

## B.S. Research Paper Example (Literature Review)

This is an example of a research paper that was written in fulfillment of the B.S. research paper requirement. **It uses APA style for all aspects except the cover sheet (this page; the cover sheet is required by the department).** It describes research that the author investigated while taking the PSYC 199 course.

Development of Deception in Children

Article title

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Your faculty advisor will have to read the completed paper prior to submission. Their signature and date, indicating approval of the paper, is required.

**This example was written by a student who is reviewing literature that they researched as part of the PSYC 199 course. It is a full-length literature review article.**

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This is the title page in traditional APA style.

Development of Deception in Children

Article title

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This article was completed in fulfillment of the requirements for the author's Bachelor of Science (B.S.) degree in Psychology at the University of California, San Diego. The author was advised by Professor Gail Heyman.

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Author Notes have up to four paragraphs. These often discuss author affiliation, any change affiliation, acknowledgments, and addresses for correspondence.

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### Development of Deception in Children

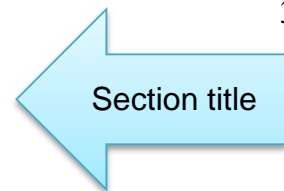
Honesty is highly regarded and considered a virtue. There are many moral stories and fables told to children about virtue, lying, and the negative consequences of deception. Parents tell and read stories (*The Boy Who Cried Wolf* or *Pinocchio*) to their children emphasizing honesty (Heyman, Luu & Lee, 2009). Not only do parents emphasize honesty to their kids, but parents punish children for dishonesty (Lewis, 1993; Robinson, 1996).

Although parents condemn lying and emphasize the importance of honesty, many parents lie to their own children (Heyman et al., 2009). In addition, many children tell different types of lies more often than parents like to believe. Learning to lie successfully is a natural part of growing up and human developmental trajectory. There are many types of lies and purpose for lying for oneself or for others: white lies, lying to protect someone's feelings, avoiding punishment, and more. Lying is common in interpersonal communications. As children grow older, children understand more about prosocial lie-telling. However, lying can become a problem and has negative consequences if chronically or inappropriately used.

In order to successfully deceive another, the lie-teller needs to regulate verbal statements and nonverbal behavior. Verbal statements refers to the content of the statements made during the process of telling a lie, whereas nonverbal behavior refers to facial expressions, vocal, and body language (Talwar & Lee, 2002).

This literature review examines studies on the development of deception among young children, arguing that the emergence of lying and lying behaviors is normal and reflects children's advanced cognitive development with age. Moreover, there are many different types of lies and many types of social situations and contexts that enable or inhibit children from lying or telling the truth.

The Introduction section is the first major section of text. In this full-length literature review article, it introduces the topic under investigation.



### Review

Talwar and Lee (2002) wanted to examine verbal and nonverbal behaviors of lying and truth-telling children aged three- to seven-years-old. They hypothesized that young children were more likely to incriminate themselves verbally. Talwar and Lee used a resistant temptation paradigm. This paradigm involves playing a guessing game with children. The experimenter places a toy behind the children's back and plays an audio cue. However, children are left alone in the room with a toy behind their back and told not to peek. When the experimenter comes back, the children are asked if they peeked. In the study, one hundred and one three- to seven-year old participants were told they were going to play a game that involved guessing names of popular toys. Children were instructed to sit in a chair and listen to the audio clue associated with a toy that was kept behind them three times. On the third presentation, the experimenter was interrupted to answer a phone. Before the experimenter left, they said, "Don't turn round to peek and look at the toy" and "remember, no peeking." Children were left alone for about thirty to sixty seconds.

The results of the study matched the experimenter's hypothesis. When asked, 64% of the three-year-olds confessed to peeking whereas most of the four- to seven-year olds lied. Overall, 79% of girls and 80% of boys lied. Three groups, parents, undergraduate students, and coders, were asked to code children's nonverbal behavior. They were looking at eye movement (e.g. avoidance of eye contact), facial expressions (smiles, pressing/biting lips), body language (shakes head, startled response), and prosody of vocalization (positive tone, sharp breaths). Among the parents and undergraduate coders, there was a sex effect with boys being rated more likely as lie-tellers. This suggest that there is a bias, as boys are more likely to be coded as lie-tellers even though both boys and girls lied equally. The research also found 38% of children

This section is the largest of full-length literature review article and is the actual "review" portion of the literature review.

who lied smiled and 11% of the children who did not lie smiled compared to 76% of children who did not lie and had a relaxed mouth expression and 46% of children who did lie and had a relaxed mouth expression. Overall, adults could not differentiate or distinguish liars from non-liars. There is a significant age pattern for lying behaviors. Three-year-olds are less inclined to lie about their transgressions and are pretty good at nonverbal behaviors. However, many of these children are poor at controlling verbal statements. In addition, children are extremely good at manipulating nonverbal behaviors to deceive others, as adults and undergraduate coders were unable to distinguish the liars and non-liars. The study concludes that children under the age of eight have still yet to develop successful deception (Talwar & Lee, 2002). However, asking the subject to lie complicates these studies. In the real world, the person interacting with the lie-telling individual would not know ahead of time that they are potentially being lied to or misled. The situation and conversation becomes artificial, differing from the natural everyday interactions and contexts (Talwar & Lee, 2002).

Similarly to the previous study, Lewis, Stanger, and Sullivan (1989) examined whether three-year-olds are able to hide their emotional expressions intentionally when lying. They also used the resistant temptation paradigm. The procedure of the study had children sit in a chair with a toy behind them. The parent was in the room, not facing the child. The experimenter asked the child, "Did you peek?" The subjects were coded with saying "yes" and nodding, saying "no" and shaking their head, or giving no verbal or nonverbal response. The coders observed whether the child peeked or did not peek at the toy after five minutes, and also nonverbal and verbal responses. Smiling, gaze aversion, sober mouth, and relaxed-interest mouth were the facial expressions and nonverbal behaviors (nervous touching, startled response, body inhibition) that were coded.

The study concluded that young children are able to control their nonverbal expressions quite well. Twenty-nine subjects out of thirty-three peeked: 38% said "yes," 38% said "no," and 24% gave no verbal response. Moreover, those who peeked and lied to the experimenter had an increase in smiling and relaxed face, and the children with no response had more nervous touching. The study suggests that children have increased positive nonverbal expressions and behavior when they admit to transgression. Although this study was done over twenty years ago, the findings corroborated with Talwar and Lee (2002) in that three year olds were good at masking nonverbal expressions, but made verbal transgressions. According to this study, three-year-old children are capable of deception. However, there are some limitations with this study, as there were thirty-three subjects, a small sample, that were middle- and upper-class Caucasians. Having a small sample size and type makes it questionable if this could apply to the general population. Although this study found boys were more likely to admit their transgression (which contradicts Talwar & Lee, 2000), it is a small sample size and is insufficient at generalizing to the public. In addition, this was done in a laboratory. Many three-year-olds do not interact in a lab often. Also, the child's parent was in the room, and that could affect whether the child lies or not as children might believe they would be punished or face consequences at home (Lewis et al., 1989).

There may be situations in which children tell the truth as opposed to lying. In the study by Talwar, Lee, Bala, and Lindsay (2004), the researchers wanted to examine the implications of children lying for their parents in the legal system. For experiment one, there was one hundred and thirty-seven children ages three to eleven. They were assigned to one of three conditions – Parent Absent, Parent Present, and Child Absent condition. The parent committed a minor transgression of breaking a puppet, acting distress, and asked their child to agree to not tell the

The use of topic sentences and connective phrases, as in this section, can improve the readability of a review by better improving flow from one paragraph to the next.

researcher. In the Parent Absent condition, parents were asked to leave the room. In the Child Absent condition, the child left the room with the experimenter and the parent “broke” the puppet while the child was not in the room. Afterwards, the child was interviewed (asked questions about what happened to the puppet) and assessed about truth and lie-telling. About half the children in both Parent Absent and Parent Present conditions reported their parents broke the puppet, while 22% of children in Child Absent condition did. There was no significant age effect. Also, according to the assessment, children's understanding of lie and truth-telling increased with age. The study concluded that children are not as likely to tell lies for a stranger, especially with potential consequences for the children. Children may be motivated to lie for a parent under certain conditions. More children lied if they knew they would not be blamed, suggesting children changed their lie and truth-telling behavior depending on the context. However, it is important to note that most children rarely are asked by strangers to lie or testify against strangers. Moreover, in the Parent Absent and Parent Present condition, only about half the children reported that their parents broke the puppet (Talwar et al., 2004).

Hays and Carver's study (2014) examined whether lying to children affects their subsequent honesty. They had one hundred and eighty-six children between three to seven, split into groups of preschool children (3.5 to 5 yrs) and school-aged children (5 to 7 yrs). Using a modified temptation resistance paradigm, children were asked to guess toys that were placed behind them. Participants were randomly assigned into one of two conditions: a lie condition (children were told a lie before the game) or no lie condition (children were not told a lie). During the game, the experimenter was interrupted and told the children not to peek to the toy. When the experimenter came back, they asked the children whether they peeked at the toy. The younger children were more likely to peek at the toy, and children who were lied to were more

Overall, the B.S. degree research paper should have at least 6 pages of text. This example has 7.



likely to peek. There were no subsequent lying behavior effects when experimenters lied to preschool children, whereas there were increased subsequent lying behavior effects when experimenters lied to school-aged children, suggesting school-aged children can modify their truth and lie-telling behaviors. This study seems to suggest that adults can influence the lying behavior of children. However, the study does not provide a causal explanation for, and is unable to explain, why school-aged children are more likely to lie. In addition, there may be other variables that causes school-aged children to lie. One reason may be the children know they are in an experiment and believe they will never see the experimenter again, and feel confident to lie. In addition, children need to peek at the toy before lying. The children who choose to not peek may conceptualize and value honesty more than the group of children who choose to peek and lie. Also, the experiment uses strangers – someone with no relationship to the children – to lie to the children, which does not reflect reality. Children may react differently if it were their parent who lied to them, as there may be positive or negative consequences for lying to parents (Hays & Carver, 2014).

Sodian, Taylor, Harris, and Perner (1991) suggest that lies for personal gain and reward emerge during preschool. In the study, forty-two children (divided into fourteen subjects of two-year-olds, fourteen subjects of three-year-olds, and fourteen subjects of four-year-olds) were assessed. Of interest was whether they could hide the location of a truck driver from the experimenter. The child was taught how to hide the toy driver into five inverted cups while another person had their eyes closed. The experimenter left the room, giving the instruction to hide the driver so another experimenter would not be able to tell which cup the driver is under. If the child left clues, the experimenter asked questions such as, "can you do something to the tracks so the [experimenter 2] won't find the driver?" These questions and hints allowed the child

There should be evidence of critical thinking about the research. For example, on this page the author comments about study limitations and posits alternative explanations.



the chance to remove visible clues. Children were scored by the number of hints they needed. The two- and three-year-olds group needed more hints than the four-year-olds group. There were some two- and three-year-olds who removed evidence before the experimenter asked questions and gave hints though, suggesting two- and three-year-olds are capable in creating deceptive strategies. Additionally, the majority of children in each group had some kind of deceptive strategy such as producing a misleading gesture, although four-year-olds created more deceptive strategies. The results suggest that there is an age difference in understanding how to deceive people, as two- and three-year-olds required more prompting to produce misleading gestures and remarks. It also appears children are capable of learning deception strategies, even if they do not fully understand the act of deceptions (Sodian et al., 1991). It is possible the researcher could have been leading the children into making deceptive strategies (e.g. pointing at the tire truck marks to the children) without the children understanding what they are doing is deceptive.

### **Conclusions**

The development of deception is a very natural and normal process of growing up. From the studies reviewed, children become better liars with age although some children as young as two and three show some deceptive strategies without prompting. In addition, children may lie or tell the truth for different reasons depending on the social context and with whom the children is interacting with (a parent versus a stranger). Also, deception requires children to be successful at both verbal and nonverbal behaviors. Understanding the development of lying is important for understanding how to better educate children and create developmental programs as well as within legal settings.

In a full-length literature review article, a Conclusions section sums up the major findings of the research that was reviewed.

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