Head vs. Heart: Dissection of Paranormal Beliefs¹

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Research suggests that paranormal belief may be greater in the United States than other countries. Attitudes, or beliefs, are said to be made up of affect, behavior, and cognition. Of these, affect has been strongly linked to paranormal belief. People believe because such beliefs can provide comfort and consolation. The present study examines whether typical surveys of paranormal belief may be particularly sensitive to the affect component of attitudes. Four surveys were created. One was a standard belief survey, a second asked participants to respond two times: once focusing on affect, and again on cognition. The third focused on affect, while the fourth focused on cognition. Findings across surveys were compared to determine the extent to which affect and cognition can be separated.

Introduction

It has been discovered that people with lower levels of education have a decreased understanding of the concept of probability (Navak & Priest, 2006). It has been found that understanding of probability is negatively correlated with a belief in the paranormal (Blackmore, 1997). It appears, then, that varying levels of education can lead to differences in belief of the paranormal. According to Lyons (2005) there is a trend that those living in the United States have a better propensity to believing in paranormal activities. Examples include 24% of U.S. citizens sampled believe in extraterrestrial beings as compared to 19% of those sampled in Great Brittan. Additionally 21% of U.S. citizens sampled compared to 13% of Great Britain residents sampled that believe in Witches. Finally, according to Rice (2003) more than a third of American citizens believe in psychic powers, Extrasensorv Perception, and extraterrestrial visitations. From these statistics one might take away that Americans are more likely to believe in the paranormal than similar demographics in other countries.

While there are differences in education in relation to belief in the paranormal, there are also differences in the types of beliefs people hold pertaining to all things. Beliefs are said to be made up of three different components. These components are Affect, Behavior, and Cognition, together called the ABC Model (Aronson, Wilson, and Akert, 2007)

The affect component is based on emotions and values, such as reacting to a controversial topic presented on the news. The behavioral component refers to people's actions or behaviors regarding their belief, such as protesting at a peace rally. Finally, the cognitive component represents a person's thoughts about specific beliefs. An example of which would be your thoughts on abortion or capital punishment.

According to Shermer (1997), of the three previously mentioned components or belief, paranormal beliefs are thought to be tied most to the affect component of belief. As explained by Shermer, people believe in things because they want to. Beliefs allow people to find comfort and consolation. Individuals could arrive at these beliefs from many different places, possibly beginning with environmental or family influences. Some action could have started interest in a phenomenon that was perceived to be paranormal in origin (Sharps, Matthews, and Asten, 2006).

The aforementioned discovery of the beginnings of belief may be related to the discovery by Lindeman and Saher (2007) that a superstitious individual and skeptics have equal amounts of scientific knowledge about growth in biological terms. But despite this fact, those who are superstitious hold the beliefs that biological

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organs do things of their own will, and that energy is a living and animate entity. Examples of such would be our hair grows because it chooses to, and that energy can die. Possibly leading one to think that paranormal belief is something that is culturally instilled to people.

Surveys of paranormal belief may be particularly sensitive to the affective component of attitudes due to the fact that emotions are tied to that component of belief (Aronson et al, 2007). Creating a survey to allow participants to separate their affective and cognitive components might adequately balance any sort of informational conflict between a typical survey, and a survey based in paranormal. With a survey combining the two components, we may be able to find if a person's behaviors regarding their beliefs in the paranormal are actually based within the affective component of belief, or the cognitive component.

Method

Participants

Subjects were 88 college-aged, predominantly white undergraduate students from a small private university in western Pennsylvania. Participants were volunteers sampled from general psychology classes. Some participants were given extra course credit as an incentive to take part in the research.

Design

This experiment utilized a 2 (Head-Emphasis) x 2 (Heart-Emphasis) between subjects design. The dependent variable was the average belief score obtained on the Survey of Beliefs instrument.

Materials

The original Survey of Beliefs instrument was used and modified in the present research. The survey was modified to variously emphasize beliefs based on cognitions ("head") as well as emotions ("heart").

Table 1: Examples of Heart-Emphasis and Head-Emphasis survey stimuli.

Emphasis	Sample Question									
Heart	The ability to affect objects purely through the effort of one's mind (like bending spoons, or causing objects to move, etc.), also known as telekinesis or psychokinesis.									
	In my heart (emotionally), I really wish/hope that this turns out to be a real or true fact.									
	1	2	3	2	-	6		8	9	
	Strongly	-	5	•	Not	U	,	Ũ	Strongly	
	Disagree				Sure				Agree	
Head	The ability to affect objects purely through the effort of one's mind (like bending spoons, or causing objects to move, etc.), also known as telekinesis or psychokinesis. In my head (factually), I know that this is a real thing (it is true).									
	1	2	3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3		5	6	7	8	9	
	Strongly	2	5	•	Not	0	,	0	Strongly	
	Disagree				Sure				Agree	

All of the surveys contained the same belief questions relating to paranormal topics. However the way in which participants were asked to respond differed by survey (see Table 1).

One survey asked participants to assess their beliefs according to their "heart" (i.e., based on their emotions).

A second survey asked participants to assess their beliefs according to their "head" (i.e., rely only on factual knowledge; their cognitions). The third survey asked participants to assess their beliefs according to both "head" and "heart".

The final survey was the typical presentation in that it simply asked participants to rate their belief without any information pointing them in the direction of "head" (cognitive factual) or "heart" (emotional).

All surveys used a nine point Likert scale. Responses of 1 represented a response of "Strongly Disagree" while a response of 9 represented a response of "Strongly Agree" to each survey statement. In addition, eleven of the items were phrased in a reverse style as the remaining items. This was designed to discourage participants from establishing a response bias.

Procedure

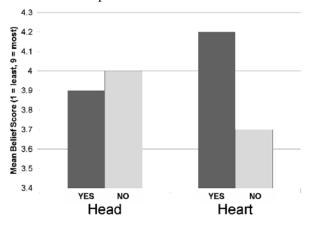
After providing their consent to participate, volunteers were given one of the four surveys (determined randomly). Participants were asked to read the instructions carefully, and then to complete the survey. Once completed, surveys were returned to the researcher.

Results

A 2 (Head-Emphasis) x 2 (Heart-Emphasis) between subjects analysis of variance (ANOVA) was performed on participants' average belief scores based on 27 questions. The results of this analysis revealed a significant main effect of Heart-Emphasis, F(1, 84) = 6.49, p < 0.05.

Survey responses that emphasized emotion tended to show higher levels of belief (m = 4.2) than survey responses that did not emphasize emotion (m = 3.7). Figure 1 contains the comparison of the Head- versus Heart-Emphasis outcomes.

Figure 1: Comparison of the main effects of Head versus Heart emphasis.



Discussion

The present findings showed a clear influence of accessing emotions when prompted. That is, greater belief occurred when emotions were prompted compared with being prompted to consider factual knowledge. Considering the original purpose was to show that emotions are strongly attached to paranormal beliefs, the results were satisfactory.

People showed a natural ability to easily find within themselves how they emotionally feel when prompted to do so, as stated before. This shows that Americans are generally best suited toward their emotions.

Unless told to do so, people seem to be able to respond based on their cognitions and perhaps ignore their emotions. However, it told to think about their emotions, there are clear effects. In terms of the findings comparing Americans to other countries, it is possible that Americans are more likely to believe in paranormal ideas.

It may also be the case that if emotions are somehow primed when Americans respond to belief surveys, their responses may be exaggerated. Another survey that did not outright disclose it was a survey on belief may discover different results.

Other changes in the survey may be the removal of the omit options within the questions. Rewording or choosing topics that more Americans find common may yield a better response.

When it came to the survey that provided participants to respond with their emotions and factual knowledge at the same time, some surveys were returned with responses to one, and not the other. Reworking the survey may avoid this confusion. This was not a typical response, and may possibly just be a misunderstanding of instructions.

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