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FLORIDA INTERNATIONAL UNIVERSITY

Miami, Florida

CONFIRMATION BIAS: MISINFORMATION IN SOCIETY, REFUTATION AS A
PEDAGOGICAL SOLUTION, AND THE TURN OF THE SCREW

A thesis submitted in partial fulfillment of

the requirements for the degree of

MASTER OF ARTS

in

ENGLISH

by

Crystal Veber

2019

To: Dean Michael R. Heithaus
College of Arts, Sciences and Education

This thesis, written by Crystal Veber, and entitled Confirmation Bias: Misinformation in Society, Refutation as a Pedagogical Solution, and The Turn of the Screw, having been approved in respect to style and intellectual content, is referred to you for judgment.

We have read this dissertation and recommend that it be approved.

James Sutton

Michael Gillespie

Nathaniel Cadle, Major Professor

Date of Defense: March 28, 2019

The dissertation of Crystal Veber is approved.

Dean Michael R. Heithaus
College of Arts, Sciences and Education

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Florida International University, 2019

ABSTRACT OF THE THESIS
CONFIRMATION BIAS:
MISINFORMATION IN SOCIETY, REFUTATION AS A PEDAGOGICAL
SOLUTION, AND THE TURN OF THE SCREW

by

Crystal Veber

Florida International University, 2019

Miami, Florida

Professor Nathaniel Cadle, Major Professor

This thesis explores the societal implications of confirmation bias through the analysis of the characters and criticism of Henry James' *The Turn of the Screw*, and the application of modern psychological and pedagogical studies to demonstrate a similar misunderstanding of truth in society. The aim of this study is to provide an approach to teach students that the plausibility of a belief based on selective evidence is insufficient justification for validation. Such flawed logic insidiously erodes one's trust in objective truths, instead promoting subjective truths that are misinformed by media forms like fake news, biased claims, and unfiltered online content. The findings of this thesis suggest that students show an overwhelming difficulty in discerning opinion from fact and evaluating arguments and that a refutational approach to new information, as outlined in this thesis, is a skill that democracy hinges upon as it requires an educated populace that effectively evaluates information.

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Introduction

As a high school teacher, I find that my students frequently question the purpose of reading classic literature. The question is sometimes posed as genuine interest, but more often it is asked in a provocative manner to imply that the text at hand is a waste of their time. It bears no relevance to the modern era, rendering it irrelevant to their lives. Of course, my role is to speak on behalf of the text. I present classic novels as an expression of the universal human condition, an opportunity to build empathy for those like and unlike ourselves, and a glimpse into life in another time and place. However, I believe it is important to be transparent with students, educators cannot gain their trust and the resulting access to their minds without mutual trust. As so, I do not claim that all classic texts are relevant to all students, such a claim at universality trivializes the texts and the experiences of students through such an inauthentic and prescriptive “one size fits all” approach. For example, teaching *To Kill a Mockingbird* to African American students in the political and social climate of today may certainly enable insightful discussions regarding racism, morality, and social inequity. Nevertheless, I cannot use this text to teach my students about racism if they have more potent firsthand knowledge of its atrocities than those experienced second-hand by a white author. This is not to say that the author has nothing of value to share, but a modern text written by an author of color would have a more perceptive account of racism, but rather than use instructional time dissecting the merits and problematic facets of *To Kill a Mockingbird*, a class can delve into a text in which the characters of color are more than plot devices and martyrs for moral lessons. I find it necessary to demonstrate the consideration that I put into the texts

I teach, as to show the hesitancy of my endorsement of classic texts as being relevant to today.

In this thesis, I will assert that one particularly relevant text addressing important issues in our modern time is Henry James' *The Turn of the Screw* (1898). The novella demonstrates the negative impact of confirmation bias on the decision-making processes exhibited by the protagonist and popular criticism of the text, which directly relates to the confirmation bias rampant in today's polarized political climate. The piece can be used to show students how evidence can be wrongly applied to affirm assumptions in fiction and reality, and how a lack of proper refutation can create a polarization of beliefs. A quick summary of the novella is necessary in order to provide a basis for the various analyses that will be put forth in this thesis. A governess is hired to instruct and care for two children, Miles and Flora, in their home called Bly. The governess sees a man on the grounds and she feels that he is out of place, later describing him to the servant, Mrs. Grose. Grose finds the governess' description to be of Peter Quint, a former employee. The governess later sees an unknown woman on the grounds who she believes is Miss Jessel, the previous governess. Both Quint and Jessel are realized to be dead after their reappearances at Bly, so the governess believes them to be haunting the home to corrupt the children. This assumption is due in part to Grose's vague explanation of their inappropriate relationship with one another, and Quint's inappropriate relationship with Miles. Neither the children nor Grose confirms seeing the apparitions that plague the governess, and in the end Flora fears the governess rather than the supposed ghosts, and Miles dies in the governess' arms during an encounter with Quint in which the governess confirms seeing the apparition but Miles does not.

How is this late nineteenth century ghost story relevant to society, or even high school students for that matter, in 2019? The answer to this important question for any teacher of literature is its illustration of flawed logic and the creation of echo chambers of thought in which every event, past and present, reinforces ill-found beliefs. A modern day parallel can be found in the “fake news” phenomenon that creates biased narratives through the mishandling and misinterpretation of evidence to promote a singular form of thought, further polarizing society through the creation of an echo chamber that ignores competing evidence. The novella demonstrates such faulty logic through the governess’ attempts to prove that the apparitions are real and that they pose a threat to the children. She misinterprets and manipulates evidence to fit her assumptions regarding the happenings at Bly; even evidence that refutes her beliefs is made to reinforce her biased account. Building on existing critical discourse on the text, I seek to prove that the governess does not have adequate evidence to prove that the apparitions are evil or that the children share her visions and are corrupted by Quint and Miss Jessel. By tracing the governess’ invalid claims and exaggeration of the truth, I intend to demonstrate a pedagogical approach to teaching the narrative. The aim of such an approach is to help students recognize the nefarious effects of assumptions and predictions, in a text and in real life, so that these behaviors may be tempered and corrected.

The majority of criticism written about *The Turn of the Screw* focuses on an apparitionist or non-apparitionist reading, but I argue that either classification contains irreconcilable refutations that renders either interpretation incomplete. Thus, a critical approach that claims to define the text in any singular way demonstrates the bias of the critics in misusing evidence to fuel their own assumptions of the text, just as the

protagonist stands accused of doing. In the text and its criticism, plausibility of a theory is mistaken for truth. The text encourages the reader to create unwarranted predictions and assumptions, and then reinforce them using incomplete and slanted evidence. The societal repercussions of such an incomplete approach go beyond the language arts classroom and literary analysis, and into the realm of society and the consumption of news media. In a politically polarized society with each side demonizing the beliefs of the other, it is necessary for students to develop an understanding of bias and an appreciation for refuting one's claims and adjusting them in the face of valid evidence that competes with one's prior beliefs. However, such a paradigm shift is difficult, which I discuss later in this thesis, as psychological mechanisms in the brain seek to reinforce beliefs and discredit competing information.

This paragraph will provide an outline for the development of ideas throughout this thesis. In chapter two, the societal and pedagogical positioning of this thesis will be established to prove the social necessity of enabling logical methods of interpreting information through the lens of the modern "fake news" phenomenon. Through a pedagogical lens, I will argue against the promotion of strategies that enable predictions and assumptions to determine the interaction with a text, whether that text be literature or a news article. In chapter three, an analysis of *The Turn of the Screw* will be conducted with a focus on the confirmation bias inherent in the actions of the governess, in an effort to demonstrate both the pedagogical value of studying her character as a failure in unbiased perception and the repercussions of misinterpreting evidence to validate a belief system. In chapter four, a survey of classic criticism of *The Turn of the Screw* will be provided to demonstrate that a single text can enable competing interpretations, thereby

exposing the polarization in thinking that stems from particular events in the novella, as well as the plausibility that our assumptions allow for evidence to be found to support it, despite valid and irreconcilable refutation of the belief.

The ultimate aim of this project is to connect the flawed method of interpretation demonstrated by the governess and even some of the text's to the psychological and neurological processes that enable a similar process of confirmation bias in real-life decision making. Thus, the societal implications of this study lie in proving the necessity of an awareness of confirmation bias when evaluating evidence, and acknowledging the importance of proper refutation, as a solution to the misinformation that impacts the reasoning abilities of members of society.

Misinformation in Society and Refutation as a Pedagogical Solution

The phrase “fake news” was the American Dialect Society 2018 word(s) of the year (Segarra), the Collins English Dictionary 2017 winner (Flood), and the Macquarie Dictionary 2016 winner (Hunt). “Fake news” can be anecdotally defined as falsehoods masking as truth through the undermining or misinterpreting of that which has been empirically established as “truth,” by which I mean knowledge acquired through credible data and analysis, and widely accepted in society as valid. In addition to the term “fake news,” similarly defined phrases have also found recent notoriety as demonstrated by Merriam-Webster’s 2016 word of the year, “surreal,” and the Oxford Dictionary’s 2016 winner, “post-truth” (Pengelly). Surreal refers to the perception that our society is undergoing an illogical transition and bizarrely moving away from truths we once agreed upon, and this state of being is considered a “post-truth” society. The various sources of these awards use differing metrics, such as the most searched word, a word of interest chosen by a committee, a series of inter-related words that create a narrative that captures the zeitgeist of a year. Whatever the particular metrics are, these designations demonstrate a recent societal interest in truth and misinformation. This chapter will first present an overview of misinformation in modern society. Then, it will define confirmation bias and its involvement in causing misinformation with societal examples of the poor evaluation of truth, and last it will explore refutation as a pedagogical solution to alleviate the issue of misinformation.

In their book *Truth Decay: An Initial Exploration of the Diminishing Role of Facts and Analysis in American Public Life*, Jennifer Kavanagh and Michael Rich tackle

the issue of truth and subjectivity in the modern era with a call to action. In this book, the RAND corporation, a research and development nonprofit organization, seeks to outline the decay of truth in modern society through the definition of the various factors that contribute to that decay, along with historical and modern examples and data points, as well as the consequences of such a phenomena continuing unchecked. Their work aims to serve as a starting point for others to continue this mission of increasing the ability of citizens to discern fact from fiction in civil and political discourse (11-14). Kavanagh and Rich prioritize the term “Truth Decay” instead of “fake news,” because latter refers to a particular object of suspicion or unwarranted trust, whereas the necessary area of study precedes it. Truth Decays places the focus on the erosion of facts more generally, a confusion between fact and fiction, and an increase in the influence of opinions on decision-making (2).

High stakes societal decisions, such as public policy and elections, require objectivity to uphold the democratic process (2). Certainly, we would never willingly make such pivotal and long-term decisions based off anecdotal evidence or opinions. However, America is experiencing a time in which facts that had once been considered an established truth are now being compromised by competing reasoning that is steeped in disinformation (xiv). Opinions appear as facts in the news media and on social media, resulting in a mistrust for facts and analysis, and causing a discrepancy and polarization in modern discourse (xiv).

For Kavanagh and Rich, one such example of skepticism about once upheld truths can be found in the recent debate over vaccinations. Despite data from sources such as

the Centers for Disease Control encouraging parents to have their children vaccinated, there is growing disagreement regarding the analysis and interpretation of such data. Public trust in vaccinations experienced a sharp decline between 2001 and 2015. In a 2015 survey, 54 percent of those asked believed that vaccinations are necessary for children, down 10 percent from a survey in 2001 (Newport). This example of eroded trust in a once agreed upon fact is not intended to raise the political argument of vaccinations, but rather to serve as evidence for the societal shift in thinking that can be caused without sufficient evidence. The most commonly cited sources of blame for the growing concern over the safety of vaccinations is attributed to Andrew Wakefield's 1998 study, and the anecdotal testimony of celebrities who decry vaccinations (Kavanagh and Rich 23). Although Wakefield's study was redacted in 2018, measles outbreaks are still occurring in 2019, demonstrating the widespread implications of embracing anecdotal and misinformed evidence as truth. The skeptical frame of mind shown by "anti-vaxxers" would presumably prevent them from becoming victims of misinformation; however, it often leads to an unjustified skepticism of that which is actually based in valid data. As a result, those that are skeptical of scientific fact are further drawn into campaigns of misinformation and believing themselves to be the enlightened ones.

According to Kavanagh and Rich, if we cannot agree as a society, upon a common set of facts, and instead experience a blurring of opinion and facts, then it is understandably difficult to come to a consensus regarding policies that impact our nation (192). In addition to the demonstration of a blurring of opinion of fact and the resulting polarization of opinion evidenced by the vaccination debate, further studies provide a psychological and neurological basis for decision making as a result of confirmation bias.

In a similar study detailed by Dr. Tali Sharot in *The Influential Mind: What the Brain Reveals about our Power to Change Others*, undergraduate students with a bias for or against the death penalty were shown two scientific studies regarding the topic, one claiming that the death penalty is effective and the other proposing the opposite (Lord, Ross, and Lepper 2008-2019). Although both studies used the same set of falsified data, the pro-penalty group found the study that corresponded with their beliefs to be reliable and the opposing study flawed, and the anti-penalty group exhibited the same confirmation bias by favoring their preferred study and disputing the one that competed with their viewpoints (Sharot 15). The experiment did not open their minds to an alternative point of view or result in a genuine appraisal of competing evidence, or even call into question the fact that both studies used the same set of data in opposing ways. Instead, it reinforced their existing beliefs and further polarized the belief systems of each group as they accused the other of being falsified while neglecting to question the provided data as a whole. They were unable to see past the data that reinforced their beliefs and notice the suspicious nature of the data that made two competing claims using the same numbers. This study demonstrates the way people assign a higher value to data that reaffirms their beliefs and disregard the need to fact-check claims. Each group only expressed hesitation and skepticism toward the validity of data when it contradicted their beliefs, otherwise the information was considered valid.

To demonstrate that the results of the death penalty study were not an anomaly, I will provide another experiment that concludes a similar form of selective trust in data. This study provides the neurological processes of confirmation bias when the subject is confronted with evidence that contradicts a belief. For this experiment, the University of

North Carolina had test subjects make investments by choosing between high-risk stocks and low-risk bonds (Kuhnen, Rudolf, Weber). They found that upon a positive financial outcome that validated the subject's choice of a high or low-risk investment, the choice was qualified as good by the subject. However, a poor financial outcome resulted in neutral judgement, the subject hesitant to believe that they had made a wrong choice and making the same selection despite a negative outcome (Sharot 28). It makes sense that a profitable decision would be deemed good, but the anomaly lies within the reluctance to consider ineffective decisions as being bad. This behavior is not only seen through the subject's continued pattern of investments, but also demonstrated in the brain activity of the subjects. Increased brain activity followed a beneficial decision whereas decreased brain activity followed a detrimental decision. This runs contrary to the common function of the "error signal" in the brain that occurs when people realize they have made a mistake and try to correct it, because in this study the participants had committed to a belief and their brains actively ignored the competing evidence, deeming it unworthy of attention (29). Here we see the power of a belief to even manipulate the way the brain processes contradictory evidence.

In the three examples given—the vaccination debate, the death penalty bias experiment, and the investment decision evaluation of bias experiment—those involved were resistant to data that opposed their prior conceptions. Their emotional preclusion toward a particular belief and outcome eclipsed their evaluation of opposing data and claims. This behavior can collectively be best classified as confirmation bias, that is, the subjects are unable to perceive reality objectively and instead reside in their own subjective truth. A form of reasoning as expressed in these studies is detrimental to

society because people find difficulty in assessing information objectively, always perceiving information through their subjective frame of reference. In the case of the vaccination debate, a person who already has a predisposition to mistrust vaccinations may come across an illegitimate article online that misuses evidence to create skepticism regarding vaccines and then that person may repost the article onto social media where they are likely have hundreds of followers, many of which will see the post. A person who then later views the post may have trust in the person who originally posted the questionable article and the viewer may also have a predisposition to believe that vaccines are detrimental to ones health and thus will have their beliefs further reinforced. This same process can happen in the death penalty debate, the investment scenario, and any other polarizing social or political issue. This process is known as an echo chamber, a physical or online space in which an idea is perpetuated and creates the perception that such an idea or belief is the dominate belief system of society. However, such a view is flawed as people are more likely to surround themselves with those who have similar viewpoints rather than those who differ, and that reinforces the polarization of thought through the false validation that most people seem to agree with the position.

Another issue with such a flawed system of reasoning as displayed in the three studies is that most people are not aware of the biases that shape their interaction with news content. The anti-vaxxers, the two camps in the death-penalty study, and the subjects in the investment experiment all strongly believed themselves to be right. Any challenge to their thinking resulted in the rationalization that the other side of the debate had ill-formed logic and flawed evidence. When faced with credible evidence, participants were often hesitant to trust it and instead sided with that which had less

credibility but reinforced their beliefs. So, how can we combat this trend of misinformation? Kavanaugh and Rich believe education to be part of the solution. Students must be able to discern the difference between opinion and fact, and to think critically about what they are reading. In extending their thesis, I contend that the way students are taught to approach a text has long-standing implications on the way that they receive and perceive knowledge. Students must be taught to approach a text with skepticism toward all viewpoints, whether that text be literature or a BuzzFeed news article, and evaluate the logic of claims while taking into account the preconceived notions that impact the tendency to believe or discredit certain claims, in order to perceive information as objectively as possible. They must take full ownership of their own biases and maintain awareness in the ways that they may interfere with their own rationalization. A possible pedagogical solution to encourage such thinking is the promotion of refutation, rather than confirmation. The importance of refutation as a learning strategy becomes clear when we consider the ease of which one can confirm their beliefs, as was seen in the three studies previously mentioned, but the hesitancy the subjects showed in confronting evidence that worked against them. Students must learn to consciously confront such uncomfortability. The investment experiment shows that this is even challenging at a neurological level, the brain lowering functionality when facing disagreeable outcomes. Thus, students must understand the level of manipulation that occurs in the construction of external media and internal processes of thought, in order to learn to make informed decisions in the face of a competing claims and campaigns of misinformation. Otherwise, they run the risk of coming to ill-founded high-stakes conclusions that impact the future of democracy and society in general, such as

global warming, immigration policies, warfare, and so on. Whether well-reasoned conclusions impact the fate of all of human society or involve more trivial affairs; or whether they align with the political views of the right, the left, or somewhere in between; the important factor is simply the promotion of objective fact over viewpoints that appeal to one's bias. Regardless of the person's position of power, political affiliation, religious or social views, the pursuit of the truth must be elevated above all other beliefs. The basis of democracy and societal progress hinges upon an educated and informed populace, and runs the risk of being dismantled by biased news media and misinformed decision-making by those in power. The most appropriate solution to inform and educate society involves the utilization of pedagogical approaches that acknowledge the importance of objective truth and develop reasoning skills in students.

James W. Garrison and Kenneth Hoskisson, in their pedagogical essay "Confirmation Bias and Predictive Reading," acknowledge the utility of prediction in developing readers, but warn of the ways a reader's innate confirmation bias may cause the development of harmful reading and reasoning skills. In this context, confirmation bias refers to the ways in which the human mind seeks out information that aligns with prior beliefs, and subconsciously assigns lesser value to that which challenges prior beliefs. The result of this process is that predictions are accepted as truth while being based on insufficient evidence (482). This relates to education as when developing responses to reading, students are often encouraged to create inferences or predictions based on a text, and seek out information that reinforces their beliefs, thus promoting the systems of confirmation bias in the brain.

Prediction is an active reading strategy taught to students that encourages them to engage with the text by regularly generating inferences about future events and conflicts, character actions and motivations, and possible resolutions within the plot. This strategy promotes engagement with the text through higher level comprehension and synthesis of the material as the reader actively stays a step ahead of the plot, rather than passively receiving the text. Prediction helps narrow the world of the text to increase the reader's understanding as intuited events occur, thus confirming the reader's preconceived notions of the text, and gratifying the reader when guesses appear correct. This "reduction of uncertainty" is achieved by the student generating a prediction and testing it against the events that have occurred and are predicted to occur, thus narrowing the possibility of confusion on behalf of the reader (Garrison and Hoskisson 482). Readers may not be able to predict with certainty what will occur, but while reading, they can eliminate unlikely possibilities to arrive at a more plausible inferences, demonstrating an understanding of the world of the text through this process.

However, the seemingly productive pedagogical exercise of prediction may turn detrimental to a student's ability to think and reason critically because of confirmation bias as a subconscious and often malicious process (Garrison and Hoskisson 482). Educators must be mindful that prediction strategies may promote flawed reasoning skills. This is not to say that prediction should be abandoned, but rather it must be tempered through teaching strategies that involve students actively challenging their reasoning. Students must seek out and accept evidence that disproves their theories, rather than simply finding evidence that supports their possibly misinformed assertions.

Due to the confirmation bias mechanisms, students are inclined to seek out evidence that supports their assumptions, and then use such evidence to validate their beliefs; there is an inclination to do so even when supporting evidence is in the minority or backed by flawed logic. Instead, Garrison and Hoskisson suggest teaching the correction and adjustment of predictions when contraindicative evidence is found, in order to promote logical thinking strategies (482). The process described is refutation, the purposeful testing of theories against competing evidence with the intention of either validating beliefs and proving the competing evidence wrong, or correcting the theory in respect to evidence that discredits it. If students are not taught to constantly challenge their predictions and use contrary evidence as proof that they need to reevaluate their findings, then they run the risk of “cherry-picking” evidence with the sole purpose of finding a single possible data point to prove their belief, and thus wrongly believing it to be validated. Challenging one’s thinking through the process of refutation, rather than looking for proof as prediction strategies encourage, provides a more balanced and logical approach that parallels scientific thought and hypothesis-based research. In this method, students develop a more appropriate form of reasoning: “They need to realize that the rejection of a hypothesis is logical when the data refutes it. Even though the hypothesis may still be attractive, it may also be illogical to maintain it in light of the evidence that has been accrued by further reading or experimentation” (Garrison and Hoskisson 482).

This may seem like a simple concept, but current teaching practices do not necessarily promote such a focus on refutation, a gap which I seek to address in this thesis. For example, the only learning objective for the Florida Standards Assessment

(FSA) that relates to text evidence in grades 3-12 asks students to “cite strong and thorough textual evidence to support analysis of what the text says explicitly as well as inferences drawn from the text” (Florida Department of Education). Exam questions that ask students to demonstrate mastery of this concept often come in the form of a two-part question, part A having students choose a logical inference or statement based on the text, and part B then asking students to choose a quote or two that best support the prior statement. These types of question rely heavily on assumptions and bias as shown in the following question from the 8th grade practice test. Part A asks the student to select the theme that is suggested by Graham’s situation, and part B asks the student to then select a quote from four choices that best develops the chosen theme. The issue in the question’s design is that it does not ask the student to approach the text objectively or to analyze it critically. Instead the question prescribes a reading of the text, having the student select an answer that reaffirms the assumptions laid out by the question and then select evidence to reinforce the idea. Supporting inferences and statements with evidence is the aim of the question, and that is a critical skill for student’s to develop, however it reinforces the practice of arbitrarily choosing a belief and forcing a piece of evidence to prove it and thus wrongly validating the prior inference to be true. Student’s are not taught to challenge answers for their incomplete assumptions or irreconcilable evidence that discredits them, they are simply taught that if a quote can back it up then the statement is valid. This process of reasoning is rampant in biased news media today, claiming one-sided narratives to be authentic through the strategic use of minimal facts to create the illusion truth.

I surveyed the FSA practice tests available on the state’s website and looked through the questions provided for the English Language Arts Tests for grades 3 through 10, a separate test being provided for each grade. Each sample test provided 15 to 18 questions, and 2 to 5 of those questions asked the student to select the “best” evidence for an inference or analytical statement that has either been provided or based off one that the student had selected in the earlier part of the question.

In all 8 of these practice tests, there is only 1 question that asks the student to identify evidence that refutes the related statement, as shown in *figure 1* below.

FSA ELA Reading Practice Test Questions

Now answer Numbers 1 through 5. Base your answers on the passages “Odysseus and the Sirens,” “The Sirens,” and “Ulysses and the Sirens.”

1. This question has two parts. First, answer Part A. Then, answer Part B.

Part A

What advice from Circe is essential for Ulysses and his men to prepare for the Sirens in Passage 1?

Ⓐ The Sirens are few in number.
Ⓑ The Sirens can predict the future.
Ⓒ The Sirens enjoy flattery and praise.
Ⓓ The Sirens never let anyone leave their island.

Part B

Fill in the circle **before** the detail from the Sirens’ song in Passage 1 that contradicts what Circe tells the men.

7 Ⓐ “‘Come here,’ they sang, ‘renowned Ulysses, honour to the Achaean name, and listen to our two voices. Ⓑ No one ever sailed past us without staying to hear the enchanting sweetness of our song—
Ⓒ and he who listens will go on his way not only charmed, but wiser,
Ⓓ for we know all the ills that the gods laid upon the Argives and Trojans before Troy, and can tell you everything that is going to happen over the whole world.’

Figure 1 – Florida Standards Assessment test item for 9th grade

In the relevant passage “Odysseus and the Sirens,” Circe warns Ulysses that the Sirens will sing enchanting songs to tempt him and his men to disembark so that the Sirens can kill them. In this question, we see the student being asked first to select the correct explanation of the event. The correct answer is D, “the Sirens never let anyone leave their island.” The second part of the question asks the student then to choose the best evidence that “contradicts what Circe tells the men.” The correct answer is C, “and he who listens will go on his way not only charmed, but wiser.” The possible analytical value of such a question is demonstrated by the student being asked to recall the statement of Circe, and the contradictory statement of the Sirens, allowing the student to see the opposing accounts offered by the two, and realize that only one may be telling the truth. Here, the student learns that two opposite accounts may exist in a text, with the protagonist left to decide which to believe, just as the reader is left reconciling the problem of whom to trust.

The flaw in the design of this question is that it does not truly demonstrate the exercise of refutation as it only allows the student to confirm the notion that Circe is telling the truth. Never does it allow for a challenge to this assumption. In the logic of the passage “Odysseus and the Sirens” from which this question is based, the truth is ambiguous. The men ultimately decide to ignore the Sirens as Circe has insisted and they survive that part of the voyage, the passage concluding at that moment. The passage never provides explicit confirmation that the Sirens are malicious, nor that Circe has enabled their success. Instead, students are provided a warning by Circe and tasked with finding evidence that the Sirens claim otherwise, thus implying the former to be good and the latter to be lying and thus evil. Students are pushed to infer that, because we cannot

fully prove the Siren's innocence, then the earlier account by Circe is true. The inverse is never tested. The flaw in reasoning that this question enforces is in part due to Circe having gotten to the reader first, enabling a prediction on behalf of the reader that the Sirens are evil and then encouraging the reader to approach them as such despite the lack of further evidence. Here we see that the single question in all the sample FSA exams that serves as a possible exercise in refutation, is merely a case study in confirmation bias. Students are paradoxically taught to fall into the trap of ill-founded reasoning due to a comfortability with seeking confirmational evidence, rather than valuing refutational evidence as proof of a flawed claim or prediction in understanding the text.

A proper refutation of the aforementioned passage would include an evaluation of the claims of Circe and the sirens, asking the student to decide whether there is sufficient evidence to believe either party, or to pick a piece of evidence that establishes both parties as honest and deceitful and have the student acknowledge the impossibility of coming to a complete evaluation of the characters based on the evidence of the passage. Either examples would work best in a short response format but could easily be adapted to a multiple choice format as the FSA uses, and there is value in such a format as although students are not free to rationalize thinking in their own ways the multiple choice responses do offer examples and non-examples of thinking. Although, non-examples would outnumber the example of proper refutation by 3:1 and thus run the risk of reinforcing improper reasoning skills. Nevertheless, such example questions provoke the student to evaluate the basis of all claims in a text, rather than push them along a one-sided form of logic provided by the question designers.

The Turn of The Screw provides an example of a text in which students must be taught to evaluate all claims presented, rather than be forced to find validity within one particular claim. Through a study of the main character of the novella, students can learn the necessity of evaluating evidence from all angles, rather than that which seems to be preordained for the reader. Reliability or unreliability should not be taken for granted within a text, and students must be taught to evaluate the basis of all claims and the validity of evidence that is claimed to support them.

The Turn of The Screw: The Governess and Confirmation Bias

In an educational system that reinforces confirmation over refutation, I suggest *The Turn of the Screw* can be used to show students how a text can encourage unwarranted predictions and reinforce them using incomplete or slanted evidence. In order to show students how the mind reaches ill-founded conclusions, in part due to the inherent mechanisms of confirmation bias, students may analyze the claims that the governess puts forth in the novella and the lack of evidence provided for such claims. Further, they can learn from their own experience reading the text, as they will likely come to a conclusion by the end of the novel as to whether the ghosts at Bly are real or imagined, and note the lack of evidence in coming to either conclusion as proof of their own confirmation bias as readers.

This chapter will evaluate various claims posed by the governess and cite the ambiguous evidence she uses to rationalize her falsely based beliefs that the children are consorting with the apparitions. Then, this chapter will explore a Stanford study that exposed students to various forms of media and found that students have a much higher chance of believing false claims than they do of adequately evaluating and disproving them. This connection will be made to prove the central claim of this thesis, that the novel serves as an excellent pedagogical tool to challenge confirmation bias through the reinforcement of refutational thinking strategies. The governess' claims will be refuted every step of the way to prove her thinking unsound, and to make students aware of their own thinking strategies as they can reflect on their having fallen into her logical traps. Thus, students can develop more skeptical and refutational thinking strategies as to not

fall victim to the blurring of fact and fiction as the students of the Stanford study unfortunately experienced.

Analyzing the governess' claims serves as a pedagogical exercise in the importance of refutation and the malice of confirmation bias. In the introduction to the Penguin Classics edition of *The Turn of the Screw*, David Bromwich writes: "the sickening pathos of the story comes from the way the governess can briefly doubt herself and yet remain unregenerate: seeing the possibility that she may be wrong, she so contrives the tests that every result will confirm her theory" (v). The governess oscillates between extreme certainty and occasional disbelief of the affairs at Bly, at once believing the ghosts to be manipulative and the children deviously consorting with them. And, in the next moment, assuming that the children are innocent and in need of saving. The latter belief contradicts the earlier depiction of the children, and as Bromwich has described, over time she erodes the innocent characterization and wrongfully uses their ambiguous behaviors as evidence of their sinister nature that she believes herself to be revealing.

A source of doubt for the children's supposed malevolence is evinced by Grose's description of Miles as "most remarkable" (9); the governess' claim that both children have a "gentleness" (18); and in her explanation of Miles as a "beautiful little boy [who is] something extraordinarily sensitive, yet extraordinarily happy." Grose believes Miles to be inherently good because if he had truly been a bad boy, then she should have "found the trace, [and] should have felt the wound and the dishonour" (19). However, the governess later uses these claims as evidence of the insidious nature of the children as

they are assumed to have been pretending to be decent, although the text never explicitly confirms any wrongdoing on their part. An example of the governess reading the children's ambiguous behavior as confirming her assumptions of their corruption is when the kids are strolling the grounds and she believes them to be plotting and acting normal to manipulate their elders into trusting them. They only smile at her and then resume their walk, but the governess takes it as evidence that they heard the women talking about their misbehavior although they are much too far away. The kids give no recognition but a smile from afar and the governess was "held by it for a minute" but believes herself to then snap into proper judgement (James 49-50). The only external proof of misbehavior is Miles' expulsion from school, but no definitive explanation is given for his dismissal. Such an omission cannot be grounds for substantiating his abnormality, but the governess ignores that fact. The only concrete evidence of his misbehavior at Bly occurs when Grose admits that he had been "bad" but maintains that, if the behavior had been severe, she would have reported it to the master (27). The governess' only acknowledgement of this discrepancy in Miles' behavior is in using it to assert that he is being corrupted by the apparitions, but again, he is never outright caught in any wrongdoing. Students of the novella can note the ways that the governess has falsely used evidence to reinforce her beliefs. Students can also perhaps cite similar anecdotal experiences in which they were wrongly judged by their teachers, parents, or peers, based on a misunderstanding revolving around something they had done and note their frustration in being on the receiving end of such misinterpretation of character. Such an exercise can help demonstrate the flexibility with which the governess uses evidence to prove what she desires to be true.

Miles only commits two transgressions at Bly, and the severity of both are open to interpretation for the reader of the novella, an irony that is made blatant for students as they interpret the governess' actions. First, he is caught in the grounds outside of the home, after Flora is found peering outside. The governess then connects the actions of the children with her earlier sighting of the apparition outside, and assumes that the children must either be making contact with him or under his influence. She finds evidence of foul play when she confronts Flora on the matter, asking if she had seen anything outside of the window from which she is caught peeking: “‘Ah no!’ she returned almost (with the full privilege of childish inconsequence) resentfully, though with a long sweetness in her little drawl of the negative. At that moment, in the state of my nerves, I absolutely believed she lied” (43). Flora has denied seeing anything, although students later find out that her brother had snuck outside, and the governess takes the liberty of using Flora's actions to confirm her suspicions of the children. She has interpreted Flora's tone to indicate that she is attempting to manipulate the governess, but students should note that there is no evidence of this. At this point, students should be wary to outright deem the governess unreliable and the children entirely innocent, but they should note the ambiguity of Flora's actions and the impossibility of coming to a logical conclusion regarding the girl's behavior.

The second infraction Miles commits is when he is caught stealing the letter that the governess had intended for the master. Even in that instance, students see a possible confusion in the boy's intentions and the governess' perception of him. If this is to be used as evidence that the children cannot be deemed wholly good, certainly it does not fulfill the logical requirements of proving them to be “bad.” Even in the term “bad,”

students see an ambiguity in meaning. Regarding his earlier act of sneaking out of the house, the governess questions:

‘And when did you go down?’ ‘At midnight. When I’m bad I am bad!’ ‘I see, I see – it’s charming. But how could you be sure I should know it?’ ‘Oh I arranged that with Flora.’ His answers rang out with a readiness! ‘She was to get up and look out.’ ‘Which is what she did do.’ It was I who fell into the trap! ‘So she disturbed you, and, to see what she was looking at, you also looked – you saw.’”
(48)

Here, the governess commits another act of confirmation bias in her interpretation of Miles’ meaning. The boy has not confirmed any malicious behavior on his part or on that of Flora. However, the governess uses this event as confirmation of their consorting with Quint and Jessel.

A possible refutation of this claim for students to apply lies in the possibility that the children were simply playing a game, testing the governess’ boundaries. Miles later expresses his desire to go back to school, so perhaps he believes he can upset the governess to the point that she will send him away, but because he is the innocent boy as earlier described he cannot commit an act overtly bad. Thus, he performs these small and ambiguous behaviors instead. Simply because it cannot be proven that he is not consorting with Quint, does not mean that it is valid for the governess, students, critics, or any reader for that matter; to assume it is so.

Until her confrontation with Flora in Grose's presence, the governess has assumed the children guilty by omission of their explicit claims otherwise. After pushing Flora to "admit" that she sees the apparition of Miss Jessel, Flora responds:

'I don't know what you mean. I see nobody. I see nothing. I never *have*. I think you're cruel. I don't like you!' Then, after this deliverance, which might have been that of a vulgarly pert little girl in the street, she hugged Mrs. Grose more closely and buried in her skirts the dreadful little face. In this position she launched an almost furious wail. 'Take me away, take me away – oh take me away from *her!*' (74)

Rather than accept Flora's actions as a possible refutation to her belief that the children are under the influence of the apparitions, the governess reads the girl's actions as evidence of her corruption and sees her defensive claims as evidence of her covering up the truth as the governess sees it. The governess then compares Flora to someone other than herself, as if to demonstrate that she is lying or acting on someone else's behalf. The governess claims that the girl is acting like a "vulgarly pert little girl in the street" so as to distance the Flora she earlier described from the version that has turned against her. This demonstrates the governess' form of rationalizing the change in behavior that the girl has undergone, rather than accepting that she may be the cause. She interprets the girl's salvation in the skirts of Grose as an attempt to discredit her, rather than actual fear, despite the fact that the girl is so distraught she later becomes sick as anticipated by Grose. Pedagogically, this example can be used to show students the extremes to which one will go to ignore competing evidence that intensely contradicts their viewpoints. The

governess may be correct in this situation, Flora truly lying and trying to cover it up, but the issue is within the fact that she does not even entertain such a possibility. The governess does not contemplate the chance that she may be wrong, and here lies the lesson for students of the novella. The hubris of believing oneself infallible is not just a flaw for the protagonists of Greek and Shakespearean tragedies, but also a flaw of more ordinary characters and ordinary people in the real world, like editorialists, media curators, politicians, public speakers, and so on. Such a claim of infallibility is maliciously misleading for all who trust in the content produced by the aforementioned people in society, a logical flaw of which students must be made aware.

The governess not only demonstrates overwhelming confirmation bias in her renderings of the children and their behavior; she also blatantly lies in order to prove her assumptions. The governess claims to have heard Miss Jessel explicitly stating her intentions at Bly. Grose asks:

‘A talk! Do you mean she spoke?’ ‘It came to that. I found her, on my return, in the schoolroom.’ ‘And what did she say?’ I can hear the good woman still, and the candour of her stupefaction. ‘That she suffers the torments—!’ It was this, of a truth, that made her, as she filled out my picture, gape. ‘Do you mean,’ she faltered ‘— of the lost?’ ‘Of the lost. Of the damned. And that’s why, to share them—’ I faltered myself with the horror of it. *But my companion, with less imagination, kept me up.* (emphasis added) ‘To share them—?’ ‘She wants Flora.’
(James 62)

However, in the previous chapter, such an event was never depicted. The governess never heard Miss Jessel speak, but she avoids deliberately lying by claiming “it came to that,” implying that the apparition may have been on the verge of speaking, Grose takes it to mean that the ghost explicitly spoke to the governess. Explaining the intentions of the ghost as she has claimed to have heard first-hand, the governess explains that Grose was able to “fill out [the] picture” from her depiction “of a truth.” Here the subjectivity of truth can be read, as Grose and the governess have two competing accounts of the events, and the governess depicts “a truth,” a singular and subjective truth that does not align with that of Grose. The governess goes as far as to label Grose as having less imagination than herself, the irony of this statement is evident as the narrative the governess propels is more of a creation in her mind than that which has been authenticated by the world around her. From this event, the following questions can be posed to students: Is the governess so deluded that she believes she is telling the truth? Does she realize the fallacy of logic that she is imposing upon Grose in affording her explicit evidence that is false? Here students see the true repercussions of the governess’ confirmation bias in allowing every event thus far to contribute to the “picture” of “truth” she demands Grose to see.

A reading of the governess along these lines has educational value in demonstrating to students of the novella the way in which evidence may be misattributed to reinforce prior beliefs. Once the governess sees the apparition and Grose confirms it to be that of Quint, the servant who is described as being too free with the children (the implication being sexual and aberrant in nature) the governess then uses every event, including those that have occurred before this moment, to build this narrative that the

children are being corrupted by the presence of the ghosts and that she must save them from such influence. She fails to properly handle evidence that can refute her assumptions, and instead views all omissions and ambiguities as merely confirming her beliefs. By applying a skeptical reading of the governess, a student can benefit from noting the way in which she only seeks out confirmational evidence, and that which does not confirm her predictions is manipulated until it does.

Students must be taught the implications of using a lack of evidence or the presence of ambiguous evidence as proof that a plausible claim is truth, one such implication is a misreading of news media. The real world value of such a study of the governess' flawed reasoning is best expressed by a June 2016 study conducted by the Stanford History Education Group titled "Evaluating Information: The Cornerstone of Civic Online Reasoning." In this study, thousands of students were shown various forms of media including advertisements, tweets, Facebook articles, images, and news articles. The students were either in middle school, high school, or college, and received varying tasks depending upon their level of education. The tasks included identifying ads versus news articles, evaluating the validity of evidence and the conclusions formed from it, identifying sponsored content, evaluating the claims of tweets and Facebook news, discerning between news and opinion pieces. Stanford describes the student's ability to reason and evaluate various forms of media as simply "bleak" (Wineburg 4). Researchers were surprised to find that despite young people's comfortability with technology, such a skill did not translate into an ability to discern the reliability of the content viewed.

Students were presented the image in *figure 2*, along with the posting information and background information of the picture, as follows. The image was posted to a website called Imgur, a picture sharing website, in July 2015. This occurred 4 years after the nuclear disaster in Fukushima Daiichi. This information was perhaps given to provide causation for an ill-founded connection between the image and the certain belief that the mutation was caused by the nuclear fallout. The title of the image is “Fukushima Nuclear Flowers” and the caption reads “not much more to say, this is what happens when flowers get nuclear birth defects” (Wineburg 17).



Figure 2 – Mutated daisies, photo entitled “Fukushima Nuclear Flowers”

Along with the photo, students were presented with the question “Does this post provide strong evidence about the conditions near the Fukushima Daiichi Power Plant? Explain

your reasoning” (Wineburg 17). Eighty percent of the high school students surveyed had difficulty properly evaluating the reliability of the picture and the claim that the mutation is a result of the nuclear radiation (McEvers). The intended conclusion for students of the study was to realize that the image does not provide strong or sufficient evidence support the claim that the nuclear radiation was to blame for biological mutations. According to Wineburg, the solution to such a lack of refutation is to teach students to be fact checkers and how to interact with information sources that is productive to thoughtful and engaged democracy (McEvers). Proper rationalization of the image and refutation of the possible flaws of logic in the image and caption are demonstrated in the following sample responses.

Student responses were classified as demonstrating a skill interpretation at the level of mastery, emerging, or beginning. Examples of mastery responses are “No, it does not provide strong evidence about the conditions near the Fukushima Daiichi power plant. It does not provide strong evidence because it could just be a mutation in the plant. There also isn’t evidence that this is near the Fukushima Daiichi power plant” and “no, it does not really provide strong evidence. A photo posted by a stranger online has little credibility. This photo could easily be Photoshopped or stolen from another completely different source; we have no idea given this information, which makes it an unreliable source” (Wineburg 18). The first response uses proper refutation skills to offer a possible biological explanation of the plant’s appearance, other than the assertion made that it was the result of nuclear radiation. Also, the student aptly points out that even if the mutation is the result of radiation, just because the post claims that the flower was located near the reactor does not necessarily mean that is true. Among the various aspects of the post that

the student could have attempted to prove true, he or she instead offers possible rebuttals to the claim as evidence that there is insufficient evidence to form a conclusion around the photo. The second student notes the falsity of awarding credibility to the poster, as anyone is allowed to post content to the Imgur site, and anyone has access to Photoshop with which moderate skills can be applied to create an image such as *figure 2*. This student focuses on the unreliability of the lens through which we see the photo, those being the poster and the integrity of the image, as a basis for a lack of conclusive evidence to prove the claim of the photograph. Both of these student's responses demonstrate an excellent awareness of refutational skills and the priority of contradictory evidence over that which confirms a belief when evaluating reliability or truth. Emerging responses shared similar points of refutation, such as the anonymity of the poster or the possibility of photoshopping, but much more simply articulated (Wineburg 19). The responses classified as beginning show a lack of critical understanding of false or incomplete claims. Examples of beginning responses to the question of the strength of the photo as evidence of the conditions around the nuclear plant are "No, this photo does not provide strong evidence because it only shows a small portion of the damage and effects caused by the nuclear disaster" and "This post does not provide strong evidence because it shows how the small and beautiful things were affected greatly, that they look and grow completely different than they are supposed to. Additionally, it suggests what such a disaster could do to humans" (Wineburg 19). Both students acknowledge that there is a lack of evidence but cannot rationalize the proper reasoning to come to such a conclusion. This method of classification between mastery, emerging, and beginning, would designate the governess in the pre-beginning stage as she cannot even

acknowledge the weakness of the evidence around her. Classifying these three stages is useful for students as they can measure their development in understanding misinformation, as well as being useful for teachers as they can track the progress and comprehension of students when they are confronted with social media posts, articles or editorial, sponsored versus non-sponsored content, and so on. Students comprehension of new concepts is greatly improved through the incorporation of visual media (Patton 18).

Based on the results of this study and the analysis of the governess' poor reasoning, students are made aware that the plausibility of a theory does not render it valid. The presence of a mutated flower near a Nuclear site and equivocation of the children are both ambiguous, it is impossible to discern truth from opinion in either instance when there are numerous possible explanations for either event. The only certainty that can be reached is the lack of evidence with which to base a conclusion.

The Polarization of Criticism of *The Turn of The Screw*

The problem of confirmation bias that exists in *The Turn of the Screw* also, ironically enough, manifests itself in much of the criticism about the text published between the 1930s and 1940s. This battle between the so-called apparitionists and non-apparitionists, those of whom that believe the ghosts to be real apparitions that haunt Bly and those believing the apparitions to be a delusion of the governesses' mind, to some extent paralyzed discourse around the novella. These topics were mainly what critics were preoccupied with in their writing. Due to the inclusion of much of this criticism in the Norton Critical Edition of *The Turn of the Screw*, an examination of this criticism and the confirmation bias at work in its framing of James' novella offers students the opportunity to analyze the bias inherent in the lenses presented to them with which to view the novel, and understand that the truth of the critics does not have to be prescribed to them as student readers. These critics often oversee the flaws in their own arguments, as will be explored in this chapter, and their incomplete reasoning demonstrates a lack of refutation in favor of confirmation bias that manipulates their interpretation of the evidence in the novella. Thus, it is not only the governess or amateur students who fall victim to the trap of desiring to prove "predictions" true. Noted critics of *The Turn of the Screw* also serve as examples of readers valuing agreeable evidence over that which undermines their interpretations. In the words of Garrison and Hoskisson, readers of all kinds, whether it be students or critics, must "realize that the rejection of a hypothesis is logical when the data refutes it. Even though the hypothesis may still be attractive, it may also be illogical to maintain it in light of the evidence that has been accrued by further reading or experimentation" (482). I will use this reasoning as the basis to prove that the

apparitionist and non-apparitionist schools that dominated interpretation of *The Turn of the Screw* for many years possess weaknesses and occasional logical flaws which I attribute to confirmation bias and a lack of thorough refutation.

Early criticism accepted the apparitions as true. This point is significant in contextualizing the later shift in interpretation surrounding the novella. In the Macmillan Company's *The Philosophical Review* (1898), *The Turn of the Screw* is referred to as "a deliberate, powerful, and horribly successful study of the magic of evil, of the subtle influence of human hearts and minds... We have called it 'horribly successful,' and the phrase seems to still stand... to express the evil that human nature is subject to derived from it by the sensitive reader" (260-261). *The American Monthly Review of Reviews* (1898) says the story contains "the mysterious legacy of evil that may continue in force after death," describing the text as "one in which his delicate, subtle psychology shows to best advantage, for the foul breath of the bottomless pit itself, which strikes the reader full in the face as he follows the plot, puts to shame by its penetrating force and quiet ghastliness the commonplace, unreal "horrors" of the ordinary ghost-story" (732-733). These reviews classify the novella's evil as "magic" and supernatural.

Later criticism developed a non-apparitionist stance toward *The Turn of the Screw*; the most prominent non-apparitionist theorist being Edmund Wilson. In his essay "The Ambiguity of Henry James," originally published in *Hound and Horn* (1934) and later published in *The Triple Thinkers* (1948), he posits that the ambiguity of the novella can be resolved through a study of the governess as a "neurotic case of sex repression, and that the ghosts are not real ghosts but hallucinations of the governess" (88). Wilson's

Freudian interpretation claims that the governess is sexually repressed and lusts after the absent master of the house. According to Wilson there are no ghosts at Bly, only a delusional governess. Quint is merely a projection of the governess' imagination; she sees him in her master's clothes as a projection of her desire for her master's affection (88-91). Wilson believes the governess to be "confused" in her desire for the charming master of the house, projecting his physical appearance onto the apparition, Quint, who is also described as handsome and having been involved in an affair with the previous governess.

It has been suggested to her in a conversation with the housekeeper that there has been some other male about who 'liked everyone young and pretty,' and the idea of this other person has been ambiguously confused with the master and with the master's possible interest in her, the present governess. And may she not, in her subconscious imagination, taking her cue from this, have associated herself with her predecessor and conjured up an image who wears the master's clothes but who (the Freudian 'censor' intervening) looks debased, '*like an actor*,' (emphasis added) (91)

Simply because she may have mentally associated the two men by their characteristics does not serve as a solid refutation that Quint is not the one who she has seen. His interpretation is circumstantially based on her own romantic feelings toward her master and the hearsay about the man who is described as sexually free. Wilson is using the connection between Quint and the desired master as validation that the governess may be hallucinating the latter and confusing him for the former. This interpretation may mislead

students into believing that because the governess has romantic feelings for her master, that such a statement alone can construct her hallucinations, and hinder their understanding of the text as a whole. The Freudian reading does not depend solely upon this reading of the governess as constructing the apparition as an “actor” in the form of her master, but it does lay at the heart of the argument. All of the governess’ actions are seen as stemming from this sexual frustration, but such a reading does not reconcile the fact that Grose clearly gives the described apparition Quint’s name. A student of the novella must acknowledge and deal with this refutation, although Wilson does not directly mention this possible rebuttal in his own essay. The sexual freedom with which Quint conducts himself may certainly confirm his connection to the master in the governess’ mind, but using such evidence as the basis for her delusions is an example of confirmation bias. The connection is apparent, but that does not disprove the possibility that the apparition is actually a manifestation of Quint. Wilson’s hypothesis merely uses this fact in a way that supports the belief.

Robert B. Heilman, in “The Freudian Reading of the Turn of the Screw,” provides a direct refutation to the claim that Quint is a projection of the governess’ sexual desires (436-438). Here lies the lynchpin of the apparitionist argument following the publication of Wilson’s essay, insofar as it directly opposes the Freudian non-apparitionist argument. Highlighting the governess’ highly specific description of the first apparition later identified by Grose as Quint. Heilman refutes the possibility of Quint being anyone other than himself on the unlikely grounds that Grose would have neglected to omit such a detail. After all, it is not the governess who gives the apparition a name; it is Grose. It would be an incredible coincidence for Grose to identify the figure as Quint despite the

governess' supposed depiction of the master, in order for Wilson's line of reasoning to find validation. If we are to judge Grose negligent in affording the governess this detail, that contradicts her character's "sharp eye for distinctions" and observant nature (Heilman 438). The logical basis of Heilman's refutation is built upon the supposedly reliable characterization of Grose and her role in identifying Quint, whereas Wilson's positing of Quint as a possible stand-in for the master is built on mere possibility, as he picks evidence in hopes of confirming his assumptions of the governess. Although Heilman's claim at Grose's objectivity contains direct evidence in her explanations of characters, rather than Wilson's circumstantial claims at the possible connection between the master and Quint; Heilman nevertheless cannot claim with certainty that Grose is wholly reliable and thus validate the governess' sighting of Quint as more than imagined. Students of the novella can benefit from a character study of Grose, paying attention to their own bias in interpreting all of her statements as truth because of a lack of concrete evidence otherwise. As previously mentioned, a lack of competing evidence does not necessarily prove an interpretation to be true.

Throughout the narrative Grose provides observations regarding the children, but they are often opposing characterizations of the children. This either proves she is withholding information from the governess or being dishonest with herself and proving herself unreliable, and thus refuting Heilman's claim. Are Grose's claims truly reliable? Her fallibility was demonstrated when the governess blatantly lied about Miss Jessel speaking to her, which then informs Grose's allegiance to her story (James 62). According to the logic of the text, Grose cannot be ultimately proven reliable, but this instance of the governess convincing her through the omission of the complete truth

shows that Grose cannot be entirely trusted, although not necessarily to any fault of her own. The governess goes as far as to coerce the woman to testify to the malicious intent of Quint and the corruption he intends for Miles, however Grose claims: ““I don’t know – I don’t know!” the poor woman wailed. ‘You do know, you dear thing,’ I replied; ‘only you haven’t my dreadful boldness of mind, and you keep back, out of timidity and modesty and delicacy...But I shall get it out of you yet!’”(37). Rather than accept the possibility that Grose truly does not know the extent of the corruption at Bly, the governess demands to get this “truth” out of her. She interprets Grose’s denial as evidence of her weakness and delicacy of mind and spirit, rationalizing Grose’s words and actions in a manner that echo her own beliefs. The governess is persuasive and will not relent on the woman until she hears what she desires, claiming “I shall get it out of you yet!” Not to digress much further, this is an example of this persuasive effect that the governess has on Grose, which may serve as a refutation that Grose is always sound of mind and that her observant nature should be interpreted as a stable truth in the novella. This may not serve boldly enough to dispute Heilman’s claim that Grose is observant and thus credible in her identification of the apparition as Quint, but the evidence does however imply an anomaly in Grose’s character, that of which Heilman fails to reconcile. In accordance with this, students must also approach her character with skepticism, an ironic necessity as all other characters in the text exist in a state of ambiguity and yet the reader must impose a self-intentionality to treat Grose in the same manner. She is treated as stable although everyone else around her is flexible in interpretation, perhaps demonstrating a bias on the part of the reader to believe her words because no character has necessarily compromised her and the attention of the reader is focused elsewhere. Her

word cannot necessarily be taken as the concrete truth that lends credibility to the governess' claims, whether it be generally or specifically in Grose' affirmation of the governess' description of the apparition claimed to be Quint.

Returning to the non-apparitionist reading of the text, Wilson also takes great logical liberties in using the lack of a physical description of the master as a basis for the possibility that the described apparition could actually be based off of his likeness.

When we look back, we find that the master's appearance has never been described at all: we have merely been told that he was 'handsome,' and it comes out in the talk with the housekeeper that the valet was 'remarkably handsome. It is impossible for use to know how much the phantom resembles the master. (91)

This excerpt does not hold up the flawed supposition that the apparition described could be the master simply because the master's appearance has not been described. By that logic, the apparition could be any man in the novella that is not described, perhaps one of Miles' teachers from school. Here, Wilson falls victim to confirmation bias as he finds that this evidence does not necessarily refute his claim, and thus finds it appropriate in supporting it, but wrongly so. While refutation is required in establishing a logical argument, a lack of refutational evidence does not validate the argument. Wilson's argument is wrongfully based on possibilities. As put by Garrison and Hoskisson, "When students maintain [that] a prediction must be true because it has been confirmed up to that point, they are engaging in logically invalid reasoning. They need to realize that their prediction has not been refuted yet, but it may be eventually" (483-484). Logically, it is much harder to prove a statement true than it is to prove it false. Wilson's reasoning

provides an example for students of what not to do when seeking to validate a hypothesis, in the absence of concrete data proving a hypothesis true, absence cannot be taken as confirmation.

Wilson goes on to say, “when we look back, we see that even [the description and identification of Quint] has perhaps been left open to a double interpretation” (90). To understand the extent to which his claim that the description of the apparition is ambiguous is incorrect, we can recall the governess’ first-hand account:

He has red hair, very red, close-curling, and a pale face, long in shape, with straight good features and little rather queer whiskers that are as red as his hair. His eyebrows are somehow darker; they look particularly arched and as if they might move a good deal. His eyes are sharp, strange – awfully; but I only know clearly that they’re rather small and very fixed. His mouth’s wide, and his lips are thin, and except for his little whiskers he’s quite clean-shaven. He gives me a sort of sense of looking like an actor. (James 24)

A useful proposition for students to consider is whether the ambiguity of the novel is used as a scapegoat for irreconcilable refutations to critic’s arguments. Is there a double interpretation that Wilson claims to see in the governess’ description, or is he simply unwilling to accept the fact that her incredibly specific detailing of the man undermines his claim that the apparition is anyone other than Quint? If we are to accept the claim that there is no concrete truth to be found in the text, then why is this the aim of critics such as Wilson and Heilman? They never explicitly acknowledge the repercussions of their incomplete arguments, although they do acknowledge certain facets of their argument

that cannot be reconciled, as Wilson has done through his mention of James' literary ambiguity. Despite the logical flaws in these interpretations, students reading such editions as the Norton Critical Edition are faced with this literary criticism framing the novella, each article giving the impression of importance and clarity in their interpretations. Students are led to believe that any lens through which to view the novella is acceptable as it has evidence to support it, however the societal repercussions of such a reasoning process are hardly examined. A text, such as a study on the necessity of vaccines, cannot be read in any way the reader chooses. Certain texts must be viewed as objective when presenting empirical data. A flexibility in readerly approach certainly encourages creativity in thought, but the freedom to which students approach new knowledge must be tempered as every data point simply cannot be open to interpretation. Evidence supporting a point of view, does not validate it in the face of opposing evidence, various interpretations cannot exist side-by-side in important societal issues such as disease prevention, public policy, politics, and so on.

Ironically, Wilson provides the best refutation for his own argument for his singular reading of the text, "nowhere does James unequivocally give the thing away: almost everything from beginning to end can be read equally in either of two senses" (94). With this statement, the Freudian reading of the governess has no evidence from which to base it, James provides no concrete evidence of such a reading and one cannot build an interpretation on possibilities. All of the aforementioned aspects of the Freudian argument suffer in the process of refutation, and thus require reevaluation. Wilson has fallen into the trap of confirmation bias, wanting so badly for the governess to be sexually and thus mentally deluded, but the text can neither fully confirm nor deny such a

possibility. In such a state of ambiguity, a student of the novella should not be led to fall into this logical trap of seeking a totalistic reading of the novella, despite the intentions of popular critics to prescribe such a reading.

Students can further study the supposed reliability or unreliability of the governess in her account of the events at Bly, noting how evidence may exist to prove the protagonist both believable and unbelievable but in the face of such competing evidence, neither interpretation can be wholly formed. Despite this uncertainty, it is generally safer to assume the protagonist unreliable in the face of questionable evidence. Regarding the governess' credibility, Wilson asks the reader to approach her with skepticism despite the novella's preface having established her as "awfully clever and nice... the most agreeable woman I've ever known in her position" (James 2). He cites prior knowledge of James' writing style and his tendency to "introduce sinister characters with descriptions that first sound flattering, so this need not throw us off" (Wilson 88). Writers can be characterized by a particular style, but this evidence alone is not the foundation from which to dismantle the positive characterization of the governess of the preface. Wilson cannot prove the preface unreliable, and thus the governess unreliable, from this line of thought alone. As a result, Heilman does not heed Wilson's warning of the possibly misleading nature of the preface's depiction of the governess. In response to Wilson's claim that the governess has frightened Miles to death, Heilman cites the opening frame in which the ghost story is established as evidence that the governess' future character is not consistent with the interpretation that the governess has ended the story as such a person that could have killed Miles, whether intentionally or not. For her to accomplish such a task, her neurosis must have reached the level of "criminal insanity" (442). As a result, in the

opening frame, which comments on her state of mind after the events at Bly, there would be the expectation of “progressive deterioration, perhaps pathetic, perhaps horrible” (442). He claims that no such prognosis is evident.

What, then, does happen to the governess who at twenty is supposedly in so terrible a neurotic state? The prologue tells us explicitly: at the age of thirty or so she is still a spinster, still a governess, and therefore still heir, we may assume, to all psychic ills which Wilson imputes to her at the earlier stage. But at this age she seems, to a Cambridge undergraduate whom, ten years her junior, we may expect to be thoroughly critical, a fine, gracious woman who can elicit liking and respect. She charms him so thoroughly that many years later he in no way repudiates, qualifies, or smiles at his youthful feeling (442)

The preface provides no evidence that the governess is in such a debilitating state as Heilman assumes she would have been after the events at Bly. The man vouches for her soundness of mind. Heilman claims that a challenge to this characterization of the governess would be to challenge the status of the gentleman providing the testimony, would be without basis. It is not a stretch to say that in this line of reasoning, Heilman is committing the same error of confirmation bias as Wilson stands accused. Simply because this man claims the governess to be well as he knows her in the present, and because she is living in the same conditions that Wilson claims to have driven her mad, does not mean that she was well at the time of Miles’ death or that she would have long-lasting psychological trauma from such an event. These claims do not clear her of the possibility of delusions as there is no concrete evidence of her mental health provided,

simply an anecdotal statement that she is fine although her external conditions have not changed in the time since Bly. The assumption here is that the governess should be displaying a mass hysteria after the atrocities committed at Bly, but as critic and student of the novella, neither party possesses the qualifications to make such a psychological evaluation. Heilman also makes an illogical jump in finding this to be evidence that because the governess is deemed well in this frame, that “at twenty the governess was, aside from her unusual sensitiveness and charm, a perfectly normal person” (443). There is evidence to refute the claim that her mind is rational, as she is described as enrapt by the master, this does not make her insane as Heilman interprets Wilson to mean, but perhaps implies her lack of clear judgement. Even this man who is used as a testimonial for her mental health in the present time of the opening frame of the novella provides an ambiguous claim at her normality, noting “her unusual sensitivities and charm.” Heilman elevates favorable parts of the mans testimony while ignore others, like the quote above. Also, this man who is believed to validate the normality of the governess in the future may be exhibiting his own form of confirmation bias in his interpretation and retelling of her story, as even he is affected by his affectionate feelings toward the governess. A student of the novella should not be led to spiral into an infinity of ambiguity in which nothing in the text can be taken as truth, instead the intention here is to expose the student to the ill-founded assumptions that underlie the major components of Wilson and Heilman’s arguments.

In the introductory material to the Penguin Classics Edition of the novella, Bromwich inadvertently affords Wilson further evidence to refute Heilman’s claim that

the governess is normal, beyond the frame text in the preface that exists in the time after the events at Bly. Bromwich writes:

The governess is presented from the first as a character prone to touch extremes in all her judgements of people. Thus she calls Flora, on first meeting her, 'the most beautiful child I had ever seen.' She sleeps poorly her first night in the house because she is thinking of Flora, 'the vision of whose angelic beauty' so stirs her imaginings that it made me several times rise and wander about my room to take in the whole picture and prospect. (James vi)

This evidence is provided to claim the governess unreliable because of her instantaneous obsessive affection of Flora, immediately becoming rapt by her "angelic beauty" to the point that she cannot sleep. She feels her emotions in extremes, a seemingly valid basis from which to discredit her feelings. But this evidence cannot solely prove that the governess is making the apparitions up, or that they are delusions of her intense and uncontrollable emotions. Such a hypothesis is further proven incomplete by Heilman's account of the various times that she is proven reliable and stable of mind.

Meanwhile, there is evidence to prove her self-aware and reflective after her time at Bly, so is she crazy or not? Despite the assertions of Wilson and Heilman, a student of the novella cannot come to a fully formed decision regarding the governess' state of mind and resulting reliability, to consider her sane or insane requires the dismissal of contrary evidence. Her character exists in a state of ambiguity that can only be resolved through the confirmation bias of the interpreter as neither interpretation is without irreconcilable refutations. Wilson earlier claimed her to be irrational in her obsessive admiration for

Flora, but Heilman will prove her logical in her reflections on her time at Bly. Her clarity implies a wellness of mind.

What I look back at with amazement is the situation I accepted. I had undertaken, with my companion, to see it out, and I was under a charm apparently that could smooth away the extent and the far and difficult connections of such an effort. I was lifted aloft on a great wave of infatuation and pity. I found it simple, in my ignorance, my confusion and perhaps my conceit, to assume that I could deal with a boy whose education for the world was all on the point of beginning. (James 14)

How did Wilson and Heilman arrive at their interpretations, despite opposing evidence that is never adequately reconciled? They believe themselves to be demonstrating valid reasoning and engaging in what they believe to be sound refutation, yet there are facets of each reading that are left unresolved. This in part is the result of the expectations of reading, students and critics are encouraged to arrive at an understanding that can be logically explained, and yet such a task cannot be completed. Reading *The Turn of the Screw* is an exercise in exploring the confirmation bias of both students and critics. The text itself encourages the reader to arrive at a choice, neither of which are fully founded. Whichever interpretation the reader comes to, whether it be apparitionist or non-apparitionist, cannot be applied without a reasonable doubt. Thus, the reader must have gone through the novella reading the events as to confirm the classification that they have imposed upon the text. Certainly, the opinion of the reader, whether that be student or critic, may have changed throughout the novella, but that just shows that each is

mutually exclusive, neither readings adequately able to reconcile all of the events within the text.

Wilson sums up this confirmational act of reading in the statement: “when one has once got hold of the clue to this meaning of *The Turn of the Screw*, one wonders how one could ever have missed it (94). The singular phrase of “the clue of this meaning” characterizes the ways in which readers can only carefully select particular “clues” to base their reading around and then attempt to apply supporting evidence to fit their needs.

To return to the discussion that incited this analysis of Wilson and Heilman, there is educational value in teaching students to build an argument around refutation, rather than confirmation. To further explain Garrison and Hoskisson’s approach of refutation over confirmation as earlier described, students must be taught that simply because they may find an event or a data point that confirms their preconceived belief, that is not adequate evidence to prove their prediction true. As they state: “If the event occurs, then we want to say that the hypothesis has been confirmed. What is not always realized is that it has not been proven true; we merely have failed to prove it false” (483). Thus, once a hypothesis has been proven false, it must either be adjusted or revoked. Wilson and Heilman were able to prove such a conclusion through their essays, whether it be directly as Heilman did in refuting Wilson’s essay or indirectly as Heilman’s argument contained gaps that the text is able to address. Refutation must be prioritized over confirmation because the latter does not prove the prediction true, as is the case with *The Turn of the Screw*. Certainly, there is evidence that the governess is prone to excitability and poor decision making, so can a reading of *The Turn of the Screw* be undoubtedly

classified as a Freudian study? A century of contentious criticism disagrees with such an election, proving that enabling students or critics to simply pick evidence that supports their interpretation may fill an argument but does not provide a basis of logical reading, especially when considering the evidence that opposes such an interpretation. With a pedagogical approach of refutation when teaching the novella, looking to the various instances in the novella that oppose a Freudian reading of the text, such as Grose's validation of the governess' incredibly accurate description of Quint after never having seen him, we may then realize that a Freudian interpretation is flawed. Garrison and Hoskisson deem that reason enough to discredit both Wilson and Heilman's approach: "one single refuting instance of a prediction is, on strict logical grounds, sufficient to prove a prediction false" (483). The key takeaway from Garrison and Hoskisson's essay is that students must be taught to be skeptics rather than believers, otherwise they reinforce poor reasoning skills and fail to reach the level of critical thinking necessary to combat the polarization present in the modern social and political climate. A generation of critical thinkers, rather than selective readers, is the solution to a divisive society that seeks to propel one sided narratives for social and political gain.

Some may argue that reading one-sided interpretations of a novella are innocuous and even necessary exercises in critical inquiry. It may be asserted that Wilson and Heilman's readings are just that, readings, and are not meant to be taken as a singular truth. Instead, their interpretations are valid and subjective by nature. Students and critics should be able to read a text and build their own hypothesis regarding its greater meaning. However, my pedagogical concern regarding students of the novella is that if they read such one-sided criticism, they may be led to the false belief that one should be

chosen as truth. Perhaps we can assert that the truth lies somewhere in between the interpretations, in the overlapping of what each can agree upon. Nevertheless, students of the novella are led to believe that there must be one truth over another truth and that is the core of the issue that relates to societal truth decay and fake news. Readers of news media are led to believe that one singular narrative must exist over the other. There is a polarization of conservative and liberal belief systems, each pitting half-truths against the other for the sake of promoting their own belief systems. There are negative implications of accepting an overlap of truth, whether it be fiction or news articles, because then we are consuming false media for the sake of cherry picking what resembles truth. Fact and fiction are blurred, and the reader is left to make sense of it as they will.

Conclusion

The Turn of the Screw is a novella pertinent to modern issues, and worthy of the classroom. Students can benefit from a study of the governess and the degeneration of her reasoning skills throughout the text, as she wrongly interprets all ambiguous evidence as supporting her theories. Students should perform such a reading with an awareness of the term confirmation bias, carefully analyzing the ways in which the governess unknowingly misinterprets facts to best suit her argument. Here, they can see a case study of the negative repercussions of failing to evaluate evidence objectively, as a result of a lack of refutation of evidence and reasoning, and a failure to acknowledge that ambiguity does not reinforce a possibility but rather negate it. Simply, because the truth is unknown, does not prove that one truth can be possible. Students can further see the implications of such rationality in the popular criticism of the novel from Wilson and Heilman. Students should read their criticism with the same awareness of confirmation bias as they maintained in their approach to analyzing the governess. This is necessary in order to allow students to allow their own frames of interpretation, rather than reading information through biased lens presented to them as truth. The societal implications of this study are a more educated and informed student population that will become aware of the manipulation present in biased forms of information, and seek to prove information wrong rather than prove it correct, as the latter has been proven much easier and to result in falsely rationalized claims. It is a simple task to find one conformational form of evidence, but that is not to validate a belief. However, a single refutational point is enough to prove an error in the conclusion that the point is based on. Through the pedagogical approach outlined in this thesis, students will not fall victim to campaigns of

disinformation as they were overwhelmingly proven to have in the Stanford study. They may not always be able to fully analyze the validity of claims, but they will develop an understanding that plausibility of an assumption does not prove it true. Thus, students can learn to perform as fact-checkers and understand the importance of an objectivity of truth, rather than a subjectivity of a desired belief masking as truth.

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