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64. Effects of the Putative Confession Instruction on Perceptions of Children's True and False Statements

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Effects of the putative confession instruction on perceptions of
children's true and false statements

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Abstract

The putative confession instruction ("[suspect] told me everything that happened and wants you to tell the truth") during forensic interviews with children has been shown to increase the accuracy of children's statements, but it is unclear whether adult's perceptions are sensitive to this salutary effect. The present study examined how adults perceive children's true and false responses to the putative confession (PC) instruction. Participants ($n = 299$) watched videotaped interviews of children and rated the child's credibility and the truthfulness of his/her statements. When viewing children's responses to the PC instruction, true and false statements were rated as equally credible, and there was a decrease in accuracy for identifying false denials as lies. These findings suggest that participants viewed the PC instruction as truth-inducing. Implications for the forensic use of the PC instruction are discussed.

Keywords: *putative confession, deception detection, child credibility, interviewing children*

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Children's involvement in criminal proceedings increased after the spike in reports of abuse and neglect during the 1990s (OPRE, 2009; Petersen, Joseph, & Feit, 2013). The resulting deluge of child credibility research supports the notion that, with unbiased interview strategies, children can provide valuable information to a criminal investigation (e.g., Brown & Lamb, 2015; Quas, Goodman, Ghetti, & Redlich, 2000). Children are questioned in legal contexts when they witness violence or are victims of alleged maltreatment from an adult. These forensic interviews aim to elicit accurate disclosures from the children. That is, the purpose of a forensic interview is to obtain a disclosure – but only when maltreatment truly occurred. Two problems interfere with this goal. The first problem is that children can be misled because they are susceptible to suggestion (Bruck & Ceci, 1999), and adults can pressure children to falsely report maltreatment that conforms to their preconceived agenda (Bruck & Ceci, 2004). Conversely, abused children may fail to disclose their abuse. Research with child abuse victims and adult survey respondents has shown that children often feel complicit in their abuse or anticipate that they will be viewed as complicit by others, deterring them from disclosing (Hershkowitz, Lanes, & Lamb, 2007; Martin et al. 1993). Hence, the challenge for forensic interviewers is to support children enough to overcome reluctance to disclose but not so far as to produce false reports (Lyon, 2014).

The Putative Confession Instruction (PC)

A series of studies have examined 4- to 9-year-old children's disclosure patterns when they felt jointly implicated in a transgression with an adult stranger. The stranger encouraged them to play with a series of toys, but then two of the toys were designed to break in the children's hands as they were manipulated. The stranger admonished secrecy, warning that they

might "get in trouble" if someone finds out that they broke the toys. Most children failed to disclose the transgression in response to recall questions, whereas recognition questions increased disclosure, but elicited some false yes responses and many false no responses (Ahern, Stolzenberg, McWilliams, & Lyon, 2016; Lyon et al., 2014; McWilliams, Stolzenberg, Williams, & Lyon, 2018; Quas, Stolzenberg, & Lyon, 2018; Rush, Stolzenberg, Quas, & Lyon, 2015). However, several studies have found that use of the putative confession, in which the interviewer tells the child that the stranger disclosed "everything that happened and wants you to tell the truth," increased transgression disclosures in response to recall questions, and did so equally across 4- to 9-year-olds (Lyon et al., 2014; McWilliams et al., 2018; Quas et al., 2018; Rush et al., 2015). Similar effects were found using a hypothetical form of the putative confession examined in this study, in which the interviewer added "what if I told you" to the instruction (Stolzenberg, McWilliams, & Lyon, 2017).

Because the interviewer does not specify what "everything" or "the truth" entails, the instruction conveys different meanings to children who have and have not experienced a transgression. Only a child who has experienced a transgression is likely to interpret "everything that happened" as referring to a transgression. Furthermore, in failing to provide specific details about the suspect's statements, the instruction avoids the suggestive effects of telling children about other witnesses' reports (Garven, Wood, Malpass, & Shaw, 1998) or asking children to speculate or pretend (Schreiber, Wentura, & Bilsky, 2001). Indeed, the putative confession has not been found to increase false reports when a transgression did not occur (Lyon et al., 2014; Quas et al., 2018), even among children suggestively questioned (Cleveland et al., 2018, Rush et al., 2017). Additionally, the putative confession has been found effective among children who are less responsive to a request that they promise to tell the truth, including younger and

maltreated children (McWilliams et al., 2018). Hence, interviewers wishing to avoid the potentially leading effect of recognition questions might find the putative confession valuable in eliciting disclosures from reluctant children.

<div align="center">**Assessing Children's Credibility and Detecting Deception**</div>

However, the putative confession is not one hundred percent effective, and an important issue is how children who maintain secrecy in the face of the putative confessed are perceived. It is essential to understand not just what increases (or decreases) children's honesty, but what affects adult perceptions of their honesty. Adults are responsible for assessing the credibility of children's statements, deciding whether to move forward with an investigation and, once an investigation is complete, deciding whether wrongdoing has occurred.

The putative confession might affect adult's perceptions of children's credibility and their ability to distinguish between truth-tellers and liars, and its effect would vary depending on whether adults view the putative confession as increasing honesty or as suggestive. If adults view the putative confession as eliciting honest disclosures from children, then they would be more likely to believe children who fail to disclose, and this could impair their ability to detect false denials. If adults view the putative confession as suggestive, then they would be less likely to believe children who disclose, and this could impair their ability to detect true reports. There is surprisingly little research examining adults' credibility judgments or deception detection abilities regarding children who receive different types of interview instructions. There is limited research suggesting that adults will judge children as more credible and make more accurate judgments if children are asked competency questions and promise to tell the truth. One study has shown that adults find a child more credible and accurate if the judge conducted a preliminary competency inquiry and questioned the child about school, family, and awareness of

the difference between a truth and lie (Connolly, Gagnon, & Lavoie, 2008). However, deception detection accuracy could not be assessed because the ground truth was unknown. If adults view the putative confession as inducing honesty, then it might have similar effects. Another study found that adults were better at detecting deception when 3- to 11-year-old children had engaged in moral discussions about lie telling or had promised to tell the truth before being questioned (Leach, Talwar, Lee, Bala, & Lindsay, 2004). However, the participants were not shown the preliminary discussions. In real-world interviews, observers would both see the instructions and see how the children responded.

On the other hand, research on lay understanding of suggestibility raises the possibility that adults will view the putative confession as suggestive. The research finds that lay people's understanding is at best uneven; adults have some understanding that children are suggestible but poor understanding of differences among different interview strategies (Quas, Thompson, & Clarke-Stewart, 2005; McAuliff & Kovera, 2007).

As a general matter, adults are mediocre lie detectors who tend to classify true and false statements at a rate significantly above chance but that, practically speaking, has little consequence (54% - 57% accuracy; Aamodt & Custer, 2006; Bond & DePaulo, 2006; Gongola, Scurich, & Quas, 2017). Many potential moderators of deception detection accuracy have revealed small or mixed effects (for a review see Gongola et al., 2017 and Bond & DePaulo, 2006).

One robust effect in the deception detection literature is the truth bias, which is the tendency to believe that people --both adults and children-- are honest. There are at least two explanations for this effect. First, if the majority of interpersonal communication is honest, or at least expected to be honest, then the tendency to judge others' statements as truthful is a useful

heuristic (Street & Richardson, 2015; Swan, 1984). A second explanation is that the bias is a byproduct of cognitive processing. Gilbert (1991) proposed that, in the same way one immediately trusts that the object she sees is a chair, one tends to believe an idea she understands is the truth. Disconfirming a proposition that sounds plausible requires additional time, effort, and evidence. How adults perceive the effects of the putative confession could affect their proclivity to evince a truth bias.

The Present Study

The purpose of the present study is to further extend this research by determining how adults perceive children's true and false statements in response to the putative confession compared to a control instruction (i.e., "Tell me everything that happened."). Two research questions will be investigated. First, how do adults perceive children's credibility when questioned with the putative confession? Second, does the putative confession instruction have any effect on adult's deception detection accuracy? In other words, will participants be more likely to believe a false statement, specifically a false denial, or will they be more likely to identify a false denial as a lie?

Based on the research finding that adults view competency questions as inducing honesty in children, we tentatively hypothesized that adults would view the putative confession as increasing the likelihood that children would be honest. This would increase their accuracy when assessing true responses and decrease their accuracy when assessing false responses. However, given adults' uneven ability to recognize suggestive questioning as such, an alternative hypothesis is that adults would perceive the putative confession as suggestive, and thus view children's disclosures as less credible.

Method

Participants

The sample was comprised of 302 participants (50.5% female) recruited from Amazon Mechanical Turk, an online platform where surveys and questionnaires are posted for volunteers to complete in exchange for monetary compensation. Their ages ranged from 18 - 74 (*Median* = 35, *Mean* = 37.7, *SD* = 12.78), 38.5% were married, 46.5% were parents, 52.5% identified as politically liberal, 22.4% moderate and 25% conservative. Additionally, 7.4% (*n* = 22) participants reported that they were employed in a position in which they had regular contact with children; the majority were school teachers and 5 worked in various health services. Two participants were discarded from the sample for failing an attention check question (Oppenheimer, Meyvis, & Davidenko, 2009). One other participant was dropped answering "no" to a check question that asked if they were able to view the interview video, resulting in a total sample of 299 participants.

Preparation of Stimulus Materials

The videotaped interviews were created by Stolzenberg and colleagues (for a detailed study description, see Stolzenberg, McWilliams, & Lyon, 2017). The procedure used the broken toy paradigm described in the introduction. For the present study, we edited the videos to include the recall and recognition questions asked by the interviewer following rapport building. The interviewer started with either no instruction (control group) or the hypothetical putative confession. In the control group, the interviewer asked the child to tell her "everything that happened" when the stranger came in while she was away. In the putative confession condition the interviewer said "What if I said that [the suspect] told me everything that happened, and he wants you to tell the truth" before asking the child to tell her what happened. The children's initial responses ranged from one short sentence (e.g., "We played with toys") to about 30

seconds of speaking; the response length and number details were evenly dispersed across the conditions in the study design. The interviewer asked the child to list all the toys that he/she played with, then followed up with cued-recall questions about each toy (e.g., "You said you played with the dog, what happened next?"). The children provided between one and three sentences about how each of the 6 different toys worked (e.g., the dogs did a flip). After the free and cued recall questions, the interviewer asked recognition questions about each toy (e.g., "Did the dog break?"). Some of the children disclosed toy breakage in response to the recognition questions, to which the interviewer repeated the child's disclosure and asked the child to tell her everything that happened.

Design and Procedure

The design was a 3 (type of disclosure: false denial, true denial, true report) X 2 (instruction type: putative confession, control instruction) fully crossed, between-subjects factorial. We did not include false reports because these were quite rare in the original study and tended to be unelaborated yes responses rather than descriptions of breakage. Each condition contained two videos, one of each gender and similar ages, to balance out any potential idiosyncrasies associated with any particular child. We only utilized videotaped interviews in which the child's parents gave explicit consent that their video could be viewed. The study procedure was approved by the Institutional Review Board.

Each participant watched one of 12 videotaped interviews (average duration 3 minutes and 30 seconds), all of which were conducted with Hispanic children (6 girls and 6 boys), ranging between 6 and 9 years old. The children's ages and interview duration were equally distributed across the conditions. Each taped interview presented a close-up of the child over the interviewer's shoulder and a picture-in-picture view of both the child and interviewer.

Participants were instructed to watch the interview with a child describing a play session, during which some toys may or may not have been broken, and that they would be asked to determine whether any toys broke based on the child's answers.

After watching the interview, participants rated whether they thought each of the 6 toys had broken on Likert scales from 1 (the toy definitely did not break) to 6 (the toy definitely broke). Respondents also rated their impression of the child's credibility across 14 items (e.g., credible, believable, accurate) as well as 5 items regarding the perceived quality of the child's responses (e.g., detailed, strong, long) on a 1 to 7 semantic differential scale. Half of the items were reverse coded. We conducted an exploratory factor analysis on the credibility scale by entering the 14 items into a principal component analysis with varimax rotation, which extracted two factors. Table 1 shows a complete list of the items and their factor loadings. Factor 1, labeled the credibility factor, included 12 of the items and accounted for 49% of the variance (*eigenvalue* = 6.85). Factor 2 included 3 items and accounted for 7.9% of the variance (*eigenvalue* = 1.10). Only factor 1 was used in the following analyses, and those 12 items were collapsed into a composite score ($\alpha = 0.91$). At the end of the survey, the respondents provided basic demographic information. Participants were thanked for their participation and compensated. On average, participants took 8 minutes 13 seconds (*SD* = 4 minutes) to complete the survey.

[Insert Table 1 about here]

Results

Perceptions of Child Credibility

Perceived credibility scores were entered as the dependent measure into a 3 (disclosure type: false denial, true denial, true report) X 2 (instruction type: PC, control) analysis of variance. There was a significant main effect for disclosure type, $F(2, 298) = 5.149$, $p = .006$, h^2_p

= .034, which was qualified by a significant interaction between disclosure and instruction type, $F(2, 298) = 4.803$, $p = .009$, $h^2_p = .032$. The main effect for instruction type was not significant ($p = .16$). Figure 1 shows that false denials under the control instruction were rated as less credible compared to all of the other groups. Participants perceived false denials under the PC instruction as equally credible as true reports and true denials across instruction type. In other words, participants were more suspicious of dishonest children only in the control instruction. This pattern supports the hypothesis that participants viewed the PC instruction as truth-inducing. Participants rated the false denials as equally credible as the true statements when they were questioned with the PC instruction, and there were no significant differences in perceptions of children's true reports between the PC and control instruction conditions.

[Insert Figure 1 about here]

Deception Detection Accuracy

Participants indicated whether they thought each toy had broken. Their accuracy was calculated based on whether the child was telling the truth (i.e., if the toys broke or not). The child did break a toy in the true report and false denial conditions, and if the participant indicated that they thought at least one of the 6 toys broke, then they would be accurate (= 1), and those who believed that none of the toys had broken were inaccurate (= 0). Similarly, the children in the true denial condition had played with 6 toys, and none of them broke. Thus, participants were accurate if they indicated that no toys had broken (= 1) and inaccurate if they believed that a toy had broken (= 0). Orthogonal contrast codes for the instruction type and disclosure type variables were constructed using the strategy presented in Wendorf (2004).

Participant accuracy was entered as the dependent variable into a binary logistic regression with the disclosure type, interview type and the interaction between them as the

predictor variables. The model was significant, $\chi^2(5, 299) = 81.6$, $p < .001$. Table 2 shows the percentage of correct judgments for each condition. A significant main effect emerged for disclosure type (*Wald*(2) = 29.947, $p < .001$). Compared to false denials, participants were 4.9 times more likely to be accurate when judging true denials (95% CI [2.1, 11.4], *Wald*(1) = 13.716, $p < .001$) and 38.7 times more likely for true reports (95% CI [8.5, 175.3], *Wald*(1) = 22.486, $p < .001$). Deception detection accuracy significantly differed as a function of the instruction type, *Wald*(1) = 6.215, $p = .013$. Compared to the PC instruction, participants were 2.8 times (95% CI [1.2, 6.2]) more likely to be accurate in the control instruction condition. The disclosure by instruction type interaction was not significant ($p = .89$). However, follow up analyses showed that participants were significantly more likely to be accurate judging false denials in the control condition compared to the PC condition ($\chi^2[1, n = 104] = 6.36$, $p = .021$), but not for true denials or true reports ($\chi^2[1, n = 95] = 1.78$, $p = .18$; $\chi^2[1, n = 100] = 0.43$, $p = .51$, respectively). Indeed, accuracy rate for false denials were significantly below 50% in the PC condition (95% CI [28%, 47%]) and significantly above 50% in the no instruction control condition (95% CI [51%, 73%]).

[Insert Table 2 about here]

These results also support a truth bias. Participants rated statements as truthful (75.9%) more often than they were (66.6%), $t(298) = 3.17$, $p = .002$.

Discussion

The analyses revealed several noteworthy findings concerning perceptions of children's credibility and participant's deception detection accuracy as a function of the type of disclosure (i.e., child's true or false statements) and the type of interview instruction employed (i.e., hypothetical PC or control instruction). First, the results support the hypothesis that adults

perceived the PC as increasing honesty. In the control instruction condition participants correctly rated the false denials as less credible than the true denials. However, in the PC condition, participants rated the false denials as credibly as the true denials. Moreover, there was a corresponding drop in deception detection accuracy among adults in the PC condition. Deception detection accuracy was significantly below 50% when judging false denials in the PC instruction condition and significantly above 50% in the control instruction condition.

Second, the results do not support the alternative possibility that adults perceived the PC instruction as suggestive. The PC did not influence credibility ratings for children's true reports of breakage. That is, adults did not rate children's true reports as less credible when they were evoked by the PC, which one would expect if they believed that the PC would induce children to false alarm. Third, there was evidence of a truth bias, a common finding in the deception detection literature (Bond & DePaulo, 2006; Gongola et al., 2017). Participants were more likely to classify the children as truthful and were better at identifying true statements as honest than false statements as lies.

Fourth, participants' accuracy when judging true statements was extremely high, and near perfect when judging true disclosures of breakage. These rates were higher than the averages reported in a recent meta-analysis by Gongola, Scurich, and Quas (2017). However, the meta-analysis identified a significant amount of between-study variability, which indicates that there are important moderators of deception detection still to uncover. One possibility is that elaborately-staged events lead to more believable true reports. Several other child deception detection studies have found similarly high rates of accuracy for true reports (e.g., Strömwall & Granhag, 2005; Orcutt et al., 2001; Shao, 2007; Ball & O'Callaghan, 2001). Similar to the present study, the children in Orcutt et al. (2001) played several games with a confederate. In the

other studies, the children participated in a magic demonstration (Strömwall & Granhag, 2005), an art lesson (Shao, 2007), and a dentist visit (Ball & O'Callaghan, 2001). Another possibility is that eliciting more elaborated reports from children leads to more believable true reports. In this study, interviewers exhausted children's recall and followed up children's yes responses with a request for elaboration, and this resulted in longer interviews that produced more information for participants to assess. Finally, the transgressive nature of the event may have made children's true disclosures more believable. Future research is needed to test these possible moderators of credibility and deception detection accuracy, and to determine what additional information would make participants more suspicious of children's true reports.

Future research is also necessary to identify the reasons participants in the PC condition were less adept at credibility judgments and deception detection. On the one hand, participants viewing false denials were more likely to believe children in the PC condition than in the control condition, consistent with an enhanced truth bias. However, participants viewing true denials and true reports were no more likely to believe children when the PC had been administered. Although this could be attributable to a ceiling effect in the case of the true reports, because true reports in the control condition were endorsed as true by 98% of subjects, it does not explain participant's responses to the true denials. If anything, participants viewing the true denials were non-significantly *less* accurate in the PC condition (75%) than in the control condition (85%), but if the PC merely increased truth bias, participants in the PC condition should have been more accurate.

Complicating the picture is the fact that in the study from which the videos were drawn, the PC had a positive effect on children's reports, such that children who experienced toy breakage were significantly more likely to reveal that breakage (Stolzenberg et al., 2017). Hence,

children who disclosed in response to the PC were selected out, and children in the PC false denial group resisted the truth-inducing effects of the PC; they may have been more motivated to conceal breakage, or more able to do so, or both. If they were better at concealing breakage, then this provides an alternative explanation for why deception detection was lower in the PC false denial group than in the control false denial group. It is also possible that the PC had more subtle effects on children's behavior, both verbal and nonverbal, short of affecting their disclosure. This could have affected children in all groups. As a result, it is unclear whether the participant's poorer discrimination ability when viewing the children administered the PC is attributable to the participants' attitudes about the PC or the PC's effects on children, or both.

Future work is needed to disentangle these possible effects. In order to assess the effects of the truth bias, participants could be shown two videos and asked which child was honest (or dishonest), thus ensuring participants identified equal numbers of children as deceptive or honest. Furthermore, participants could be directly asked about their perceptions of the PC's effect and their reasons for classifying children as honest or dishonest, though participants may not be fully aware of the reasons for their judgments. Finally, showing participants multiple videos would make it possible to develop a clearer picture of the factors that influence participants' judgments.

Another limitation of the present study is that there were no children who falsely reported toy breakage during the interview. As noted above, this is because the PC did not have a suggestive effect in the study from which the videos were drawn, and only a very small number of children provided elaborated false reports. A complete picture of deception detection accuracy would have been obtained if both false denials and false reports could have been included. For example, the extent to which the high accuracy rate for true reports could be attributable to a

truth bias is unclear. This is a common problem in deception detection research; the meta-analysis by Gongola et al. (2017) identified only four studies out of 45 that had all four types of statements (i.e., true reports, false reports, true denials, and false denials).

The adult participants were recruited from Amazon Mechanical Turk, and online samples have raised concerns about participant motivation and attentiveness to the stimulus materials (Goodman, Cryder, & Cheema, 2013). In the present study, a page-timer was activated while participants watched the interview video that restricted access to the next page during the length of the video. As is standard practice with online surveys, there was also an attention check question embedded in the study measures to identify and remove inattentive participants (Oppenheimer, Meyvis, & Davidenko, 2009). Online samples are non-representative of the population because they oversample younger, more liberal, and more computer-literate individuals. Nevertheless, they tend to be more representative of the adult population in the United States than undergraduate samples (Buhrmester, Kwang, & Gosling, 2011)

The findings may have practical implications for use of the putative confession in practice. The advantage of the PC is that it elicits true disclosures from children who would otherwise not disclose and does not appear to increase false disclosures (Lyon et al., 2014; McWilliams et al., 2018; Quas et al., 2018; Rush et al., 2015; Stolzenberg et al., 2017). This study suggests that lay observers recognize that the PC increases true disclosures without increasing false disclosures. However, interviewers will hesitate to use the putative confession because of its ethical implications; if the suspect has not in fact confessed, then the instruction is untrue. One option is to include in suspect interviews a question whether the suspect has revealed "everything" and "wants the child to tell the truth." (Lyon et al., 2014). Another option is to use the hypothetical form of the PC (the form used in this study), in which the interviewer adds

"what if I said" to "[the suspect] told me everything that happened" (Stolzenberg et al., 2017).

However, in these cases the instruction is still problematic; it is not literally false, but

nevertheless misleading. The issue for interviewers is how to balance the risks and benefits of

alternative approaches.

This study provides an additional caution: the putative confession may lead observers to

exaggerate the likelihood that a child who fails to disclose a transgression is being honest.

Previous research has found that, compared to the other types of statements, adults tend to have

the most difficulty judging the veracity of false denials (Block et al., 2012). An important

question for future research is whether trained professionals who conduct forensic interviews

with children or who evaluate forensic interviews are subject to the same biases. Clearly, much

more work needs to be done to identify means of increasing children's willingness to disclose

wrongdoing.

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Table 1

Factor Loadings of the Credibility Scale

Items	Factor 1 (Credibility)	Factor 2
Reliable : Unreliable	0.81	
Credible : Deceptive	0.70	
Believable : Unconvincing	0.82	
Likable : Disagreeable	0.56	
Coherent: Incoherent	0.68	
Competent : Incompetent	0.82	
Typical : Atypical	0.46	
Genuine : Fake	0.58	
Suggestible : Steadfast	0.58	
Accurate : Inaccurate	0.81	
Honest : Deceitful	0.80	
Consistent : Inconsistent	0.50	0.57
Confident : Unsure[a]		0.69
Calm : Nervous[a]		0.76

Note. Loadings less than 0.4 were omitted.
a. Indicates items that were dropped from the analyses.
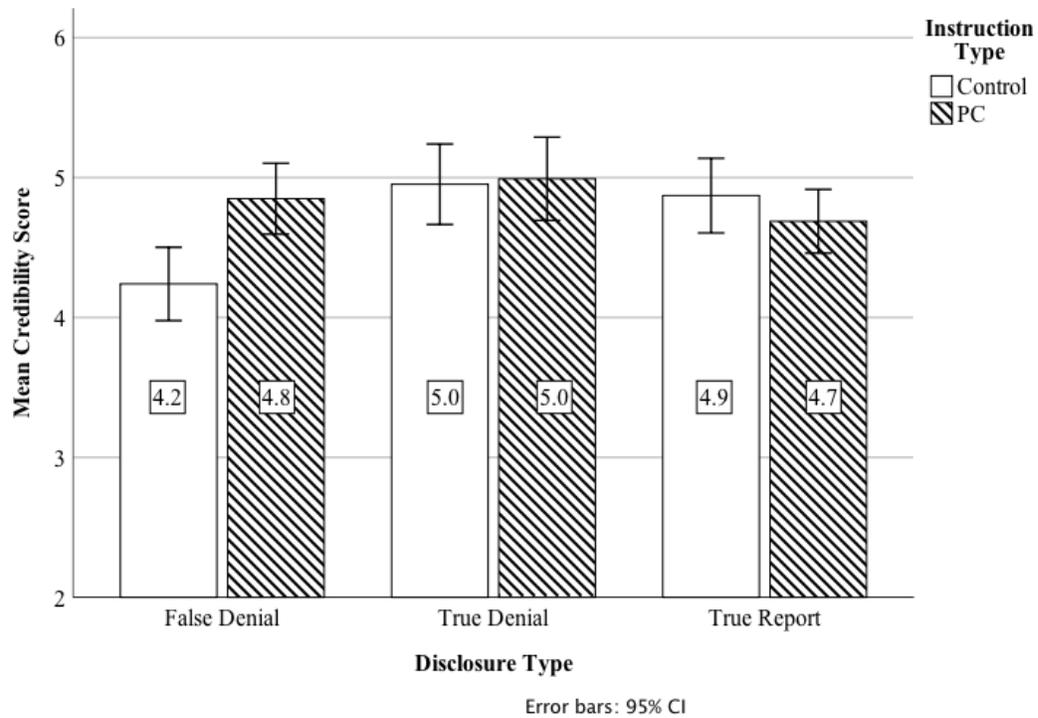
Figure 1. Perceived credibility of children's true and false statements as a function interview instruction.

Table 2

Mean (SD) Percent Correct as a Function of Instruction Type and Disclosure Type

Disclosure Type	Instruction Type		
	PC	Control	Total**
True Report	95.8% (20.2)	98.1% (13.9)	97.0% (17.2)
True Denial	74.5% (44.1)	85.4% (35.7)	80.0% (40.2)
False Denial	37.3% (48.8)	62.2% (49.0)	48.1% (50.2)
Total*	66.9% (42.2)	82.8% (37.9)	

* $p = .013$
** $p = .001$