

TRUE, PARTLY FALSE, AND FALSE TESTIMONY OF CHILD WITNESSES: AN ASSESSMENT OF CREDIBILITY

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ABSTRACT

The credibility of child witness testimonies is an important and controversial issue in forensic psychology. Children from an early age can testify in legal proceedings, while children are able to give false testimony for a variety of reasons. Research to date has focused on examining the differences between true and falsified children's testimony, but little is known about assessing the credibility of testimony that is partly true but partly falsified. This paper presents a small sample quasi experimental study that explained the differences between true, partly falsified, and completely falsified children's stories, and clarified the methodology for conducting a broader study. Study questions: what are the differences in credibility scores between true, partly falsified, and falsified children's stories in this group of children; how do children understand the instruction to create a partly falsified story? Nine children aged 11 years ($n = 9$) participated in the study, three children in each study group. The children were interviewed about a real, partially falsified or completely contrived event, as well as taking the WISC-4 sub-test "Vocabulary". The content of the narrative was assessed using the Criteria Based Content Analysis (CBCA). Results: CBCA averages did not differ between true-story and partly falsified story groups, while there were more children with higher CBCA scores in the true-story group than in the partly falsified story group. The CBCA averages were lower in the contrived story group compared to the first two groups. The children had difficulty spontaneously producing a false story during the interview. An association was found between CBCA scores and children's level of verbal ability. The trends observed in the study group should be tested in a larger study with a larger number of participants.

Keywords: CBCA, child witness, testimony, credibility, assessment

Introduction

Children's testimony provides important evidence in the legal context, especially in criminal cases of domestic violence and child sexual abuse. Studies show that children can talk about their experiences at an early age

and to be reliable witnesses (Goodman & Melinder, 2007). At the same time studies also show that children can give false testimony and lie (Talwar & Crossman, 2012). Researchers point out that the ability to lie develops almost simultaneously with children's ability to present true information about the event. Children lie for a variety of reasons – already at an early age, lies are created with the aim of hiding a violation, following this are lies formulated to gain some benefit, and during further development lies are produced to maintain one's self-esteem (Vrij, 2008). From an early age onward children can lie to hide not only their own violations, but also the violations committed by their parent or another meaningful adult (Talwar & Crossman, 2012). Studies show that a large proportion of children lie when an adult asks them or requests them to do so (Vrij, 2008), and children lie even if they have promised to tell the truth (Bala et al., 2000). This means that children from an early age can provide both true and false testimony in the legal context, they are able to lie on their own initiative or under another person's influence, even in circumstances where they are asked to tell only the truth.

Regarding the assessment of the credibility of children's testimony, studies show that adults are very inaccurate in their intuitive evaluation of whether the child is telling the truth, and rarely do they show accurate judgments above the level of chance probability (Strömwall et al., 2007; Vrij et al., 2006). Within the legal context there is a necessity for valid methods that will assist legal professionals in evaluating child witness credibility.

For purposes of evaluating the veracity of witness testimony the Criteria-Based Content Analysis (CBCA; Volbert & Steller, 2014) is considered to be the most widely used method worldwide (Vrij, 2008). This method is used in scientific research on the credibility of testimony. In some countries it is recognized in legal practice as scientific evidence in criminal proceedings as part of the broader Statement Validity Assessment. The theoretical framework of the CBCA includes the hypothesis that there are qualitative differences between an experience-based narration and a narration that is not based upon the actual experience. The CBCA includes 19 criteria for assessing the level of veracity of the verbal content of a testimony, including criteria such as coherence of narration, amount of detail, description of the interactions, information about one's own psychological condition, self-correction within the spontaneous narration, and more. (Volbert & Steller, 2014). Meta-analysis of studies has shown that CBCA scores differ depending on whether the narrative of the testimony was based on actual or falsified experience (Amado et al., 2015; Oberlader et al., 2016). However, limitations of the method have also been pointed out (Schemmel et al., 2020).

Summarizing previous studies and the scientific literature on the credibility of children's testimony it is apparent that they primarily focus on the differences between true stories and completely fictional or falsified stories. There is little information in the scientific literature on how to distinguish a testimony based on a true, experiential event that is somewhat altered and falsified regarding certain essential details. In legal practice there are cases where children provide testimony based on real events but with partially distorted details, for example, by referring to a different person as the perpetrator to protect a meaningful adult.

In a previous experimental study (Akehurst et al., 2018) involving adult participants ($n = 48$) the participants were asked to develop narratives used a staged criminal offence (theft) and evaluated true, partly false, and false narratives. The CBCA scores were higher for true narrative compared to partly or completely falsified narratives, and the CBCA scores for the latter two groups were similar. Some of the CBCA criteria were significantly less common in partly and completely falsified stories compared to the true story group. The accuracy of the final credibility assessment did not differ significantly between the three groups, but only completely true and false stories were correctly identified above the probability level.

This small sample quasi experimental study is the first step to determine whether the CBCA current method for assessing the credibility of testimony can identify differences in the level of veracity in a child's verbal account of a partly falsified event compared to the narrative of a true and completely falsified event.

Issues addressed in the study:

1. What initial hypotheses can be made by comparing the reliability of verbal content in the groups of true story, partly falsified story, and completely falsified story?
2. How do children understand and be able to follow the instruction of the study – to tell a partly falsified story?
3. What aspects related to the study methodology can be identified that would need to be perfected or improved for the further research?

Method

Study participants. The pilot study involved 9 children*, including 5 boys and 4 girls. All children were 11 years old at the time of the study and had completed 4th grade.

(*Parental permission and children's consent to participate in research was obtained before starting the study).

The children were divided into 3 groups, 3 children in each group, balancing the number of children in each group by gender: 1st true story

group, 2nd partly falsified story group and 3rd completely falsified story group. All children from the first and second groups attended the event at the Inflatable Water Amusement Park (Event), where they spent 2 hours playing around the water attractions in the presence of a researcher (which allows to capture the basic truth about the Event). A week later, the children were interviewed about the Event. The children of the third group did not take part in the Event and had never visited an Inflatable Water Amusement Park before.

The children were interviewed individually. The children of the first group were asked to tell everything they remember about the Event. The children in the second group were instructed before the interview to change the story that they had participated in the Event with their family, not their peers, and to tell the partly changed story about the Event in the interview. The children in the third group were instructed before the interview to come up with a story about the Event and tell during the interview as if they had actually taken part in an event at an Inflatable Water Amusement Park with their peers. Invitations to free narration and open-ended questions were used in the interview, according to the principles set out in the NICHD protocol (Otgaar et al., 2020). After the interview, all the children were asked what was true in their stories, what had been invented. In addition, children were asked to take a Vocabulary Test (WISC-IV) to check their level of verbal ability. At the end, the children received a small gift for participating in the study.

The interviews were recorded audio and transcribed in interview transcripts. The verbal content of the children's narratives was analysed using the CBCA method according to 19 evaluation criteria. The presence of each criterion in the narrative was rated on a scale from 0 to 2 (0-not included, 1 – is included, 2 – is conclusively included, max = 38 points), resulting in a total score.

Results

The results of the study are summarized in the table (see Table 1).

The first and the second group showed the identical results ($M = 16.33$) for the CBCA total scores (see Figure 1), the third group showed lower results in comparison to the first two groups ($M = 4$).

The first and the second group received similar result on the Vocabulary subtest (1. group $M = 9.3$, 2. group $M = 9$), corresponding to the age norm average results. The third group's Vocabulary subtest results were lower ($M = 6.33$), the two of three children scored below the normal range. The correlation between CBCA and Vocabulary subtest scores for the entire sample was $r(9) = 0.71$.

Table 1. CBCA total scores and Vocabulary subtest results.

Groups	True event			Partially fabricated event			Fully fabricated event		
	boy	girl	boy	girl	girl	boy	girl	boy	boy
Child's gender									
CBCA total score	10	20	19	16	17	16	4	6	2
Vocabulary subtest score (standardized)	6	8	14	9	9	9	5	8	6

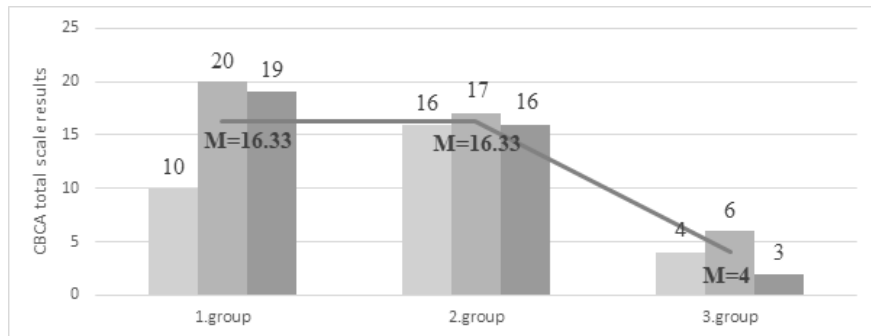


Figure 1. Individual results and group averages of CBCA overall scale
 Note. 1. group – true story; 2. group – partly false story; 3. group – false story

Children in all three groups indicated that they understood the instruction, but one child in the group of partly falsified story expressed concern about the falsehood of telling: “Do I have to lie?”, “I do not lie well”. Children (except one) from all three study groups followed the instructions during the interview, creating the narrative according to the indicated circumstances. The exception was one child from the second group, who indicated after the interview that she had not only changed the true story as instructed, but also supplemented some of the situations she had experienced during other events. The content of the stories of the first and second group children about the Event was compared with the researcher’s observations during the Event (basic truth), thus confirming the narrative’s compliance with the instruction (true story or partly falsified story). The children of the third group had difficulties in spontaneously coming up with a narrative about the falsified event during the interview, the children of this group had smaller narratives, longer pauses, the children more often answered that they no longer remembered or nothing else happened.

Discussion

The results obtained in the study group reveals, that children from the true story and partly falsified story groups showed the same CBCA overall scale averages ($M = 16.33$). Children from partly falsified story group did not have difficulties in changing the story to a partly false story during the interviews. It can be assumed that creating a narrative that is only falsified in some respects but is generally based on real events is less complicated for children than creating a story that is completely falsified. In the case of a partially falsified narration, children may rely on their own experience, and it may be assumed that in such a case the narrative will contain more indicators of credibility that make it difficult to distinguish it from the true narrative. But it should be noted that the results obtained in this study differ from the results obtained in a previous study involving adult participants (Akehurst et al., 2018), which can be explained by the different study methodology and the age of the respondents. It is important to continue research on the partly falsified stories implementing study with larger number of participants.

The completely falsified story group had a lower CBCA overall score ($M = 4$) compared to the first two groups. During the study, children in the third group had difficulty spontaneously creating a fictional story during the interview. The scientific literature indicates that providing false information requires much more cognitive effort than telling the truth. Creating and maintaining a lie is a complex task that requires a certain level of cognitive development. When telling an untruth, the child has to perform several cognitive activities at the same time – provide information about a situation structured in the mind, block information related to real events and situations so that it is not included in the narrative, memorize the untrue story and be able to supplement and improve it flexibly, without inconsistencies, to enshrine the additions made in the memory, which must be taken into account in the future story. To lie successfully, one must also take into account other people's knowledge of the situation, construct false information that is different from the child's true views, be able to operate with one's non-verbal and verbal expressions to maintain confidence, make sure the listener believes lies and be able to adapt one's performance to be considered credible. Thus, the ability to lie reliably is considered a sign of cognitive maturity that occurs when a child begins to understand other people's mental states and consciously control one's behaviour (Talwar & Crossman, 2012). Studies show that lying is associated with attention stability and the development of working memory, mental theory, and management functions (Walczyk & Fargerson, 2019). Children's lying skills develop during the first ten years of life (Talwar & Crossman, 2012) and

are related to both the development of the child's cognitive abilities and experience and also to the practice of lying. Due to the cognitive complexity of lying, young children are unable to provide convincing lies, i. e., young children are able to lie but are unable to maintain their lies if it is necessary to give a detailed account of the event and if the children are additionally questioned. On the other hand, when they reach adolescence, children's cognitive abilities are mature enough to give false information on an equal footing with adults. The difficulties observed in the study group of children from the group of completely falsified story are similar to those described in the scientific literature and results in lower CBCA scores.

The quality of the narrative can be affected by a number of factors that are not related to the truthfulness status of the narration, so the development of standardized methods for assessing credibility is a complex task. The CBCA is not a standardized study method for determining the level of veracity of a testimony. Researchers point out that when using the CBCA in practice, as part of a broader approach for evaluating the veracity of a testimony – Statement Validity Assessment (SVA) approach, it is necessary to assess the specifics of each individual child and case and take them into account, to evaluate the indicators obtained by the CBCA in connection with this assessment (Volbert & Steller, 2014). At the same time, previous studies have attempted to establish a reference point for assessing the outcome of the CBCA. According to a previous study, if the CBCA overall score is >16 , the story is considered more credible, while a score of <10 indicates that the story has few credibility criteria (Welle et al., 2016). It should be noted that a CBCA total score of <10 does not automatically mean that the narrative is not credible, as the quality of the narration may be affected by other factors, such as the child's verbal ability, motivation, emotional factors, and so on. In this study, the stories of two children from the group of true stories (66%) and the story of one child from the group of partly falsified stories (33%) may be assessed as rather credible, while all the stories of children in the third group showed little credibility criteria.

The results obtained in the study show a correlation $r(9) = 0.71$ between the results of the Vocabulary test and the CBCA total score, which shows that the level of children's verbal abilities is related to the level of veracity in the children's narrative. When describing children as witnesses, it is pointed out in the scientific literature that children's verbal abilities are one of the main prerequisites, along with memory, for a child to be able to give verbal testimony about his or her experience (Silva et al., 2016). Studies show that the incidence of CBCA criteria in narration is influenced not only by the truthfulness of the narrative (experiential or imaginary story), but also by the narrator's cognitive abilities and narrative habits (Nahari & Vrij, 2015). The child's verbal abilities determine both

the content of the information included in the narrative and the amount of information provided, so in the case of limited verbal abilities, the child will provide a lower quality story that will receive a lower number of credibility criteria.

The study instructions were understandable for the children. However, one child from a group of partly falsified stories during the briefing expressed concern about telling the untruth, i. e., must lie. This reaction points to the child's understanding of lying as negative behaviour and to the ethical dilemma that the child faces when given the task of lying, which may affect the child's motivation to make credible lies during the study. As indicated in the scientific literature, children understand lies as negative behaviour at an early age (Talwar & Crossman, 2012). Researchers point out that people tend to tell the truth in most cases, and people decide to lie to achieve a certain goal. The choice between lying and the truth is influenced by motivation and social factors. Lying theories describe this decision-making process. People decide to lie or tell the truth based on the potential benefits or negative consequences of each of these behaviours. The potential benefits or negative consequences can be psychological (such as praising or avoiding condemnation), material (such as receiving a reward or avoiding the loss of a benefit), or social (such as helping or hurting someone). If the predicted potential benefits or consequences of lying outweigh the benefits or consequences of telling the truth, one is more likely to decide in favour of lying (Wyman et al., 2021).

All children followed the instructions and created the stories according to the conditions. Except for one child, who indicated after the interview that she had not only changed the narrative according to the instructions but had supplemented the narrative of the Event with other situations she had experienced at another leisure event with her family.

Conclusions

Based on the results of this study, the following hypotheses can be put forward: The CBCA overall scale averages will be similar for children from the true story group and the partly falsified story group; telling a partly false event will result in fewer children getting a credible CBCA score (CBCA total score > 16) compared to a true story group; narrative of a completely false event will receive a low credibility criterion (CBCA total score < 10) and the CBCA total scale average will be lower in this group compared to the first two groups.

The level of verbal ability of children should be taken into account when forming study groups to exclude the effect of different verbal abilities on CBCA outcome.

Lying behaviour must be based on motivation to lie, in order for the child to try to give a credible lie, otherwise the child will choose to tell the truth rather than try to persuade the interviewer to believe in an untrue event. Motivation to lie would allow the child to overcome the desire to be honest and reduce the stress associated with the need to lie. This means that children from the group of partly falsified and completely falsified stories in the instruction phase must be motivated to lie. This can be achieved by providing a detailed explanation of the significance of the study and, consequently, the need to provide false information within the study; by explaining to children that it is good to say untruths in this study, and that this is different from everyday life situations where it is right to be honest; by strengthening the additional motivation of children to lie during the study with a small gift (benefit) for participating in the study and completing the study tasks.

Instructions given to the children need to be supplemented and improved in the study method, so that they are completely clear and unambiguous regarding what the child should say during the interview.

Given the cognitive complexity of lying, it would be advisable to give children from the group of partly and completely falsified stories to rethink their narrative and get used to telling the false / partly false event before the interview. This approach has been observed in previous studies on lying with children participation. Such an approach would also be closer to real life conditions, where children can lie in a legal situation because they are motivated to do so and children have the opportunity to prepare to lie credibly.

Limitations

The number of participants in this study allows the results to be applied only to the specific study group. Based on the results obtained in the study group, the trends were analysed to cautiously put forward hypotheses, which should be tested in a feature study with a wider involvement of participants.

In this small size quasi experimental study, the children's interviews and transcripts of the stories were evaluated by a researcher who is familiar with the circumstances of the study. Such an approach was determined by one of the aims of this study – to test the adequacy of the study methodology by tracking each stage of the study, while such an approach cannot exclude the risks of subjectivism. When organizing a larger study, it is necessary to involve “research” assistants “blind” to the research conditions in order to ensure the objectivity of the study. Also, no second evaluator was invited to the pilot study and no coordination of evaluators was performed, which is also a limitation of this study.

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