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Student Name: Chandra Bunker
Student E-mail Address: marks7@email.com
Title of Thesis: Mindbight Rare in the 2016 Presidential Election

THESIS COMMITTEE MEMBERS
Thesis Director: Mark Blake
Second Reader (if you know): Megan Miller

Student Signature: ____________________________

Prospectus approved by: ____________________________
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- A 1-page abstract of your project.
- A week schedule/timeline outlining when each section will be completed.
- A preliminary working bibliography.
- 13-15 pages of actual writing (or the beginnings of your creative product if you're doing a more artistic project.)
Hindsight Bias for the 2016 Presidential Election

by

Christy M. Burke

A thesis submitted in partial fulfillment of the requirements for the University of South Florida
St. Petersburg Honors College

Major Professor: Mark Pezzo, Ph. D

Date of Approval:
December 6, 2016
Abstract

Although hindsight bias is a very specific and narrow field of interest, there seems to be conflicting ideologies, results, and theories. Of particular interest for this paper is hindsight bias in regards to the 2016 Presidential Elections. I propose to analyze data collected on an ongoing study by Dr. Mark Pezzo in the Social Judgement Lab. The study asks participants, both before and after, the presidential election to indicate their: political party, preference of candidate, likelihood that the candidate, Donald Trump, would win, estimated percentage of vote that each candidate would receive, and demographic information for research purposes. After the pre-election data, has been collected, another data collection will occur gaining information on participants' emotional response to the outcome of the election, the degree the outcome “makes sense” to the participant, and three questions that will effectively capture foreseeability.

Normally hindsight bias would be predicted for all study participants, but due to the level of surprise the election outcome created, it is predicted that it may be difficult for people to make sense of it, therefore participants may show little hindsight bias, or may even show reverse hindsight bias. Hindsight bias, reverse bias, retroactive pessimism, cognitive mechanism, sense-making, and exploratory analyses will all be investigated into detail.
Introduction

Hindsight bias is defined as the inclination to view events as more foreseeable, or less surprising, after an event has occurred, in defiance of having minimal or no objective bias for predicting it beforehand (Fischhoff, 1977). Sure, seems like a tactic to boost self-esteem, but Wood (1978) found, in his research, that when people answer on behalf of their peers, the bias is not reduced, and Leary (1981, 1982) found that a need to “look smart” about a topic did not increase hindsight bias.

In Wood’s research study, he focused on the existence, or lack thereof, of hindsight bias associated with visual perception tasks. In three experiments, participants were presented with visual images and asked to predict the task performance outcomes of a peer or naïve self. In the first stage of each experiment, observers were asked to identify degraded images of celebrity faces as they gradually resolved to full resolution. Following this phase, Experiment-1 and 2 participants were given a surprise memory test in which they were asked to adjust the clarity of the celebrity photos until the images reflected the clarity in which they were first recognized in phase one. Experiment 3 participants were once again shown the celebrity images from phase one, and additionally shown a new set of faces in full clarity as they gradually degraded into low-resolution images. Participants were asked to stop the resolution process when they believed a naïve peer would be able to identify the face. In all experiments, participants overestimated identification performance of naïve observers. Participants were more likely to show greater visual hindsight bias when viewing familiar faces, in both phases of the experiment. Bias was not reduced following explicit instructions to ignore and avoid the bias of knowing the outcome of each image at its full resolution. Wood concluded that once the content of a visual image is known, observers are unable to discount this information (Wood, 1978). Thus, observers are
inclined to overestimate their abilities, and the abilities of others, to identify the image at a more
degraded state.

Leary’s research snowballed off the phenomenon that concentrated on people’s inability
to reconstruct prior probabilities once the outcome of an event is known. Leary constructed a
study that examined the conceivable roles of the motives to maintain one’s self-esteem or appear
favorable to others in producing the hindsight bias effect (Leary, 1981). 93 participants (51
males, 42 females) were classified as either high or low in ego-involvement in respects to
football knowledge. Some of these participants were asked to predict the final score of a football
game, prior to game time, while other participants were asked, postgame, to indicate what they
would have predicted the final score of the game to have been if they would have been asked
pregame. Results demonstrated hindsight predictions to be closer to the actual score than were
predictions made before the game, however, ego-involvement remained unaffected. Hindsight
bias seemed to cast biases in participant’s information processing and may have developed in the
absence of motivational effects, but rather cognitive.

Leary (1980) also published a research study involving hindsight bias and the 1980
presidential election. In foresight, outcomes can often be difficult to predict, yet easily justified
and understood in hindsight of an outcome, leading many to distorted hindsight due to people’s
inability to recall prior probabilities and predictions for an event after it has occurred, but instead
focus on mediation and motivational factors, specifically self-esteem and self-presentation, that
influence an individual to make sense of an outcome. In Leary’s study regarding the, at the time,
recent election, Leary asked participants prior to the presidential election, under public or private
response conditions, to predict the outcome of the election. There were also participants that
were asked the question, postelection, what they would have predicted the outcome of the
election to be if they would have been asked before the election occurred. All subjects who participated were classified as being either high ego involvement or low ego involvement in regards to their knowledge of politics. Clear evidence of hindsight distortion was indicated in the participants’ results. Individuals that were asked, postelection, to predict the outcome of the election, had predictions significantly closer to the actual outcome than did those that were asked preelection to give their predictions. Once again participants were unable to ignore information of current knowledge, even when they were asked to consciously ignore that bias of information. However, results did not seem to provide evidence for mediation of self-esteem and self-presentation concerns.

Louie et al (2001) took an interesting approach on the issue by examining motivation’s relationship to hindsight bias in a situation where a person is trying to refrain from looking culpable. The study zeroed in on a competitive setting, examining hindsight bias in respects to team decision making in which groups attempted to outperform one another. Louie predicted that, due to self-serving mechanisms, individuals would only show hindsight bias when decision outcomes allowed them to accept credit for their team’s success or discredit another team for being successful. The study involved MBA students participating in a market simulation game. The students were asked to make postgame estimates regarding the likelihood of their own team, or another team, performing well in the simulation game. Consistent with self-serving mechanisms, when team decision outcomes were favorable, individuals showed hindsight bias. However, individuals refrained from showing hindsight bias when team decision outcomes were favorable for another team. When team outcomes were unfavorable, individual’s evaluations abstained from any hindsight bias, unless they were evaluating another team, in which the
hindsight bias occurred. The results suggest that the presence of hindsight bias is motivated by self-serving mechanisms and the avoidance of culpability.

Pezzo & Beckstead (2008) found a similar result to Louie, but reported that the effect of motivation was quite small. In their research process, Pezzo & Beckstead analyzed the effects of motivated processing on hindsight bias. They took one hundred and fifty-three college students and had them estimate, and later recall, the likelihood that 30 self-relevant events would occur during the span of the next two months. Implementation of multi-level modeling was used to determine the effects (within-subjects) on expectations, event valance and event controllability on hindsight bias and the extent to which these effects were moderated by participants’ need for cognition scores (between-subjects). For events that actually occurred, Pezzo & Beckstead found support for defensive processing. They found that the bias was smaller for negative events. Results from the experiment also showcased, that for events that, did in fact, occur, those events judged as more controllable produced a larger bias. Neither valance nor controllability influenced the size of the bias for events that did not occur. Results showed that the size of the bias of occurrences did not differ significantly from that for non-occurrence. Finally, cognition scores did not moderate the effects of valence or controllability, nor did it directly affect the size of the bias.

Renner (2003) did a similar experiment examining defensive processing in a real-world setting, using a true control condition. Renner asked participants to predict their cholesterol level (e.g. high, medium, low) approximately 40 minutes before finding out their actual score, immediately after receiving their score, and then again approximately 5 weeks later. Participants that received surprising, yet positive results, did not show signs of hindsight bias. Patients that received unexpected, negative, results did show hindsight bias, which later transformed into
reverse hindsight bias when asked again about their results in week 5, meaning, the participants recalled a lower prediction of their cholesterol than the already too-low prediction they made in foresight. Renner suggests that foresight might be a method used by people in an attempt to regain a sense of personal control and self-efficacy in the state of an uncontrollable situation. The emergence of reverse hindsight bias may present itself after the feelings of self-defensiveness and the presence of a threat dissipate, leaving people's goals to shift to avoid blame.

To add to the conflicting theories and studies already done on hindsight bias, Tykocinski made an opposite prediction. Tykocinski argues that people show more hindsight bias for upsetting events because, in order to regulate disappointments, believing that an event was inevitable frees one from endless rumination about how things could have turned out differently. This is referred to as retroactive pessimism (Tykocinski, 2002). Retroactive pessimism was illustrated in three research studies. The first study took sports fans, and had them participate by rating the likelihood that their team, and the team's opponent, would be successful in an important soccer game, both before and after the match. Results found significant pre- and post-game probability shifts for fans of the defeated team, but interestingly not for the supporters of the winning opponent. This alludes to the fact that the fans with the winning team found the game results to be "earned" while the disappointed fans found the game results to be "inevitable." In the second and third research experiment, participants responded to a scenario illustrating a loss of stipend that was either of large or small value. In respects to retroactive pessimism, participants were expected to show more hindsight bias with greater disappointment, in other words, the larger loss of stipend. Indeed, results found that individuals whose estimates of the probability of a more favorable counterfactual outcome were sensitive to the magnitude of the loss with lower estimates of the probability that things could have turned out better in the
large stipend condition. The effect was weakened, however, when the loss was not person, but rather that of a peer or friend (Experiment 2), or when the disappointment was mitigated (Experiment 3).

Haslam & Jayasinghe (1995) performed an experiment with results consistent with retroactive pessimism. The experiment consisted of college students, and their predictions of their estimated performance regarding their final exam. Results demonstrated that students who earned a higher grade/performed better than originally self-estimated, showed reverse hindsight bias, recalling a lower prediction performance than was actually given. Haslem and Jayasinghe speculate that students may have been motivated to lower their previous performance estimations in an attempt to increase their positive affect by magnifying the idea that they did better than expected.

Blank brings all of this together in an important publication (2006,2007) by proposing that hindsight bias has multiple “components.” For the focus of this paper, I will only discuss two: inevitability, and foreseeability. Blank argues that these separate components are thought to be fundamentally different in nature, to be influenced by different processes, and to serve different functions. The article Blank provides gives strong evidence for the separate components view and its underlying assumptions by demonstrating theoretically predicted dissociations between the components. In one experiment, Blank used foreseeability manipulation to specifically influence the amount of hindsight on inevitability, but not participants’ foreseeability impressions. Conversely, varying the number of provided reasons for an event outcome affected inevitability impressions but left foreseeability untouched. Ratings of inevitability refer to the outcome and likely are driven by cognitive (sense-making) mechanism, which will be discussed in detail shortly, but may on occasion be vulnerable to retroactive pessimism. Judgments of
likelihood, for the most part, fall under this category as well. Ratings of foreseeability, on the other hand, refer more to the *metacognitive state of the person*, the information that was available at the time (before the outcome) etc.

Blank & Nestler (2008) studied hindsight bias as respect to hindsight effects obtained after self-relevant negative event outcomes: whereas some studies have suggested conflicting results, some showing reduced hindsight bias, with others showing increased. The article compares and contrasts two explanations for the anomaly. The first explanation breaks down the influence of perceiving control over an outcome. In hindsight, people tend to decrease foreseeability in respects to negative outcomes, which therefore decreases their inclination to take on responsibility and blame. If someone believes they were unable to predict or foresee an unfortunate and controllable outcome, then they justify their failure in preventing the outcome by taking solace in the fact that they “couldn’t have possibly known this would happen” and therefore could not have possibly prevented it. On the other hand, they increase the perceived inevitability of uncontrollable events for coping reasons. The second explanation suggests the anomaly is due to differences in observed hindsight components: hindsight decreases are to be expected for foreseeability, whereas increases are restricted to the inevitability component. Blank & Nestler’s experiment manipulated controllability and hindsight component orthogonally and showed strong support for the component explanation, but also some influence of perceived control.

In 2003, Pezzo came out with another important publication, “Surprise, defense, or making sense: What removes hindsight bias?” In his paper, Pezzo examines predictions concerning the absence of hindsight bias. With conflicting theories in the field, such as “hindsight bias increases with the more “surprising” an outcome is, and therefore only
unsurprising outcomes will be without the bias,” in addition to theories suggesting the opposite—that very surprising outcomes will reduce or reverse the bias, Pezzo looks further into cognitive mechanisms associated with hindsight bias.

![Graph showing the relationship between outcome valence and event occurrence.]

Literature regarding hindsight bias prove time and time again that people are disposed to believe that we “knew it all along” that such events would occur, even in the absence of minimal or not objective previous bias for predicting it. In Fischhoff’s 1975 article he argues this inclination is caused by relatively automatic and unconscious *sense-making* process (creeping determinism) that focuses attention on outcome-consistent information and away from outcome-inconsistent information. In other words, what people focus on, is what people expand on, and humans are prone to focus and expand on the reasons for why it makes sense that an event has occurred, as opposed to facts or reasoning that would make the outcome seem more surprising, unlikely, or unexpected. This enables people to make better sense of reality. His is where Pezzo introduces his “sense-making model” which suggests that unexpected outcomes (i.e., *initially surprising*) invoke greater sensemaking, which typically produces greater hindsight bias. Pezzo continues by explaining if the process is not successful, however, the bias may be reduced or
reversed. Outcomes that are not surprising, or were expected, will show significantly lower hindsight bias because these outcomes require very little sensemaking to begin with. Pezzo differentiates the word “surprise” in two separate fashions. He defines the most common definition and use of the term “surprising outcome” as one that is incongruent with prior expectations. This usage of the term can be referred to interchangeably as initial surprise – the type of surprise that initiates sense-making activity. The other usage of the term is dubbed “resultant surprise” which refers to the human response to outcomes that are significantly more difficult to make sense of and therefore result in conscious awareness of incongruity. Pezzo’s sense-making model illustrates the fact that if an outcome is not expected, then people’s sense-making process will begin. If the process is successful, the individual will show hindsight bias and the outcome is not considered a “resultant surprise.” In turn, if the sense-making process is unsuccessful, the individual will not show hindsight bias, or perhaps you will experience reverse hindsight bias, and the outcome would be considered a resultant surprise. The model also explains that if the outcome is congruent with expectations, the presence of initial shock does not exist, and therefore there is no need for the sense-making processes to be activated, since the situation already “makes sense.” No hindsight bias will occur and the outcome is, once again not resultant. Pezzo touches on the fact that in some extreme cases, if the outcome is freakishly incongruent with expectations, that even if the sense-making process is successful, the shock of the outcome may overpower the ability to perform hindsight bias (Brexit, Trump, Pearl Harbor, etc.). Papers by Nestler, Oeberst, and Ash all support this idea.
Ratings of inevitability, or likelihood, are most likely driven by my cognitive processing. Ratings of foreseeability, on the other hand, are much more likely to be affected by memory and motivation either to look smart or refrain from looking culpable.

Method
I propose to analyze data collected in an ongoing study by Dr. Mark Pezzo in the Social Judgment Lab. The study asks people either before or after the Presidential Election to indicate the following:
1. political party
2. preference for Donald Trump vs Hillary Clinton (attitude scale)
3. Likelihood that Trump will win the election
4. Percent of vote that each candidate (Trump, Clinton, Other) will get
5. Demographic info: Age, sex, race, location

Post
1. Upset: How did you feel about the election (very unhappy to very happy)
2. To what extent does the election result make sense (not at all to completely)
3. Likelihood questions, but saying “If we had asked you before the election, what would you have said?”
4. Three questions that capture foreseeability (they’ll be averaged together)
5. Please tell us which statement best captures your reaction to Donald Trump winning the Presidential Election.
   - I knew this would happen
   - I didn’t know this would happen
   - I should have known this would happen
   - I never would have known this would happen

Proposed Results
1. Normally, would expect HSB for all participants, but this election was extremely surprising, and it may be difficult for people to make sense of it, therefore may see little or no HSB, and possibly reverse bias. I would expect the Clinton supporters to be more surprised and thus less likely to show bias for a Trump win.
2. Retroactive Pessimism would predict more HSB for people who were more upset?
3. Cognitive would say no effect of that.

4. Exploratory analyses looking at the percent of people who say “I knew this would happen” vs the mean likelihood judgment: Prediction more people will endorse this statement than you would think should, given their numerical responses. Clearly anyone who gives a likelihood less than 50% did not expect the outcome to occur.

Timeline

1. Pre-election survey – completed
2. Data collection and analysis of pre-election data – completed
3. Distribute post-election survey – completed
4. Data collection and analysis of pre-election data – December 16th
5. Creation of graphs and charts showcasing data – February 1st
6. Writing of paper… every day!!!

Bibliography


