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The Effects of the Hypothetical Putative
Confession and Negatively-Valenced Yes/No
Questions on Maltreated and Non-Maltreated
Children's Disclosure of a Minor
Transgression

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This study examined the effects of the hypothetical putative confession (telling children “What if I said that [the suspect] told me everything that happened and he said he wants you to tell the truth?”) and negatively valenced yes/no questions varying in their explicitness (“Did the [toy] break?” vs. “Did something bad happen to the [toy]?”) on two hundred and six 4- to 9-year-old maltreated and nonmaltreated children's reports, half of whom had experienced toy breakage and had been admonished to keep the breakage a secret. The hypothetical putative confession increased the likelihood that children disclosed breakage without increasing false reports. The yes/no questions elicited additional disclosures of breakage but also some false reports. The less explicit questions (referencing “something bad”) were as effective in eliciting true reports as the questions explicitly referencing breakage. Pairing affirmative answers to the yes/no questions with recall questions asking for elaboration allowed for better discrimination between true and false reports. The results suggest promising avenues for interviewers seeking to increase true disclosures without increasing false reports.

Keywords

child maltreatment, interviewing children, sexual abuse

Approximately 90% of child sexual abuse is never identified by the authorities (Hanson, Resnick, Saunders, Kilpatrick, & Best, 1999). Similarly, large percentages of physical abuse go unreported (Bottoms, Rudnicki, & Epstein, 2007). Survey respondents who were victimized as children but never disclosed have described their reluctance to report the abuse (Anderson, Martin, Mullen, Romans, & Herbison, 1993; Fleming, 1997). However, aggressive questioning designed to encourage children to disclose risks creating false allegations (Bruck & Ceci, 2015). Researchers have developed protocols for questioning children about abuse that avoid suggestive questions, but those protocols are not always effective at overcoming children's reluctance to disclose. For example, in one recent study utilizing the National Institute of Child Health and Human Development (NICHD) structured protocol, the most widely researched model for interviewing children about abuse, 40% of children with corroborated physical or sexual abuse failed to disclose (Hershkowitz, Lamb, & Katz, 2014). Researchers thus need to identify improved methods of eliciting true disclosures without risking false allegations.

Truth Induction

One promising approach is to identify interview instructions that encourage children to provide truthful information without suggesting suspected information. For example, a number of studies have found that eliciting a promise to tell the truth increases children's willingness to disclose transgressions without increasing false reports (Lyon & Dorado, 2008; Lyon, Malloy, Quas, & Talwar, 2008; Talwar, Lee, Bala, & Lindsay, 2002, 2004). If a child has experienced a transgression, “the truth” includes the transgression, whereas if a child has not experienced a transgression, the truth does not suggest wrongdoing. Similarly, research

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has found that if the interviewer tells the child that a suspect has disclosed “everything that happened” and wants the child to “tell the truth,” then true disclosures increase without an increase in false disclosures (Lyon et al., 2014; Rush, Stolzenberg, Quas, & Lyon, 2017). This method, called the putative confession, relies on the fact that “everything that happened” uniquely connotes wrongdoing if the child has experienced a transgression with the suspect.

In what kinds of cases may the putative confession be used? The instruction is uncontroversial if the suspect has in fact confessed. In those cases, the child’s confirmation of the transgression may be essential for successful prosecution, given the requirement in some jurisdictions that confessions be corroborated (Moran, 2003). Even if the suspect does not confess, he or she could be asked “Have you told us everything that happened and do you want [the child] to tell the truth?” before the child is questioned (Lyon et al., 2014). Of course, suspects are unlikely to respond negatively to such a question, enabling an interviewer to repeat those words to the child. Even if the suspect has not been questioned, the putative confession is likely to be effective in any case in which the child is unaware of the suspect’s interaction with authorities.

The problem is that interviewers may not feel that it is ethical to utilize the putative confession in cases in which the suspect has not confessed. In those cases, the instruction is potentially misleading, because if a transgression has occurred, the child may infer falsely that the suspect has confessed to the transgression. If the suspect has not even been questioned, then the instruction is literally false. In jurisdictions that bar police deception, investigators will ask hypothetical “what if” questions (Moston & Stephenson, 1992). Hence, an alternative to the putative confession is to ask the child “*What if I told you that [the suspect] told me everything that happened . . .*” We will refer to this as the hypothetical putative confession.

Yes/No Questions

Research examining children’s disclosure of transgressions has found that yes/no questions will elicit disclosures among many children who fail to disclose in free recall (Bottoms, Goodman, Schwartz-Kenney, & Thomas, 2002; Pipe & Wilson, 1994; Talwar, Yachison, & Leduc, 2016). However, yes/no questions directly asking about transgressions increase the risk of false alarms (Thompson, Clarke-Stewart, & Lepore, 1997). Furthermore, an often overlooked problem is that yes/no questions turn omissions into false denials among children who are reluctant to disclose.

It might be possible to reduce the dangers of yes/no questions in two ways. First, one could apply the same principle that enables the putative confession (and other instructions) to increase true disclosures without increasing false allegations. The yes/no question could be worded so that it implies the transgression only to children who had in fact witnessed a transgression. This might be accomplished through negatively valenced questions—specifically, asking about “something bad.” In an experiment in which children played with a series

of toys with a confederate and two appeared to break in their hands, Lyon and colleagues (2014) found that among children who had failed to disclose breakage during recall, 20% answered “yes” when asked the question: “Did anything bad happen with the toys?” The potential utility of the approach, however, was limited in two respects. By asking a general question, the experimenters could not determine whether more specific questioning (here, about each toy) would be more effective. Furthermore, because all children had witnessed a transgression, the extent to which the question might elicit false allegations was unknown.

A second possible means of reducing the risks of yes/no questions is through “pairing,” in which the interviewer follows up a yes response with a request for elaboration. The developers of the NICHD protocol have advocated this method for interviewing children about abuse (Brown & Lamb, 2015). Pairing might assist interviewers in distinguishing between true disclosures and false alarms. The child who makes a true disclosure may be able to provide details. The child who makes a false assent may be incapable of providing details or may clarify his or her response by referring to something other than the suspected transgression. Notably, Lyon et al. (2014) did not ask children who answered yes to the “something bad” question what the “something bad” referred to.

Present Study

The present study examined the effects of the hypothetical putative confession and negatively valenced yes/no questions on children’s disclosures. Each child interacted with a confederate, during which they played with several toys. For half of the children, two toys appeared to break in the child’s hands while playing. The confederate asked the child to keep the breakage a secret, noting that they “might get in trouble.” For the other half of the children, nothing untoward occurred when playing with the confederate. An interviewer then developed rapport with children following the NICHD structured protocol. Children were in one of two instruction conditions: half received the hypothetical putative confession before free recall and the other half received no instructions. At the end of the interview, all children were asked a series of negatively valenced yes/no questions about each of the toys: half of children were asked if each toy had broken and half were asked if something bad happened to each toy. All affirmative responses were paired with a recall question asking for elaboration.

First, we predicted that the hypothetical putative confession would increase children’s willingness to disclose the transgression and would not induce false reports. Second, we predicted that a substantial percentage of children who failed to disclose breakage in response to the free recall and cued invitations would disclose in response to the negatively valenced yes/no questions. We did not make any prediction regarding the relative efficacy of the two types of yes/no questions (explicit break or something bad). We anticipated that pairing would help distinguish between true positive and false positive responses to the yes/no questions.

Method

Participants

The sample included two hundred and six 4- to 9-year-old maltreated ($n = 110$) and nonmaltreated children ($n = 96$; $M = 6$ years, 7 months; $SD = 1.56$, 54% male). Children were separated into three age-groups: 4- to 5-year-olds ($n = 52$), 6- to 7-year-olds ($n = 78$), and 8- to 9-year-olds ($n = 76$). The sample was ethnically diverse (64% Latino, 22% African American, 7% Biracial, and 7% Caucasian). The maltreated sample consisted of children substantiated as suffering from neglect and/or physical or sexual abuse who had been removed from the custody of their parents or guardians. Children gave their assent to participate, and consent was obtained from the Presiding Judge of Juvenile Court and the children's attorneys. Maltreated children were not eligible if they were awaiting a hearing at which they might testify or if they were not English speaking. Children in the nonmaltreated sample were recruited from schools serving predominantly ethnic minority families in neighborhoods comparable to those from which most maltreated children were removed.

Materials and Procedures

Children completed several preliminary measures assessing executive functioning with a female interviewer, which are not discussed further. At the end of the measures, the interviewer said that she forgot some papers and needed to retrieve them from her office. Shortly after she left, the confederate entered, introduced himself, and noticed boxes of toys on a bookshelf. There were eight boxes of toys on two sets of shelves. Each box contained two of the same toy. The confederate retrieved a box, removed a toy, described it, and demonstrated how to play with it. He then removed the other toy and gave it to the child, so that the child could play. The confederate then placed the toys back in the box and returned the box to the shelf, turning the box to reveal a picture of the toy (thus facilitating the child's subsequent recall of play). The confederate played with six of the eight toys (three per shelf), turning the boxes on the two remaining toys during the course of play, so that their pictures were also visible.

Play: Break versus no break. Children were randomly assigned to one of two play conditions. In the break condition, two toys broke in the child's hands (e.g., the leg of an electronic dog broke, and as such, it could not flip). The confederate followed a series of scripted responses for breakage, including labeling the child's actions leading to the breakage (e.g., "Oh. When you put it on the table and turned it on, it broke"), expressing concern (e.g., "This is not good"), attempting to conceal breakage (e.g., "We better put the dog back so nobody knows it's broken"), and asking the child not to disclose (e.g., "Please don't tell the lady that these toys broke") because they might get in trouble. In the no-break condition, the confederate and child played with toys, none broke, and the confederate did not make any statements about concealing

play. After toy play concluded, the confederate thanked the child for playing and left.

Instructions: Hypothetical putative confession Versus control. Next, the interviewer (blind to the child's play condition) returned and asked the child about what happened with the confederate. Every child participated in structured rapport building for 5 minutes that was modeled after the NICHD protocol for interviewing children about suspected abuse (Sternberg et al., 1997). The interviewer asked the child about things she liked to do and did not like to do and then asked the child to describe everything she did on her last birthday. Open-ended follow-up questions were used throughout (e.g., "You said you brushed your teeth; what happened next?").

Children were then interviewed using either the hypothetical putative confession or control instructions (children were randomly assigned, approximately equally across age, gender, and maltreatment). Children in the hypothetical putative confession condition were told: "Now [child's name], what if I said that the man who came in here told me everything that happened and he said he wants you to tell the truth," immediately followed by "So tell me everything that happened while I was gone." Children in the control condition were given no instruction and simply asked to tell everything that happened when the man came in while the interviewer was gone.

After the child responded, the interviewer continued with free recall and cued invitation questions (e.g., "What happened next?" "You said you played with the [toy], tell me everything you did with the [toy].") For children who were initially unresponsive, the interviewer followed up with an additional open prompt. ("It is really important that I know what happened when the man came in. Tell me everything that happened.")

Yes/no questions with pairing: Explicit break versus something bad. The interviewer asked a series of yes/no questions about each toy. Children were randomly assigned to the explicit break or something bad condition. In the explicit break condition, children were asked eight yes/no questions about whether each toy broke (e.g., "Did the plane break?"). In the something bad condition, children were asked eight yes/no questions about whether something bad happened to each toy (e.g., "Did something bad happen to the plane?"). In either condition, any yes response was followed up with an invitation about the toy (e.g., "Tell me everything that happened with the plane."). A Latin square design was used to counterbalance across subjects the order in which the toys were mentioned. All children were asked all eight questions, regardless of prior disclosure.

Debriefing. The confederate reentered the room, and the interviewer explained to the child that she knew the confederate would come in and play with the child. Children in the break condition were reassured that sometimes the toys break, it is okay, and all broken toys can be fixed. The interviewer emphasized to all children the importance of always telling the truth. After the confederate left the room, the interviewer asked the child about her thoughts and feelings during the toy play

interaction, the subsequent interview, and about being in the study generally.

Coding. Interviews were transcribed and coded by trained research assistants who achieved reliability on all variables ($\kappa > .80$, percentage agreement $> .90$) on 20% of the sample (across age, gender, and manipulations). Children's free and cued recall responses and yes/no responses were coded dichotomously for any disclosure of breakage. Children's responses to yes/no follow-up tell me prompts were classified as additional details about breakage, unelaborated report of breakage, clarification that no breakage occurred/child was not talking about breakage, or don't know/unresponsive.

Results

Five percentage of children ($n = 11$) disclosed breakage during rapport building. These children were more likely to be 4- to 5-year-olds (15% disclosed during rapport), $\chi^2(2, N = 206) = 15.01, p = .001$, than 6- to 7- (4%) or 8- to 9-year-olds (0%). The rapport disclosers did not differ with respect to gender, ethnicity, or maltreatment. These children were included in subsequent analyses, with prior disclosure included as a covariate. Preliminary analyses tested for confounds. The following were unrelated to children's interview responses: child gender, child ethnicity, confederate identity, and interviewer identity.

Disclosure of Breakage in Response to Free Recall and Cued Invitations

Of primary interest was whether the hypothetical putative confession increased true disclosures of breakage without increasing false reports. We first examined children's true disclosures in free recall and cued invitations in the break condition ($n = 102$). A dichotomous disclosure score (disclosure or no disclosure of breakage) was entered into a binary logistic regression with age-group (4- to 5-year-olds, 6- to 7-year-olds, and 8- to 9-year-olds), maltreatment status (maltreated, nonmaltreated), and instruction (hypothetical putative confession, control) entered as predictors; rapport disclosure was entered as a covariate. The model was significant $\chi^2(5) = 34.24, p < .001$. The instruction emerged as the only significant predictor (Wald = 4.23, $p = .04$), such that children in the hypothetical putative confession condition disclosed at a higher rate (49%, $n = 25$) than those in the control instructions condition (22%, $n = 11$). Because of the small number of false disclosures, we were not able to test for condition differences: There was one false disclosure of toy breakage, to a toy that did not break, by a child in the break condition, and zero disclosures of toy breakage by children in the no-break condition ($n = 104$).

Disclosure of Breakage in Response to the Yes/No Questions

We next examined children's affirmative answers to the yes/no questions, treating a yes response to any question as a

disclosure. For true disclosures among children in the break condition ($n = 102$), a dichotomous disclosure variable during yes/no questioning was entered into a binary logistic regression with age-group, maltreatment status, instruction manipulation, and yes/no question condition (explicit break vs. something bad) entered as predictors. Previous disclosure (either during rapport or during free/cued recall) was entered as a covariate. The model was significant $\chi^2(5) = 32.84, p < .001$; however, only previous disclosure emerged as significant predictor (Wald = 11.69, $p = .001$), indicating those who had made prior disclosures were more likely to disclose again during yes/no questions. Children in the hypothetical putative confession condition disclosed at a nonstatistically significant higher rate (75%, $n = 38$) than children in the control condition (55%, $n = 28$). The explicitness of the yes/no question made no difference: 67% ($n = 34$) of the children in the explicit break question condition and 63% ($n = 32$) of the children in the something bad question condition disclosed. Despite the fact that children were given multiple opportunities to disclose breakage falsely (six yes/no questions for the children in the break condition and eight yes/no questions for children in the no-break condition), false disclosures were again rare: 5% ($n = 5$) of children in the break condition falsely affirmed breakage about unbroken toys as did 5% ($n = 5$) of children in the no-break condition.

From a practical perspective, the most significant disclosures in response to the yes/no questions were from children who had not previously disclosed. At the beginning of the yes/no questions, 65% of children had failed to disclose (66/102). About half (47%, $n = 31$) of these children disclosed for the first time in response to the direct questions. This did not differ by instruction manipulation (54% of children in the hypothetical putative confession condition, 43% of children in the control condition) or yes/no condition (45% in the explicit break condition, 49% in the something bad condition).

Pairing Recall Questions With Yes Responses to Yes/No Questions

Finally, we examined children's responses to the paired recall questions. The reader will recall that if a child responded affirmatively to a yes/no question (e.g., "Did something bad happen to the slinky?"), the interviewer paired the yes/no question with a recall question ("Tell me everything that happened to the slinky"). We predicted that pairing would improve discriminability between true and false reports of breakage.

Because of the small number of false yes responses (13 across the 10 children who made a false report), we were unable to assess the effects of age and maltreatment but were able to collapse across these factors and make some key comparisons. Note that this includes children from both the break and the no-break conditions. Table 1 illustrates how children responded to the paired recall questions for all unelaborated yes responses to all direct questions (both explicit break and something bad). Whereas 85% of the true yes responses led to

Table 1. Categorization of Children's Responses to Paired Recall Questions Asking for Elaboration of Affirmative Answers to Yes/No Questions, by Condition.

	Additional Break Details		Unelaborated Break Reports		Clarification		Don't Know/Unresponsive	
	%	(n)	%	(n)	%	(n)	%	(n)
True reports of breakage (<i>n</i> = 124)	85	(106)	8	(10)	2	(3)	4	(5)
Explicit break condition (<i>n</i> = 64)	91	(58)	8	(5)	0	(0)	1	(1)
Something bad condition (<i>n</i> = 60)	80	(48)	8	(5)	5	(3)	7	(4)
False reports of breakage (<i>n</i> = 13)	8	(1)	15	(2)	46	(6)	31	(4)
Explicit break condition (<i>n</i> = 3)	0	(0)	0	(0)	33	(1)	67	(2)
Something bad condition (<i>n</i> = 10)	10	(1)	20	(2)	50	(5)	20	(2)

additional details about breakage when paired, only 8% of the false yes responses did so, Fisher's exact test, $p < .001$.

We were particularly interested in how children responded to the paired recall questions when answering the something bad questions affirmatively, because they might be responding that something bad happened other than breakage. Eighty percent ($n = 48$) of the true yes responses led to additional details about breakage when paired with a recall question (with another five simply mentioning breakage), compared to 10% ($n = 1$) of the false yes responses ($n = 10$; with another two simply mentioning breakage), Fisher's exact test, $p < .001$.

Discussion

This study examined the efficacy of a hypothetical putative confession, different types of negatively valenced yes/no questions, and pairing of yes responses with recall questions in eliciting disclosures of a minor transgression. The hypothetical putative confession ("What if I told you that [the suspect] told me everything that happened and he said he wants you to tell the truth?") more than doubled the disclosure rate when children were asked recall questions. The results support the use of the hypothetical putative confession in cases in which the suspect has not been questioned and therefore cannot be said to have told investigators everything that happened or to have expressed the desire that the child be truthful. Additional negatively valenced yes/no questions, either questions explicitly asking whether a transgression occurred or questions that asked whether something bad happened, elicited additional disclosures. However, yes/no questions also led 5% of children to utter at least one false yes response. Pairing of children's yes responses with follow-up recall questions revealed that children were better able to elaborate on their true yes responses than on their false yes responses.

As in prior research, many children who failed to disclose the transgression when asked recall questions did so when asked yes/no questions (Lyon et al., 2014; Pipe & Wilson, 1994). This study enabled us to assess the relative costs and benefits of yes/no questions by asking the same questions of children for whom a transgression had not occurred. Furthermore, we uniquely tested whether yes/no questions could be made less suggestive and nevertheless remain productive by replacing explicit mention of the suspected transgression with

a generic reference to something bad. We worried that the something bad questions might be excessively vague, which could inflate false allegations, false denials, or both. They might increase false allegations because children could interpret innocuous events as negative. On the other hand, they might increase false denials because children would not view the breakage as truly "bad"; for example, a child might deny that something bad occurred because the toys could be fixed. However, the something bad questions were as effective as questions explicitly naming the transgression both with respect to eliciting true allegations and avoiding false allegations.

As we noted in the introduction, practitioners are routinely advised that if they ask yes/no or other closed-ended questions, they should pair them with recall follow-up questions so as to reduce suggestiveness (Brown & Lamb, 2015). Surprisingly, the efficacy of this method has never been assessed. Although the small number of false yes responses limited our power to conduct extensive analyses, we found support for pairing insofar as it enabled many children to clarify their responses through elaboration.

Limitations and Future Directions

Of course, disclosing abuse is vastly different than disclosing toy breakage by a confederate. Abuse is far more serious, as are the pressures on children to disclose or fail to disclose. Moreover, perpetrators are likely to be someone close to the child, such as a parent, rather than a stranger. At the same time, the broken toy paradigm was developed to simulate some of the pressures that children encounter in disclosing abuse. Children participated in an interaction that was initially positive and engaging, but which resulted in a transgression in which they were jointly implicated, and which they were admonished to conceal. Perpetrators of sexual abuse routinely seduce children through initially positive interactions (Leclerc, Proulx, & Beauregard, 2009). Victims of sexual and physical abuse commonly refer to their fears of being blamed and their positive feelings for the perpetrator as barriers to disclosure (Anderson et al., 1993; Hershkowitz, Lanes, & Lamb, 2007). Moreover, we recruited children who had suffered maltreatment (and demographically comparable nonmaltreated children) and thus were able to test whether maltreated children respond similarly to the interview manipulations.

Participants were questioned using interview methods recommended to practitioners in the field, including narrative practice, free recall, and cued invitations (Lamb, Hershkowitz, Orbach, & Esplin, 2008). Notably, despite our best efforts, 25% of children maintained the secret throughout the procedure. The paradigm thus provides a test bed for means of maximizing true disclosures while minimizing false allegations. The ultimate test of any questioning method is in the field, but given the difficulty of establishing ground truth before children are questioned, it is essential to assess the likely costs and benefits of questioning methods in a controlled experimental setting before assessing them in practice.

Notably, we did not detect age effects, despite interviewing children from 4 to 9 years of age. The efficacy of the hypothetical putative confession relies on the ambiguity of the phrase “the man told me everything that happened;” for children who have experienced a transgression, it implies that the transgression has been disclosed, whereas for children who have not experienced a transgression, it has no negative implication. Because children’s ability to detect referential ambiguity undergoes substantial development during their school-age years (Beal & Flavell, 1984), older children might have seen through the instruction. However, there was no evidence that this occurred, and indeed no child questioned the interviewer about the contents of the confederate’s statement. Of course, still older children might recognize the ambiguity, thus undermining the instruction’s efficacy.

The hypothetical putative confession was worded to overcome objections that one should not tell children that suspects “told . . . everything that happened” if they did not in fact confess. Children are likely to subsequently learn that the suspect did not in fact confess and this may undermine the child’s trust in authority. One might object to the hypothetical putative confession on the grounds that children will misunderstand and still be misled. Future work can directly test how children react to various forms of the putative confession after being explicitly informed that a suspect did not in fact confess. In practice, interviewers might similarly inform children of the suspect’s actual statements after an interview in which some form of the putative confession is used. These statements would be considered suggestive if mentioned early in the interview, but in addition to eliminating any confusion, would enable the child to endorse or deny the suspect’s claims. The credibility of the child’s report could then be assessed in light of her original statements and her reactions to the suspect’s claims.

An additional limitation of the present study is the immediacy of the follow-up interview. Memory failures and motivations are surely affected by time, and future work should examine children’s responses after a delay. Moreover, intervening influences (such as pressures from interested adults) are obviously important to consider as well. It is not obvious how these influences will affect the costs and benefits of the interviewing methods studied here (but, see Rush et al., 2017, finding that intervening parental suggestiveness did not influence the effects of the putative confession). The something bad questions might be particularly problematic with long delays

between transgressions and interviews, since their potential ambiguity would be more problematic the more intervening events might be perceived negatively by the child.

Finally, this study was not able to determine whether the hypothetical putative confession and paired yes/no questions can do more than merely affect the likelihood of disclosure. Because of power concerns, we analyzed disclosure dichotomously, but of course an important issue is the amount and quality of information provided when children disclose. In this study, 12% of children who disclosed breakage in response to the free and cued recall questions only partially disclosed, that is, they disclosed breakage of only one of the two toys. With larger samples (and with more extensive questioning), future research can identify how improved interviewing methods might not only increase the likelihood of disclosure but increase the completeness of that disclosure. This is an important issue for practitioners, because field research has found that children’s disclosures of abuse often become more elaborate over time (Hershkowitz & Terner, 2007).

In sum, the results provide promising avenues for future research examining means of increasing true disclosures without increasing false reports. Presenting the putative confession as a hypothetical question provides opportunities for using it in a wider variety of situations, though interviewers must of course carefully weigh its dangers. Negatively valenced yes/no questions that do not explicitly mention the suspected transgression may selectively encourage children to disclose who have in fact experienced wrongdoing. Pairing affirmative yes/no questions with recall questions asking for elaboration may reduce the dangers of thoughtless or acquiescent yes responses.

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