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Symposium Title: The Development of Children's Verbal Deception

Presentation 1: To Punish or to Reward? Children's Moral Evaluations of Truth and Lie-Telling

Research on moral evaluations of truth and lie-telling has been primarily conducted with adult samples. Although research has recently begun to emerge in this area with children, less is known about children's understanding and moral evaluations of truth and lie-telling and the age at which these distinctions emerge. The current study examined the development of children's perceptions of truth and lies by reading 12 vignettes to 45 children (aged 4-13) where the protagonist in the story told the truth, a prosocial lie or an antisocial lie after a misdeed was committed. Story conditions varied by the effect that being honest or deceitful would have on the main character (benefit to self, harm to self, no effect to self) and on the lie recipient (benefit to other, harm to other, no effect to other). Ability to correctly identify lies and truth was evaluated. Participants were also asked to rate if what the main character said was "good" or "bad" and why they rated it as such. Children then determined whether the truth or lie told should be punished or rewarded. Analyses were conducted to determine if there were differences in children's judgment of truth, antisocial and prosocial lies, and whether the type of lie effected whether children would reward or punish the main character. Preliminary analyses indicate that the majority of children accurately identified truth and lies and no significant age difference in truth and lie identification was shown. A slight gender effect was revealed in that girls were better at identifying lies that benefited the self and harmed the other, $\chi^2(2, N=44) = 6.81, p=0.054$. Truth-telling had the most positive moral evaluation rating across age groups, $F(1,40)=33.19, p<0.01$. However, confessing was rated significantly more positive than tattling that caused harm to another, $t(41)=-6.31, p<0.01$. Significant differences were shown in children's ratings of statements told with/without harm to another, whereby lies where there was benefit to another were rated less severely by all age groups, $F(1,40)=13.14, p<0.01$. In addition, differences were shown between the type of lie told (prosocial vs antisocial) and whether there was harm to the self or not, whereby prosocial lies told to help another but harm oneself were rated less severely than other types of lies, $F(1,40)=17.69, p<0.01$. Age differences were found with younger

children rewarding a confession, $\chi^2(2, N=44) = 7.998, p < 0.05$ and tattling (about another's misdeed), $\chi^2(2, N=45) = 9.429, p < 0.05$ significantly more often than older children. The findings of the present study suggest that children in this age range are beginning to differentiate between prosocial and antisocial lies and the social norms surrounding them. In addition, results indicate that children consider the benefit and harm to self as well as the benefit and harm to other when evaluating truth and lie-telling. Implications for children's moral development will be discussed.

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Presentation 2: Young Children's Emergent Ability to Make False Statements

When are children first capable of telling lies? Surveys of parents and teachers suggest that children's first lies appear at 3 to 4 years of age (Stouthamer-Loeber, 1991). Experimental work has found that children's tendency to lie about minor transgressions often increases dramatically from three to four years of age (Talwar et al., 2002). Whether the honest 3-year-olds in this research are incapable or insufficiently motivated to lie has not been determined.

No research has attempted to examine the early antecedents of lying. Stern (1909) noted that a fundamental component of lying is the ability to knowingly make a false statement. We examined very young children's ability to knowingly make false statements in a context in which they would be maximally motivated to do so. We anticipated that this ability would emerge sometime between 3 and 4 years of age, and that children's ability to make false statements would depend to some extent on question-type.

In this study, 165 2-6 to 5-6 year old children were taught a game in which they would win a prize for calling each stimulus a "bird." The experimenter first explained that in this game if the child said she had a bird she would win and get a prize, and if she said she had a fish she would lose and the experimenter would take away a prize. The experimenter then practiced with the child. During the test, the child was shown pictures of birds or fishes and asked recall (What do you have?), animal recognition

(Do you have a bird? Do you have a fish?), or outcome recognition (Do you win? Do you lose?) questions. The target stimuli were kept in view of the child in order to ensure that the child was knowingly making false statements.

We predicted that children's ability to make false statements would emerge at some point between 3 and 4 years of age, that children would perform best on the outcome recognition questions (because they could ignore the identity of the animal and respond according to their wishes), next best on the animal recognition questions (because they would not have to generate a false label), and most poorly on the recall questions, despite the fact that the experimenter practiced these questions with the child.

Children's performance on the different question types is shown in Table 1. Children's ability to make false statements increased steadily with age, with the most dramatic improvement in performance found between ages 3-0 to 3-6 ($M=.49$, $SD=.20$) and 3-6 to 4-0 ($M=.72$, $SD=.20$). Whereas younger children found the outcome questions easier than the other types $t(38)=3.809$, $p<.001$, the oldest children performed best on the recall questions $t(44)=5.68$, $p=.001$. Even the oldest children exhibited some difficulty with the task, however, which may have been due to the salience of the correct response. Subsequent analyses will include examination of latencies and the relation between performance on this task and on tasks assessing children's understanding of truth/lie and their executive control abilities.

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Table 1

Age	Recall	Animal Recognition	Outcome Recognition
2-6 to 3-0	.38 (.40)	.55 (.24)	.62 (.26)
3-0 to 3-6	.35 (.39)	.46 (.21)	.63 (.21)
3-6 to 4-0	.70 (.36)	.74 (.24)	.69 (.20)
4-0 to 4-6	.70 (.39)	.67 (.27)	.68 (.20)
4-6 to 5-0	.84 (.31)	.74 (.32)	.70 (.20)
5-0 to 5-6	.81 (.31)	.78 (.27)	.67 (.27)

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Presentation 3: Learning to Lie: Children's Deceptive Capabilities and Their Performance on Measures of Emotional Knowledge and Intelligence

When children fail to follow a rule or resist a temptation it can often lead to children making an intentionally false statement with the intention to deceive another (i.e. lying). Although deception is viewed by some as a maladaptive behavior, its acquisition, demonstrates an important progression in children development as research has found it is related to children's understanding of theory of mind in others (e.g., Polak & Harris, 1999; Talwar & Lee, 2008). Researchers have indicated that early lie-telling emerges between the ages 3 and 5 (e.g., Chandler et al., 1989; Lewis, Stranger, & Sullivan, 1989; Talwar & Lee, 2002a, Talwar, Lee, Bala & Lindsay, 2002). One of the first lies told by children are anti-social lies which are often told to protect the self from discovery of a transgression or for other self-serving motivations. The relationship between this form of lie-telling and other areas of child development, specifically intellectual capabilities, remains relatively understudied. It has been suggested that the ability to lie well may be related to the individuals IQ as well as their emotional knowledge since lying requires manipulating one's expressive behavior to be convincing. The current study sought to identify the relationship between children's intellectual development, emotional knowledge, and lie-telling behaviors.

Participants were 123 four-year-old children (male $n = 55$) who took part in the modified temptation-resistance paradigm; designed to elicit lie-telling behaviors to conceal a transgression. Participant's deceptive behavior was elicited by observing whether children lied after being tempted to peek at a toy, when an experimenter exited a room. The length of time it took for children to peek at the toy, before the experimenter re-entered the room (peeking latency) measured children's ability to resist the temptation to peek at the toy. Children's verbal IQ (PPVT) and their emotional knowledge (Michalson & Lewis, 1985) were measured. Overall, 89% of the children peeked at the toy when the experimenter was absent from the room, $\chi^2(1, N = 158) = 99.83, p < .0001$. Results indicate that children who peeked had significantly lower IQ scores than children who did not peek, $F(1, 156) = 3.89, p = .05$. The mean peeking latency for these children was 33 seconds after the experimenter exited the room ($SD = 47.4$). Gender differences were also present, for peeking latency. Girls had significantly longer latency to peek scores than boys, $F(1, 156) = 3.90, p < .05$. Of the children who peeked, 90% lied about peeking. Liars had significantly higher IQ scores than truth-tellers, $F(1, 140) = 3.76, p < .05$. Children's emotion knowledge was related to lying, with liars having significantly higher emotion knowledge scores than did non-liars, $F(1, 140) = 5.06, p < .05$. Results indicate that children's capacity to lie was related to greater emotional knowledge. Thus demonstrating a relationship between the acquisition of social skills (lie-telling) and emotional intelligence (emotion knowledge). The findings of this research will be discussed within both theoretical and developmental context of children's behavior within deceitful situations.

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Presentation 4: Socialization Factors and the Development of Lie-Telling Behaviors: The Role of Parenting Styles and Family Expressiveness

Through early socialization children are taught the benefits and consequences of lying in different situations. There are two broad categories of lies: (a) antisocial lies told for personal advantage or to avoid punishment, and (b) prosocial lies told for the sake of preserving social relations. Children's antisocial and prosocial deceptive behaviors emerge early and their abilities develop throughout the

childhood years (e.g., Lewis et al., 1989; Talwar & Lee, 2002a, 2002b). Although most research on children's lie-telling behaviors has focused on preschoolers, none have examined the trajectory of lie-telling from preschool years to adolescence, a goal of the present research. Nor has any study examined both antisocial and prosocial lying in the same children.

Furthermore, no research has specifically examined familial-social factors that are believed to play a role in how children learn that lying is appropriate in at least certain situations. Two factors that may play a role are parenting practices and family emotional expressiveness. For example, parenting styles and specific practices are thought to enhance or mitigate the successful socialization of children (Robinson et al., 1995). In addition, within the family context, rules about emotions and emotional expressiveness are learnt by children regarding how to appropriately express their feelings (Halberstadt et al., 1995).

Herein, 110 children (4-14 years) participated in a temptation resistance (TRP; antisocial lie scenario) and disappointing gift (DGP; prosocial lie scenario) paradigm. In the TRP, children played a guessing game and were told not to look at a forbidden toy when the examiner left the room. When the examiner returned children were asked about their behavior. In the DGP, children were given a disappointing gift when they expected to receive a more desirable prize. Parents completed the Parenting Styles and Dimensions Questionnaire (PSDQ) assessing authoritative, authoritarian, and permissive parenting styles, and the Self-Expressiveness in the Family Questionnaire (SEFQ), examining the frequency of emotional expressiveness within the family context.

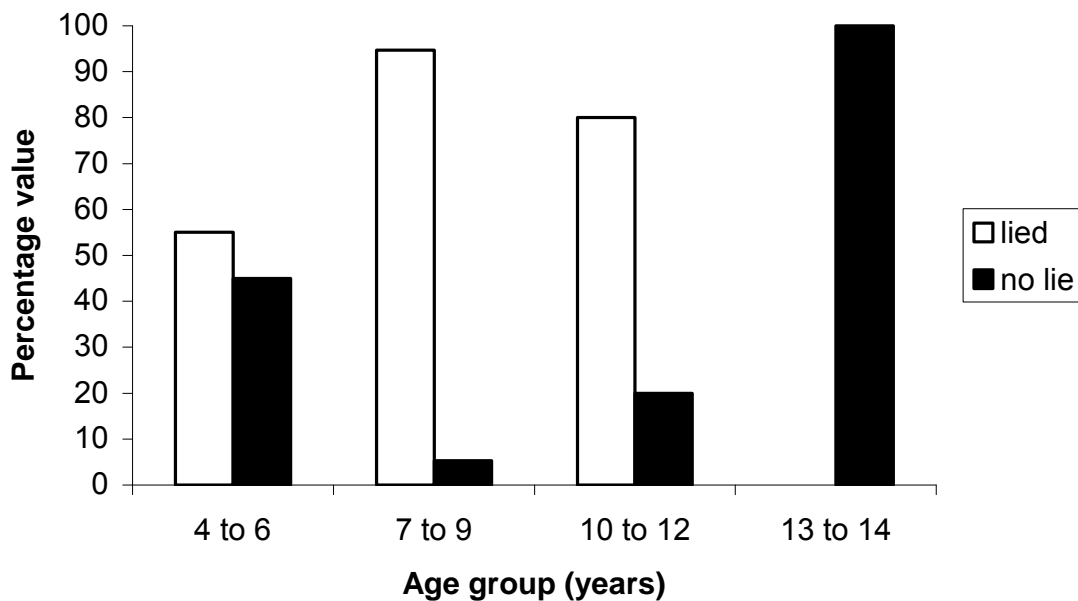
Children's behaviors in the TRP were examined. As expected older children peeked less, however they were more likely than younger children to tell an antisocial lie (Figure 1). As age increased, children were more likely to tell a prosocial lie, saying they liked a disappointing gift that they previously stated as not liking. This trend extends beyond the elementary school years, with adolescents telling more prosocial lies than younger age groups.

Parenting styles were found to be related to children's lie-telling. Specifically, parents of children who were antisocial liars reported higher authoritarian parenting styles, while parents of children who were prosocial liars reported higher authoritative parenting. In addition, antisocial liars had families with more negative and less positive expressions of emotions than antisocial truth-tellers. Prosocial liars had families with less negative expression of emotions but no difference in their positive emotions.

Therefore there appears to be different patterns of children's lie-telling behaviors across development. Socialization factors such as parenting styles and family emotional expressiveness appears to be differentially related to children's lying. Implications for understanding children's social development and directions for future research are discussed.

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Figure 1. Percentage of children who told an antisocial lie



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Presentation 5: "I Promise to Tell the Truth": Increase Truth-Telling Behavior in 8- to 16-Year-Olds

Children and young persons must demonstrate an understanding of the truth and promise to tell the truth prior to testifying in court. Previous research has demonstrated that promising to tell the truth significantly decreases lie-telling by children between 3 and 7 years of age. As the majority of deception research has focused on the deceptive behaviors of younger children, the potential developmental changes that might occur after the age of 8 have largely been ignored. The present study begins to

address this limitation by assessing the influence of promising to tell the truth and one's conceptual knowledge of truth and lies on older children's statements.

One hundred and seven 8- to 16-year-old children were invited to complete a short answer test. Children were left alone to complete the test along with the answers on the back of the test booklet and asked not to look at the answers while the experimenter was gone out of the room. Prior to taking up the answers the experimenter asked the participant whether or not they peeked at the answer to the test while the experimenter was gone (Time 1). Children were classified as lie-tellers if they had peeked at the answers and replied "no" to the peeking question. If they peeked and responded "yes" to the peeking question, they were categorized as "confessors."

After taking up the test, participants completed two tasks to assess their conceptual knowledge of truth- and lie-telling. Finally, participants were asked to promise to tell the truth and the experimenter asked the critical question "When I was gone out of the room did you peek at the answers to the test questions?" (Time 2). An additional forty control participants between 9 to 16 years of age completed the exact same procedure but at Time 2 were not asked to promise to tell the truth after completing the conceptual knowledge of truth- and lie-telling tasks. This allowed us to assess whether it was indeed promising to tell the truth rather than asking whether the child had peeked a second time that increased truth-telling behavior.

While left alone in the room with the answers, the majority of children transgressed and peeked at the answers to the test (54%). Of those who peeked at the answers almost all children lied about peeking at the answers to the test at Time 1 (74%). However, after promising to tell the truth (Time 2) there was a significant reduction in children's lie-telling behavior (48% lied). Additionally, there was not a significant reduction in control children's lie-telling behavior at Time 2. Consistent with previous findings with younger children, children's performance on the conceptual knowledge of truth- and lie-telling measures was not related to their actual truth- or lie-telling behavior. The results of the present study replicate previous research indicating that promising to tell the truth increases truth telling in older children and adolescents. These results provide support for requiring older children and adolescents to promise to tell the truth prior to testifying in court.

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