

RESEARCH BRIEF

Intended Audience: Practitioners, Researchers, General

Analyzing Linguistic Characteristics in Requests for Paranormal Investigations

Mark Boccuzzi

Windbridge Research Center

Tucson, AZ, USA

www.windbridge.org

boccuzzi@windbridgecenter.org

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I conducted my first paranormal investigation in 1999 and shortly after that set up websites to collect requests for investigations. Since then, I have received and catalogued hundreds of these requests. In reviewing them, I noticed striking changes in their content and tone. Early emails expressed a more inquisitive attitude toward understanding the unusual events that the experiencers were reporting. Sure, there were a good number of requests that included reports from fearful experiencers who simply wanted their unexplained events to end, but it was my impression that around 2007 the descriptions of paranormal activity changed from frightening to downright malicious. I decided to explore this idea using text analysis techniques on my catalogue of case requests.

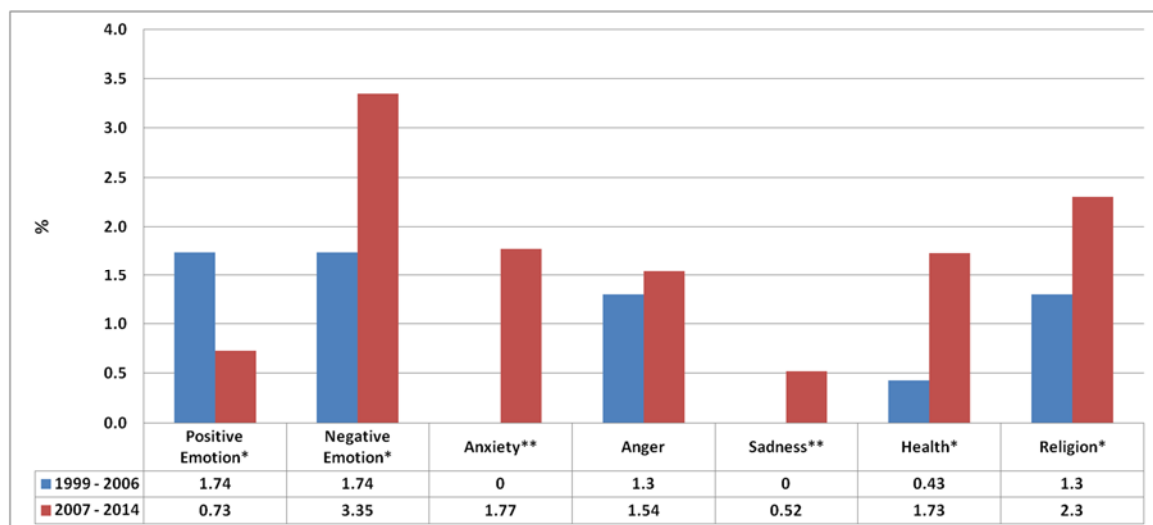
Method

To create the data sets, I sorted all the Investigation Request emails into two groups: Group 1 was from August 1, 1999, to December 31, 2006, and Group 2 was from January 1, 2007, to June 1, 2014.

The primary analysis was conducted using Linguistic Inquiry and Word Count (LIWC; <http://liwc.wpengine.com>) text analysis software. Additional analyses were completed using the statistical program R (R Core Team, 2013). LIWC (pronounced ‘Luke’) is a validated text analysis software program that calculates the degree to which different psychologically meaningful categories of words are used in a given text. LIWC is used to examine text for the degree to which 80 different language categories including positive/negative emotions, self-references, causal words, attentional focus, emotionality, social relationships, and thinking styles are represented. The psychometrics of words assessed by LIWC are based on a random collection of over 2,500 blogs, experimental essays, poetry, books, science articles, and natural speech transcripts (Tausczik & Pennebaker, 2010). LIWC has been used to “classify texts along psychological dimensions and to predict behavioral outcomes, making it a text analysis tool widely used in the social sciences” (Chung & Pennebaker, 2012, p. 206). The output from LIWC includes the percentage of words in a given text that fall in each of the categories.

Results

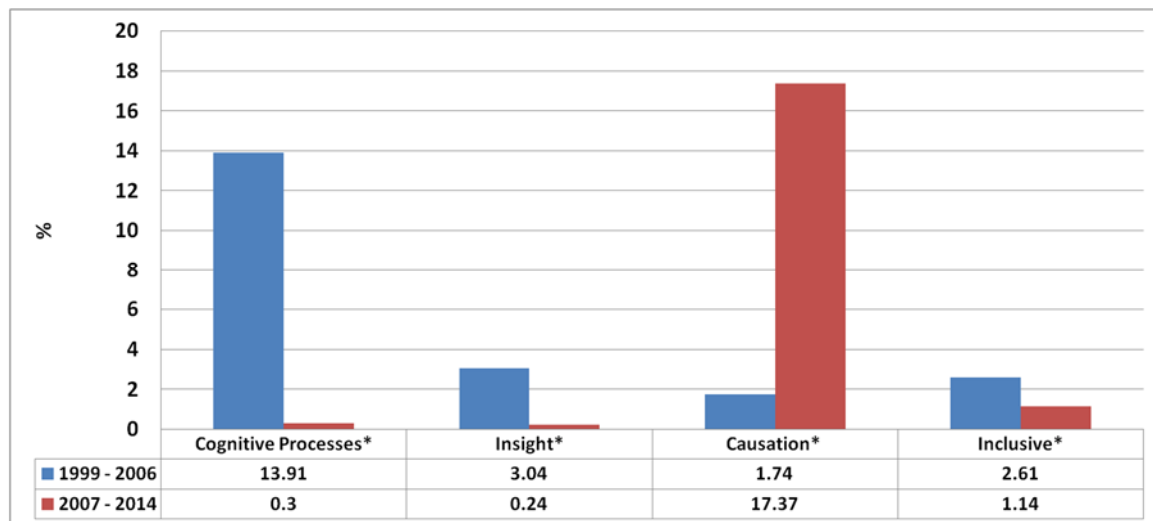
The two graphs below represent some of the more interesting results from LIWC analyses of the Investigation Request text from Groups 1 and 2.



* $p < 0.0002$, z-ratio test (two-tailed)

**A z-ratio cannot be calculated for these values.

In the graph above a significant decline in words associated with positive emotions and a general increase in words associated with a range of negative emotions including anxiety and sadness are apparent. There are also significantly more references to health (e.g., ‘pain,’ ‘injury,’ ‘illness,’ ‘headache’) and religion (e.g., ‘spirit,’ ‘demon,’ ‘god’) in the more recent group.



* $p < 0.0002$ z-ratio test (two-tail)

In the graph above, significant decreases between the temporal groups in language associated with cognitive processes (e.g., ‘consider,’ ‘think,’ ‘maybe,’ ‘could’), insight (e.g., ‘wonder,’ ‘question,’ ‘aware,’ ‘prove,’ ‘define’), and inclusiveness (e.g., ‘we,’ ‘with’) are seen. In addition, there is a significant increase in language associated with causation (e.g., ‘made,’ ‘because’).

Discussion

While strong conclusions cannot be drawn from these data, it seems that (1) reports of the paranormal are now more associated with negative experiences and (2) experiencers are thinking less critically about their paranormal encounters and assigning some type of cause to them. A qualitative analysis of these data sets would probably be helpful in exploring these themes in more detail.

So, what happened between 1999 and 2007 to cause these changes? A lot. The world is a complex place and trying to pin down simple causes would be naïve. Two possible factors, however, seem to have played roles: (1) the

explosion of paranormal-themed reality entertainment television shows and (2) the way we now use electronic media to communicate.

Paranormal-themed entertainment is by no means new. I remember watching *In Search of...* with Leonard Nimoy when I was a kid, but the “embedded” unscripted style of modern paranormal shows has taken the genre to an entirely new level, effectively blurring the lines between factual accounts and storytelling. According to my quick search of the Internet Movie Database (www.IMDb.com), between the period of 1999 and 2006 (the range of the Group 1 data set), six paranormal themed reality TV shows premiered in the US, including the break-out show *Ghost Hunters* (2004-2016). *Ghost Hunters* would go on to create the template for ghost hunting shows and paranormal investigation groups for the length of its run and beyond. In the period between 2007 and 2014 (the range of the Group 2 data set), 26 ghost-related reality TV shows premiered. This newer batch includes a host of long-running and popular shows such as *Paranormal State* (2007-2011), *Ghost Hunters International* (2008-2012), *Ghost Adventures* (2008-), and *The Haunting of...* (2012-2016).

Thinking about the evolution of these shows, the first two seasons of *Ghost Hunters* (October 2004-May 2006) seemed to focus heavily on the interplay between the investigators with some unexplained paranormal activity sprinkled in to keep things interesting. However, by the start of the third season (October 2006-November 2007), the team was finding ghosts at almost every location they visited. By this time *Paranormal State* was also kicking off. The show focused on disturbing and allegedly demonic paranormal encounters. It could be argued that this show is what flipped the public’s paranormal switch from viewing encounters as something that could be studied and understood to brushes with evil that need to be feared and eliminated.

It could be said that the increased number of sensationalized shows has implied that the paranormal is around every turn and has created unrealistic expectations and primed people to immediately experience even mundane events as paranormal. In addition, the prevalence of these shows may have created a climate of fear and done a disservice to those who study and experience actual paranormal events. Conversely, others might say that the proliferation of paranormal themes in the popular media has gone a long way towards normalizing these encounters and, as a result, provides people with the courage to reach out for help.

Another trend I have observed over the years is a change in the general style of the Investigation Request. In the Group 1 data set, the email

messages tended to be longer. Most were formatted as polite, professional correspondence. These messages often included an introduction, descriptions of the activity, and questions about the investigation process and paranormal activity in general. They often ended with a formal closing and a thank you. The Group 2 messages tend to be shorter and more demanding. As the analysis shows, the Group 2 messages tend to convey fear and anxiety and an expectation of an immediate response and a solution to their problem.

This shift could simply be the result of the evolution of on-line communication. In the early 2000s, people typically composed email messages from their desktop computers, and many followed the conventions of typed or written correspondence. Today, in the age of Twitter and micro-blogging (e.g., Facebook posts), people are used to simply tapping out and sending a short message from their mobile devices. In addition, the idea of paranormal encounters and the processes used to investigate them are now, most likely, part of the popular culture, so deep inquiry or engagement is no longer necessary. Simply posting, “I have a evil ghost in my house thats hurting me and U need to come here and get rid of it now!” to a Facebook page is all that is needed. This is the new normal for paranormal investigations.

To continue with line of research, I’m currently planning the following: (1) a more finely granulated LIWC analysis of the requests on a year-by-year basis in order to more precisely track when these linguistic changes occurred; (2) detailed qualitative analyses of investigation requests to identify specific common themes; and (3) on-going collection of investigation requests to track any future changes.

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