

Examining Parallels Between Disney's Portrayal of Deception in Pinocchio and Deceptive Behavior in Children

Alison Moon¹ and Leah Sievering^{1#}

¹Immaculate Heart High School, USA

#Advisor

ABSTRACT

For decades, parents have been using Disney's Pinocchio as a parenting tool to teach children to never lie and in doing so, it has now become a cultural monolith. Despite this, experts reveal that stories like Pinocchio that punish dishonesty are rather ineffective at instilling honesty in children when compared to stories that praise truth-telling. This paper examines the reasoning behind this finding, delving deeper into the specific actions of each character by comparing behaviors exhibited by dishonest characters and behaviors exhibited by real-life children. Through a film analysis method based on a pre-made criteria compiled with visual, auditory, and narration centered indicators of deceptive behavior, three total watches were completed, with each watch holding a different purpose. Though the paper's initial hypothesis is that children were imitating the exact behaviors that they saw in the animation, the results pointed to a different conclusion: Pinocchio introduces children to the idea of vulnerability to outside influences and thus, children are learning to become more observative of the deceptive behaviors occurring in their surroundings. When they begin to notice adults telling lies without any negative consequences, they imitate these actions and their moral compasses are overridden. This paper serves as an introduction into the relationship between dishonesty and children and spearheads future research on the effectiveness of the methods parents employ to teach children life lessons.

Introduction

Disney's 1940 animated film Pinocchio, adapted from the Italian novel *The Adventures of Pinocchio*, tells the story of a wooden puppet with the dream of becoming a human. Within its various plotlines, the animation features Pinocchio struggling to resist temptations such as *Pleasure Island* in which no consequences exist for one's misconduct. In attempting to conceal such behaviors, Pinocchio falls victim to deception, lying to hide the truth behind his actions and avoid their consequences. For decades, Pinocchio was a cultural monolith with parents telling their children that if they lie, their noses will become like Pinocchio's; the expectation for Pinocchio to be honest and selfless to become human quickly became the standard that parents imposed on their children. At this point, it is important to note that references to Pinocchio made in this paper are only relevant to Disney's animation and not the original novel written by Italian author Carlo Collodi.

Despite such long-holding representation, research conducted on the real-life implications of moral tales that highlight the negative consequences of deception, such as *Pinocchio*, revealed a different story: such stories in fact, do little to instill honesty within children compared to stories that praise truth telling (Lee et al., 2014). In inquiring upon what elements are responsible for this observation, this paper aims to address the question: To what extent is Disney's portrayal of dishonesty in Pinocchio an authentic reflection of deceptive behavior in children? Especially as deceptive behavior develops in the early childhood period and is categorized as one of the "least understood behaviors", it is crucial to determine whether the Pinocchio parenting method is unknowingly teaching children to lie (Stouthamer-Loeber, 1986).

Literature Review

What is Lying?

In order to identify deceptive behavior within Pinocchio, an accurate understanding of lying from both a philosophical and social perspective is essential. Just as deceptive behavior is a complex phenomenon, there are a variety of different types of dishonesty, which will be analyzed to establish a thorough comparison between Pinocchio and reality. One study written by Don Fallis published in *The Journal of Philosophy* recognizes that ‘lying’ can hold different meanings based on varying circumstances. A statement is only considered a lie if the individual truly believes that the information, they are stating is a lie and they possess an intention to deceive (Fallis, 2009). Through conceptual analysis which involves a comparison with pre-defined rules for differentiating between truth and lie, Fallis covers various hypothetical circumstances in which an individual may choose to lie. Through these trials, he observes that the individual making the decision to lie often does so with the hope that their lie will serve their individual purpose. Pinocchio similarly shares an ulterior motive of becoming a human but lacks mal intent as humans commonly do as well. Thus, though his deceptive behavior is recognizably more simplistic than the human circumstances Fallis describes, aspects of the core causes for lying are undeniably similar.

A study published by Bella DePaulo, an expert in deceptive behavior and author with a doctorate from Harvard University, and her team of researchers in the *Journal of Personality and Social Psychology* agrees with Fallis in that lies are told to serve a personal purpose, adding that lies are “more often told to serve the self than to benefit others” (DePaulo et al., 1996, pg. 980). Furthermore, these lies are usually told to achieve intangible rewards such as respect or affection. In fact, further research by her team proved that people’s unrealistic optimism about various elements within their lives may be replicated in their beliefs about the frequency of their deceptive behaviors. Simply put, one’s misconceptions about their lives may be caused by frequent, almost unnoticeable lying. Through a daily diary method, DePaulo investigates 147 college students and community members, analyzing trends between the contents of their lies and the frequency to which these lies were told. The methodology was successful in proving that the content of the lies made were mostly on minor aspects of life such as feelings, which participants later revealed required little effort to tell and less anxiety about their lie being revealed. Though Pinocchio’s lying never pertains to truly ethically challenging situations and consists of white lies, he, like many of DePaulo’s test participants, also fails to recognize the frequency of his lies.

Sanjiv Erat and Uri Gneezy, esteemed professors at the University of San Diego, characterize the white lies told in DePaulo’s experiment as two types: pareto and altruistic. Pareto white lies are lies that benefit both the teller and the receiver while altruistic white lies are lies that only benefit the receiver. Utilizing a game methodology, Erat and Gneezy examine how people react when placed in situations where they are obligated to lie but given the option to tell a lie that benefits both the teller and the receiver or just the receiver (Erat and Gneezy, 2011). Though there is a general consensus that lying in any circumstance is frowned upon, contrary to their moral values about lying, more people choose to tell an altruistic lie. This is directly contrasted by Pinocchio who tells pareto white lies; as a puppet given life through magic, Pinocchio values his wellbeing over others’. It may be relevant to note that although Pinocchio may appear quite human-like, there are definite distinctions that differentiate him from his human counterparts.

Deputy Director of Research at Monash University Matthew Lupoli and his team of researchers coin the term “prosocial lying” to characterize a similar concept as Erat and Gneezy’s theories on altruistic lying. Lupoli, however, recognizes that it is essential to examine deceptive behavior within the context of human emotions such as compassion to determine whether a seemingly socially beneficial emotion could have negative implications when it comes to deceptive behavior (Lupoli et al., 2017). As predicted, when asked to evaluate a poorly written essay and offer critiques and feedback for the author, compassion is shown to have a positive correlation with prosocial lying, with lying increasing as compassion increases.

Lupoli et al., Erat, and Gneezy identify in their respective studies the prevalence of white lies that are told by adults. Mark Barnett et al. argue in the *Journal of Genetic Psychology* that such is also the case in children as a majority

of children also engaged in self-oriented lies (Barnett et al., 2000). In fact, children that tell altruistic lies, especially those that rewarded others something tangible, are seen as “engaging in a benevolent act that was more costly to the self, and more clearly prosocial” (Barnett et al., 2000, pg. 382). Moreover, children act more positively towards those that had told an altruistic lie than those that had told a self-oriented lie. The moral “feel-good” emotion that results from the idea that a lie benefitted someone else greatly, could also potentially serve as encouragement to continue to engage in deceptive behavior. Though Pinocchio himself is unable to act compassionately towards others when telling lies, he does hope to impress his father, the puppet maker, by becoming human. The only way he can do so after a series of bad decisions is by telling white lies to help him arrive at his goal, and ultimately make his father proud.

Children’s Perception of Lying

Though researchers generally agree that children are highly susceptible to deceptive behavior so much so that some researchers believe that lying could be characterized as an innate human trait, due to underdevelopment of adolescent brains, deceptive behavior in children is described as inevitably more nuanced and multifaceted than their adult counterparts (Evans and Lee, 2013). Ted Ruffman, a professor at the University of Otago in New Zealand, and his team of researchers argue that young children have a conceptually different understanding of deception than adults (Ruffman et al., 1993). Ruffman presents theories about why this is so: the difficulty of understanding conceptually what lying is or an inability to comprehend how to complete the task due to its complexity. Through a series of experiments, the study reveals that children are not any better at understanding deception when comparing situations in which they are directly involved in the deception and when they are simply observing. This indicates that the issue results from confusion about the conceptual aspects of lying rather than an inability to understand the step-by-step description for how to lie. As informed viewers of the animation, the audience can observe that Pinocchio embodies the behaviors of a young child, an age at which confusion about the concept of lying is justifiable. It can further be inferred that Pinocchio’s deceptive behavior is caused by an inability to understand the concept of lying.

What Ruffman fails to examine, however, is the influence that a child’s moral beliefs may have on their behavior, regardless of how well they grasp the concept of dishonesty. Fen Xu et al. from Beijing Normal University, a top-ranking institution in psychology, examines just this in older children (ages 7-9) to determine the extent to which a child’s moral values impact their actual deceptive behavior. Through a scenario experimentation method, they discover that the older the participants are, the less likely they are to possess negative moral beliefs about deception and are therefore more inclined to lie in the circumstances posed by the experiment (Xu et al., 2010). Through action justification questions, participants that lied are forced to engage in logical thinking processes to justify their lies. Though Pinocchio’s age and moral values are ambiguous, his cognitive abilities can be observed through physical and verbal actions.

Prevalence of Deceptive Behavior in Children

In determining prevalence of deceptive behavior in children, age plays an important role as cognitive abilities develop at a significant rate within the span of multiple years in early childhood. In a study published in the journal *Developmental Psychology*, Angela Evans, a Brock University psychologist, and Kang Lee, a University of Toronto psychologist, recognize that there is considerably little known about the development of dishonest habits among children 48 months or younger (Evans and Lee, 2017). Through a comparative analysis between children of approximately 2 years of age and children that were older, Evans and Lee note that younger participants are more likely to either tell the truth or quickly confess to their mistakes. Comparatively, older participants are able to maintain their lie and develop logical details to support this lie even when asked follow-up questions. Through a series of experiments, Evans and Lee determine that age directly correlates with executive functioning skills and cognition which allow them to tell lies through methods unobservable in younger children. Beryl McKenzie, Emeritus Professor of Psychology at La Trobe University emphasizes a similar point through quantitative trend analysis of survey results in that the periods between

the ages of 3- 4 as well as 6-7 are characterized by the greatest observable change and development (Hoogenraad and McKenzie, 2007). As McKenzie writes in the *Australian Journal of Psychology*, during these time periods, children are more likely to develop executive functioning skills that allow for more effective deceptive behavior. Recognizing Pinocchio's ability to logically answer follow-up questions about his lies can allow the audience to make an educated guess about Pinocchio's age, and ultimately determine how his age plays a role in his deceptive behaviors.

Along with age, social environment can also be a major indicator of increased or decreased deceptive behavior in children. Victoria Talwar, Professor and Canada Research Chair at McGill University, and Kang Lee examine how fear of punishment can impact overall dishonest behavior. Students who attend punitive schools in West Africa, are more likely to exhibit dishonesty and with about 69% of the punitive school students continuing to lie even during follow-up questions to consistently conceal their dishonesty (Talwar and Lee, 2011). Punishment for dishonesty is a very familiar concept in Pinocchio; every time Pinocchio tells a lie, his nose grows as a form of punishment. This may serve as an explanation as to why stories that punish dishonesty are less effective at instilling honesty (Lee et al., 2014). A punishment often has the opposite effect than intended as children begin to lie more in fear of being punished.

Indicators of Deceptive Behavior

Despite the varying causes of deception, one similarity that is present is the way in which they express themselves. These expressions are commonly referred to as "behavioral cues" or indicators (Depaulo et al., 2003, pg. 74). Indicators of deceptive behavior are separated into two categories: verbal and physical.

Verbal or paralinguistic cues refer to indicators of dishonesty that are present within the way in which an individual presents their lie or the context of their lie. Social psychologist Bella Depaulo et al. writes that individuals that are telling a lie are more likely to be less responsive and provide responses that are less compelling and lack detail (Depaulo et al., 2003, pg. 74-118). They may also lack some of the fewer ordinary imperfections that are common in truthful responses; they may in fact have responses that seem almost *too* perfect. However, Depaulo argues that though perfection is a possibility, it is more common for children to have an increase in speech nonfluencies in another study in the journal *Basic and Applied Social Psychology* (Depaulo et al., 1982). Under the umbrella term of speech nonfluencies, Depaulo and her team of researchers, include, the number of sentence changes, superfluous repetition, stuttering, sentence incompletions, speech disturbances, and use of "um's" or "er's" (Depaulo et al., 1982).

There are also a variety of physical behaviors associated with dishonesty. Retired Professor of Psychology at the University of Giessen in Germany Siegfried L. Sporer, in the journal *Psychology, Public Policy, and Law*, argues that physical cues of dishonesty include a reduction of hand, foot, and leg movements as well as a decrease in nodding (Sporer and Schwandt, 2007). Sporer's research is corroborated by Depaulo's research from 2003 in which she indicates that individuals that are telling lies are more likely to have tense body language, compared to those telling the truth (Depaulo et al., 2003, pg. 74-118).

Though children are likely to learn to lie from their parents, there are a few identifying indicators of dishonesty in children to consider as well (Mohny, 2016). Professor of Applied Social Psychology and Psychology at the University of Portsmouth in England, Aldert Vrij, and his team of researchers write that younger children may experience less emotion when lying (Vrij et al., 2004). This is most closely associated with the age of children which allows them to be less affected by feelings of guilt and overlook the potential consequences of telling a lie. In examining the role that age can play on dishonesty indicators, Vrij et al. reveals that verbal sophistication when telling lies was also observed as the children's ages increase as well as gaze aversion and slower speech.

Impact of Media on Children's Deceptive Behavior

American pediatrician Victor Strasburger makes an important claim that "children are more willing to believe information they receive in the media because they have less critical thinking skills and experiences" (Strasburger, 2004, pg. 55) The risk that is presented with this new finding is that children may be misinterpreting the storyline of such

tales, forgoing their ‘fairy-tale’ aspects and accepting them as reality. Through the so-called cultivation hypothesis, children may develop expectations for their lives, believing that they must conform to the lives portrayed in the media. In animations such as *Pinocchio* that portray example scenarios of deception, children may misunderstand the ultimate moral of the story, instead imitating the deceptive behavior portrayed.

The Gap

Although *Pinocchio* is a cultural monolith in the parenting world, no sources have truly explored why it is not effective at teaching honesty. The gap present within pre-existing literature is that none of the sources have explored the specific scenes within these stories such as *Pinocchio* that may share parallels with authentic deceptive behavior, ultimately inadvertently teaching children to lie. Though dishonesty in *Pinocchio* has been over-generalized as a concept, no sources have conducted a scene-by-scene analysis of each incident of dishonesty. With this in mind, I hypothesize that there will be noticeably obvious parallels between the deceptive behavior shown in the animation and in reality. *Pinocchio* will exhibit deceptive behavior that is exhibited by children in reality; it is ultimately ineffective at instilling honesty because children learn to imitate these exact traits in their day to day lives.

Method

In order to understand the intersection of psychology and film presented within *Pinocchio* I adapted a qualitative interdisciplinary approach involving film analysis with a focus on narrative, visual, and auditory context. This was completed through a criteria that was formed prior to watching the film so as to avoid any influence from the movie itself.

Film analysis “opens [one’s] eyes to the complexity of visual design and gives them practice at incorporating visual analysis into argumentation” (Welsch, 1997, pg. 105). For the purpose of identifying previously unacknowledged ideas or theories, film analysis encapsulates both the literary aspects and the *mise en scène*, a term describing a work’s cinematic properties. The pairing of both elements is crucial in order to establish sound arguments on the interplay of deception, an ideology commonly associated with psychology, in moving animations. As films incorporate both literary and visual elements, film analysis is a relevant method for the purposes of this research. The advantage that a film poses over written forms of literature is that it allows viewers to immerse themselves within the world of the characters; not only did I have access to the dialogue of the characters, I was also able to identify elements such as sound, tone of characters’ dialogue, physical appearance, body language, and other sensory details. These details were crucial in identifying deceptive behavior and its patterns. Michael Wood provides a review of Jeffrey Geiger and R.L. Rutzky’s book *Film Analysis: A Norton Reader* in the journal *Film Quarterly*, applying Roland Barthes’s ideology to film analysis. He suggests that “paying attention even to one’s stupid preferences could become a discipline, a ‘science of the subject’” (Wood, 2006). Scholars often analyze the physical behaviors of children when lying to arrive at new conclusions about dishonesty; this experimental thinking process was applied to characters within *Pinocchio* to identify similarities and differences between expressions of dishonesty. Examining the individual responses within deceptive situations through a film analysis method also further developed the real world implications of children-oriented films such as *Pinocchio* on child behavior. Because children are generally not actively analyzing characters and cinematic properties, a film would have to reinforce important ideas in a variety of different circumstances for that idea to be instilled within children. This film analysis method allowed me to take a closer look at how *Pinocchio* reinforced the concept of dishonesty throughout the film. An analysis of these facets served as an appropriate method for recognizing visual cues or detectable characteristics in actions (Ekman et al., 1988). Observing the presentations of characters when telling a lie was beneficial in revealing parallels between film and reality.

Film analysis was completed through the medium of a criteria that was created upon compiling data from four comprehensive studies specifically analyzing verbal, paralinguistic, and behavioral indicators of deceptive behavior. Michael Lewis, professor of pediatrics and psychiatry at Rutgers Robert Wood Johnson Medical School argues

that children learn to lie, most often, from their parents, picking up behavioral cues and imitating them within their own lies (Mohney, 2016). As a result, both sources analyzing deceptive behavioral cues for children and adults were included so as to account for the traits that children learn from their parents. This criterion was formed using a quantitative cross-comparison method, observing the frequency of each behavioral cue across the four sources. Each source included a table calculating the frequency of each trait within their participant group which I then compiled into one large data set. By looking at the cues all together, I identified similarities and differences between sources and included the cues that were proven to have high frequency rates in at least one source. If two or more sources conflicted in their conclusions on a trait's frequency, I chose not to include them in my criteria so as to prevent any inconclusive data about a certain trait.

To fully grasp the nuances presented within *Pinocchio*, I completed three watches of the film with each separate watch targeted towards identifying a specific category of details. I consulted the help of a peer who was not versed in *Pinocchio* in order to ensure the neutrality of my notes as well as any biases that may arise due to familiarity with the movie. As I completed watches two and three, the peer watched with me and read over the notes that I took. The first watch was a general watch to refamiliarize myself with the plotline and events in the film. During this watch, I noted events or obvious accounts of lying that I noticed while watching. The second watch consisted of an analysis of the narrative, noting character dialogue, verbal or paralinguistic cues such as stuttering, amount of detail in responses, number of sentence changes, as well as other speech nonfluencies. The third watch consisted of an analysis of the physical behaviors within these noted scenes. For sake of efficiency, rather than rewatching the entirety of the film, concentrated efforts were made on scenes containing deceptive behavior. Within this watch, there was a focus on nonverbal indicators of deceptive behavior which included cues such as reduction of hand motions, tense body language, and gaze aversion. With the compiled set of notes, parallels were established between the analysis of aspects such as character behavior as well as character depiction in that scene and research published on the real-life behavior of children when lying. Through the criteria, similarities and differences were highlighted and connected with accounts of real-life observations to determine the extent to which instances of deception in the film matched what research completed on real-life children presented (reference Appendix A).

Results

After completing three full watches of *Pinocchio* with each watch holding a different purpose, various findings were observed. For overview, the first watch was an identification of the animation's plotline, analyzing the story's development (reference Appendix B). Though not significant to my ultimate findings and conclusions, this watch did serve its purpose of refamiliarizing me with the plotline of the animation and the specific scenes that portray dishonesty.

The second watch consisted of an analysis of verbal and paralinguistic cues or indicators of deceptive behavior. Based on the criteria that was created (reference Appendix C), there were three main scenes of deception that were most relevant to my research. The first scene was the scene when Honest John and Gideon trick Pinocchio into following them to the theater. Honest John utilizes a compelling story that appeals to Pinocchio's dreams of success thereby making Gepetto proud. Honest John is also surprisingly responsive to comments and is very observant to detail. For example, he states ". . . and with that personality, that profile, that physique . . . Why, he's a natural born actor!" recognizing not only Pinocchio's physical appearance but also his personality traits. Upon telling this lie, he stutters and stumbles in an attempt to spell Pinocchio's name. The second scene was the scene in which Pinocchio tells the Blue Fairy lies in order to escape punishment for not attending school. He uses incoherent sentences with great pauses such as when he states that he met "somebody" but then states that this "somebody" was actually "two big monsters." Pinocchio paired this incorrect use of grammar with consistent stuttering, often stating "Why, I...uh..." as a common filler between responses both at 48 minutes and 20 seconds and at 48 minutes and 37 seconds. He further expresses uncertainty in his responses, depending on Jiminy Cricket as moral support when he is revealed to be lying. Pinocchio's responses especially lack logic as he states that he was chopped into firewood, despite his body being perfectly intact. He also exhibits exaggerated enthusiasm in his responses and sometimes unusual perfection with no

nonfluencies for certain responses while other responses are riddled with nonfluencies. The final scene occurs when Honest John and Gideon once again trick Pinocchio into thinking he is ill and must recuperate at Pleasure Island, a designated location where an evil man turns disobedient children into donkeys. Honest John reveals increased voice and tone fluctuations along with rushed speech. His speech is unusually perfect despite his increasingly rushed speech all while maintaining an illogical storyline through false illnesses such as “compound transmission of the pandemic with percussion and spasmodic frantic disintegration!”

The third watch was for the purpose of identifying behavioral indicators of dishonesty (reference Appendix D). In the first scene as described above, Honest John displayed a sudden increase in hand, foot, and leg movements as well as an increase in nodding. He also presented widened eyes and increased exaggerated laughter when responding to Pinocchio’s questions. His erratic motions were most notable with hand movements or gestures that mimicked a dance. In the second scene as described above, both Pinocchio and Jiminy Cricket unsuccessfully attempt to hide when the Blue Fairy appears to confront them about Pinocchio’s mistake of not attending school. Pinocchio also engages in gaze aversion, refusing to hold eye contact with the Blue Fairy unless he is directly asked a question by her. He quite often fidgets with his finger, touching his face and mouth region. He initially presents very tense body language, only moving his head to nod or shake his head but later develops to possess exaggerated movements of the hand. Both his chin and eyebrows are raised, paired with an increase in facial movements and widened eyes. When Pinocchio’s lies are finally caught, Pinocchio develops droopy eyes and eyebrows, invoking a sense of sympathy or depression. He begins to fidget with his fingers, touching his mouth region. He is finally portrayed with teary eyes as he confesses he will never lie again. Finally, in the third scene of dishonesty, Honest John once again displays exaggerated behaviors with excessive hand gestures around the face and specifically the mouth region. He exhibits widened eyes and raised eyebrows along with dilated eyes. Despite this, he also quite frequently avoids eye contact with Pinocchio when he tells him that he is suffering from an allergy.

Discussion

My hypothesis was right in that there were obvious parallels between Pinocchio and reality in that Pinocchio is never taught to lie by any other characters but is able to exhibit dishonesty behavior innately. This contributes to the initial theory that deceptive behavior is an innately present characteristic in individuals, exhibited even at an early age. However, I did not account for the presence of an adult figure that also often behaves dishonestly. Honest John, posing as an adult figure in the animation, serves as a prime example for Pinocchio to engage in deceptive behavior. While most children in reality are influenced by the deceptive behaviors of their parents, Pinocchio has minimal interactions with Gepetto, his father, and more interaction with Honest John. Perhaps it is inevitable that Pinocchio begins to develop many of the same behaviors as Honest John. Even with Jiminy Cricket who serves the purpose of helping Pinocchio to make the right decisions, Pinocchio begins to implicitly imitate Honest John’s actions. We can thus infer that even in reality, a child’s moral compass may be present, but is not enough to stop them from making morally incorrect choices.

As a response to my research question which inquired upon the extent to which portrayals of dishonesty in Pinocchio reflected authentic deceptive behavior in children, Pinocchio, in fact, does share many of the same behavioral characteristics. He stutters while telling lies, avoids eye contact, and is quick to admit to his faults when he is caught lying. But there is also another aspect to his behaviors to take into consideration. Specifically, the behaviors that Pinocchio exhibits that are not consistent with information published by researchers are none other than products of imitation. The first instance of deceptive behavior that is portrayed in the animation is a scene of Honest John convincing Pinocchio to go to Stromboli’s theater rather than attend school. Honest John displays diversity of facial expressions, increase in nodding, and increase in hand, feet, and leg movements. These behaviors contradict research conducted by Professor Siegfried L. Sporer n who argues that there is an obvious reduction of hand, foot, and leg movements as well as a decrease in nodding exhibited by individuals when telling lies (Sporer and Schwandt, 2007). Nonetheless, Pinocchio accurately imitates these behaviors when he tells lies to the Blue Fairy about why he did not

attend school. Notably, Pinocchio exhibits exaggerated hand gestures, an increase in nodding, and shifts in facial expressions, among others. While Pinocchio does still display some traditional behaviors associated with dishonesty, he also mixes in behaviors that directly contrast proven behaviors of dishonest individuals.

Unlike the obvious similarities in Pinocchio and Honest John's actions, their speech and narration exhibit mostly contrasting qualities. Honest John is first introduced to the audience at 31 minutes and 20 seconds and articulates a compelling lie that appeals to the receiver, Pinocchio's, dreams of success and becoming a human boy. When Pinocchio states that he must go to school, Honest John interjects, stating, "School! Ah yes. Then you haven't heard of the easy road to success!" in an attempt to convince Pinocchio to follow him to Stromboli's theater. Honest John is very responsive and observant to details which hint at his confidence in his ability to deceive Pinocchio. Pinocchio, however, in the first scene in which he exhibits deceptive behavior, exhibits behaviors that are in line with the criteria points. He often stutters in his responses, presents incoherent sentences and illogical storylines, and has greater uncertainty in his responses. Pinocchio's lack of confidence in his responses ultimately reveals to the audience and to the other characters that he is very obviously telling a lie. Though Pinocchio was able to perfectly imitate many of Honest John's physical behaviors, he was unable to imitate the perfection and confidence in Honest John's responses. As hypothesized, Pinocchio embodies a young child that is uninformed and unable to comprehend deception as a concept due to his age.

The new understanding that I developed through my research was that while Pinocchio shares many of the same deceptive behaviors as children in reality, he is also equally susceptible to outside influence. Dishonesty is an innate characteristic in children but the way in which it develops and emerges within their daily lives are strictly impacted by their outside influences. Although Honest John does not always exhibit behavior in line with the criteria, Pinocchio nonetheless imitates them. My research addresses the gap in the literature as it brings to light inferences as to why stories that praise truth telling are more effective at instilling honesty in children than stories that punish dishonesty. Stories such as Pinocchio place a great emphasis on imitation. As Pinocchio observes Honest John and his behaviors, he begins to imitate physical behaviors such as increased body movement without noticing. This misplaced emphasis implicitly instills a mentality within children that allows them to similarly imitate behaviors they see both in the animation and in their own lives. Though children may not be directly imitating behaviors they observe in *Pinocchio*, they are still impacted by Pinocchio's actions, beginning to replicate the dishonest behavior that is displayed by adults within their own lives. Through *Pinocchio*, these children are likely to become more susceptible to outside influences which allows them to quickly adapt new characteristics and qualities.

Limitations

One aspect of this research that could have influenced my results is that the animation of Pinocchio was significantly more outdated than the sources that I used in order to create my criteria. The animation of Pinocchio was first released in 1940 when there was a lack of research done examining deceptive behavior in children. As a result, there may be some discrepancies between what is portrayed and what is listed in my criteria. Additionally, because there was so much research conducted on behavioral cues of deceptive behavior, it was challenging to parse through and determine which ones to include in my criteria. Cues I chose to exclude to prevent inconclusive data may have an unknown influence on the results, if included.

Conclusion

My research had a strong focus on the humanities approach to understanding deceptive behavior through a film analysis method. For further research, my findings can be paired with a quantitative analysis that directly experiments on a group of children rather than through a secondary source. Additionally, this criteria film analysis method can be applied to stories that praise truth telling such as *George Washington and the Cherry Tree* to determine what elements

make this type of story more effective at instilling honesty in children. Although my research may only seem relevant to developmental psychologists studying dishonesty, it can serve as valuable insight for parents considering *Pinocchio* as a parenting tool and greatly impact future generations to come.

Appendix A:

Type of Cue/Indicator of Deceptive Behavior	Traits
Verbal/Paralinguistic Cues	(When describing people) Neutral Comments
	(When describing people) Fewer Positive Comments
	Increase in number of sentence changes
	Increase in superfluous repetition of words or phrases
	Increase in stuttering
	Frequent sentence incompletions
	Frequent use of “um’s” or “er’s”
	Greater uncertainty in responses
	Omissions of words or parts of words
	Less responsive
	Lack of detail in responses
	Less compelling stories



Type of Cue/Indicator of Deceptive Behavior	Traits
	Fewer ordinary imperfections outside of the original amount
	Intruding incoherent sounds
	Illogical stories
	Increased verbal sophistication (as age increases)
Physical/Behavioral Cues	Gaze aversion
	Less emotion
	Raised chins
	Decrease in movement of the hand
	Decrease in movement of the leg
	Decrease in movement of the feet
	Decrease in nodding
	Tense body language
	Touching of mouth region or face

Appendix B:

Time	Event Description	Correlation to Deceptive Behavior
5:59	First Introduction to Pinocchio	
6:45	Naming of Pinocchio	
13:07	Gepetto wishes on a shooting star that Pinocchio would become a real boy	
16:00	Blue Fairy comes and grants Gepetto's wish and brings Pinocchio to life	
17:00	<p>Blue Fairy tells Pinocchio to be brave, unselfish, and truthful to become human</p> <ul style="list-style-type: none"> - Must choose between right and wrong <ul style="list-style-type: none"> - Pinocchio asks how he should differentiate - Blue Fairy tells him that his conscience will tell him - Jiminy Cricket becomes his conscience 	
20:20	Jiminy Cricket tells Pinocchio to whistle for him if he isn't sure what is right and what is wrong	
23:12	Gepetto realizes Pinocchio has come to life	
26:09	Pinocchio cannot differentiate between right and wrong and sets his finger on fire	
29:00	Pinocchio chooses not to go to school because he meets Honest John	



Time	Event Description	Correlation to Deceptive Behavior
30:10	Honest John the fox makes the plan to sell Pinocchio off to Stromboli the owner of a theater that is holding a puppet show	
31:20 (Exposition)	Honest John convinces Pinocchio to take part in the puppet show by lying to him saying it is the easy route to success	Honest John is a perfect example of the temptations that exist in the world
42:41	Pinocchio tries to go home after the show but Stromboli locks him in a cage to use him in his shows permanently <ul style="list-style-type: none"> - Calling him his “wooden gold mine” 	
48:31	Blue Fairy asks Pinocchio why he didn’t go to school and Pinocchio says he met two big monsters with big green eyes on the way to school <ul style="list-style-type: none"> - They hid him in a big sack - They trapped Jiminy in a little sack - They chopped him into firework - Pinocchio promises to be good from now on 	Although Pinocchio has no malintentions, he continues to impulsively tell unnecessary lies. Looking back, all I can really remember is the overwhelming
49:20	Pinocchio lies about having lied	
52:00	Honest John schemes to bring Pinocchio to Pleasure Island	
53:51	Honest John lies and pretends that he doesn’t know what Stromboli did to Pinocchio <ul style="list-style-type: none"> - He further convinces Pinocchio that he is a nervous wreck - He pretends to diagnose Pinocchio with 	Honest John lies about his identity and forces Pinocchio to go to Pleasure Island



Time	Event Description	Correlation to Deceptive Behavior
	<p>make-belief illnesses</p> <ul style="list-style-type: none"> - “A slight touch of monetary complications with bucolic semi-lunar contraptions of the flying trapezes” - He is “allergic” - The only cure is a vacation on Pleasure Island 	
57:31	<p>Upon arriving at Pleasure Island, Pinocchio is permitted to misbehave and participate in illegal activity; little does he know that the man that brought them to Pleasure Island plans to trap them inside</p>	
1:00:27	<p>Pinocchio learns to smoke from Lampy, a fellow kid he met at Pleasure Island</p> <ul style="list-style-type: none"> - Pinocchio further calls Lampy his best friend 	
1:05:23 (Climax)	<p>Pinocchio realizes that smoking and drinking at Pleasure Island was to turn him into a donkey</p> <ul style="list-style-type: none"> - Jiminy informs Pinocchio that the owner was trying to turn the boys into donkeys so that he could sell them as workers 	
1:07:39	<p>Pinocchio returns home and realizes that Gepetto, Figaro, and Cleo are all gone</p> <ul style="list-style-type: none"> - He receives a note from a dove that Gepetto was swallowed by a whale named Monstro but he was still alive in his stomach 	



1:09:21	Pinocchio jumps into the ocean with Jiminy to search for his dad - He tries to find Monstro but all the sea creatures are afraid of the whale	
1:13:20	Gepetto is starving inside the stomach of the whale and is unable to feed Figaro and Cleo until the whale inhales a school of tuna which pulls in Pinocchio along with it	
1:20:12 (Falling Action)	Pinocchio and Gepetto build a fire inside Monstro which makes him sneeze both Pinocchio, Jiminy, and Gepetto out into the ocean	
1:22:41	The furious whale chases Pinocchio and Gepetto, breaking their raft in the process. Pinocchio courageously saves Gepetto by singing them both back to shore	
1:25:00	Thinking that Pinocchio is dead, Gepetto begins to cry. After saving Gepetto, he turns into a human boy	
1:25:50	Jiminy Cricket earns a badge for being an “official conscience” for Pinocchio	

Appendix C:

Time Frame	Dialogue	Verbal Cue Analysis
31:20	<p><i>Honest John: (trips Pinocchio)</i> Oh, how clumsy of me! My, my, my. Oh, I'm terribly sorry. I do hope you're not injured.</p> <p><i>Pinocchio:</i> I'm all right</p> <p><i>Honest John:</i> Splendid! Well, Well. Quite a scholar I see! (<i>reads Pinocchio's book</i>) Look, Giddy, a man of letters. Here's your book.</p> <p><i>Pinocchio:</i> I'm going to school</p> <p><i>Honest John:</i> School! Ah yes. Then you haven't heard of the easy road to success</p> <p><i>Pinocchio:</i> Uh-uh</p> <p><i>Honest John:</i> No? I'm speaking, my boy, of the theater. Here's your apple.</p> <p>Bright Lights, Music, applause! Fame!</p> <p><i>Pinocchio:</i> Fame?</p> <p><i>Honest John:</i> Yes! And with that personality, that profile, that physique...Why, he's a natural born actor!</p> <p><i>Pinocchio:</i> But, I'm going...</p> <p><i>Honest John:</i> ...Straight to the top! Why, I can see your name in lights, lights six feet high.</p>	<p>31:30 - compelling story</p> <ul style="list-style-type: none"> - Appeals to Pinocchio's dreams of success <p>31:35 - very responsive and is observant to detail</p> <ul style="list-style-type: none"> - "And with that personality, that profile, that physique...Why, he's a natural born actor!" <p>31:54 - stumbling and stuttering when spelling Pinocchio's name</p> <p>34:42 - sudden change in emotions from happy or sneaky to angry</p>
48:31	<p><i>Pinocchio:</i> What'll I tell her?</p> <p><i>Jiminy:</i> You might tell her the truth</p> <p><i>Pinocchio:</i> (hides)</p> <p><i>Blue Fairy:</i> Why Pinocchio?</p> <p><i>Pinocchio:</i> Hello!</p> <p><i>Blue Fairy:</i> Sir Jiminy?</p> <p><i>Jiminy:</i> This is a pleasant surprise.</p> <p><i>Blue Fairy:</i> Pinocchio, why didn't you go to school?</p> <p><i>Pinocchio:</i> School...well I...uh... (<i>looks at Jiminy</i>)</p> <p><i>Jiminy:</i> Go ahead, tell her.</p> <p><i>Pinocchio:</i> Well, I was going to school 'til i met somebody.</p> <p><i>Blue Fairy:</i> Met somebody?</p>	<p>Incoherent Sentences</p> <ul style="list-style-type: none"> - "met <i>somebody</i>... two big monster" <p>Stuttering</p> <ul style="list-style-type: none"> - "Why, I...uh..." (48:20) - "Why...I..." (48:37) <p>Omissions of words or phrases</p> <ul style="list-style-type: none"> - "Well...I..." <p>Greater uncertainty</p> <ul style="list-style-type: none"> - "Huh..? Jiminy..?" <p>Illogical Storyline</p> <ul style="list-style-type: none"> - "I didn't. They chopped me into fire-wood!"



Time Frame	Dialogue	Verbal Cue Analysis
	<p><i>Pinocchio</i>: Yeah, two big monsters! With big green eyes! (<i>nose grows</i>) Why, I...</p> <p><i>Blue Fairy</i>: Monsters? Weren't you afraid?</p> <p><i>Pinocchio</i>: No, ma'am! They tied me in a big sack! (<i>nose grows</i>)</p> <p><i>Blue Fairy</i>: You don't say! And where was Sir Jiminy?</p> <p><i>Pinocchio</i>: Huh...? Jiminy?</p> <p><i>Jiminy</i>: Leave me outta this.</p> <p><i>Pinocchio</i>: They put him in a little sack! (<i>nose grows</i>)</p> <p><i>Blue Fairy</i>: No...</p> <p><i>Pinocchio</i>: Yea!!</p> <p><i>Blue Fairy</i>: How did you escape?</p> <p><i>Pinocchio</i>: I didn't. They chopped me into firewood! (<i>nose grows</i>) Oh, look, my nose! What's happened?</p> <p><i>Blue Fairy</i>: Perhaps you haven't been telling the truth</p> <p><i>Jiminy</i>: Perhaps?</p> <p><i>Pinocchio</i>: Oh, But I have! Every single word! (<i>nose grows</i>) Oh, please help me! I'm awful sorry</p> <p><i>Blue Fairy</i>: You see, Pinocchio, a lie keeps growing and growing until it's as plain as the nose on your face.</p> <p><i>Jiminy</i>: She's right, Pinoke.</p> <p><i>Pinocchio</i>: I'll never lie again, honest, I won't</p> <p><i>Jiminy</i>: Please, your honor, I mean...Miss Fairy..Give him another chance. For my sake, will ya?</p> <p><i>Blue Fairy</i>: I'll forgive you this once but once remember a boy who won't be good might just as well be made of wood.</p> <p><i>Pinocchio and Jiminy (together)</i>: We'll be good, won't we!</p>	<ul style="list-style-type: none"> - "They tied me in a big sack" → Less compelling stories <p>Unusual perfection</p> <ul style="list-style-type: none"> - 48:42 - no stuttering at all when responding - 48:55 - despite Jiminy's dialogue, tells a nonsensical lie without hesitation - 48:59 - increased enthusiasm <ul style="list-style-type: none"> - "Yeah!" <p>Nonfluencies:</p> <ul style="list-style-type: none"> - Instead of um's or er's uses huh's
53:51	<p><i>Pinocchio</i>: Stromboli was terrible!</p> <p><i>Honest John</i>: He was?</p> <p><i>Pinocchio</i>: Yeah! He locked me in a bird cage.</p>	<p>53:46 - voice fluctuations</p> <p>53:58 - incoherent noises</p> <p>54:10 - speech is rushed and becomes faster the</p>



Time Frame	Dialogue	Verbal Cue Analysis
	<p><i>Honest John:</i> He did?</p> <p><i>Pinocchio:</i> Uh huh But I learned my lesson. I'm going..</p> <p><i>Honest John:</i> Oh you poor poor boy. You must be a nervous wreck. That's it! You are a nervous wreck! We must diagnose this case at once. Quick doctor, your notebook. Bless my soul...(observes Pinocchio) My, my...Just as I thought! A slight touch of monetary complications with bucolic semi-lunar contractions of the flying trapezes. (looks inside Pinocchio's mouth)</p> <p>Mmhmm...Say hippopotamus.</p> <p><i>Pinocchio:</i> Hi-ho-hotamus</p> <p><i>Honest John:</i> I knew it! Compound transmission of the pandemonium with percussion and spasmodic frantic disintegration! Close your eyes. What do you see?</p> <p><i>Pinocchio:</i> Nothing!</p> <p><i>Honest John:</i> Open them! Now what do you see?</p> <p><i>Pinocchio:</i> Spots!</p> <p><i>Honest John:</i> Aha! Now, that heart! (Bum bum bum sound made by Honest John) Oooo, my goodness! A palpitating syncopation of the killer diller with a wicky wacky stomping of the floy joy! Quick, doctor, that report. Ooo. This makes it perfectly clear. My boy, you are allergic!</p> <p><i>Pinocchio:</i> Allergic?</p> <p><i>Honest John:</i> Yes! And there is only one cure! A vacation on Pleasure Island.</p> <p><i>Pinocchio:</i> Pleasure Island?</p> <p><i>Honest John:</i> Yes! That happy land of carefree boys where every day is a holiday!</p> <p><i>Pinocchio:</i> But I can't go. I...</p> <p><i>Honest John:</i> Why, of course you can go! I'm giving you my ticket (pulls out ticket)</p>	<p>more he speaks</p> <p>54:00 - illogical storyline (use of nonexistent terms)</p> <p>54:27 - lack of usual nonfluencies (unusual perfection DESPITE rushed speech)</p> <ul style="list-style-type: none"> - "Compound transmission of the pandemonium with percussion and spasmodic frantic disintegration!"



Appendix D:

Time Frame	Dialogue	Behavioral Cue Analysis
31:20	<p><i>Honest John: (trips Pinocchio)</i> Oh, how clumsy of me! My, my, my. Oh, I'm terribly sorry. I do hope you're not injured.</p> <p><i>Pinocchio:</i> I'm all right</p> <p><i>Honest John:</i> Splendid! Well, Well. Quite a scholar I see! (<i>reads Pinocchio's book</i>) Look, Giddy, a man of letters. Here's your book.</p> <p><i>Pinocchio:</i> I'm going to school</p> <p><i>Honest John:</i> School! Ah yes. Then you haven't heard of the easy road to success</p> <p><i>Pinocchio:</i> Uh-uh</p> <p><i>Honest John:</i> No? I'm speaking, my boy, of the theater. Here's your apple. Bright Lights, Music, applause! Fame!</p> <p><i>Pinocchio:</i> Fame?</p> <p><i>Honest John:</i> Yes! And with that personality, that profile, that physique...Why, he's a natural born actor!</p> <p><i>Pinocchio:</i> But, I'm going...</p> <p><i>Honest John:</i> ...Straight to the top! Why, I can see your name in lights, lights six feet high.</p>	<p>31:30 - Increase in hand, foot, and leg movements - Increase in nodding</p> <p>31:35 - widened eyes</p> <p>31:55 - increased exaggerated laughter</p> <p>34:42 - erratic motions (increased hand movements in a dance-like motion)</p>
48:31	<p><i>Pinocchio:</i> What'll I tell her?</p> <p><i>Jiminy:</i> You might tell her the truth</p> <p><i>Pinocchio:</i> (hides)</p> <p><i>Blue Fairy:</i> Why Pinocchio?</p> <p><i>Pinocchio:</i> Hello!</p> <p><i>Blue Fairy:</i> Sir Jiminy?</p> <p><i>Jiminy:</i> This is a pleasant surprise.</p> <p><i>Blue Fairy:</i> Pinocchio, why didn't you go to school?</p> <p><i>Pinocchio:</i> School...well I... (<i>looks at Jiminy</i>)</p> <p><i>Jiminy:</i> Go ahead, tell her.</p> <p><i>Pinocchio:</i> Well, I was going to school 'til i met somebody.</p> <p><i>Blue Fairy:</i> Met somebody?</p>	<p>48:10 - both Pinocchio and Jiminy Cricket attempt to hide when the Blue Fairy appears</p> <p>48:22 - gaze aversion + increased hand movement (finger to face)</p> <p>48:27 - hand fidgeting and touching leg</p> <p>48:36 - raised chin</p> <p>48:41 - tense body language (only shaking head to say no without moving any other body part when responding)</p> <p>48:42 - exaggerated hand movement</p> <p>48:48 - increase in nodding</p> <p>49:03 - bent knees and clenched fists</p>



Time Frame	Dialogue	Behavioral Cue Analysis
	<p><i>Pinocchio</i>: Yeah, two big monsters! With big green eyes! (<i>nose grows</i>) Why, I....</p> <p><i>Blue Fairy</i>: Monsters? Weren't you afraid?</p> <p><i>Pinocchio</i>: No, ma'am! They tied me in a big sack! (<i>nose grows</i>)</p> <p><i>Blue Fairy</i>: You don't say! And where was Sir Jiminy</p> <p><i>Pinocchio</i>: Huh...? Jiminy?</p> <p><i>Jiminy</i>: Leave me outta this.</p> <p><i>Pinocchio</i>: They put him in a little sack! (<i>nose grows</i>)</p> <p><i>Blue Fairy</i>: No...</p> <p><i>Pinocchio</i>: Yea!!</p> <p><i>Blue Fairy</i>: How did you escape?</p> <p><i>Pinocchio</i>: I didn't. They chopped me into firewood! (<i>nose grows</i>) Oh, look, my nose! What's happened?</p> <p><i>Blue Fairy</i>: Perhaps you haven't been telling the truth</p> <p><i>Jiminy</i>: Perhaps?</p> <p><i>Pinocchio</i>: Oh, But I have! Every single word! (<i>nose grows</i>) Oh, please help me! I'm awful sorry</p> <p><i>Blue Fairy</i>: You see, Pinocchio, a lie keeps growing and growing until it's as plain as the nose on your face.</p> <p><i>Jiminy</i>: She's right, Pinoke.</p> <p><i>Pinocchio</i>: I'll never lie again, honest, I won't</p> <p><i>Jiminy</i>: Please, your honor, I mean...Miss Fairy..Give him another chance. For my sake, will ya?</p> <p><i>Blue Fairy</i>: I'll forgive you this once but once remember a boy who won't be good might just as well be made of wood.</p> <p><i>Pinocchio and Jiminy (together)</i>: We'll be good, won't we!</p>	<p>49:10 - raised eyebrows and increase in facial movements</p> <p>49:18 - a combination of head nods, extremely raised eyebrows, widened eyes</p> <p>49:25 - droopy eyes and eyebrows (invoking sense of sympathy)</p> <p>49:26 - finger fidgeting - touching face and mouth</p> <p>49:35 - teary eyes</p>
53:51	<p><i>Pinocchio</i>: Stromboli was terrible!</p> <p><i>Honest John</i>: He was?</p> <p><i>Pinocchio</i>: Yeah! He locked me in a bird cage.</p>	<p>53:46 - excessive hand gestures around face</p> <p>53:47 - touching mouth with hand</p> <p>53:52 - raised eyebrows and widened eyes</p>



Time Frame	Dialogue	Behavioral Cue Analysis
	<p><i>Honest John:</i> He did?</p> <p><i>Pinocchio:</i> Uh huh But I learned my lesson. I'm going..</p> <p><i>Honest John:</i> Oh you poor poor boy. You must be a nervous wreck. That's it! You are a nervous wreck! We must diagnose this case at once. Quick doctor, your notebook. Bless my soul...(observes Pinocchio) My, my...Just as I thought! A slight touch of monetary complications with bucolic semi-lunar contraptions of the flying trapezes. (looks inside Pinocchio's mouth)</p> <p>Mmhmm...Say hippopotamus.</p> <p><i>Pinocchio:</i> Hi-ho-hotamus</p> <p><i>Honest John:</i> I knew it! Compound transmission of the pandemonium with percussion and spasmodic frantic disintegration! Close your eyes. What do you see?</p> <p><i>Pinocchio:</i> Nothing!</p> <p><i>Honest John:</i> Open them! Now what do you see?</p> <p><i>Pinocchio:</i> Spots!</p> <p><i>Honest John:</i> Aha! Now, that heart! (Bum bum bum sound made by Honest John) Oooo, my goodness! A palpitating syncopation of the killer diller with a wicky wacky stomping of the floy joy! Quick, doctor, that report. Ooo. This makes it perfectly clear. My boy, you are allergic!</p> <p><i>Pinocchio:</i> Allergic?</p> <p><i>Honest John:</i> Yes! And there is only one cure! A vacation on Pleasure Island.</p> <p><i>Pinocchio:</i> Pleasure Island?</p> <p><i>Honest John:</i> Yes! That happy land of carefree boys where every day is a holiday!</p> <p><i>Pinocchio:</i> But I can't go. I...</p> <p><i>Honest John:</i> Why, of course you can go! I'm giving you my ticket (pulls out ticket)</p>	<p>53:58 - intentional coughing</p> <p>54:05 - gaze aversion</p> <p>54:10 - dilated eyes</p> <p>54:54 - constant touching of mouth</p>

Works Cited

- Barnett, M. A., Bartel, J. S., Burns, S. R., Sanborn, F. W., Christensen, N. E., & White, M. M. (2000). Perceptions of Children Who Lie: Influence of Lie Motive and Benefit. *Journal of Genetic Psychology*, 161(3), 381. <https://doi.org/10.1080/00221320009596719>
- DePaulo, Bella & Kashy, Deborah & Kirkendol, Susan & Wyer, Melissa & Epstein, Jennifer. (1996). Lying in Everyday Life. *Journal of Personality and Social Psychology*, 70, 979-95. 10.1037/0022-3514.70.5.979
- DePaulo, Bella & Lindsay, James J & Malone, Brian & Muhlenbruck, Laura & Charlton, Kelly & Cooper, Harris. (2003). Cues to Deception. *Psychological Bulletin*. 129. 74-118. 10.1037/0033-2909.129.1.74
- DePaulo, Bella & Rosenthal, Robert & Rosenkrantz, Judith & Green, Carolyn Rieder. (1982). Actual and perceived cues to deception: A closer look at speech. *Basic and Applied Social Psychology*, 3(4), 291-312. https://doi.org/10.1207/s15324834basp0304_6
- Evans, A. D., & Lee, K. (2013). Emergence of lying in very young children. *Developmental Psychology*, 49(10), 1958-1963. <https://doi.org/10.1037/a0031409>
- Fallis, D. (2009). What Is Lying? *The Journal of Philosophy*, 106(1), 29-56. <http://www.jstor.org/stable/20620149>
- Hoogenraad, K., & McKenzie, B. E. (1995). Maternal reports of children's deceptive behavior. *Australian Journal of Psychology*, 47(1), 42. <https://doi.org/10.1080/00049539508258768>
- Lee, K. (2013). Little Liars: Development of Verbal Deception in Children. *Child Development Perspectives*, 7(2), 91-96. <https://doi.org/10.1111/cdep.12023>
- Lee, K. et al. (2014). Can Classic Moral Stories Promote Honesty in Children? *Psychological Science*, 25(8), 1630-1636. <https://doi.org/10.1177/0956797614536401>
- Lewis, M. (2015). The Origins of Lying and Deception in Everyday Life. *American Scientist*, 103(2), 128-135. <http://www.jstor.org/stable/43707795>
- Lupoli, M. J., Jampol, L., & Oveis, C. (2017). Lying because we care: Compassion increases prosocial lying. *Journal of Experimental Psychology: General*, 146(7), 1026-1042. <https://doi.org/10.1037/xge0000315>
- Merriam-Webster. (n.d.). Fairy-tale. In Merriam-Webster.com dictionary. Retrieved November 25, 2021, from <https://www.merriam-webster.com/dictionary/fairy-tale>
- Mohney, G. (2016). The Science Behind When and Why Children Learn to Lie. ABC News. Retrieved March 9, 2022, from <https://abcnews.go.com/Health/science-children-learn-lie/story?id=38066555>
- Ruffman, T., Olson, D. R., Ash, T., & Keenan, T. (1993). The ABCs of deception: Do young children understand deception in the same way as adults? *Developmental Psychology*, 29(1), 74-87. <https://doi.org/10.1037/0012-1649.29.1.74>

- Sanjiv Erat, Uri Gneezy. (2011) White Lies. *Management Science*, 58(4):723-733.
<https://doi.org/10.1287/mnsc.1110.1449>
- Sheppard, J. A. (2012). The Roots of Deception. *American Intelligence Journal*, 30(2), 17–21.
<http://www.jstor.org/stable/26202009>
- Sporer, Siegfried & Schwandt, Barbara. (2007). Moderators of nonverbal Indicators of deception: A meta-analytic synthesis. *Psychology, Public Policy, and Law*. 13. 1-34. 10.1037/1076-8971.13.1.1.
- Stouthamer-Loeber, M. (1986). Lying as a problem behavior in children: A review. *Clinical Psychology Review*, 6(4), 267–289. [https://doi.org/10.1016/0272-7358\(86\)90002-4](https://doi.org/10.1016/0272-7358(86)90002-4)
- Strasburger, V. C. (2004). Children, adolescents, and the media. *Current Problems in Pediatric and Adolescent Health Care*, 34(2), 54–11. 10.1016/j.cppeds.2003.08.001
- Strudler, A. (2010). The Distinctive Wrong in Lying. *Ethical Theory and Moral Practice*, 13(2), 171–179.
<http://www.jstor.org/stable/40602553>
- Talwar, V. and Lee, K. (2011). A Punitive Environment Fosters Children’s Dishonesty: A Natural Experiment. *Child Development*, 82(6), pp.1751-1758.
- Vrij, Aldert & Akehurst, Lucy & Soukara, Stavroula & Bull, Ray. (2004). Detecting Deceit Via Analyses of Verbal and Nonverbal Behavior in Children and Adults. *Human Communication Research*. 30. 8 - 41.
10.1111/j.1468-2958.2004.tb00723.x
- Wardetzky, K. (1990). The Structure and Interpretation of Fairy Tales Composed by Children. *The Journal of American Folklore*, 103(408), 157–176. <https://doi.org/10.2307/541853>
- Xu, F., Bao, X., Fu, G., Talwar, V., & Lee, K. (2010). Lying and Truth-Telling in Children: From Concept to Action. *Child Development*, 81(2), 581–596. <http://www.jstor.org/stable/40599003>