

## Does News Media Affect the Human Cognition?

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### Abstract

This paper considers the affect that viewers may be subjected to when watching news media. The research hypothesis is that there will be a significant negative affect when exposed to aggressive type media outlets. The PANAS was used to measure the emotional responses of participants. Negative affect was significant in those who viewed the aggressive media: positive affect was not.

*The little people must be sacred to the big ones, and it is from the rights of the weak that the duty of the strong is comprised. – Victor Hugo*

Propaganda can be applied in order that certain people hold sway over the masses; in doing so, the cognition and desires of the few are projected onto the many either consciously or subconsciously. While the common conception of advertising and propaganda tends to rest on a matter of “free will”, consideration of how much “will” a population may actually have is in

need of a serious review. This paper delves into the aspects of our current news media propaganda and any effect it may have on the human cognition; it also highlights the need for ethical responsibility in capitalistic endeavors, because that influence is a tool of those best situated to use it.

Today's news media may cover a multitude of topics, but any observer could not help but notice the amount of violence displayed on screen or print. Dr. Richard Feldman reports, "The average American youth will witness 16,000 simulated murders and 200,000 violent episodes on television before age 18; 66 percent of television shows contain violence" (Feldman, 2013). There are those within our culture who may accept this violence as a depiction of reality, and there has been much interest as to whether this projected violence has any effect on our behavior. In fact, many social researchers believe quite firmly that there is a causal relationship between media violence and aggression (Friedrich-Cofer & Huston, 1986). While there are those who contend that there is no relationship, many studies have been conducted in favor of a cause and effect scenario (Anderson et al., 2015; Ferguson & Konijn, 2015; Ramos, Ferguson, & Frailing, 2014).

- While some viewers are aware of news media outlet's attempts at avoiding libel suits, the fact remains that prototypical innuendo headlines, such as, is the person a criminal, tend to establish a negative verdict of the person from the viewing audience (Wegner, Wenzlaff, Kerker, & Beattie, 1981).
- The over stimulation of the negative depictions of those whom exhibit antisocial behavior can lead to an indifference in those viewing these events, strengthening the availability heuristics and reinforcing common stereotypes (Berkowitz, 1984).

- Lower-economic Americans and the less educated are normally more likely to believe the news than higher economic or educated. Advertisers avoids adults aged 18 to 29, people making \$75,000 per year or more, and graduate students because they are losing trust in media (Gallup, 2010).
- Environment, both physical and the portrayed, has a direct impact on behavior in minority groups, especially African-Americans of lower socioeconomic positions (Gibbons et al., 2012).

The question of ethical responsibility stems from early interest in the effects of Propaganda. In 1941, Jerome Bruner, a member of the Foreign Broadcasting Monitoring Service which is a subgroup of the Federal Communications Commission, conducted a review of the book *Political Propaganda*, written by Cambridge's B. F. Bartlett. He states in his review,

*“Professor Bartlett inspects the evidence in favor of the view that man in the mass betrays a primitive, childlike intelligence, a sport of unconscious urges to be played upon by an elite versed in the secrets of human manipulation. For such a view, he concludes, little univocal proof exists. Only under conditions where a monopoly on the propaganda market can be maintained and where the monopoly is accompanied by censorship and the conspicuous show and the use of force can a propagandist afford to make such assumptions.”* (Bruner, 1941, p.606).

Today the media is controlled by six mega corporations, whereas in 1983, media ownership and influence was spread among 50 different companies (Bagdikian, 2000). There is not one monopoly on media, but six groups can probably behave as one in order to come to a single consensus on how to distribute information and influence the population. If this were the case, how then are these media giants influencing the masses?

Bartlett labeled the two types of propaganda strategies as short term and long term. He states in his book on the topic,

*“The more the publicist has his eye on the short-term effect, the more he must put all his communications into a frame of emotion, urgency, and stress; the more he must tie them up with some form of public fashion or whim, immediately suitable to his objective; the more he must express in them the style of exaggeration and superlative. If he seeks long-term effect he must use emotion, whim, and over-statement only to arouse interests which must then be maintained by the more lasting control of intelligence.”* (Bartlett, 1940 p.114)

This research paper has been conducted to test the use of emotional stimulation as a means of influencing cognition; for if there are implanted emotional stimuli, then how much does that influence detract from a person’s free will or their liberty of consciousness? In order to conceptualize the media’s potential to coerce our cognition, we must first understand the way we are stimulated.

A few intellectual reactions are addressed in this paper, most importantly, those directly related to our perception of media. We rely on our senses (i.e., touch, taste, smell, see, hear) to incorporate and interpret stimuli in order that we may gain an understanding of our environment. News media, being a depiction of environment must therefore be analyzed by the same senses. However, because the news and most media are predominately viewed through the use of a television set, the two main senses of sight and sound are the predominant functions in the attentive approach of understanding our surroundings. How could a media outlet use our wits against us to promote their intentions?

## **Influence**

Research (e.g., Babad, 2005; Kreetels & Vroomen, 2011; Maglio, Rabaglia, Feder, Krehm & Trope, 2014) has shown that the aesthetic qualities as well as the non-verbal behavior of media interviewers could contribute to liking or disliking the interviewee. An interviewer that viewers like or hold with high regard tends to elevate the rating of the person being interviewed, while a negative view of the person conducting the interview results in the adverse perception of the interviewee (Babad, 2005). Sound is also incorporated in media perception, but what effect if any does it have on our cognition? Other research shows that sound has multiple effects on visual perception (Kreetels & Vroomen, 2011). Measurements conducted on vowel sounds demonstrate an influence on our mental representations (Maglio, Rabaglia, Feder, Krehm, & Trope, 2014). Studies have reported finding that the rate of speed serves as a cue in augmenting credibility (Miller, Maruyama, Beaver, & Valone, 1976). In other words, when people talk fast about a subject, we tend to believe them more, or at least consider their knowledge of the topic credible. The incorporation of sound and visualization leads to the controversial theory of dual coding. The most recent research on dual coding supports its influence and impact, the dual coding theory is essentially the idea that a person can remember and recall a memory better if it was first or repeatedly experienced simultaneously with sound and sight (Pavio, 2013). An easy way to understand this concept is when learning a new language, it may be easier to remember the word if there is a picture of what the abstract phonetic sound represents. While a controversial topic, dual coding could contribute too many heuristics and stereotypes that Americans may have toward each other. If a viewer of news media is constantly being told that ethnic group A possesses this type of characteristic, then it is theoretically thought the message conveyed through media will be the first thought the viewer has in the recollection process, in

regards to Ethnic group A. This is a perfect opportunity to introduce cognitive functions that are enabled as a result of these visual and verbal cues.

### **Sensory Construal**

Heuristics is defined by the Merriam-Webster online dictionary (2015) as: involving or serving as an aid to learning, discovery, or problem-solving by experimental and especially trial-and-error methods; also: of or relating to exploratory problem-solving techniques that utilize self-educating techniques (as the evaluation of feedback) to improve performance (Merriam-Webster, 2015). In layman's term, heuristics are mental shortcuts used to help identify and label stimuli that we are exposed to. Heuristics are extremely relevant in the way we perceive the news, in the logic that media groups are not legally allowed to lie, or libel. Therefore, as previously mentioned, they use innuendos. When information is ambiguous or vague, as in the sense of these innuendos, our natural reaction to this lack of concrete evidence tends to be an application of heuristics. The application of the heuristics in our cognitions can be strongly influenced by the characterization that individual media outlets portray upon the topic at hand. Again, if Ethnic group A is mostly accredited with Z characteristics, a viewer may recall these characteristics in the form of heuristics if the presented information is not considered tangible data. There is another factor that must be considered in perceiving the information obtained from News Media; the phenomenon of the *illusionary truth effect*. Scholars have demonstrated that even in the face of evidence, people tend to rely on fluency as the depiction of truth (Fazio, Brashier, Payne, & Marsh, 2015). This fluency is established by the repetition of easily assimilated information subduing the ability to critically think past the heuristic thought process. In other words, we tend to just accept what we have heard over and over as the truth, even if evidence to the contrary is readily available. Bartlett pointed out how Hitler believed this to be

true when he cited, “the masses,” claims the Fuehrer Hitler, “...will lend their memories only to the thousandfold repetition of the most simple ideas.” (Bartlett, 1940, p.114). Even though we may trick ourselves consciously or unconsciously to believe whatever may come easiest to accept, this cerebral trickery is not wholeheartedly ours. Media articles can have misleading headlines without being deliberately false. Because misleading headlines effect readers’ memory, inferential reasoning, and behavioral intentions (Chang & Pillai, 2014), it would behoove propagandists to utilize this technique to funnel the individual’s opinion towards the desired intention of the publicist.

## **Affect**

With all this information on the effects of persuasion, it would be easy to think that there is nothing more to discuss. Once again, if someone does not like what they are seeing, they are more than able to turn the channel or simply turn off the television. However, we are emotional people, and we tend to become accustomed to emotion. Whether it be love, anger, hope, or fear, we desire and need to experience emotion in some form or another. Those that do not seek a degree of emotion have been ostracized by society and labeled sociopaths or better, stoics. Unfortunately there is a plethora of information in existence that tends to demonstrate the over-empowering of logical thought when higher levels of emotion are prevalent, such as a study that revealed that when experiencing explicit emotions, specific judgements are made (Ugazio, Lamm, & Singer, 2012). The sole interest of this research paper is to see what emotions unambiguously, if any at all, media tends to tap into.

The interest of emotional subjection by the media can be an ethical one. Furthermore, Ugazio et al. (2012) propose that the effects of induced emotions on moral judgements can be predicted by taking their motivational dimension into account. This posits the idea that Media

could present information in a way that creates a known judgement on the subject, and all they have to do is stimulate an emotion prior to the introduction of the topic to be judged. While all the previous data may play into our interests and free will, tapping our emotions in order to create a predicted judgment to an event may be extremely unethical. Another angle the Media could potentially play is using our values as predictors in judgement. Values play a significant role in the way we make judgement calls on ourselves as well as others (Torelli & Kaikati, 2009). News media, in the pursuit of ratings, naturally appeal to the larger percentages of the population. If this percentage of the population is Ethnic Group E, then News Media may exploit their value system, in making judgements upon Group A. Also, men tend to react more emotionally towards News media than women (Sternadori & Wise, 2010). Could this be the desired intent in our fading masculine culture? In order to answer these hypothetical conundrums we must first establish that there is indeed some form of affect stimulated from the media. The Positive Affect Negative Affect Scale (PANAS) has been chosen to demonstrate this reaction if it exists.

### **The PANAS**

Watson, Clark, & Tellegan (1988) state in their conclusion on p.1069 that the PANAS was created to “measure the two primary dimensions of mood – Positive and Negative Affect”. They elaborate within the article that “Positive Affect (PA) reflects the extent to which a person feels enthusiastic, active, and alert. PA shows high energy, concentration, and enjoyable engagement. Negative Affect (NA) is subject to distress and unenjoyable engagement, showing a myriad of opposing mood states, which include anger, contempt, disgust, guilt, fear, and nervousness.” The PANAS was created because existing scales are unreliable, have poor convergent or discriminant properties, or are cumbersome in length. In other words, previous

scales and measures on these two emotional states and traits were not as accurate as the PANAS, they were inefficient, and the authors felt they could provide something better than what had previously been published.

The researchers found that internal consistency reliabilities (coefficient alpha) range between .86 and .90 for PA and .84 to .87 for NA. This data shows that the reliability of the scales is obviously unaffected by the time instructions. There is also a low correlation between NA and PA ranging from -.12 to -.23, which indicates a quasi-independence that is appealing to most researchers. The PANAS had the lowest correlation (divergent validity) of the two opposing factors than previous measures that existed prior to its formation. The correlations were, for the most part, also unaffected by the time instructions, adding to the test's reliability. When conducting the test-retest reliability study, the data stayed relatively the same. There was an increase of stability over time, and the researchers hypothesized this to happen due to the amount of events that would take place in the participant's life over the period of time. When compared against groups, there was no systematic differences between students and non-students; while another group's sample size was small ( $n=61$ ) and cannot be considered definitive, there was a moderate inter-correlation with results given to psychiatric inpatients. The researchers note that there was significant difference in the PA/NA results in the healthy/non-healthy examinees, thus contributing to the reliability of the test.

Overall, the test appears to be reliable when based on the test-retest and Coefficient Alpha scores. On a factorial scale, the items seem to correlate with Zevon and Tellegan's mood descriptions; the researchers were able to find two thirds of a common variance between the two scales of the items selected. The results showed that both scales in the PANAS were highly correlated with their corresponding regression based factor scores in each solution, with

convergent correlations ranging from .89 to .95 and a discriminant correlation ranging from -.02 to -.18. Median varimax loadings showed strong primary loadings as well as low secondary loadings. The researchers then compared the PANAS to a 4-point frequency format in which the scores corresponded with the PANAS scale and scores. The results were the emergence of two common factors accounting for 75.4% and 73.3% of the common variance. In both samples the convergent correlations are above .90 and the discriminant correlations are all low, thus demonstrating that the PANAS scales compare favorably to other brief affect measures. Compared against other tests of depression and stress, there was divergent correlation with the participant's NA scores on the PANAS and scores on the three depression/stress tests. When the test was used by different researchers, rather than the original scholars, validity persisted. Outside researchers attempted to use the measure in different ways, incorporating time of day and amount of time sleeping. All results contributed to the validity of the PANAS (Watson, Clark, & Tellegan, 1988). This test is ideal to record affect; it is a reliable and valid measure in identifying emotional responses over a long term time period, a moderate time period, or an immediate account of a positive or negative emotional state.

### **Research Hypotheses**

The hypothesis in the research is that there will be a significant difference in positive and negative affect between students who are exposed to Fox News versus students who are exposed to CNBC News. This hypothesis in the research paper predicts there to be some variation of affect in viewer cognition, and based on the previously mentioned information, more negative affect is predicted from aggressive News media outlets, such as FOX news; specifically, because such outlets wield a more constant barrage of aggressive stimuli in the form of words, aggression, sounds, and colors, in consideration with the data collected and stated previously in

this paper. The research will seek to test the null hypotheses that there will be no significant difference between the positive and negative affect of the students when exposed to the independent variables.

## **Method**

### **Participants**

One-hundred undergrad students from a midwestern liberal arts university participated in this study. The sample consisted of 45 males and 55 females with a mean age of 20 years. The sample identified itself as being 82% European decent, 14 % African American decent, and 4% other. There were 37 freshmen, 29 sophomores, 21 juniors, and 13 seniors. Forty-seven students identified as Democrats, while 53 identified as Republican; a near identical representation existed in liberal and conservative ideologies, respectfully. Finally, 21 percent of the sample believed the news to be an accurate depiction of reality, while the other 79 percent did not.

### **Materials**

A packet consisting of the 20 item PANAS survey was found between a consent form and an eight items demographic questionnaire. There were two YouTube videos on minimum wage that served as the independent variable. These two media clips were subjectively, fair and balanced. The FOX News clip was retrieved from [http://www.youtube.com/watch?v=FoK\\_nRdp38I](http://www.youtube.com/watch?v=FoK_nRdp38I), and the CNBC News clip was retrieved from <http://www.youtube.com/watch?v=bFWjTmyeAOM>; both clips were under four minutes in length.

### **Procedure**

The students were informed that they had the option to participate in a survey. They were told that they would view a video clip on YouTube and take a short survey; they were told that the whole experiment should take no more than ten minutes. The sample was split nearly in half; the total amount of students that viewed the Fox clip was 48, and the total amount of students that viewed the CNBC clip was 52. The students were handed the survey packet face down and then presented with the appropriate video. Upon completion of the minimum wage conversation, the students flipped over their surveys and began the measure. After signing the consent form, the PANAS came before the demographic questionnaire. This was significant in order to not confuse them with philosophical and concrete questions, but rather record the most immediate affect ethically possible. Upon completion of the PANAS, participants then answered the Demographic questions; when students completed this portion of the survey packet, they inserted their packet into a manila envelope. When the last survey was turned in an explanation of the research was given along with gratitude for time.

## **Results**

After collecting and inputting the survey data the null hypothesis was rejected. The data revealed a significant difference between the two groups, those who viewed FOX vs CNBC. An independent sample t-test comparing positive and negative affect scores between participants who viewed FOX vs CNBC clips demonstrated those who watched Fox ( $M=18.94$ ,  $SD = 6.18$ ) had higher negative affect than those who watched CNBC ( $M =16.8$ ,  $SD = 6.36$ ),  $t(98)= 1.741$   $p = .043$ . In addition, those who watched Fox ( $M = 27.4$ ,  $SD = 8.17$ ) did not have significantly higher positive affect than those who watched CNBC ( $M =25.36$ ,  $SD = 8.5$ )  $t(98) = 1.225$ ,  $p = .113$ . The hypothesis in this research was correct; views of FOX news had a significant negative reaction in their cognitive processes.

## **Discussion**

This information is significant in many ways. While it may be obvious to some that there may be a significant negative reaction viewing aggressive media, this experiment adds support to this notion. The PANAS is the most accurate affect measure, and gives a good description of emotional states. Given the research mentioned throughout this article, one could deduce that media has the ability to emotionally stir the human mind. This emotional state of being is paramount in softening the cognition of viewers in order to best implicate the persuasion tactics. Again, the question of ethical awareness comes to mind. Is it ok for a corporation to manipulate the public in order to reach an agenda? Does this negative state of mind add to or even create negative behavior in society? Surely that debate will find its place next to the chicken or the egg and nature vs nurture; at least until more research has been conducted. Future research may rather focus on the positive and negative stances by political ideologies, for while the Democrats recently rallied around hope in previous elections, Republicans tend to fear a loss of rights, tradition, and values. It is my personal opinion that the primordial affects of fear and hope are the two polar opposite states that the American society has subconsciously drawn a line between. The media has either capitalized on the existence of this polarization or created it.

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