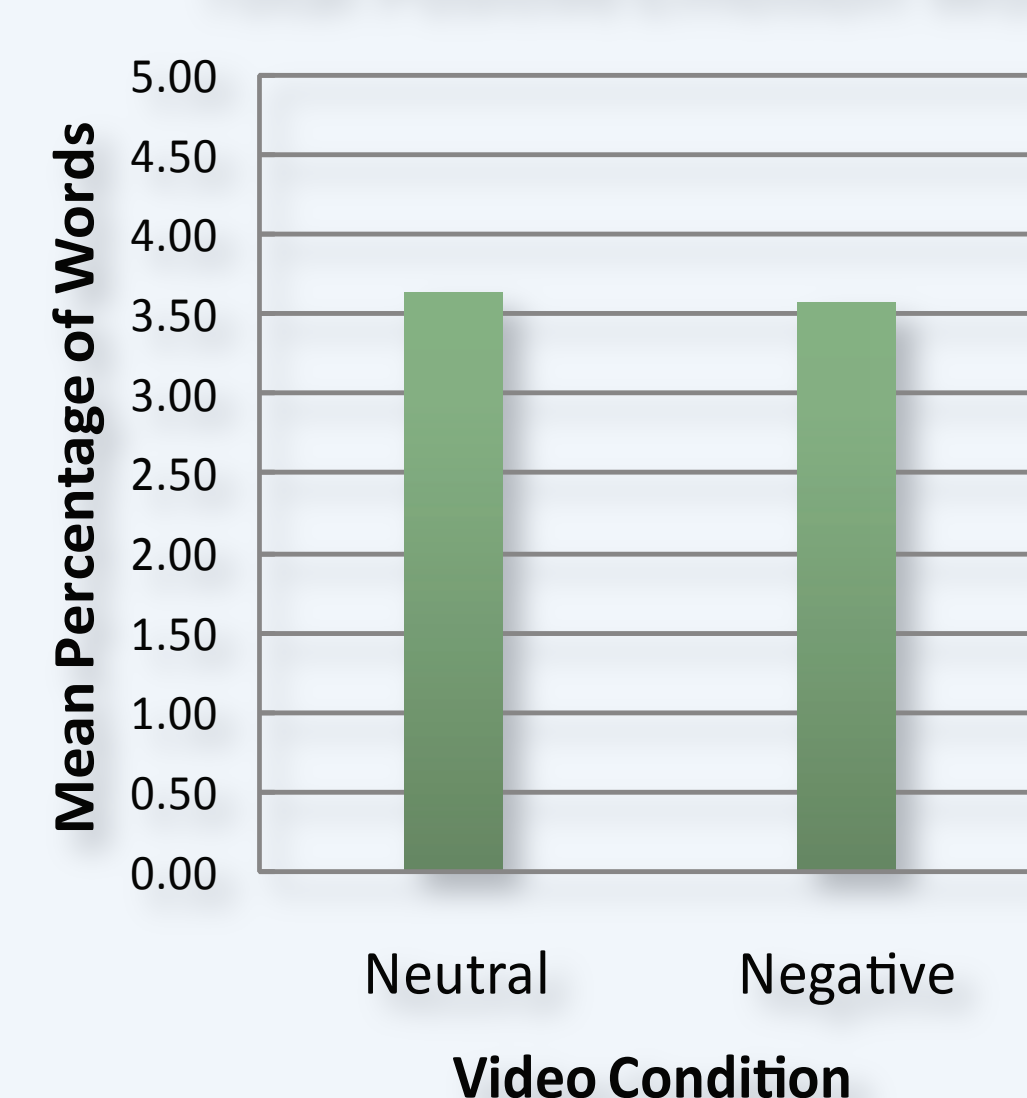


Figures represent mean percentages of words for each of the 6 dependent variables on the basis of the independent variable video condition.

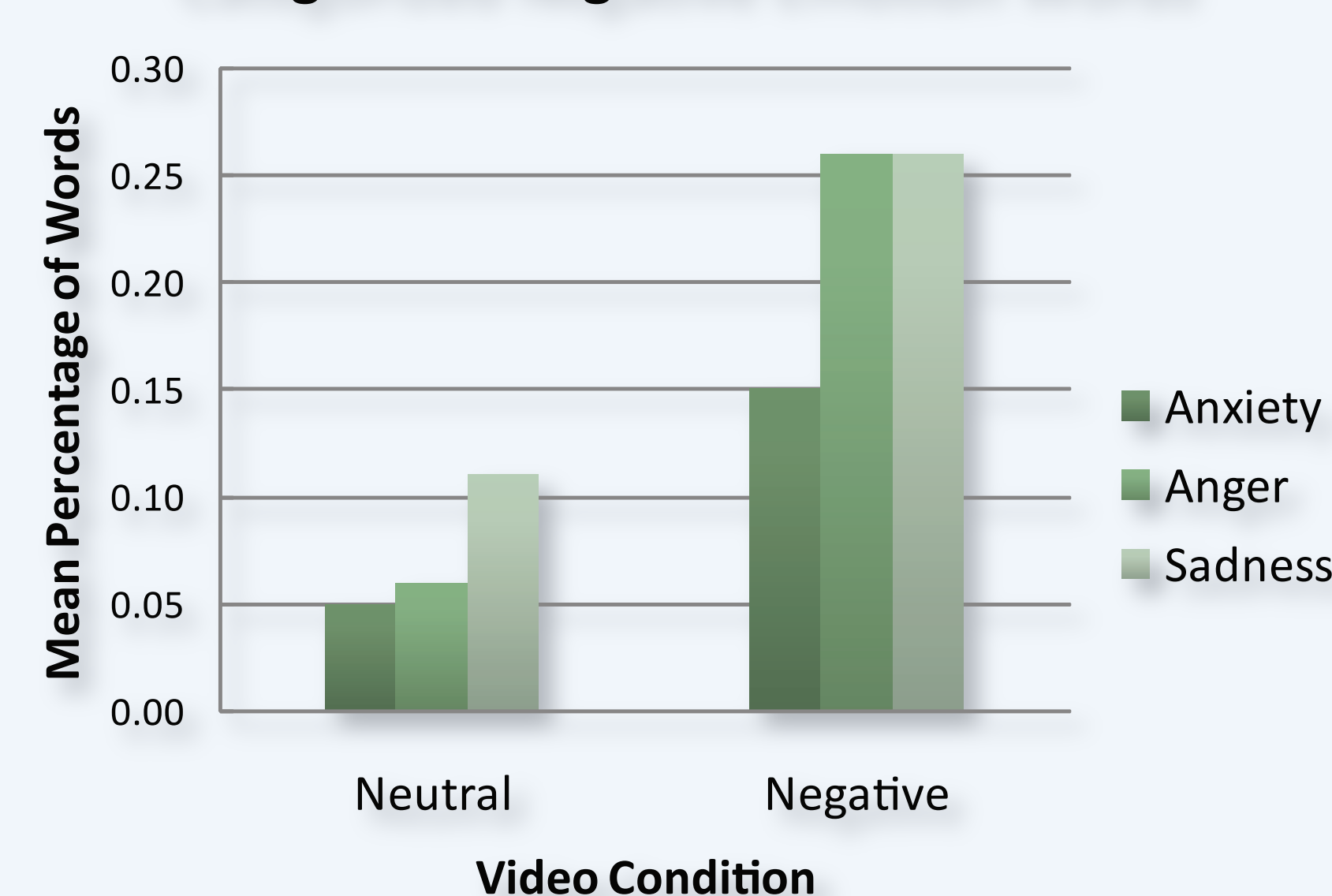
Total Negative Emotion Words



Total Positive Emotion Words



Categorized Negative Emotion Words



Results

- * MANOVA showed no significant effect of the Age condition ($F(6, 247) = .67, p = .65$) or an interaction between Age and Video conditions ($F(6, 247) = .18, p = .98$). Mean percentages of words used by Upperclassmen were larger than Underclassmen participants, however, as predicted in all categories except anxiety.
- * MANOVA showed a **significant effect of the Video condition of Negative or Neutral tone on participants' responses** (Wilks's $\Lambda = .90, F(6, 247) = 4.49, p < .001, \eta^2 = .10$).
- * Follow-up of independent-samples t tests for 6 dependent variables revealed significant differences between video conditions in the number of **Negative Emotion, Anxiety, Anger, and Sadness words**, with small to moderate effect sizes.
- * Participants who viewed the negative-toned news video used overall more total Affective Process, Negative Emotion, Anxiety, Anger, and Sadness words than participants who watched a neutral-toned National Geographic video.

Paired-samples t Test Comparison of Video Condition Means

Variable	Negative		Neutral		Mean Difference	t	df	p*	d
	Mean	SD	Mean	SD					
Total Affective Processes	4.43	3.12	3.94	3.01	-.49	-1.28	254	.203	-.16
Positive Emotion	3.57	3.69	3.64	3.27	.07	.161	254	.872	.20
Negative Emotion	1.21	1.62	.44	.72	-.80	-4.83	254	.000	-.61
Anxiety	.15	.45	.05	.25	-.10	-2.12	254	.035	-.27
Anger	.26	.56	.06	.22	-.20	-3.69	254	.000	-.46
Sadness	.26	.54	.11	.35	-.15	-2.57	254	.011	-.32

Note. Mean Difference represents the means of Neutral video "Great Pyramid Mystery Solved" minus the means of Negative video "Economic Crisis - Hard Times are Coming!"
* $p < .05$

Discussion

- * The results support past research claiming the effect of news media on an undergraduate sample. Past research was furthered, now showing an effect of news media on future outlook in addition to present concerns and mood states.
- * Use of the LIWC analysis program has been extended from its use in analyzing past memories and present thoughts to include texts concerning participants' thoughts and ideas about their futures.
- * Possibilities for future research include manipulating the video condition to compare different types of news programs, such as a traditional news program and a humorous or satirical news program like *The Colbert Report*. Video lengths are another source of manipulation, as the current study and past research has not extended past a 5 to 15 minute video range.
- * Limitations to this research exist: the undergraduate sample cannot necessarily generalize to all populations, word counts per participant response varied greatly (from 2-489) and should be more consistent, and finally the LIWC program is limited to only literal analyses that do not include linguistic devices like sarcasm or analogies.

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