

2009

Gender differences in adolescent lying behavior based on type of lie

Lori Ann Hobrath
University of Dayton

Follow this and additional works at: https://ecommons.udayton.edu/graduate_theses

Recommended Citation

Hobrath, Lori Ann, "Gender differences in adolescent lying behavior based on type of lie" (2009). *Graduate Theses and Dissertations*. 3329.

https://ecommons.udayton.edu/graduate_theses/3329

This Thesis is brought to you for free and open access by the Theses and Dissertations at eCommons. It has been accepted for inclusion in Graduate Theses and Dissertations by an authorized administrator of eCommons. For more information, please contact mschlangen1@udayton.edu, ecommons@udayton.edu.

Gender Differences in Adolescent Lying Behavior Based on Type of Lie

Submitted to

The College of Arts and Sciences of the

UNIVERSITY OF DAYTON

In Partial Fulfillment of the Requirements for

The Degree

Master of Arts in Clinical Psychology

By

Lori Ann Hobrath

UNIVERSITY OF DAYTON

Dayton, Ohio

December 2009

APPROVED BY:



Keri J. Brown Kirschman, PhD
Faculty Advisor



Mark S. Rye, PhD
Committee Member



Carolyn Roecker Phelps, PhD
Committee Member

Concurrence:



David Biers,
Chair, Department of Psychology

ABSTRACT

Gender Differences in Adolescent Lying Behavior Based on Type of Lie

Lori A. Hobrath
University of Dayton

Advisor: Dr. K. B. Kirschman

Lying behavior is prevalent in children of all ages (Jensen, Arnett, Feldman, & Cauffman, 2004; Lewis, Stanger & Sullivan, 1989; Wilson, Smith & Ross, 2003). Frequency and acceptance of lying behavior has been shown to differ based on context of the lie, gender and age of the child, and type of lie (altruistic vs. self-serving reasons) (Jenson, Arnett, Feldman & Caufmann, 2004; Talwar & Lee, 2002b). The current study examined the relationship between gender, type of lie, and lying behavior in an adolescent sample. Forty-two 11- to 15-year-old adolescents from suburban Midwestern schools were given hypothetical vignettes and lying questionnaires to examine their reported lying behavior. Results were analyzed using a repeated-measures ANOVA to test the effect of type of lie and gender on acceptance of lying behavior and number of lies told. As hypothesized, there was a significant main effect of type of lie; that is, adolescents were found to rate altruistic lies as more acceptable than self-serving lies. Contrary to the hypothesis, there was no interaction between gender and type of lie. That is, there was no gender difference in acceptance of altruistic or self-serving lies. It was also hypothesized that social intelligence and

general lying behavior would correlate with and predict acceptance of lying behavior. Multiple regression showed that general lying behavior, but not social intelligence, was a significant predictor of acceptance of lying behavior. Further research should explore the difference between types of lies and to whom adolescents tell lies.

ACKNOWLEDGEMENTS

My special thanks are in order to Dr. Keri Brown Kirschman, my advisor, for providing the time necessary for the work contained herein, and for directing this thesis and bringing it to its conclusion with patience and expertise. I also thank Dr. Mark Rye and Dr. Carolyn Rocker-Phelps for their help as members of my thesis committee.

I would also like to express my appreciation to everyone who has helped with the work. This includes John Wasylo, Cindy Parker, David Harbart, Mike Hodson, and Irene Brown, educators who gave their permission for me to recruit their students to participate in this study. I also thank Devin, Jake, and the rest of my family for all of their understanding and support.

TABLE OF CONTENTS

ABSTRACT.....	iii
ACKNOWLEDGEMENTS.....	v
CHAPTER I: INTRODUCTION	1
CHAPTER II: METHOD	18
CHAPTER III: RESULTS	24
CHAPTER IV: DISCUSSION	31
REFERENCES.....	39
APPENDIX A: INFORMED CONSENT	43
APPENDIX B: DEMOGRAPHIC SURVEY	45
APPENDIX C: LYING SURVEY	46
APPENDIX D: TROMSO SOCIAL INTELLIGENCE SCALE	48
APPENDIX E: LYING VIGNETTES.....	50
APPENDIX F: INFORMATIONAL LETTER.....	68
APPENDIX G: ASSENT TO PARTICIPATE.....	69
APPENDIX H: DEBRIEFING FORM	70

LIST OF TABLES

1. Demographic Characteristics of Participants.....	19
2. Mean (<i>SD</i>) of Major Study Variables.....	25
3. Correlations Between Major Study Variables.....	28

CHAPTER I

INTRODUCTION

Lying is a common behavior in our society (Hughes & Hill, 2006), especially among children and adolescents. Children have been found to lie on many occasions and in many situations, as evidenced by naturalistic observation (Wilson, Smith, & Ross, 2003). Lying has been found to be prevalent in very young children (Lewis, Stanger, & Sullivan, 1989; Newton, Reddy, & Bull, 2000; Talwar & Lee, 2002a; 2002b; Wilson et al., 2003), and seems to increase in frequency as children get older (Talwar & Lee, 2002a; Wilson et al., 2003). Lying behavior has also been reported to be common during the adolescent years (Jensen, Arnett, Feldman, & Cauffman, 2004; Keltikangas-Jarvinen & Lindeman, 1996).

According to the literature, type of lie, reasoning behind the lie and gender all influence lying behavior in adolescents (Jensen et al., 2004; Keltikangas-Jarvinen & Lindeman, 1996). Research has shown that adolescents were generally accepting of altruistic lies to peers and teachers (Saltzstein, Roazzi, & Dias, 2003). In addition, if lies were rationalized they were viewed as more acceptable by adolescents (Keltikangas-Jarvinen & Lindeman, 1996). In general, boys have been found to exhibit more antisocial lying behavior (Jensen et al., 2004; Wilson et al., 1993) than girls.

Although some lying behavior during the adolescent period of development is considered normal, atypical patterns of lying may be problematic for some teenagers. For example, extreme lying behavior may lead to deception, trust issues, relationship difficulties, and behavioral problems (Hughes & Hill, 2006). Understanding more about lying behavior in children and adolescents may help parents and teachers detect malicious lies earlier and prevent future extreme lying behavior. Early detection of atypical patterns of lying may lead to interventions designed to prevent social deficits and interpersonal problems often observed in youth who frequently lie for self-serving reasons. Furthermore, studying gender differences in adolescent lying behavior can help individuals who work with adolescents to better relate to adolescents of each gender. For example, if adolescent males are found to be accepting of self-serving lies, clinicians will know to look for this type of lie in male clients.

The introduction section in this thesis will begin by defining the types of lies that children and adolescents tell. Second, the positive and negative implications of lying behavior in adolescents will be addressed. Next, findings from studies investigating lying behavior in young children, older children, and adolescents will be presented, as well as differences in lying behavior based on gender and motivation of the lie. The last part of the introduction will discuss the purpose and hypotheses of the current study.

Defining Types of Lies

Lies are generally defined as false statements that are intentionally meant to deceive (Hughes & Hill, 2006); several types of lies have been identified in the

literature. Curtis (1921) first categorized types of lies told by children as either a) an inaccurate statement, b) a fanciful lie, or c) a wicked lie. Most studies on lying behavior in children have focused on this latter category of wicked lies, also known as “antisocial” or “self-serving” lies (Jensen et al., 2004; Talwar et al., 2002a; Wilson et al., 2003). Self-serving lies, as this type of lie will be referred to throughout the remainder of this document, are intended to deceive another person in order to inflict harm, avoid duties, cover up a transgression, or receive a reward (Curtis 1921; Talwar et al., 2002a). A self-serving lie can also be told to protect one’s reputation or self-worth. For example, adolescents may tell a self-serving lie in an attempt to avoid punishment, such as lying to a parent about where they are going or why they came home after their curfew.

Many studies have examined self-serving lies in children and adolescents (Jensen et al., 2004; Talwar et al., 2002a; Wilson et al., 2003); however, fewer studies have explored altruistic lies in youth (Saltzstein et al., 2003; Talwar & Lee, 2002b). Altruistic lies have been defined as untruthful statements told without malevolent intent (Talwar & Lee, 2002b). Thus, altruistic, or “white lies”, are told to help someone else or avoid hurting another person’s feelings (Talwar & Lee, 2002b). These lies are typically not considered antisocial, and may even be adaptive in that they can help maintain social relationships (Talwar & Lee, 2002b).

Implications of Lying

Because lying may have positive or negative implications, the morality of lying has been a controversial topic. Chandler and Afifi (1996) noted that despite

societal views of lying as morally wrong, lying may have certain benefits, such as maintenance of friendships or avoidance of conflict. However, frequent lying behavior may be an indication of psychopathology. Lying behavior is noted in externalizing disorders such as conduct disorder and oppositional defiant disorder (American Psychiatric Association, 2000). Pre-adolescents who are perceived to lie frequently often exhibit other behavioral difficulties, as indicated by teacher, peer, and self-reports of 11 and 12-year-old males' lying behavior (Gervais, Tremblay, & Heroux, 1998). Adolescents who lie frequently reportedly show higher levels of aggression and lower levels of self-control (Engels et al., 2006). Teachers see perceived frequent liars as being more hyperactive and oppositional, and fighting more. Males with self-reports of frequent lying have higher scores on a self-reported delinquency scale (Gervais et al., 1998).

In addition, self-reported lying behavior in adolescents can be related to other negative behaviors and negative affect (Engels et al., 2006; Gervais et al., 1998). Males who are perceived as frequent liars by teachers and peers self-report social adjustment problems (Gervais et al., 1998). In addition, the child-parent dynamic may be impacted by lying behavior, given that frequent lying is correlated with less trust and communication between parents and adolescents, as well as higher levels of alienation from one's family (Engels et al., 2006; Hughes & Hill, 2006). More frequent lying is negatively correlated with liking school, as evidenced by self-reports (Gervais et al., 1998). Females who reported frequent lying behavior also reported feeling lonelier (Engels et al., 2006).

Frequent self-serving lying behavior may also have negative consequences regarding social interactions and peer relationships. In studies utilizing lab-based observations, the majority of the youth lied at least once during the experimentation period (Talwar & Lee, 2002b; Wilson et al., 2003); however, a child or adolescent who has told self-serving lies excessively may have difficulties in maintaining relationships (Hughes & Hill, 2006). Social relationships may be harmed due to lying behavior, because trust is a large component of friendship (Schweitzer, Hershey, & Bradlow, 2006). Deception can harm the trust in a relationship, especially if the relationship does not also include truthful communication. In other words, a relationship in which lying is prevalent and a truthful foundation has not been established may not be healthy or productive for either party. Prior deception can also make it hard for one to believe a promise made by a friend (Schweitzer et al., 2006). If an adolescent lies frequently, his or her peers may not want to be friends with him or her. Peer relationships are very important during adolescence (Branje et al., 2007), so the absence of meaningful friendships may negatively impact the adolescent's ability to succeed in school (Hughes & Hill, 2006). Therefore, frequent lying behavior may be associated with peer rejection, which may have detrimental effects on an adolescent's socialization and achievement (Branje et al., 2007).

Although self-serving lies may have negative effects on social relationships, altruistic lies may lack these negative effects or even have positive effects on relationships. Children and adolescents' acceptance of lying behavior may depend on the type of lie (Barnett et al., 2000; Bussey & Grimbeck, 2000).

Generally, 7 and 10-year-old children viewed other children who lied as more “naughty” and children that told the truth as more “good.” However, Barnett and colleagues (2000) found that children who showed altruism and lied to protect others were rated less harshly than those who lied to protect themselves. This indicates that children and adolescents who tell altruistic lies may not be perceived in the same way by peers or have the same interpersonal difficulties as children who frequently tell self-serving lies. Adolescent females were more accepting of telling a lie when it was perceived to cause little harm to others, or if it protected another person's feelings (Keltikangas-Jarvinen & Lindeman, 1996). Thus, altruistic lying may have positive implications on an adolescent's social relationships.

In sum, lying behavior in children and adolescents can have positive or negative implications. Frequent self-serving lies can impact social relationships and other areas of the youth's life in a negative fashion. Altruistic lies can have positive implications as this type of lie can maintain social relationships and is generally rated as more acceptable by peers.

Lying Behavior in Young Children

Research has shown that children have the ability to lie very early in development. Parental reports and lab-based studies indicate that deliberate lying behavior begins around age 3 or 4 (Newton, Reddy, & Bull, 2000; Talwar & Lee, 2002a; 2002b). Through lab-based research, Lewis and colleagues (1989) found that children are able to deceive as early as age 3. Three-year-old children were instructed not to peek at a toy while the experimenter left the room.

Children's behavior was observed and recorded via one-way mirror. The experimenter then re-entered the room and asked the child if he or she had peeked. Of the children that looked at the toy, approximately 40% lied about their behavior. This suggests that a cohort of children may begin to lie as early as age 3 in order to cover up a misdeed.

In early childhood, lying presents itself as a spontaneous and universal phenomenon that may be related to egocentric thought (Piaget, 1965).

Essentially, young children tell lies for self-serving reasons such as to avoid punishment and may not realize that lying may be wrong. Young children begin to develop the understanding that lying is wrong when adults tell them that it is wrong to lie, or if they get punished for lying (Piaget, 1965). For this reason, lying creates a conflict between the natural tendency to lie that results from egocentric thought and the disapproval of adults in the child's environment that discourage lying. Overcoming this conflict is necessary to develop appropriate social skills (Piaget, 1965).

Further, young children may have trouble differentiating mistakes from lies (Piaget, 1965). For example, according to Piaget, 6-year-olds recognized that when somebody says $2+2=5$, they have made a mistake rather than intentionally lied. This understanding appears to be tenuous, however, as these same children reported that making a mistake and telling a lie were the same thing.

There are developmental differences in the ability of young children to cover up deceptive behavior or to continue the deception when questioned. Talwar and Lee (2002a) asked children not to look at a toy and left the room.

Upon the return of the experimenter, the majority of 5 to 7-year-olds lied about peeking, whereas the majority of 3-year-olds that peeked confessed (64%). In order to determine if the children were able to hide their lie and transgression, the experimenters asked the children details about the toy. There was a trend of 6 to 7-year-olds more often choosing a wrong answer or feigning ignorance compared to 3 to 5-year-olds. This indicates that later in development children are better able to cover up deception. In a subsequent study, 3 to 5-year-old children were given either permission to look inside a house or they were told not to look inside the house after the experimenter left the room (Polak & Harris, 1999). Of the children who were told not to peek, 84% peeked and denied doing so. Of these participants, only 35% continued with the deception when further questioned. This indicates that although young children may initially lie to cover up a transgression (i.e. peeking when told not to), they may lack the sophistication or motivation to continue with the deception when further questioned.

Naturalistic observations have also shown that children lie often, and that lying behavior increases with the age of the child (Wilson et al., 2003). In a cross-sequential design, Wilson and colleagues studied siblings at two stages: when they were 2 and 4-years-old, and when they were 4 and 6-years-old. Researchers observed the children and their parents in the families' homes. Six-year-olds lied significantly more than two and four-year-olds, even when the increased amount of speech and number of other types of misbehaviors displayed by these children were taken into account. Approximately 33% of 2-

year-olds did not lie at all, whereas only 5% of 6-year-olds did not lie at all. As indicated, the number of lies told by children increased with age.

In the above study, young children were observed to tell a variety of self-serving lies; the range of situations in which self-serving lies were told increased with age (Wilson et al., 2003). When the children were 2 and 4-years-old, they most often told lies during conflicts, to avoid punishment. For example, a boy who hit his younger sibling may have lied and told his parents that his younger sibling hit him first. In the second time period, when the children were 4 and 6-years-old, they began telling lies in a wider variety of situations, including during positive interactions (Wilson et al. 2003). For example, they falsely claimed a victory in a game or lied about following the rules. These are all examples of self-serving lies, intended to avert punishment or protect one's reputation.

Altruistic lying has been explored in young children less often, although in some circumstances young children have been found to tell altruistic lies. Talwar and Lee (2002b) conducted an experiment in which the experimenter had a visible mark on his face and asked children (ages 3-7) if he looked okay for a picture. The children responded and were later asked by a confederate if the experimenter had really looked okay. Over 80% of the children told the experimenter that he looked okay but later told a confederate that the experimenter did not look okay due to the mark on his face. These responses were classified as altruistic lies.

Lying behavior in young children has been examined in several contexts (Polak & Harris, 1999; Talwar & Lee, 2002b; Wilson et al., 2003), and

researchers are beginning to grasp young children's understanding and telling of lies. Research on lying in older children and adolescents is less complete.

Lying Behavior in Older Children and Adolescents

Older children and adolescents report lying more often and being more accepting of lying behavior than younger children (Peterson et al., 1983; Saltzstein et al., 2003). Compared to 5-year-olds, significantly more 11-year-olds reported that they have told a lie and that lying is not always wrong (Peterson et al., 1983). Another study reported that older children chose the truthful response less often than younger children when given a situation in which they could tell an altruistic lie or tell the truth (Saltzstein et al., 2003). Additionally, older adolescents viewed lying to parents and friends as more acceptable than younger adolescents (Perkins & Turiel, 2007).

Adolescents have been shown to lie to their parents often and about various topics (Jensen et al., 2004). When asked to rate how frequently they lied to their parents, the majority of adolescents admitted to lying at least once to their parents in the previous year, and many reported that they had lied much more frequently (Jensen et al., 2004). Topics of lies included money, dating, sexual behavior, and drug and alcohol use.

Acceptance of lying behavior in pre-adolescence and adolescence was found to differ based on the justification behind the lie and how the youth perceived others to be affected by the lie (Keltikangas-Jarvinen & Lindeman, 1996). If lies were rationalized, they were viewed as more acceptable by adolescents. Lies that prevented harm to others were viewed as more

acceptable than those lies that caused harm to others, especially by adolescent females. The researchers speculated that this gender difference may be due to females' tendency to rely more on intimate interpersonal relationships and their wish to maintain these relationships and avoid hurting others. There was not a clear distinction between acceptance of lies based on harm caused to others in adolescent males (Keltikangas-Jarvinen & Lindeman, 1996). Self-serving lies, or lies with a negative motive, as this study referred to them, were found to be equally acceptable to males and females (Keltikangas-Jarvinen & Lindeman, 1996). However, researchers grouped lying with other immoral acts, based on level of severity, so a gender difference based on purpose behind the lie could not be determined. Overall, if lies were rationalized or prevented harm to others, they were viewed as more acceptable by adolescents (Keltikangas-Jarvinen & Lindeman, 1996).

Altruistic lying behavior during adolescence may be related to the growing importance of maintaining friendships in this age group (Eisenberg-Berg & Mussen, 1978; Keltikangas-Jarvinen & Lindeman, 1996). Saltzstein and colleagues (2003) examined altruistic lies intended to protect friends or siblings. Researchers presented children and pre-adolescents with different situations involving teasing, cheating, or hiding. In each hypothetical story, their friend or sibling had confided in them. Subsequently, an adult asked them whether the friend or sibling had been lying. The youth in the situation had to choose between keeping the promise to his or her friend or sibling (i.e., lie to the adult) and telling the truth. To lie in these situations would be considered altruistic

because the lie would benefit the youth's friend or sibling. Overall, the pre-adolescents in the sample chose to lie more often than younger children, which indicates that pre-adolescents may be more accepting of altruistic lying behavior. This may be explained by the above-mentioned importance of peer relationships in pre-adolescence and adolescence (Branje, Frijns, Finkenauer, Engels, & Meeus, 2007; Eisenberg-Berg & Mussen, 1978; Keltikangas-Jarvinen & Lindeman, 1996) and the assumption that adolescents are more willing to lie to protect their friendships. Adolescent relationships generally include more conversation and intimacy than friendships among younger children (Branje et al., 2007; Eisenberg-Berg & Mussen, 1978). This means that adolescents have to protect these friendships and maintain rapport, which at times may include altruistic lying.

Thus, lying behavior appears to begin when children are young (Wilson et al., 2003) and continue into adolescence (Jensen et al., 2004). Older children and adolescents have peer considerations that younger children do not, so the importance of altruistic lies may increase in order to protect these relationships.

Motivation behind lies

Adolescents have been found to perceive lies to parents differently depending on the motivation behind the lie. Jensen and colleagues (2004) studied adolescents' and undergraduates' lying behavior to parents. Adolescents were asked how often, if at all, they lied to their parents in the previous year, and what they lied about. Adolescents were found to lie to their parents often, especially related to friends, parties, drugs and alcohol, and dating. As another

part of the study, adolescents were given scenarios in which an adolescent girl lied to her parents with various motives, and they were asked to rate the acceptability of each lie based on the motive. The motive behind the lie affected ratings of acceptability by all of the participants. The most acceptable motives for lying to parents included thinking that the character had the right to make her own decisions and having a desire to keep friends or boyfriends out of trouble. The least acceptable motives to lie to parents included rebelling against parents and lying solely because friends told similar lies to their parents. Overall, this group of adolescents viewed lying to parents about personal and moral issues as more acceptable than lying to friends. Thus, adolescents have been shown to lie to their parents about a variety of situations, and the motivation behind the lie may have an impact on when adolescents lie to their parents and how acceptable the lie is rated.

Similarly, lies to peers were rated as more acceptable if they were altruistic in nature. Barnett and colleagues (2000) found that a lie told to protect a friend from harm or embarrassment was rated as less offensive than lies told to protect one's own interests. Self-serving lies to peers were rated as more positive if they served a psychological purpose, such as to feel better about oneself, as opposed to lying for material gain. Therefore, lies to peers were viewed as more acceptable if they benefit another, or if they promoted one's self-esteem.

Gender differences in lying behavior

Many studies have found gender differences in lying behavior (Lewis et al., 1989; Talwar & Lee, 2002a; Wilson et al., 2003). These results vary somewhat, but trends have shown that males have told more self-serving lies than females. An observational study of 2-6 year old children suggested this; they found that 6-year-old boys lied more than girls (Wilson et al., 2003). In addition, another study found that boys were more likely than girls to be rated as liars by teachers and parents, regardless of actual lying behavior (Talwar & Lee, 2002a). In turn, girls have been found to rate truth telling more positively (Bussey & Grimbeck, 2000) and refer to the negative consequences of lying more often than boys (Lyon, Saywitz, Kaplan, & Dorado, 2001). Similarly, 5-year-old girls admitted that they would lie to a professional (e.g. social worker, judge, doctor) significantly less than boys did.

In adolescence, the overall trend of females telling less self-serving lies than males continued, except in certain situations. Adolescent females reported lying less to their parents than adolescent males (Jensen et al., 2004). Females also rated lying to parents as less acceptable than their male counterparts. Adolescent males were more accepting of immoral behavior (e.g. lying, theft, or fighting) than adolescent females (Keltikangas-Jarvinen & Lindeman, 1996). The researchers theorized that this may have been due to the gender difference in moral reasoning proposed by Gilligan or because females were more concerned than males with maintaining interpersonal relationships and avoiding feelings of hurt or guilt (Keltikangas-Jarvinen & Lindeman, 1996). These findings were

supported by parental reports that adolescent daughters lied less often than their adolescent sons (Engels et al., 2006). However, one study did report that adolescent females were more likely than males to lie regarding sexual behavior (Knox et al., 2001). Adolescent females also reported lying more often to their fathers, whereas adolescent males reported more frequent lying behavior when lies were directed toward their mothers. This indicates that gender differences in lying behavior may differ based on subject as well as the recipient of a lie.

Research has indicated that adolescent females may be more accepting of altruistic lying behavior (Broomfield et al., 2002; Keltikangas-Jarvinen & Lindeman, 1996), although little research has directly investigated gender differences in altruistic lies told by adolescents. It has been suggested that adolescent females tend to care more about how others are affected by lies than males, and they attempt to maintain interpersonal relationships and avoid feelings of guilt and hurt more often than adolescent males (Keltikangas-Jarvinen & Lindeman, 1996). Females are more accepting of lies that prevent harm than their male counterparts.

Females may be more accepting of altruistic lies given socialization patterns and their general approaches to interpersonal relationships. Females have been found to be more committed to their friends and less likely to switch friends (Branje et al., 2007). Thus, females may be more accepting of altruistic lies than males as this type of lie is often used to protect friendships, which females tend to value highly. In addition, parents tend to encourage their daughters to engage in behaviors that enhance relationships (Russell, Hart,

Robinson, & Olsen, 2003). Females also tend to score higher on social desirability scales and report themselves to be considerate, concerned about others, and interpersonally oriented (Block, 1983). This indicates that females may be more likely to tell altruistic lies to protect friendships and other relationships.

Males may be more likely to be accepting of self-serving lies. When raising sons, parents tend to emphasize competition and independence (Block, 1983; Russell et al., 2003) and reinforce more self-assertive behavior. Males are often encouraged to be individualistic by their parents. Males may strive to be liked based on their accomplishments and image. This suggests that males may be more likely tell self-serving lies to protect their reputations and self-worth.

Current Study

Studying lying behavior in adolescents may provide insight into how to help to prevent future deception and trust issues, reduce relationship difficulties, and reduce behavioral problems that adolescents who frequently lie may develop as they get older (Hughes & Hill, 2006). Even though many studies have explored lying behavior, there is much to be discovered about what factors relate to lying behavior in adolescents. The current study examined gender differences in acceptance of altruistic and self-serving lies in adolescents. Using a vignette method utilized by many other studies, the current study aimed to add to the already-existing research confirming such patterns as greater male acceptance of self-serving lies (Wilson et al., 2003). This study expanded on previous findings to examine what types of lies adolescents tell (altruistic vs. self-serving).

Unlike previous studies, the current study explored gender differences in the types of lies that adolescents tell, and the impact that social intelligence and general lying behavior had on acceptance of lies told to various recipients.

The present study addressed three main hypotheses. First, it was predicted that adolescent participants would report that altruistic lies are more acceptable than self-serving lies. Thus, a main effect for type of lie was predicted. Second, it was predicted that the differences in the mean acceptability ratings for each type of lie would vary as a function of gender (i.e. there will be an interaction of gender and type of lie). That is, males would be more accepting of self-serving lies and females would be more accepting of altruistic lies. Finally, it was predicted that social intelligence would be related to acceptability ratings of each type of lie, controlling for general lying behavior and gender.

CHAPTER II

METHOD

Participants

Participants were recruited from three suburban schools in the Midwest. As shown in Table 1, 42 adolescents, aged 11-15, participated in this study. Following parental consent (see Appendix A), 19 males and 23 females completed study questionnaires. A t-test revealed that there were no significant gender differences based on age, $t = -1.188$, $p = .242$. Approximately 200 adolescents from among the three schools were asked to participate in the study, leading to a completion rate of about 20%. Of the adolescents that agreed to participate, 92% of them completed all study measures. Demographics of participants are presented in Table 1.

Table 1
Demographic Characteristics of Participants

Demographic Variable	Range	N	%	<i>M</i>	<i>SD</i>
Age				13.88	1.47
Male	11-15	19	45%	13.50	1.57
Female	11-15	23	55%	14.23	1.31
Grade in School					
6 th		4	10%		
7 th		5	12%		
8 th		2	5%		
9 th		20	49%		
10 th		10	24%		

Materials

Demographic Questionnaire. Adolescent's age, gender, date of birth, and grade in school were acquired with a demographic form designed for this study and completed by the adolescent participant (see Appendix B).

Lying Survey. The lying survey used in this study was modified from the lying scale developed in 2006 by Engels and colleagues (see Appendix C). The lying scale utilized a Likert-type scale ranging from 1-5 with "1" indicating that the adolescent "always" exhibits this behavior and "5" indicating that the adolescent

“never” engages in this behavior. On this measure, lower scores indicate more frequent lying behavior. The original survey was designed to be completed by parents or caregivers of adolescents. In order to obtain adolescent self-report of their own lying behavior via the online format used in this study, all items were modified to reflect first person report. In addition, some of the questions (i.e. items 4 and 11) were reworded for the current study so that the lowest rating (1) was not always the frequent lying response, in order to better ensure that the adolescent was carefully reading the questions. The original lying scale had high levels of internal reliability, indicated by a Chronbach’s alpha of .90, an average item-total correlation of .64, and an average inter-item correlation of .45 (Engels et al., 2006). The individual items were found to contribute uniquely to the concept of lying based on analysis of the current study, Chronbach’s alpha = .81.

Tromso Social Desirability Scale. This scale was developed by Silvera, Martinussen, and Dahl (2001) as a measure of social intelligence that was inexpensive to administer, not time-consuming, and reflected the multi-faceted definition of social intelligence that best defined the construct (see Appendix D). Factor analysis revealed three areas of social intelligence: social information processing (SP), social skills (SS), and social awareness (SA). Internal reliability was found to be .79 for the SP scale, .85 for the SS scale, and .72 for the SA scale. When the test was given to adolescents, internal reliability was similar, SP=.80, SS=.79, SA=.70. When administered to adolescents and college-age students, the three factors were correlated with each other as well as with a

social desirability scale, although the magnitude of this correlation was low. The subscales were found to be relatively unbiased in terms of gender and age.

Lying Vignettes. The lying vignettes depicted eight different situations in which an adolescent might have been tempted to tell a lie (see Appendix E). The vignettes were gender-matched to the participants. The lying vignettes consisted of eight hypothetical situations, two with each of the following lie recipients: a teacher, a parent, a younger child, and an older adolescent. Two of the scenarios (i.e. items two and six) were adapted from vignettes developed by Saltzstein and colleagues (2003). Vignette two involved an altruistic lie regarding a friend cheating on a test. Vignette six involved an altruistic lie told in order to stop older children from making fun of a friend. One vignette for each lie recipient depicted an altruistic lie whereas the other lie depicted was self-serving. Specific examples of altruistic and self-serving lies used in the vignettes are discussed below.

Altruistic lies are defined as lies intended to protect someone else from punishment or embarrassment. For example, one vignette portrayed the adolescent's friend being teased by older peers. In order to stop the teasing, the friend lied about having won a big prize at school. The participant was to determine if the adolescent in the scenario should lie to protect his or her friend or tell the truth to the older peers.

Self-serving lies are defined as lies intended to protect oneself from punishment or embarrassment. For example, one vignette included the adolescent hypothetically breaking curfew. When the adolescent came home,

his or her mother asked why he or she was late. The adolescent had to either lie to protect him or herself from punishment or tell the truth.

After each vignette, the adolescent was asked to choose a lie response or a truthful response. The number of lie responses classified as altruistic equaled the altruism score and could range from 0 to 4. The number of lie responses classified as self-serving equaled the self-serving score which could also range from 0 to 4. In addition, the participants were asked to rate the acceptability of each response. The rating scale consisted of a 5-point Likert scale, with "1" being least acceptable and "5" being most acceptable. Mean acceptability ratings for the two types of lies were computed and used in data analyses.

Procedure

Following approval from the Research Review and Ethics committee in the Psychology Department at the University of Dayton, principals, superintendents and teachers from three schools were contacted to gain permission to conduct the study with their students. A principal or teacher from all three schools responded to this request and gave permission to recruit at their school. Once permission was obtained, informed consent forms and informational letters (see Appendix F) were handed out to the students during class and after school activities (e.g., band). The letter explained the study and asked parents to sign the informed consent form and have their child return the form to his or her teacher or to the researcher via fax or mail. Once the informed consent form was returned, the adolescents were sent an e-mail with a link to the survey. The online survey included an informed assent form (see Appendix G). The

participating adolescents completed the following measures in order at Surveymonkey.com, an online data collection service: demographic questionnaire, lying vignettes, lying survey and social intelligence measure.

At the time of data collection, participants were told that their answers would be confidential; only the researcher would know an individual's responses to the questionnaires. Only the informed consent forms identified participants by name, and those were kept separately from all other study materials. The e-mail sent to the participants containing the link to the survey included a survey ID number that the adolescents were required to enter on the online survey. This ID number was also on their copy of the informed consent form and served as the source of identification of the participant. A debriefing form (see Appendix H) was included at the conclusion of the online survey; a copy was also mailed to the parents. At the conclusion of the study, the participant numbers were put into the drawing for a portable DVD player as appreciation for their participation. The winner was contacted via e-mail and the prize was mailed the participant's house.

CHAPTER III

RESULTS

The results section will be organized in the following fashion. First, descriptive statistics of all of the major variables will be provided. Next, the differences between acceptance of each type of lie and lie type scores will be explored; gender differences will also be investigated using a repeated-measures ANOVA. Correlations will be presented to examine the relationship between the major study variables. Finally, a hierarchical multiple regression analysis will examine the relationship between general lying behavior, social intelligence, and acceptance of lies.

Descriptive statistics

Descriptive statistics for all variables are shown in Table 2. The mean number of self-serving lie responses (self-serving score) chosen by the participants was .74 ($SD=.99$) out of a possible four lie responses. The mean number of altruistic lie responses (altruistic score) chosen was 2.21 ($SD=1.41$). The average acceptability ratings were 2.47($SD=.83$) for self-serving lies and 2.74 ($SD=.89$) for altruistic lies.

Table 2
Mean (SD) of Major Study Variables

Study Variable	Total	Male	Female
Acceptability ratings ^a			
Self-serving lies	2.47 (.83)	2.60 (.83)	2.35 (.83)
Altruistic lies	2.74 (.89)	2.95 (.81)	2.57 (.95)
Lie Type score ^b			
Self-serving score	.74** (.99)	1.05 (1.05)	.45 (.86)
Altruistic score	2.21** (1.41)	2.40 (1.35)	2.05 (1.46)
General lying behavior ^c	3.30 (.60)	3.21 (1.21)	3.38 (1.40)
Social Intelligence ^d			
Social Processing	34.12 (1.12)	35.20 (2.10)	33.14 (1.00)
Social Skills	32.76 (1.11)	34.10 (1.58)	31.55 (1.55)
Social Awareness	33.83 (.96)	33.20 (1.80)	34.41 (.84)

Note. ^a Acceptability ratings were measured on a Likert-type scale ranging from 1-5 with higher scores denoting higher levels of acceptability. ^b Number of lies chosen was out of a possible four. ^c The general lying behavior scale is a Likert-type scale ranging from 1-5 with lower scores indicating more frequent lying behavior. ^d The social intelligence scales were measured using a Likert-type scale ranging from 1-7, with higher scores signifying higher levels of social intelligence. Values noted are total ratings for each category.

* $p < .05$. ** $p < .01$.

Differences between Lie Type and Gender

As hypothesized, participants were significantly more accepting of altruistic lies than self-serving lies, $F(1,39) = 15.715, p = .001$, as shown by a repeated-measures ANOVA with acceptability ratings as the within-subjects variable and gender as the between subject variable. Furthermore, a repeated-measures ANOVA showed that the altruistic score was significantly higher than the self-serving score, $F(1,41) = 47.817, p = .001$. Therefore, there was a significant main effect of type of lie.

Contrary to the second hypothesis that the differences in the mean acceptability ratings among each type of lie would vary as a function of the gender of the participant, the same tests as above showed no interaction between acceptability ratings and gender, $F(1,39) = 1.628, p = .209$. Further, males and females did not differ in the self-serving or altruistic lie scores, $F(1,40) = .312, p = .579$. Thus, the data show that there was no gender difference in lie type score or acceptability ratings of each type of lie.

Relationship between major study categories

It was predicted that many of the main variables would be correlated, including general lying behavior, lie type scores, and acceptability of lying behavior. There was a significant negative correlation between acceptability ratings of self-serving lies as portrayed in the vignettes and self-reported general lying behavior (with higher scores on this scale indicating less frequent lying behavior), $r = -.348, p = .027$. This indicates that more frequent lying behavior is related to higher acceptability of self-serving lies. There was a marginal though

non-significant negative correlation between acceptability ratings of altruistic lies and general lying behavior scores, $r = -.281$, $p = .078$, and a trend toward a positive correlation among acceptability ratings of altruistic lies and average social intelligence scores, $r = .264$, $p = .095$. Social intelligence scores were not significantly correlated with acceptability ratings of self-serving lies, $r = .220$, $p = .167$. Neither the self-serving score nor the altruistic score were significantly correlated with average social intelligence (see Table 3).

Predictably, the mean self-serving score was positively correlated with the mean acceptability rating of self-serving lies, $r = .402$, $p = .009$. Further, the mean altruistic score was significantly correlated with the mean acceptability rating of altruistic lies, $r = .585$, $p = .001$.

Table 3

Correlations between major study variables

	Acceptability of Self-Serving Lies	Acceptability of Altruistic Lies	# of Self- Serving Lies	# of Altruistic Lies	Average Social Intelligence	General Lying Behavior
Acceptability of Self-Serving Lies	----	.823**	.402**	.561**	.220	-.345*
Acceptability of Altruistic Lies		----	.391*	.585**	.264	-.278
# of Self- Serving Lies			----	.374*	.024	-.427**
# of Altruistic Lies				----	-.110	-.467**
Average Social Intelligence					----	.255
General Lying Behavior						----

Note: Lower scores on the general lying survey indicate more frequent lying behavior.

* $p < .05$. ** $p < .01$.

Social Intelligence and Lie Type

A multiple regression analysis was conducted to explore the final hypothesis that social intelligence and general lying behavior had an effect on acceptability ratings of the two types of lies. The linear combination of the four measures, social intelligence (which consisted of social skills, social processing, and social awareness) and general lying behavior was significantly related to the acceptability ratings of self-serving lies, $R^2 = .228$, adjusted $R^2 = .145$, $F(4,37) = 2.736$, $p = .043$. A hierarchical analysis showed that general lying behavior predicted acceptability ratings for self-serving lies over and above the social intelligence measures, $R^2 \text{ change} = .175$, $F(1,36) = 8.167$, $p = .007$. However, social intelligence did not predict acceptability ratings for self-serving lies over and above general lying behavior, $R^2 \text{ change} = .112$, $F(3,36) = 1.741$, $p > .05$. Based on these results, social intelligence offered little predictive power beyond that contributed by general lying behavior.

A multiple regression analysis was also conducted for acceptability ratings of altruistic lies. The linear combination of the four measures, social intelligence (which consisted of social skills, social processing, and social awareness) and general lying behavior was marginally but not significantly related to the acceptability ratings of altruistic lies, $R^2 = .200$, adjusted $R^2 = .111$, $F(4,36) = 2.249$, $p = .083$. A hierarchical analysis showed that general lying behavior marginally but not significantly predicted acceptability ratings for altruistic lies over and above the social intelligence measures, $R^2 \text{ change} = .100$, $F(1,36) = 4.513$, $p = .083$. However, social intelligence did not predict acceptability ratings

for altruistic lies over and above general lying behavior, R^2 change = .122, F (3,37) = 1.365 $p > .05$. Based on these results, social intelligence offered little predictive power beyond that contributed by general lying behavior.

CHAPTER IV

DISCUSSION

Type of Lie

The present study explored the relationship between lie type, general lying behavior, social intelligence, and gender. The hypothesis that the adolescents in this study would rate altruistic lying as more acceptable than self-serving lying was supported by the data. In other words, acceptability ratings were higher for altruistic lie responses than self-serving lie responses in the vignettes presented. It was further hypothesized that the average altruistic score would be higher than the average self-serving score, which was also supported by the data. That is, the lie responses that were altruistic in nature were chosen more often than those responses that represented self-serving lies. These findings support the conclusions of previous research; if lies were rationalized or prevented harm to others, adolescents viewed them as more acceptable (Keltikangas-Jarvinen & Lindeman, 1996). This may be due to the importance of maintaining peer relationships in adolescence. Adolescent relationships generally include more intimacy and discussions than friendships among younger children (Branje et al., 2007; Eisenberg-Berg & Mussen, 1978); consequently, adolescents tell altruistic lies to maintain these relationships.

Gender Differences Based on Lie Type

Contrary to the hypothesis, no gender differences were found in mean acceptability ratings or lie type score. The mean self-serving score for each gender indicated that there may have been a significant difference; therefore, an exploratory t-test was conducted. The average male self-serving score was significantly higher than the average female self-serving score, $t = 2.02$, $p = .05$. There were no significant gender differences in altruistic scores or acceptability ratings of either type of lie. This finding that males chose more self-serving lie responses than females concurs with results of many previous studies (Lewis et al., 1989; Talwar & Lee, 2002a; Wilson et al., 2003). A possible explanation is that males tend to be more individualistic than females, who tend to be socialized to care more about interpersonal relationships. Traits such as autonomy and self-assertion are emphasized in males (Block, 1983; Russell et al., 2003) and males tend to try to protect their reputations and self-worth; therefore, this may explain why males were more likely to choose self-serving lie responses.

There was no gender difference in the mean acceptability rating of altruistic lies or the altruistic score. This finding refutes the prediction and previous findings that females are more accepting of altruistic lies than males (Keltikangas-Jarvinen & Lindeman, 1996). This may be because the limited number of participants in the current study did not give the study a sufficient amount of power to reject the null hypothesis, or because general adolescent males and females are both accepting of altruistic lying behavior. Adolescence is

a period of development in which peer relationships are paramount; this study suggests that both males and females are accepting of lies told to protect others.

Social Intelligence and Lying Behavior

According to the data, social intelligence was not significantly related to lying behavior. Social intelligence was marginally correlated with acceptability of altruistic lies but was not correlated with acceptability of self-serving lies.

Further, the regression analysis showed that social intelligence scores did not predict acceptability of lying behavior. This indicates that, contrary to the hypothesis, social intelligence does not strongly relate to acceptability of lies.

Acceptability of lying behavior may be better explained by variables other than social intelligence, such as moral attitudes or moral reasoning. As discussed earlier, lying behavior initially develops in young children as a way to avoid punishment for misbehavior. Later in development, children learn that telling a lie is morally wrong through punishment for the lying behavior itself. Furthermore, they are also told by their parents or other adults that it is wrong to lie (Piaget, 1965). In addition, children may learn that lying behavior is wrong through the many religious and educational institutions that emphasize that lying is morally unacceptable. Lying can also be attributed to moral behaviors through previous research that categorized lying with other immoral acts, such as theft (Keltikangas-Jarvinen & Lindeman, 1996). This illustrates that exploring an adolescent's moral reasoning and attitudes may give insight into views on or actual lying behavior.

Further, social intelligence was not correlated with general lying behavior. An explanation is that a few very socially intelligent adolescents frequently engage in lying behavior. Although lying behavior often leads to difficulties in social relationships, an adolescent may lie to manipulate others. The adolescent may be socially intelligent and use this intelligence to lie, in order to avoid punishment or further his or her own interests. Adolescents in the sample that fell into this category, in addition to less socially intelligent adolescents reporting frequent lying behavior, may have skewed the prediction that social intelligence would be related to lying behavior.

More frequent lying behavior, as reported on the general lying survey developed by Engels and colleagues (2006), was related to acceptability ratings of both types of lies. Neither social intelligence nor gender were found to predict acceptability ratings above and beyond general lying behavior. Thus, those adolescents that report past lying behavior may rationalize that it is acceptable to lie in a variety of situations.

Future Research

There are several options of future research that may expand upon the present findings. In Engels and colleagues' (2006) original study, the general lying survey was given to parents of adolescents. The current study modified this survey to be completed by the adolescents. A future study could have both the adolescents and their parents complete the survey, because at present it is unclear whether self or parent report more accurately evaluates lying behavior in an adolescent sample. In addition, altruistic lies were rated as more acceptable

than self-serving lies. Future research could examine the role of altruistic lies in adolescent relationships. Altruistic lying behavior may create a moral dilemma, because it involves deception but the motives are to help another. Moral attitudes could be examined, and a relationship between these attitudes and acceptability of each type of lie could be tested. Finally, gender effects on each type of lie should be tested on a larger group of adolescents to improve upon the current study. Potential social implications of self-serving versus altruistic lying for males and females should also be examined.

Study Limitations

A limitation of this study was that it consisted of self-reported data. The data were collected through surveys that the participants completed online. Although this was intended to provide anonymity and reduce possible social desirability, it also relied on the adolescents providing accurate responses of their own behavior. There is no way to know if the responses that the adolescent chose actually corresponded to real-life responses. In addition, due to the online nature of the study, it is possible that a parent or another individual completed the survey for the adolescent. Even if the adolescent was present, he or she may have had help or utilized other people's input to complete the study. Further, as with all self-report measures, the adolescent may not have thoroughly read through the questions. The online format may have enabled the adolescent to use other applications, such as Facebook or e-mail, while he or she was completing the study. This would have decreased his or her focus and concentration on the study.

Another limitation was the low number of participants. More participants in a study increases external validity and power and decreases the likelihood of committing type 2 error. The present study had 19 male and 23 female participants; power to detect gender differences, should they be present, was low. It is possible that with more participants of each gender (i.e., larger groups) there may have been significant gender differences.

The study methodology utilized vignettes to explore hypothetical situations in which an adolescent may be tempted to lie. The stories were intended to be situations to which an adolescent could relate, and ones which led to either a self-serving or an altruistic lie response. It is possible that the situations affected the responses as opposed to the type of lie. To avoid this in the future, a study could hold the situations in the vignettes constant and vary the type of lie, or list out statements depicting each type of lie and have participants mark which ones they would be likely to tell. Although this may increase social desirability because the type of lie would be more apparent to the participant (self-serving vs. altruistic), it would also be a way to reduce variability among the situations and more directly explore the effect of type of lie.

Study Contributions

Despite the aforementioned limitations, this study made contributions to the understanding of lying behavior in adolescents. Unlike previous studies, two distinct types of lies were compared to explore attitudes on lying behavior. This study found that adolescents are more accepting of altruistic lies than self-

serving lies, which shows that adolescents view some lie types as acceptable and potentially beneficial to social relationships.

Further, conducting the study online in a self-report format contributed strength to the study. Many previous studies involved child interviews that required direct admittance of lying behavior to researchers (Lyon et al., 2001; Peterson et al., 1993). This may have led to low admittance of lying behavior. The current study utilized written vignettes, which prevented the adolescents from having to admit lying behavior directly to a researcher, so they were able to more freely express their opinions. This approach was intended to minimize the impact of social desirability on the study outcome. Many adolescents did admit to past lying behavior and rated some of the lies as acceptable. Ninety-nine percent of the adolescents chose at least one lie response for the vignettes; many chose several lie responses. Hence, this approach led to the admittance of lying behavior. In addition, the internet provided anonymity and allowed the adolescent to complete the survey at his or her convenience. The use of the internet and self-report data minimized the impact of the sensitive subject matter being tested.

The findings and measures from this study may be useful in clinical settings. When the presenting problem includes lying behavior, it is important for the clinician to discover what types of lies the adolescent has told and the effects of these lies on social and academic functioning. The clinician could use the lying survey developed by Engels and colleagues (2006) to evaluate the adolescent's past lying behavior. The clinician could discuss lying behavior with

the adolescent to informally assess views on each type of lie. The type of lie that adolescents tell may have implications of social deviance. Most deviant lying behavior is self-serving, because this type of lying tends to be related to difficulties in other areas of functioning. The current study found that adolescents rate altruistic lies as more acceptable, so this type of lie may be more commonly told by adolescents. Altruistic lying behavior seen in adolescents may not be cause for clinical concern, unless it results in low self-esteem or causes the adolescent problems with adults. Although altruistic lies are well-intended, deceiving adults to protect peers may cause the adolescent to be punished or to have difficulty establishing relationships with adults. Whereas altruistic lies may protect or maintain friendships, self-serving lies may have the opposite effect.

In conclusion, the study measures and findings could be used in a clinical setting to assess an adolescent's past or present lying behavior. General findings may be explained to parents, as well as past findings that males tell more self-serving lies than females. An adolescent's lying behavior should be explored in detail to determine how to prevent the adolescent from having impaired social and/or academic functioning.

REFERENCES

- American Psychiatric Association. (2000). Diagnostic and statistical manual of mental disorders (4th ed.; text revision). Washington, DC: Author.
- 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), 381-383.
- Block, J. H. (1983). Differential premises arising from differential socialization of the sexes: Some conjectures. *Child Development, 54*(6), 1335-1354.
- Branje, S. J. T., Frijns, T., Finkenauer, C., Engels, R., & Meeus, W. (2007). You are my best friend: Commitment and stability in adolescent's same-sex friendships. *Personal Relationships, 14*, 587-603.
- Broomfield, K. A., Robinson, E. J., & Robinson, W. P. (2002). Children's understanding about white lies. *British Journal of Developmental Psychology, 20*, 47-65.
- Bussey, K. (1992). Lying and truthfulness: Children's definitions, standards, and evaluative reactions. *Child Development, 63*(1), 129-137.
- Bussey, K. & Grimbeck, E. J. (2000). Children's conceptions by lying and truth-telling: Implications for child witnesses. *Legal and Criminological Psychology, 5*, 187-199.

- Chandler, M. J. & Afifi, J. (1996). On making a virtue out of telling lies. *Social Research*, 63(3), 731-762.
- Curtis, H. S. (1921). Children's lies. *The Pedagogical Seminary*, 28, 382-390.
- Eisenberg-Berg, N. & Mussen, P. (1978). Empathy and moral development in adolescence. *Developmental Psychology*, 14(2), 185-186.
- Engels, R. C. M. E., Finkenauer, C. & van Kooten, D. C. (2006). Lying behavior, family functioning and adjustment in early adolescence. *Journal of Youth Adolescence*, 35, 949-958.
- Gervais, J., Tremblay, R. E., & Herous, D. (1998). Boys' lying and social adjustment in pre-adolescence: Teachers', peers', and self-reports. *Criminal Behaviour and Mental Health*, 8, 127-138.
- Hughes, J. N. & Hill, C. R. (2006). Lying. In Bear, G. G. & Minke, K. M. (Eds.), *Children's Needs III: Development, Prevention, and Intervention* (pp 159-169). Maryland: National Association of School Psychologists.
- Jensen, L. A., Arnett, J. J., Feldman, S. S., & Cauffman, E. (2004). The right to do wrong: Lying to parents among adolescents and emerging adults. *Journal of Youth and Adolescence*, 33(2), 101-112.
- Keltikangas-Jarvinen, L. & Lindeman, M. (1996). Evaluation of theft, lying, and fighting in adolescence. *Journal of Youth and Adolescence*, 26(4), 467-483.
- Knox, D., Zusman, M. E., McGinty, K., Gescheidler, J. (2001). Deception of parents during adolescence. *Adolescence*, 36(143), 611-614.

- Lewis, M., Stanger, C., & Sullivan, M. W. (1989). Deception in 3-year-olds. *Developmental Psychology*, 25(3), 439-443.
- Lyon, T. D., Saywitz, K. J., Kaplan, D. L., & Dorado, J. S. (2001). Reducing maltreated children's reluctance to answer hypothetical oath-taking competency questions. *Law and Human Behavior*, 25(1), 81-92.
- Newton, P., Reddy, V., & Bull, R. (2000). Children's everyday deception and performance on false-belief tasks. *British Journal of Developmental Psychology*, 18, 297-317.
- Perkins, S. A. & Turiel, E. (2007). To lie or not to lie: To whom and under what circumstances. *Child Development*, 78(2), 609-621.
- Peterson, C.C., Peterson, J. L., & Seeto, D. (1983). Developmental changes in ideas about lying. *Child Development*, 54(6), 1529-1535.
- Piaget, J. (1965). *The Moral Judgment of the Child*. New York: The Free Press.
- Polak, A. & Harris, P. L. (1999). Deception by young children following noncompliance. *Developmental Psychology*, 35(2), 561-568.
- Rose, A. J. & Rudolph, K. D. (2006). A review of sex differences in peer relationship processes: Potential trade-offs for the emotional and behavioral development of girls and boys. *Psychological Bulletin*, 132(1), 98-131.
- Russell, A., Hart, C. H., Robinson, C. C., & Olsen, S. F. (2003). Children's sociable and aggressive behavior with peers: A comparison of the US and Australia, and contributions of temperament and parenting styles. *International Journal of Behavioral Development*, 27(1), 74-86.

- Saltzstein, H. D., Roazzi, A., & Dias, M. D. G. (2003). The moral choices children attribute to adults and to peers: Implications for moral acquisition. *European Journal of Psychology of Education, 18*(3), 295-307.
- Schweitzer, M. E., Hershey, J. C., & Bradlow, E. T. (2006). Promises and lies: Restoring violated trust. *Organizational Behavior and Human Decision Processes, 101*, 1-19.
- Silvera, Mortinussen, & Dahl. (2001). Social Intelligence Scale. *Scandinavian Journal of Psychology, 42*, 312-319.
- Talwar, V. & Lee, K. (2002a). Development of lying to conceal a transgression: Children's control of expressive behaviour during verbal deception. *International Journal of Behavioral Development, 26*(5), 436-444.
- Talwar, V. & Lee, K. (2002b). Emergence of white-lie telling in children between 3 and 7 years of age. *Merill-Palmer Quarterly, 48*(2), 160-181.
- Wagland, P. & Bussey, K. (2005). Factors that facilitate and undermine children's beliefs about truth telling. *Law and Human Behavior, 29*(6), 639-655.
- Wilson, A. E., Smith, M. D., & Ross, H. S. (2003). The nature and effects of young children's lies. *Social Development, 12*(1), 21-45.
- Wimmer, H., Gruber, S., & Perner, J. (1985). Young children's conception of lying: Moral intuition and the denotation and connotation of "to lie". *Journal of Developmental Psychology, 21*(6), 993-995.

APPENDIX A

INFORMED CONSENT TO PARTICIPATE IN A RESEARCH PROJECT

Project Title:	<i>Gender Differences in Adolescent Lying Behavior Based on Type of Lie</i>
Investigator(s):	<i>Lori Zabarsky, Keri Brown Kirschman, Ph.D. (Thesis Advisor)</i>
Description of Study:	I am conducting research on truthfulness and untruthfulness. I am studying this topic to explore whether male and female teenagers differ in the types of situations they say it is acceptable for a hypothetical peer to lie about. I would like your adolescent to take part in this project. If you grant your teenager permission to participate, he or she will be asked to fill out an online survey including various stories in which a hypothetical person may lie. He or she will also complete a short demographic questionnaire, a survey about level of truthfulness, and a survey about social intelligence.
Adverse Effects and Risks:	<p>The surveys are completely confidential. No one except the researcher will see your adolescent's answers.</p> <p>If you allow your adolescent to take part in this project, he or she may help the field of Psychology learn more about truth telling and lying behavior in adolescents. Allowing your adolescent to take part in this project is entirely up to you; your participation or non-participation will not influence your child's academic grade, and is separate from his or her classroom studies. If your adolescent does take part, he or she may withdraw at any time with no adverse consequences.</p>
Duration of Study:	The study should take approximately 10-15 minutes to complete.
Confidentiality of Data:	Your adolescent's name will be kept separate from the data. Upon signing this form, you will be issued an ID number, which will be the only source of identification for your adolescent for the remainder of the study. These forms will be kept in a locked filing cabinet. Only the investigators named above will have access to this cabinet. Your name will not be revealed in any document resulting from this study.

Contact Person: Participants may contact Keri Brown Kirschman, Ph.D. at 937.229.5404 or Lori A. Zabarsky at 937-229-2175 if they have questions or problems after the study. Students may also contact the chair of the Research Review and Ethics Committee, Greg Elvers, Ph.D. at 937.229.2171.

Consent to Participate: I have voluntarily decided allow my adolescent to participate in this study. The investigator named above has adequately answered any and all questions I have about this study, the procedures involved, and my adolescent's participation. I also understand that my adolescent may voluntarily terminate his or her participation in this study at any time. Further, I understand that the investigator named above may terminate my adolescent's participation in this study if she feels this to be in my adolescent's best interest.

Signature of Parent
Date

Parent's Name (printed)

Adolescent's Name

e-mail address

APPENDIX B
DEMOGRAPHIC SURVEY

Adolescent's age: _____

Male _____ Female _____

Adolescent's Date of Birth: _____

Grade in school: _____

APPENDIX C
LYING SURVEY

How often do you:

1. exaggerate the things that you experience?

very often				never
1	2	3	4	5

2. lie about the things that you are engaged in

very often				never
1	2	3	4	5

3. tell a white lie

very often				never
1	2	3	4	5

4. be completely honest with your parents, teacher, etc.

very often				never
1	2	3	4	5

5. conceal things from your parents that are going on at school (relationship with teachers, grades)

very often				never
1	2	3	4	5

6. lie about the reasons why you do not meet an agreement with your parent, teacher, etc.

very often

never

1

2

3

4

5

7. picture things better than they actually are

very often

never

1

2

3

4

5

8. consciously do not tell your parents the truth when you have a conversation with them

very often

never

1

2

3

4

5

9. do not tell your parents important things when they ask you something

very often

never

1

2

3

4

5

10. lie about what you do with your friends

very often

never

1

2

3

4

5

11. tell your parents, teacher, etc. the entire story when they ask you something

very often

never

1

2

3

4

5

12. sometimes do not tell the truth so you do not have to hurt somebody else's feelings

very often

never

1

2

3

4

5

APPENDIX D

TROMSO SOCIAL INTELLIGENCE SCALE

Describes me extremely poorly

Describes me extremely well

1 2 3 4 5 6 7

1. I can predict other peoples' behavior
2. I often feel that it is difficult to understand others' choices
3. I know how my actions will make others feel
4. I often feel uncertain around new people who I don't know
5. People often surprise me with the things they do
6. I understand other peoples' feelings
7. I fit in easily in social situations
8. Other people become angry with me without me being able to explain why
9. I understand others' wishes
10. I am good at entering new situations and meeting people for the first time
11. It seems as though people are often angry or irritated with me when I say what I think
12. I have a hard time getting along with other people
13. I find people unpredictable
14. I can often understand what others are trying to accomplish without the need for them to say anything
15. It takes a long time for me to get to know others well
16. I have often hurt others without realizing it

- 17. I can predict how others will react to my behavior
- 18. I am good at getting on good terms with new people
- 19. I can often understand what others really mean through their expression, body language, etc.
- 20. I frequently have problems finding good conversation topics
- 21. I am often surprised by others' reactions to what I do

APPENDIX E
LYING VIGNETTES

MALE VERSION

For each of the following paragraphs, try to put yourself in the person in the situation's shoes. Imagine that the person in the situation is your own age, and think about how you would respond if you were him. After each paragraph, circle how the person in the story should respond.

1) On the way to math class, Matt realizes that he forgot to do the homework. He really needs a good grade in this class. His teacher tells everyone to pull out their homework so that the class can go over it. She notices that Matt did not pull out his homework. She asks Matt where his homework is.

What should Matt say?

- a) "Mrs. Smith, I am very sorry but I do not have my homework. I had a soccer game last night and I completely forgot to do it. I will bring it in tomorrow."
- b) "Mrs. Smith, I am very sorry but I do not have my homework. I didn't forget; my brother broke his leg at his football game, so I spent the whole night at the hospital with him. I did not have time to do my homework."

Which response should Matt choose? a) b)

-If Matt chooses response a), how acceptable would it be?

Not at all Very acceptable

1 2 3 4 5

-If Matt chooses response b), how acceptable would it be?

Not at all Very acceptable

1 2 3 4 5

2) Nick tells his best friend Shawn that he is afraid that he was going to fail the test, which they just took, and so he cheated on the test. Nick asks Shawn not to tell anyone, and Shawn promises not to tell. The next day, the teacher suspects that Nick cheated, and asks Shawn if Nick cheated.

What should Shawn say?

- a) "Yes Mr. Wilson, Nick did cheat on the test, but only because he was afraid of failing."
- b) "No Mr. Wilson, Nick did not cheat on the test."

Which response should Shawn choose? a) b)

-If Shawn chooses response a), how acceptable would it be?

Not at all Very acceptable

1 2 3 4 5

-If Shawn chooses response b), how acceptable would it be?

Not at all Very acceptable

1 2 3 4 5

3) Devin is out with his friends and he loses track of time and ends up coming home after curfew. His mom is up waiting for him and asks why he is late. Devin knows that some reasons for being late will cause him to be grounded, and other reasons will get him off the hook.

What should Devin say?

- a) "I'm really sorry Mom, but I lost track of time."
- b) "I am sorry that I was late Mom, but my friend's car had a flat tire so we had to stop and change it on the way home."

Which response should Devin choose? a) b)

-If Devin chooses response a), how acceptable would it be?

Not at all Very acceptable

1 2 3 4 5

-If Devin chooses response b), how acceptable would it be?

Not at all Very acceptable

1 2 3 4 5

4) Joe sees his older brother in the hallway on his way downstairs, and his brother tells him that he was at a party last night and snuck in after curfew. He tells Joe not to tell their parents. When Joe goes down for breakfast, his father asks Joe if he knows what time his brother came home last night.

What should Joe say?

- a) "I think he came home after curfew"
- b) I'm not sure, but I think he was home on time, maybe around 10?"

Which response should Joe choose? a) b)

-If Joe chooses response a), how acceptable would it be?

Not at all Very acceptable

1 2 3 4 5

-If Joe chooses response b), how acceptable would it be?

Not at all Very acceptable

1 2 3 4 5

5) Jamie is eating lunch with some older guys. They are discussing music. The older guys are talking about how much they like Fall Out Boy. Jamie does not really like them, but he wants the older guys to like him. They ask Jamie if he likes Fall Out Boy. Jamie does not want the guys to make fun of him.

What should Jamie say?

- a) "I like Fall Out Boy too. Their music is really great. I wanted to go to their concert last year but couldn't get tickets."
- b) "I am not a big fan of Fall Out Boy. Their music just isn't what I like to listen to. That's cool that you like them though."

Which response should Jamie choose? a) b)

-If Jamie chooses response a), how acceptable would it be?

Not at all					Very acceptable
1	2	3	4	5	

-If Jamie chooses response b), how acceptable would it be?

Not at all					Very acceptable
1	2	3	4	5	

6) All the older kids are always making fun of Pat, who's a new kid in school. Chris is Pat's friend and feels sorry for him, and promises to back Pat up with whatever he says. Pat is really upset and says to the other kids, "I was on the football team at my other school." The other kids start laughing and they ask Chris, "Was Pat really on the football team at his other school, Chris?" Chris knows that Pat was never on the football team at his old school.

What should Chris say?

- a) "No, Pat was not lying; he was really on the football team."
- b) "Yes Pat was lying, he really was not on the football team but he wanted you to stop making fun of him."

Which response should Chris choose? a) b)

-If Chris chooses response a), how acceptable would it be?

Not at all				Very acceptable
1	2	3	4	5

-If Chris chooses response b), how acceptable would it be?

Not at all				Very acceptable
1	2	3	4	5

7) Mike was playing basketball with his younger brother and some of his friends. They asked him if he had a girlfriend. Since he was in middle school, and many of his friends had girlfriends, he wanted the younger boys to think that he was cool. He really did not have a girlfriend, but none of them knew that. Even Mike's brother couldn't know if he had just gotten a girlfriend that he just had not told him about.

What should Mike say?

a) "No I do not have a girlfriend; you can be cool without one."

b) "Yes of course I have a girlfriend, everyone cool does."

Which response should Mike choose? a) b)

-If Mike chooses response a), how acceptable would it be?

Not at all Very acceptable

1 2 3 4 5

-If Mike chooses response b), how acceptable would it be?

Not at all Very acceptable

1 2 3 4 5

8) Ben was at the mall with his younger brother. They ran into some boys that go to school with Ben's brother. The boys started to tease Ben's brother about his new haircut. Ben does not want his brother to get teased, since he can see that his brother is upset.

What should Ben say?

- a) "Hey why don't you leave my brother alone?"
- b) "This type of haircut is really popular at my school, which means that my brother is much more mature and way cooler than you." (Ben knows that this is a lie but the other boys may not, and it will stop them from teasing his brother)

Which response should Ben choose? a) b)

-If Ben chooses response a), how acceptable would it be?

Not at all Very acceptable

1 2 3 4 5

-If Ben chooses response b), how acceptable would it be?

Not at all Very acceptable

1 2 3 4 5

FEMALE VERSION

For each of the following paragraphs, try to put yourself in the person in the situation's shoes. Imagine how you would respond if you were him or her. After each paragraph, circle how the person in the story should respond.

1) On the way to math class, Megan realizes that she forgot to do the homework. She really needs a good grade in this class. Her teacher tells everyone to pull out their homework so that the class can go over it. She notices that Megan did not pull out her homework. She asks Megan where her homework is.

What should Megan say?

a) "Mrs. Smith, I am very sorry but I do not have my homework. I had a soccer game last night and I completely forgot to do it. I will bring it in tomorrow" (this is the truth, but she might not think that it is a good excuse).

b) "Mrs. Smith, I am very sorry but I do not have my homework. My brother broke his leg at his football game, so I spent the whole night at the hospital with him. I did not have time to do my homework" (this is a much better excuse, and the teacher may not know if she is lying).

Which response should Megan choose? a) b)

-If Megan chooses response a), how acceptable would it be?

Not at all Very acceptable

1 2 3 4 5

-If Megan chooses response b), how acceptable would it be?

Not at all Very acceptable

1 2 3 4 5

2) Nikki tells her best friend Sarah that she is afraid that she was going to fail the test, which they just took, and so she cheated on the test. Nikki asks Sarah not to tell anyone, and Sarah promises not to tell. The next day, the teacher suspects that Nikki cheated, and asks Sarah if Nikki cheated.

What should Sarah say?

- a) "Yes Mrs. Wilson, Nikki did cheat on the test, but only because she was afraid of failing."
- b) "No Mrs. Wilson, Nikki did not cheat on the test" (Sarah should protect her friend from getting in trouble)

Which response should Sarah choose? a) b)

-If Sarah chooses response a), how acceptable would it be?

Not at all				Very acceptable	
1	2	3	4	5	

-If Sarah chooses response b), how acceptable would it be?

Not at all				Very acceptable	
1	2	3	4	5	

3) Devin is out with her friends and she loses track of time and ends up coming home after curfew. Her mom is up waiting for her and asks why she is late. Devin knows that some reasons for being late will cause her to be grounded, and other reasons will get her off the hook.

What should Devin say?

- a) "I'm really sorry Mom, but I lost track of time."
- b) "I am sorry that I was late Mom, but my friend's car had a flat tire so we had to stop and change it on the way home."

Which response should Devin choose? a) b)

-If Devin chooses response a), how acceptable would it be?

Not at all Very acceptable

1 2 3 4 5

-If Devin chooses response b), how acceptable would it be?

Not at all Very acceptable

1 2 3 4 5

4) Rachel sees her older brother in the hallway on her way downstairs, and he tells her that he was at a party last night and snuck in after curfew. He tells her not to tell their parents. When she goes down for breakfast, her parents ask her if she knows what time her brother came home last night.

What should Rachel say?

a) "I think he came home after curfew."

b) "I'm not sure, but I think he was home on time, maybe around 10?"

Which response should Rachel choose? a) b)

-If Rachel chooses response a), how acceptable would it be?

Not at all Very acceptable

1 2 3 4 5

-If Rachel chooses response b), how acceptable would it be?

Not at all Very acceptable

1 2 3 4 5

5) Jamie is eating lunch with some older girls. They are discussing music. The older girls are talking about how much they like Fall Out Boy. Jamie does not really like them, but she wants the older girls to like her. They ask Jamie if she likes Fall Out Boy. Jamie does not want the older girls to make fun of her.

What should Jamie say?

- a) "I like Fall Out Boy too. Their music is really great. I wanted to go to their concert last year but couldn't get tickets."
- b) "I am not a big fan of Fall Out Boy. Their music just isn't what I like to listen to. That's cool that you like them though."

Which response should Jamie choose? a) b)

-If Jamie chooses response a), how acceptable would it be?

Not at all					Very acceptable
1	2	3	4	5	

-If Jamie chooses response b), how acceptable would it be?

Not at all					Very acceptable
1	2	3	4	5	

6) All the older kids are always making fun of Pat, who's a new kid in school. Chris is Pat's friend and feels sorry for her, and promises to back Pat up with whatever she says. Pat is really upset and says to the other kids, "I was a cheerleader at my other school." The other kids start laughing and they ask Chris, "Was Pat really a cheerleader, Chris?" Chris knows that Pat was really not a cheerleader at her other school.

What should Chris say?

- a) "No, Pat was not lying; she really was a cheerleader at her old school."
- b) "Yes Pat was lying, she was really not a cheerleader, but she wanted you to stop making fun of her."

Which response should Chris choose? a) b)

-If Chris chooses response a), how acceptable would it be?

Not at all				Very acceptable
1	2	3	4	5

-If Chris chooses response b), how acceptable would it be?

Not at all				Very acceptable
1	2	3	4	5

7) Missy was at the mall with her younger sister and some of her friends. They asked her if she had a boyfriend. Since she was in middle school, and many of her friends had boyfriends, she wanted the younger girls to think that she was cool. She really did not have a boyfriend, but none of them knew that. Even Missy's sister couldn't know if she had just gotten a boyfriend that she just had not told her about.

What should Missy say?

- a) "No I do not have a boyfriend; you can be cool without one."
- b) "Yes of course I have a boyfriend, everyone cool does."

Which response should Missy choose? a) b)

-If Missy chooses response a), how acceptable would it be?

Not at all					Very acceptable
1	2	3	4	5	

-If Missy chooses response b), how acceptable would it be?

Not at all					Very acceptable
1	2	3	4	5	

8) Nicole was at the mall with her younger sister. They ran into some girls that go to school with Nicole's sister. The girls started to tease Nicole's sister about her new haircut. Nicole does not want her sister to get teased, since she can see that her sister is upset.

What should Nicole say?

- a) "Hey why don't you leave my sister alone?"
- b) "Everyone at my school has haircuts like this, which means that she is very mature and cool compared to you." (Nicole knows that this is a lie but the other girls may not, and it will stop them from teasing her sister)

Which response should Nicole choose? a) b)

-If Nicole chooses response a), how acceptable would it be?

Not at all				Very acceptable	
1	2	3	4	5	

-If Nicole chooses response b), how acceptable would it be?

Not at all				Very acceptable	
1	2	3	4	5	

APPENDIX F

INFORMATIONAL LETTER TO PARENTS AND ADOLESCENTS

Dear adolescent and parents,

My name is Lori Zabarsky, and I am currently working toward my master's degree in clinical psychology at the University of Dayton. I am completing a master's thesis, and I am interested in studying adolescent lying behavior. I am originally from the Cleveland area, and am very interested in working with your adolescent. Every adolescent that participates in the study will be entered into a drawing to win a portable DVD player, as a thank you for their time. The study involves an online survey regarding their lying behavior and reading through hypothetical situations in which an adolescent may be tempted to lie. The survey will take approximately 10-15 minutes and will not have your teenager's name on it.

If you allow your adolescent to participate in this study, please sign the enclosed informed consent form and have your adolescent return it to his or her homeroom teacher. The second copy of the informed consent form is yours to keep. Once I have received this form, I will contact your adolescent via e-mail with the link to the online survey.

If you have any questions regarding the study, before allowing your adolescent to participate or anytime thereafter, please feel free to contact me at (937) 229-2175 or LZabarsky@ameritech.net or my supervisor, Dr. Keri Brown Kirschman at (937) 229-5404. Thank you in advance for your cooperation.

Sincerely,

Lori A. Zabarsky

University of Dayton
300 College Park Ave
Dayton, OH 45469
(937) 229-2175

APPENDIX G

ASSENT TO PARTICIPATE

This study will investigate lying behavior in children. I understand that the researchers neither condone nor oppose lying; they are simply trying to learn more about lying behavior. No one besides the researchers will see my responses, and my name will be kept separate from my responses at all times. I will only be identified by a participant identification number. I will be filling out a lying survey about my own behavior, and choosing how an adolescent in a story should respond in his or her situation.

I have voluntarily decided to participate in this study. The investigator has adequately answered any and all questions I have about this study, the procedures involved, and my participation. I understand that the investigator named above will be available to answer any questions about research procedures throughout this study. I also understand that I may voluntarily stop my participation in this study at any time. I also understand that the investigator named above may stop my participation in this study if she feels this to be in my best interest.

Adolescent's signature

APPENDIX H

DEBRIEFING FORM

Information about the Study

This study was done to help us better understand the level of truthfulness and untruthfulness in adolescents.

The first survey you filled out will tell us about general lying behavior. The second survey will tell us about your social awareness. The vignettes will help us figure out how people will respond in certain situations, and if who is in the story has any effect on the response.

We will do tests on all of the responses to see if lying behavior is different in different situations, or if males and females lie about different things. For further information about this area of psychological research, you may read the articles cited below.

Assurance of Privacy

We are seeking general principles of behavior and are not evaluating you personally in any way. Your responses will be confidential and your responses will only be identified by a number in the data set along with other participants' numbers.

Contact Information

Participants may contact Lori A. Zabarsky, 937.229.2175, lzabarsky@ameritech.net, 300 College Park Ave, University of Dayton, Dayton, OH 45469, or faculty advisor Dr. Keri B. Kirschman, 937.229.5404, kirschke@notes.udayton.edu if you have questions or problems after the study. Participants may also contact the chair of the Research Review and Ethics Committee, Dr. Greg Elvers at 937.229.2171, greg.elvers@notes.udayton.edu.

Resources: for adolescents

**<http://teenadvice.about.com/od/factsheetsforteens/a/10thingslies.htm> This site includes information about lying for adolescents.

Resources: for parents

** http://www.aacap.org/cs/root/facts_for_families/children_and_lying This article explains normal and problematic lying behavior.

** Keltikangas-Jarvinen, L. & Lindeman, M. (1996). Evaluation of theft, lying, and fighting in adolescence. *Journal of Youth and Adolescence*, 26(4), 467-483.

R002594752

****If you are concerned about your child's lying behavior and/or other emotional problems that your child may have, you can go to <http://cms.psychologytoday.com/usnews/state/OH/Cleveland.html> to find a child psychologist near you.**