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Children's Reasoning About Disclosing Adult Transgressions: Effects of Maltreatment, Child Age, and Adult Identity

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A total of two hundred ninety-nine 4- to 9-year-old maltreated and nonmaltreated children of comparable socioeconomic status and ethnicity judged whether children should or would disclose unspecified transgressions of adults (instigators) to other adults (recipients) in scenarios varying the identity of the instigator (stranger or parent), the identity of the recipient (parent, police, or teacher), and the severity of the transgression ("something really bad" or "something just a little bad"). Children endorsed more disclosure against stranger than parent instigators and less disclosure to teacher than parent and police recipients. The youngest maltreated children endorsed less disclosure than nonmaltreated children, but the opposite was true among the oldest children. Older maltreated children distinguished less than nonmaltreated children between parents and other types of instigators and recipients.

What happens when children witness adult transgressions? Do children believe that transgressions should be disclosed or do they believe that the acts should be kept secret? Are children's attitudes affected by adverse familial experiences? Do children's beliefs vary across age, different transgressor identities, types of transgressions, and the person to whom the transgression is reported? Although these questions are of considerable theoretical and practical interest, there is virtually no research examining the development of attitudes regarding

disclosure of adult transgressions. This study examined those attitudes among 4- to 9-year-old maltreated children and nonmaltreated children of comparable socioeconomic status and ethnicity.

Several lines of research are relevant to understanding children's emerging attitudes about disclosing adult transgressions: (a) children's disclosure of maltreatment and the effects of maltreatment on children's attitudes; (b) children's attitudes about disclosing the transgressions of others, typically peers; (c) children's attitudes about lying and children's honest and dishonest behavior; and d) children's attitudes about authority and the validity of authoritative demands. Each is discussed in turn. To facilitate comparisons across studies, we refer to persons who commit misdeeds and may encourage transgression secrecy as instigators, and those to whom the child might disclose transgressions as recipients.

Disclosure of Childhood Maltreatment

A real-world example of childhood disclosure of adult transgressions concerns the disclosure of child abuse, and a small but important body of

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research has examined the process of disclosure among child victims of abuse. Findings offer some insight into how the identity of the instigator and recipient may influence children's attitudes about disclosure and highlight the need to examine attitudes in both maltreated and nonmaltreated samples. Maltreated children are often instructed to keep abuse a secret (Bussey & Grimbeek, 1995; Lyon, 2002), and surveys of adults reporting that they were sexually abused as children have found that a majority report never having disclosed the abuse during childhood (Laumann, Gagnon, Michael, & Michaels, 1994).

For one, the relationship of the child to the instigator affects the likelihood that the child will disclose: Children are less likely to disclose abuse by parents than by strangers (London, Bruck, Wright, & Ceci, 2008; Lyon, 2010). Furthermore, parents (typically mothers) are usually the first recipients when children disclose abuse (Anderson, Martin, Mullen, Romans, & Herbison, 1993; Fleming, 1997), especially among children younger than 10 years of age (Hershkowitz, Lanes, & Lamb, 2007; Kogan, 2004). Parental support has been shown to have an effect on the likelihood that children report abuse (Lawson & Chaffin, 1992), delay reporting (Hershkowitz et al., 2007), or maintain their report over time (Malloy, Lyon, & Quas, 2007).

Abuse by parents is less likely than abuse by strangers to be reported to the police (Hanson, Resnick, Saunders, Kilpatrick, & Best, 1999). Indeed, disclosure of sexual abuse to any official authorities (e.g., police or social workers) is quite rare; respondents in adult surveys state that only about 10% of abuse was reported to authorities (Mullen, Martin, Anderson, Romans, & Herbison, 1993; Russell, 1983; Smith et al., 2000).

If these patterns reflect children's reasoning about disclosure, the findings suggest that children will endorse more disclosure of wrongdoing to parents than to the police or teachers, particularly when the instigator is another parent. However, the low rates of disclosure to authorities may reflect caretakers' attitudes about disclosure rather than children's, since caretakers are most likely to control the decision regarding whether to report the abuse. Indeed, the extent to which children disclose to parents rather than others may simply reflect children's dependency on their parents rather than a clear preference for their parents as recipients.

The attitudes of maltreated children are of special interest, given the importance of maltreatment disclosure and the potential that maltreatment itself affects children's attitudes about transgression

secrecy. Maltreated children have been found to make similar moral judgments as nonmaltreated children (Smetana, Daddis, et al., 1999; Smetana, Kelly, & Twentyman, 1984; Smetana, Toth, et al., 1999). For example, when asked about transgressions, both maltreated and nonmaltreated young children tended to classify moral violations (physical harm, psychological harm, or inequities in resources) as "very bad" and social conventional violations (disobeying school rules) as "a little bad" (Smetana et al., 1984). However, maltreated children are more likely to expect that others, including caretakers, will behave in unsupportive, rejecting, or punitive ways (Macfie et al., 1999; Shields, Ryan, & Cicchetti, 2001; Shipman & Zeman, 2001; Shipman, Zeman, Fitzgerald, & Swisher, 2003; Toth, Cicchetti, Macfie, Rogosch, & Maughan, 2000).

If children's expectations of the reactions of others affect their reasoning about disclosure, then maltreated children may reason differently about the disclosure of adult transgressions than nonmaltreated children. On the one hand, fears of the instigator and distrust of the recipient may make them less inclined to endorse disclosure in general. On the other hand, their negative attitudes about parents may make them less protective of parents and thus less likely to distinguish between stranger and parent instigators when endorsing disclosure.

Children's Age-Related Attitudes About Disclosing Transgressions

Although a few studies have examined children's developing attitudes about reporting wrongdoings, findings are inconsistent. Some research suggests that children are less likely to endorse disclosure of wrongdoing with age: Whereas most 5- to 6-year-olds endorsed disclosure, 8- to 10-year-olds were more inclined to endorse secrecy (Piaget, 1932; Watson & Valtin, 1997). Other research, however, suggests the opposite: increased disclosure endorsement with age. An unpublished study by Wilson and Pipe (reported in Pipe & Goodman, 1991) found that 9-year-olds were more likely to endorse disclosure of accidental breakage of a toy than 6-year-olds, and Rotenberg (1995) found some evidence that 9-year-olds were more likely than younger children to endorse disclosure of their own transgressions.

One reason for the variable results concerns the identity of the instigator. In studies finding decreased disclosure endorsement with age, the instigator was always a peer (either a brother, Piaget, 1932; or friend, Watson & Valtin, 1997). The

age-related decrease could be owing to increasing protectiveness of peers, akin to children's greater dependency on peer relationships as they approach adolescence (Buhrmester & Prager, 1995; Hunter & Youniss, 1982). In contrast, research that found increased endorsement of disclosure in this age range either left the instigator unspecified (Pipe & Goodman, 1991) or identified the child herself as the instigator (Rotenberg, 1995). Children might judge disclosure of adult transgressions quite differently. Similarly, the research has generally failed to vary the identity of the recipient. With the exception of Watson and Valtin (1997), who found that children were more likely to endorse disclosure to a mother than a friend, the identity of the recipient was either unspecified (e.g., "adults"; Rotenberg, 1995; Pipe & Goodman, 1991) or a parent (Piaget, 1932). Because children's attitudes may differ depending on the identity of the instigator and recipient, it is essential to evaluate the effects of such identities directly as well as in conjunction with children's age and maltreatment status.

Children's Attitudes About Obedience to Authority

Developmental changes in children's beliefs about obedience to authority may further influence their beliefs about disclosing transgressions. Young children, for example, may view disclosure of adult transgressions as an act of disobedience, particularly if the transgressor instructs them not to disclose. Piaget (1932) found evidence that before about 8 years of age, children are "moral realists" and believe that "any act that shows obedience to a rule or even to an adult, regardless of what he may command, is good" (p. 111). Subsequent research has questioned Piaget's conclusions, finding that children at all ages judge that authoritative adults cannot justly order children to engage in conduct that is clearly harmful to the child or others (Damon, 1977; Laupa & Turiel, 1986). The difference in results may partly be attributable to the types of conduct studied; whereas Piaget's scenarios concerned the principle of equality of duties (children sharing equally in chores), subsequent research has examined more serious transgressions, such as stealing (Damon, 1977) or physical fighting (Laupa & Turiel, 1986).

If children do not view secrecy about wrongdoing as unambiguously immoral, their attitudes may be more subject to authoritative commands. Indeed, when children as young as 4 have been questioned, nontrivial percentages will state that parents and teachers can order children to behave

immorally, both with respect to lying (Laupa, Turiel, & Cowan, 1995) and fighting (Laupa, 1994). Hence, if young children in particular view nondisclosure as deferential to authority, then one would expect these children to be more reluctant to endorse disclosure, whereas with age, children's disclosure endorsement should increase.

Children's Attitudes About Lying

In contrast to the scant research on children's attitudes about transgression secrecy, a substantial amount of research has examined children's attitudes about lying. By at least 4 years of age, children believe that lying is wrong (Bussey, 1992; Peterson, Peterson, & Seeto, 1983) and are more critical of lies that conceal transgressions than white lies (lies not intended to do harm; Bussey, 1999; Peterson et al., 1993), and these attitudes do not change with age. Maltreated children develop similar attitudes (Lyon & Dorado, 2008; Lyon & Saywitz, 1999), and there is some evidence that young maltreated children are more sensitive than nonmaltreated children to the wrongfulness of lying (Lyon, Carrick, & Quas, 2010).

However, most research to date has concerned children's attitudes about concealing self-transgressions or other children's wrongdoing. In one of the few studies that investigated children's attitudes about lying for adults, Wagland and Bussey (2005) asked 5- to 10-year-olds to predict whether a child witnessing an adult friend commit a transgression would lie to his or her father. Although children's predictions of honesty were influenced by whether the father reassured the child that punishment was not forthcoming or emphasized the advantages of telling the truth, children never showed a tendency to predict lying, even in scenarios in which the child was implicated in the wrongdoing, the adult friend warned against disclosure, and the father emphasized the fact that the child would be punished.

Wagland and Bussey (2005) did not vary the identity of the instigator or the recipient. The instigator was always an adult friend and the recipient was always the child's father. Yet, there are several reasons to suspect that instigator and recipient identities would play a role in influencing children's attitudes about lying. For one, children are more likely to lie for a parent than for a stranger (Tye, Amato, Honts, Devitt, & Peters, 1999). Instigator warnings increase children's willingness to lie (Bussey, 1993). Second, although recipient identity has not been manipulated, recipient actions can

increase honesty, such as by eliciting a promise to tell the truth (Lyon & Dorado, 2008; Lyon, Malloy, Quas, & Talwar, 2008; Talwar, Lee, Bala, & Lindsay, 2002, 2004), reassuring the child that disclosure will not get the child into trouble (Lyon & Dorado, 2008; Lyon et al., 2008), and discussing the importance of truthfulness (Huffman, Warren, & Larson, 1999; London & Nunez, 2002). Recipient identity may play a role in children's endorsement of transgression disclosure to the extent that children expect different reactions from different types of recipients.

However, it is unclear whether findings concerning children's honest and deceptive behavior are directly applicable to children's attitudes about transgression disclosure. Children may reason about secrecy differently than they reason about lying. Secrets, unlike lies, constitute omission of the truth rather than commission of a falsehood. Ethicists have noted that although one might maintain that lies are presumptively immoral, one cannot make the same claims about secrecy (Bok, 1982). Furthermore, research on children's lying behavior may not reflect children's reasoning: Children's behavior is likely the product of both deliberation about the morality of lying and the weighing of other factors (such as the likelihood of detection and punishment; Pipe & Wilson, 1994). Nevertheless, the research on children's attitudes about lying suggests that children will be more inclined to endorse disclosure of wrongdoing when the instigator is a stranger, and when the recipient is a person they trust, such as a parent.

Present Study

The purpose of this study was to examine maltreated and nonmaltreated children's attitudes about adult transgression secrecy. We presented 4- to 9-year-old children with and without a history of substantiated child maltreatment with scenarios involving one adult "instigator" (an adult wrongdoer who demands secrecy) and one adult "recipient" (an adult to whom the disclosure might be made). We varied the identity of the instigator (parent or stranger) and the identity of the recipient (parent, police, or teacher). We also varied the severity of the transgression, describing the adult's actions as "just a little bad" or "really bad." We left the acts unspecified to avoid variability in children's responses to specific factual scenarios, although, consistent with prior work (Smetana et al., 1984), we expected children to understand that the actions, particularly those that were "really

bad," constituted moral violations. Finally, we varied whether children were asked if the story child "should" or "would" disclose the wrongdoing, to uncover potential differences between judgments about the morality of disclosure (as revealed by what "should" occur) and attitudes about the actual likelihood of disclosure (as revealed by what "would" occur).

Several hypotheses were advanced. First, with respect to maltreatment, we hypothesized that maltreated children would endorse less disclosure overall than nonmaltreated children because of their expectation that adults are unsupportive. We also predicted maltreated children would discriminate less among different types of instigators and recipients because they would be less inclined to view parents as deserving of special consideration or trust. Second, given the inconsistent age differences in former studies, we tentatively predicted that older children would endorse more disclosure of adult transgressions than younger children because of children's diminishing deference to authority.

Third, with respect to the child's relationship to the instigator and recipient, we predicted that children would be more likely to endorse disclosure against strangers than parents, and more likely to endorse disclosure to parents than police and teachers. We also expected to see some evidence of keeping disclosure within the family (so that there would be an interaction between instigator and recipient: Parent-parent disclosure would be endorsed more often than parent-nonparent disclosure). Fourth, we expected children to endorse more disclosure when asked what the story child "should" do than when asked what the story child "would" do because the former would elicit children's moral judgments whereas the latter might elicit attitudes about behavior influenced by more than morality (such as consequences). Fifth, we expected children to endorse more disclosure when the transgression was described as "really bad" rather than "just a little bad" analogous to children's differentiation of white lies versus harmful lies (Bussey, 1999; Peterson et al., 1993), and of violations of social convention versus moral violations (Smetana et al., 1984).

Finally, we advanced several predictions concerning children's explanations for their responses concerning transgression disclosure. Specifically, we expected that, in general, children's explanations would track their patterns of disclosure endorsement. Accordingly, for children who endorsed disclosure, we predicted that there would be more

references to the instigator in the stranger than parent instigator stories (because the identity of the instigator would justify disclosure in the stranger stories) and the opposite pattern for children who endorsed nondisclosure. With respect to transgression severity, we expected that children who endorsed disclosure would mention the transgression more often when the transgression was "really bad" than when it was "just a little bad," and the opposite pattern for children who endorsed nondisclosure. We further expected that children would refer more often to the instigator's command (don't tell) when endorsing nondisclosure than when endorsing disclosure.

Method

Participants

The sample consisted of two hundred ninety-nine 4- to 9-year-old maltreated ($N = 153$) and nonmaltreated children ($N = 146$; $M = 6$ years 7 months, $SD = 1.71$; 54% girls). The sample was ethnically diverse (62% Latino, 27% African American, 6% Caucasian, 5% Other). The maltreated sample consisted of children substantiated as suffering from child 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 Law Center, which represents children in dependency proceedings. Children were not eligible if they were awaiting an adjudication hearing or a contested disposition hearing on the date of testing (because they might be asked to testify), if interpreter services were provided to their family and they were clearly incapable of communicating with the researchers in English, or if their attorney had objected to their participation. The nonmaltreated sample consisted of children recruited from schools serving predominantly low-income ethnic minority families in neighborhoods comparable to those from which most maltreated children were removed. Children in the nonmaltreated sample who were not in the custody of one or both parents were excluded because of the potential that they had been removed from their parent's care because of maltreatment.

Materials and Procedures

Rapport building. The experimenter first built rapport with the child using questions adapted

from those described in the National Institute of Child Health and Human Development Investigative Interview Protocol (Lamb, Hershkowitz, Orbach, & Esplin, 2008; Orbach et al., 2000). The child was asked about things he or she liked and did not like to do.

Disclosure vignettes. The experimenter read 20 brief vignettes (accompanied by pictures of characters) in which an adult (instigator) committed a misdeed and told a story child not to disclose. The story child was then depicted with a different adult (recipient) and the experimenter asked the child if the story child "should" or "would" tell the recipient what the instigator did, and then asked for an explanation. A sample vignette is:

Here is a boy. Here is his dad. His dad did something really bad. The dad says to the boy, "Don't tell." Now the boy is with his mom. Should the boy tell his mom what his dad did? Why?

The gender of the story child always matched the gender of the subject. Within subjects, the scenarios varied with respect to the instigator's identity (father, mother, or stranger, the latter defined as "someone [the story child] does not know"), the recipient's identity (father, mother, police officer, or teacher), and the severity of the wrongdoing ("really bad" or "just a little bad"). These were fully crossed except that there were no vignettes in which the instigator and the recipient were the same (e.g., no father instigator–father recipient vignettes). The order of scenario administration was counterbalanced. Half of the children heard vignettes asking what the story child "should" do and half heard vignettes asking what the story child "would" do.

Verbal ability. At the end of the procedure children were administered the Productive Vocabulary subsection of the Woodcock–Johnson Psycho-Educational Battery–Revised: Tests of Cognitive Ability (WJ–R; Woodcock & Johnson, 1989) to assess verbal ability.

Results

Comparability of Maltreated and Nonmaltreated Children

The maltreated and nonmaltreated children were comparable in age (maltreated: $M = 6$ years 8 months, $SD = 1.60$; nonmaltreated: $M = 6$ years 5 months, $SD = 1.81$), $t(297) = 1.30$, $p = .165$; gender composition, $\chi^2(1) = 0.103$, $p = .748$; and productive

vocabulary as assessed by the Woodcock–Johnson (maltreated: $M = 23.92$, $SD = 4.0$, mental age equivalent = 5 years 7 months; nonmaltreated: $M = 24.15$, $SD = 4.0$, mental age equivalent = 5 years 8 months), $t(285) = 0.49$, $p = .627$. The maltreated and nonmaltreated children were also comparable in percentages of Latinos (maltreated: 64%, nonmaltreated: 59%), $\chi^2(1) = 0.84$, $p = .360$, and Caucasians (maltreated: 8%, nonmaltreated: 4%), $\chi^2(1) = 1.84$, $p = .175$. However, a somewhat lower percentage of maltreated children were African American (maltreated: 22%, nonmaltreated: 33%), $\chi^2(1) = 4.26$, $p = .039$.

Disclosure Endorsement

We first analyzed whether children endorsed disclosure or nondisclosure and then analyzed their explanations for their endorsement. Children received a 1 for a *yes* response (endorsing disclosure)

and a 0 for a *no* response (endorsing nondisclosure). Only 1% of responses were not codable as *yes* or *no* (*don't know*, unscorable). These are not considered further.

Preliminary analyses revealed no main effects or two-way interactions because of ethnicity, gender, or verbal ability, and these factors were excluded from subsequent analyses. Moreover, children did not discriminate between mother and father instigators or mother and father recipients. We thus collapsed across mothers and fathers to create mean scores for each child for parent instigator and parent recipient.

Omnibus analysis. The means across maltreatment status and age for instigator identity, recipient identity, and instigator–recipient scenario are presented in Tables 1 and 2. Preliminary analyses showed that the effects of the should–would (“should” the child tell vs. “would” the child tell) and transgression severity (“really bad” vs. “just a

Table 1
Proportions (SD) of Disclosure Endorsement to Different Instigators and Recipients, by Age and Maltreatment Status

	Instigator conditions		Recipient conditions			Grand mean
	Parent	Stranger	Police	Parent	Teacher	
4–5 years						
Maltreated	.53 (0.44)	.55 (0.42)	.56 (0.44)	.56 (0.44)	.54 (0.44)	.54 (0.43)
Nonmaltreated	.71 (0.34)	.77 (0.33)	.73 (0.35)	.76 (0.33)	.68 (0.35)	.73 (0.32)
6–7 years						
Maltreated	.54 (0.39)	.64 (0.41)	.63 (0.41)	.61 (0.41)	.49 (0.43)	.58 (0.38)
Nonmaltreated	.49 (0.39)	.62 (0.36)	.61 (0.39)	.63 (0.37)	.36 (0.39)	.54 (0.34)
8–9 years						
Maltreated	.60 (0.30)	.79 (0.26)	.74 (0.27)	.73 (0.30)	.53 (0.36)	.67 (0.26)
Nonmaltreated	.42 (0.34)	.77 (0.25)	.54 (0.30)	.67 (0.28)	.42 (0.32)	.56 (0.26)

Note. “Disclosure endorsement” refers to answering “yes” to “should s/he tell” or “would s/he tell.”

Table 2
Proportions (SD) of Disclosure Endorsement to Different Instigator–Recipient Pairs, by Age and Maltreatment Status

	Instigator–recipient pairs					
	Parent–police	Stranger–police	Parent–parent	Stranger–parent	Parent–teacher	Stranger–teacher
4–5 years						
Maltreated	.56 (0.45)	.56 (0.46)	.54 (0.47)	.54 (0.44)	.49 (0.44)	.57 (0.46)
Nonmaltreated	.71 (0.39)	.77 (0.36)	.75 (0.38)	.80 (0.34)	.66 (0.38)	.69 (0.36)
6–7 years						
Maltreated	.60 (0.42)	.67 (0.44)	.57 (0.43)	.66 (0.43)	.46 (0.44)	.56 (0.47)
Nonmaltreated	.53 (0.43)	.76 (0.40)	.57 (0.43)	.68 (0.40)	.36 (0.43)	.37 (0.47)
8–9 years						
Maltreated	.66 (0.36)	.91 (0.24)	.70 (0.36)	.76 (0.34)	.44 (0.42)	.72 (0.38)
Nonmaltreated	.38 (0.40)	.86 (0.30)	.56 (0.38)	.80 (0.28)	.32 (0.37)	.62 (0.40)

Note. “Disclosure endorsement” refers to answering “yes” to “should s/he tell” or “would s/he tell.”

little bad") manipulations were limited to specific age groups, and those effects are discussed next. To test the study's main hypotheses, we conducted a 2 (maltreatment) \times 3 (age: 4–5, 6–7, 8–9) \times 2 (instigator: parent, stranger) \times 3 (recipient: parent, police officer, teacher) mixed model analysis of variance (ANOVA).

Two significant main effects emerged: instigator, $F(1, 292) = 79.77, p < .001$, partial $\eta^2 = .22$, and recipient, $F(2, 292) = 58.86, p < .001$, partial $\eta^2 = .22$. Children endorsed lower rates of disclosure against parents ($M = 0.55, SD = 0.37$) than strangers ($M = 0.69, SD = 0.35$), and endorsed lower rates of disclosure to teachers ($M = 0.50, SD = 0.39$) than parents ($M = 0.67, SD = 0.36$) or the police ($M = 0.64, SD = 0.37$).

The effects of maltreatment and age were not significant, but several significant interactions emerged involving these variables. Specifically, maltreatment interacted with age, $F(2, 292) = 5.65, p = .004$, partial $\eta^2 = .04$; instigator, $F(1, 292) = 4.15, p = .043$, partial $\eta^2 = .01$; and recipient, $F(2, 292) = 5.17, p = .006$, partial $\eta^2 = .02$. Similarly, age interacted with instigator, $F(2, 292) = 23.21, p < .001$, partial $\eta^2 = .14$, and recipient, $F(4, 292) = 6.51, p < .001$, partial $\eta^2 = .04$. The two-way instigator and recipient interaction, reflecting differences across the six scenarios, was significant, $F(4, 584) = 7.69, p = .001$, partial $\eta^2 = .03$, as were the Instigator \times Recipient \times Maltreatment interaction, $F(2, 584) = 10.05, p < .001$, partial $\eta^2 = .03$, and the Instigator \times Recipient \times Age interaction, $F(4, 584) = 5.72, p < .001$, partial $\eta^2 = .04$.

To interpret these interactions, we examined age effects for maltreated and nonmaltreated children across the different instigator–recipient pairs, conducting one-way ANOVAs with age as the between-subjects factor. To reduce the likelihood of Type I errors, we used the Bonferroni correction (for 12 analyses) and set the critical p value at .004. For the maltreated children, only one type of story showed an age effect: Older children were *more* likely with age to endorse disclosure in the stranger–police scenarios, $F(2, 150) = 11.43, p < .001$, partial $\eta^2 = .13$. For the nonmaltreated children, older children were *less* likely to endorse disclosure in the parent–parent scenarios, $F(2, 143) = 9.64, p < .001$, partial $\eta^2 = .12$, and the parent–police scenarios, $F(2, 143) = 9.73, p < .001$, partial $\eta^2 = .12$. The nonmaltreated children also exhibited age effects for the parent–teacher scenarios, $F(2, 143) = 12.29, p < .001$, partial $\eta^2 = .15$, and stranger–teacher scenarios, $F(2, 143) = 7.59, p = .001$, partial $\eta^2 = .10$, which were attributable

to decreases in disclosure endorsement to teachers by 6–7 years of age (a trend that was reversed in the stranger–teacher scenarios among the oldest children).

To summarize, children endorsed less disclosure against parent instigators than against stranger instigators, consistent with our predictions. Unexpectedly, children endorsed less disclosure to teachers than to either parents or the police. Neither maltreatment nor age had straightforward effects. Rather, maltreated children changed little in their endorsement of disclosure with age, except that they endorsed more disclosure with age in the stranger–police scenarios. Nonmaltreated children showed some evidence of decreased endorsement of disclosure with age, particularly when parents were instigators. To further understand the different patterns because of maltreatment status and age, we separately analyzed each age group.

Within age effects: 4- to 5-year-olds. Preliminary analyses revealed that the should–would manipulation ("should" the child tell vs. "would" the child tell) affected children's responses at this age. A 2 (maltreatment) \times 2 (instigator) \times 3 (recipient) \times 2 (should–would) ANOVA revealed significant effects of maltreatment, $F(1, 92) = 6.72, p = .011$, partial $\eta^2 = .07$; instigator, $F(1, 92) = 4.48, p = .04$, partial $\eta^2 = .05$; and recipient, $F(1, 184) = 4.61, p = .011$, partial $\eta^2 = .05$, and an interaction between should–would and instigator, $F(1, 92) = 11.42, p < .001$, partial $\eta^2 = .11$.

The main effect because of maltreatment was attributable to the fact that maltreated children ($M = 0.54, SD = 0.43$) endorsed lower rates of disclosure than nonmaltreated children ($M = 0.73, SD = 0.32$), $t(95) = 2.58, p = .011$. The main effect of instigator was because of children's greater endorsement of disclosure against strangers ($M = 0.66, SD = 0.39$) than parents ($M = 0.63, SD = 0.40$). This effect was qualified, however, by the interaction between instigator and should–would. It was only when asked what the child "would" do that children endorsed more disclosure against strangers ($M = 0.66, SD = 0.37$) than against parents ($M = 0.55, SD = 0.40$), $t(45) = 3.35, p = .002$. When asked what the child "should" do, children were equally likely to endorse disclosure against strangers ($M = 0.67, SD = 0.40$) as against parents ($M = 0.69, SD = 0.39$), $t(50) = 1.30, p = .201$. The main effect because of recipient was attributable to lower rates of endorsed disclosure to teachers ($M = 0.60, SD = 0.40$) than parents ($M = 0.66, SD = 0.40$), $t(96) = 3.36, p = .001$, or the police ($M = 0.65, SD = 0.40$), $t(96) = 2.30, p = .024$.

Together, these results suggest that, among the youngest children, nonmaltreated children endorsed more disclosure than maltreated children. Children endorsed more disclosure against stranger instigators than against parent instigators when asked what the story child "would" do but not when asked what the story child "should" do. Finally, children endorsed less disclosure to teachers than to police or parents.

6- to 7-year-olds. A 2 (maltreatment) \times 2 (instigator) \times 3 (recipient) ANOVA revealed significant main effects because of instigator, $F(1, 91) = 14.17$, $p < .001$, partial $\eta^2 = .13$; recipient, $F(1, 182) = 29.06$, $p < .001$, partial $\eta^2 = .24$; and an interaction between instigator and recipient, $F(2, 182) = 2.99$, $p = .053$, partial $\eta^2 = .03$. Maltreatment did not exhibit a main effect but interacted with recipient, $F(2, 186) = 4.53$, $p = .012$, partial $\eta^2 = .05$, and there was a three-way interaction among maltreatment, instigator, and recipient, $F(2, 186) = 5.23$, $p = .006$, partial $\eta^2 = .05$. To understand the interactions, we analyzed the different pairings of instigator and recipient separately (Table 2).

We had predicted that maltreated children would be less inclined than nonmaltreated children to protect parents as instigators or prefer parents as recipients. Therefore, we conducted a series of within-subject t tests in which we focused on comparisons between parents and nonparents. We first compared instigators (parents vs. strangers) for each type of recipient (parent, police, or teacher), and then compared recipients (parents vs. police) for each type of instigator (parent or stranger). Given the number of analyses (10), we adjusted the critical p value (.005). When the recipient was a police officer, only nonmaltreated children distinguished between parent and stranger transgressors, endorsing less disclosure against parents, $t(41) = 4.16$, $p < .001$. None of the other comparisons between parent and stranger instigators were significant (parent vs. strangers-teachers or parent vs. strangers-parents). Neither group of children exhibited a preference for parent over police recipients.

These results reveal that the 6- to 7-year-olds were, in some respects, similar to the younger children, endorsing more disclosure against strangers than against parents. However, there were no longer overall differences in endorsement of disclosure between nonmaltreated and maltreated children. Instead, nonmaltreated children began to discriminate more than maltreated children between parent and stranger instigators when talking to the police.

8- to 9-year-olds. Preliminary analyses revealed that the severity of the transgression ("really bad" vs. "just a little bad") affected children's responses at this age. Therefore, we conducted a 2 (maltreatment) \times 2 (instigator) \times 3 (recipient) \times 2 (transgression severity) ANOVA. There were significant main effects of instigator, $F(1, 103) = 79.18$, $p < .001$, partial $\eta^2 = .44$, and recipient, $F(2, 206) = 26.33$, $p < .001$, partial $\eta^2 = .20$, and an interaction between instigator and recipient $F(2, 206) = 12.26$, $p < .001$, partial $\eta^2 = .11$. There were also main effects because of the severity of the transgression, $F(1, 103) = 18.06$, $p < .001$, partial $\eta^2 = .15$, and maltreatment status, $F(1, 103) = 5.32$, $p = .023$, partial $\eta^2 = .05$. The main effect for transgression severity was attributed to greater disclosure endorsement in response to "really bad" ($M = 0.66$, $SD = 0.27$) than "just a little bad" ($M = 0.57$, $SD = 0.29$) transgressions.

The main effect for maltreatment status reflected greater endorsement of disclosure among the maltreated children (Table 1). However, there was a three-way interaction among maltreatment, instigator, and recipient, $F(2, 206) = 4.07$, $p = .018$, partial $\eta^2 = .04$. Similar to the previous age group, we sought to understand the interactions by analyzing the different pairings of instigator and recipient separately, focusing on differences between parents and strangers as instigators and parents and police as recipients (Table 2). Again, because of multiple tests (10), the critical p value was set at .005.

When talking to the police, both maltreated and nonmaltreated children endorsed more disclosure against strangers than against parents—maltreated, $t(54) = 4.89$, $p < .001$, and nonmaltreated, $t(51) = 7.59$, $p < .001$ —although the differences were larger for the nonmaltreated children. However, when talking to parents, only the nonmaltreated children were less likely to disclose against parents than against strangers: maltreated, $t(54) = 1.35$, $p = .183$, and nonmaltreated, $t(51) = 4.67$, $p < .001$. When deciding whether to disclose parental transgressions, only the nonmaltreated children preferred parent recipients to police recipients, $t(51) = 7.59$, $p < .001$. In contrast, when deciding whether to disclose stranger transgressions, only the maltreated children preferred police recipients over parent recipients: maltreated, $t(54) = 2.93$, $p = .005$, and nonmaltreated, $t(51) = 1.41$, $p = .17$.

To summarize the performance of the oldest children, they were the first to make distinctions on the basis of transgression severity ("just a little bad" vs. "really bad"). The maltreated and nonmaltreated children exhibited differences in their reactions

to different instigator–recipient pairs, with the maltreated children sometimes exhibiting less deference to parental instigators and less preference for parental recipients than nonmaltreated children. Although both groups of children were more likely to endorse disclosure against strangers than against parents when talking to the police, the maltreated children were just as likely to endorse disclosure against parents as against strangers when another parent was the recipient. Finally, it is at 8–9 years of age when children first exhibited preferences for certain recipients given certain instigators. The nonmaltreated children preferred parent recipients when reporting on parent instigators, and the maltreated children preferred police recipients when reporting on stranger instigators. Hence, there was some evidence that the maltreated children were less deferential than nonmaltreated children to parental instigators and less likely to prefer parents as recipients.

Explanations

After children endorsed disclosure or nondisclosure, they were asked “why.” We reliably coded children’s explanations for whether they referred to various components of the scenarios, with the goal of identifying potentially significant concepts that could explain whether they selected disclosure or nondisclosure. Four primary categories were identified and children’s responses could fall into more than one category: (a) instigator (e.g., “[Instigator] did not want him to tell”), (b) recipient (e.g., “[Recipient] will be able to solve it”), (c) transgression (e.g., “It’s nothing important”), and (d) command (e.g., “[Instigator] said, ‘Don’t tell’”). We also coded for any reference to promising or secrecy, or to truth and lies to determine if children appeared to equate the scenarios with situations in which a child promises to keep a secret or lies. There were four coders (one gold standard coder and three research assistants). Based on 200 explanations, interrater agreement between the gold standard coder and the research assistants was 96%, with all Kappas exceeding .88. Discrepancies during the reliability coding were resolved through discussion.

We expected children’s explanations to vary depending on scenario type and whether the child endorsed disclosure (i.e., answered “yes” or “no”). Because some children provided a mix of yes and no responses about disclosure to the different scenarios, whereas other children consistently responded “yes” or “no,” the responses could not

be appropriately analyzed either as between subjects or repeated measures; we therefore utilized a modified version of the *t* test that allows adjustment for the extent to which some responses are correlated within subjects (Looney & Jones, 2003).

We anticipated that whether children mentioned the instigator would depend on whether a stranger or a parent was the instigator and whether the child endorsed disclosure. We hypothesized that children who endorsed disclosure would reference the instigator more often in the stranger than parent instigator stories (because the identity of the instigator would justify disclosure in the stranger stories). This prediction was supported (corrected: $z = 4.04$, $p < .001$; stranger: $M = 0.67$, $SD = 0.34$; parent: $M = 0.60$, $SD = 0.35$). We expected that children who endorsed nondisclosure should reference the instigator more often in the parent than stranger instigator stories (because the identity of the instigator would justify nondisclosure in the parent stories). This prediction was also supported (corrected: $z = 2.34$, $p = .001$; stranger instigator: $M = 0.51$, $SD = 0.44$; parent: $M = 0.58$, $SD = 0.39$).

With respect to the mention of transgression, we expected that, if children endorsed disclosure, they would mention the transgression more often when the transgression was “really bad” than when it was “just a little bad.” This prediction was not supported (corrected: $z = .54$, $p = .29$; really bad: $M = 0.33$, $SD = 0.36$; little bad: $M = 0.32$, $SD = 0.34$). If children endorsed nondisclosure, we expected the opposite; they would mention the transgression more often when the transgression was “just a little bad” than when it was “really bad.” This prediction was also not supported (corrected: $z = .40$, $p = .66$; really bad: $M = 0.10$, $SD = 0.25$; little bad: $M = 0.10$, $SD = 0.22$).

Finally, with reference to the command category (in which children referred to the admonishment “don’t tell”), we expected that this reference would occur more often when children endorsed nondisclosure than when they endorsed disclosure. This prediction was not supported, although the difference approached statistical significance (corrected: $z = 1.38$, $p = .08$; yes responses: $M = 0.08$, $SD = 0.22$; no responses: $M = 0.37$, $SD = 0.35$). Children only very rarely referred to promises or secrets (yes responses: $M = 0.02$, $SD = 0.09$; no responses: $M = 0.06$, $SD = 0.20$) or to truth and lies (yes responses: $M = 0.02$, $SD = 0.08$; no responses: $M = 0.01$, $SD = 0.07$).

The unexpected finding that children were less likely to endorse disclosure to teachers (noted

earlier) led us to examine whether children who endorsed disclosure referenced the recipient more often in their explanations in the parent and police recipient stories than in the teacher recipient stories (because the identity of the recipient would justify disclosure in the parent and police stories), and whether children who endorsed nondisclosure would reference the recipient more often in the teacher recipient stories. No differences emerged in how often children who endorsed disclosure mentioned the recipient (corrected: $z = 1.17$, $p = .12$; parent/police: $M = 0.45$, $SD = 0.39$; teacher: $M = 0.47$, $SD = 0.41$). However, children who endorsed nondisclosure referred more often to the teacher recipient than to the parent or police recipient (corrected: $z = 3.01$, $p = .001$; parent/police: $M = 0.31$, $SD = 0.40$; teacher: $M = 0.41$, $SD = 0.39$).

In sum, some of our predictions with respect to explanations were borne out, especially when children endorsed nondisclosure (i.e., answered "no" to "should-would [the story child] tell"). Children distinguished between stranger and parent instigators in their reasoning about disclosure, and when endorsing nondisclosure, children distinguished between teachers and other recipients. Children only very rarely referred to promises or truth and lies, providing little evidence that they interpreted nondisclosure as a lie or the violation of a promise.

Discussion

This is the first study to examine maltreated and nonmaltreated children's attitudes about disclosure of adult transgressions varying the relationship of child to instigator (a transgressor who commands secrecy) and to recipient (an adult to whom the child might disclose). We examined a wide age range (4–9 years of age) and compared maltreated children to demographically similar nonmaltreated children. Our findings revealed that children's judgments were related to age and maltreatment in important ways. Moreover, the identity of the instigator and recipient affected children's willingness to endorse disclosure of adult transgressions. Each is discussed in turn.

Age and Maltreatment

Our inclusion of a wide age range and children with diverse maltreatment histories enabled us to consider developmental and experiential contributions to children's attitudes about transgression dis-

closure. We anticipated that children would be more inclined to endorse disclosure with age. Research on children's attitudes about obedience to authority suggests that unless a commanded act is unambiguously immoral, younger children tend to be more deferential than older children to authority (Laupa, 1994; Laupa, et al., 1995; Piaget, 1932). We thought that young children in particular would respond to the stories as if the instigator's admonition (don't tell) was an authoritative command, reducing their likelihood of endorsing disclosure. With respect to maltreatment, we suspected that maltreated children would anticipate more negative instigator reactions (and less supportive recipient reactions) and therefore endorse less disclosure overall. Across different instigators and recipients, we expected that maltreated children would be less inclined than nonmaltreated children to protect parents as instigators or prefer parents as recipients.

The results revealed that it was necessary to consider the effects of age and maltreatment together. The youngest maltreated children did in fact endorse less disclosure than the nonmaltreated children, but this difference disappeared among the 6- to 7-year-olds and was reversed among the 8- to 9-year-olds. Examining age differences within the two groups revealed that with respect to talking to the police, the maltreated and nonmaltreated children exhibited opposite age trends. The maltreated children were more inclined with age to disclose stranger transgressions. The nonmaltreated children, however, grew increasingly protective of parental instigators. As a result, older maltreated children were sometimes less likely than nonmaltreated children to distinguish between parents and strangers when deciding whether or not to endorse disclosure.

The finding that nonmaltreated children endorsed less disclosure against parent instigators with age appears most similar to findings that children over this age range endorse less disclosure when peers commit transgressions (Piaget, 1932; Watson & Valtin, 1997). Our findings suggest that attitudes about secrecy apply to child-parent relationships as well as child-peer relationships. The maltreatment differences may mirror findings that maltreated children have less faith in the supportiveness of parents than nonmaltreated children (Macfie et al., 1999; Shields et al., 2001; Shipman & Zeman, 2001; Shipman et al., 2003; Toth et al., 2000), which might explain why older maltreated children are not more protective of parent instigators than younger children.

Instigator Identity

Consistent with our prediction, children were less likely to endorse disclosure when the instigator was a parent rather than a stranger, and this pattern was confirmed by children's explanations. Even the 4- to 5-year-olds distinguished between parents and strangers, although these young children only endorsed less disclosure against a parent instigator when asked what a story child "would" rather than "should" do. This suggests that the youngest children were aware that disclosure is *less* likely against parents, whereas by 6–7 years of age, children both respond that one "would" and "should" disclose less against parents. Less endorsement of disclosure against parents is consistent with research examining children's actual disclosure of transgressions, both in experimental work on children's lies (Tye et al., 1999) and in observational research examining patterns of sexual abuse disclosure (Hanson et al., 1999; London et al., 2008; Lyon, 2009). Ours is the first study to demonstrate that these patterns are also reflected in children's attitudes.

Recipient Identity

The identity of the individual to whom the story child may disclose also affected children's responses, although in unexpected ways. Children endorsed less disclosure to teachers, and when they endorsed nondisclosure, they referred to the recipient more often in teacher recipient vignettes than when the recipient was a parent or the police. We suspect this is attributable to children's lacking understanding of the potential role of teachers in intervention; children may not be aware, for example, that teachers are mandated reporters of child abuse.

We predicted that children would generally be more inclined to endorse disclosure when the parent was a recipient. This prediction was not supported. Rather, preference for parental recipients emerged only in some scenarios and only among the oldest children. Moreover, this preference was limited to the nonmaltreated children, whereas maltreated children sometimes exhibited a preference for police recipients. The differences might reflect a relative lack of trust in parents among maltreated children.

Severity of the Transgression

Very few significant effects emerged regarding transgression severity. In fact, children did not take

the severity of the transgression into account until they were 8–9 years of age. On the one hand, this may reflect the relative importance of instigators and recipients in children's judgments about transgression secrecy. On the other hand, it may be the case that children are influenced by the types of transgressions but that they require specific examples of those transgressions to make their judgments. In the future, it will be important to examine, using specific transgressions that vary in severity, whether and at what age children take severity into account when rendering decisions about disclosure.

Limitations

Although the findings reported here are novel and provide new insight into the combined effects of instigator and recipient relationships on maltreated and nonmaltreated children's emerging attitudes about transgression disclosure, limitations must also be acknowledged.

As a result of our interest in examining the relation between maltreatment and children's attitudes and because the research was located in a large urban area, our maltreated sample and comparable nonmaltreated sample were predominantly low income and of ethnic minority status. In contrast, prior research on children's attitudes about secrecy has tended to examine the attitudes of Caucasian children from middle- and upper-middle-class homes. Given the fact that this is the first study to examine children's attitudes about disclosure of adult transgressions, research is needed to examine whether the developmental differences observed here replicate more generally.

It might be the case, for example, that children with different backgrounds develop different attitudes about authority figures (e.g., police and teachers), and this could have influenced their judgments in the scenarios in which authority figures were the potential recipients. Indeed, there is considerable evidence that adolescents of ethnic minority status, particularly in low-income communities, tend to endorse negative attitudes about the police (Hurst & Frank, 2000; Sullivan, Dunham, & Alpert, 1987; Taylor, Turner, Esbensen, & Winfree, 2001) and that adolescents who endorse less positive attitudes toward the police also tend to endorse less positive attitudes toward other adults, including teachers and parents (Flexon, Lurigio, & Greenleaf, 2009; Nihart, Lersch, Sellers, & Mieczkowski, 2005).

However, there are hints in this research that participants in our study were less likely to be

influenced by such attitudes. For one, we examined attitudes among elementary-aged children, a population that is not represented in the authority attitudinal research. The little developmental research that has been conducted suggests that the negative attitudes emerge as children move from preadolescence to adolescence. This may be because it is during adolescence when young people begin to attract the notice of police as potential suspects (Fagan & Tyler, 2005). Second, research on adolescents' attitudes tends to find that Latinos express less negative attitudes than African Americans (Sullivan et al., 1987; Taylor et al., 2001), and yet we found no ethnic differences in our sample. The dynamics between children's willingness to disclose to the police and other authorities in relation to children's attitudes about these professionals is clearly of interest in its own right and worthy of continued research.

Another limitation is that the scenarios did not specify what the adult instigator did; rather, we referred to the actions as "just a little bad" or "really bad." Scenarios were designed to leave the acts unspecified; this was because our primary interest was how children reasoned about disclosure given different instigators and recipients. We do not know whether children imagined specific content, and if so, what sort of actions they imagined. For example, children may have imagined moral acts of varying severity or as violations of social conventions. Of importance, however, several aspects of the task suggested that the transgressions reflected immoral acts. For one, the instigator gave the admonition "don't tell" to the child protagonist in every vignette and the police were included as potential recipients in a quarter of the vignettes (and, by the early school years, a majority of both maltreated and nonmaltreated children have at least a rudimentary understanding of the function of police; Cooper, Quas, Wallin, & Lyon, 2010). Also, prior work suggests that describing acts as "really bad," as was done in the current study, strongly connotes immoral behavior (Smetana et al., 1984). Future research can profitably explore whether children's attitudes about disclosure are in fact affected by the specific type of transgression. For example, we would predict that children will endorse disclosure of a peer's moral violation much more readily than they will endorse disclosure of a peer's violation of social conventions.

On a related note, differences in children's attitudes might have been attributed to children making different assumptions about the actions that different instigators performed. This seems

unlikely, because transgression severity had minimal effects, both in terms of children's overall disclosure endorsements and their explanations for their responses. For example, children's explanations often included mention of identities of instigators and recipients without any mention of the transgression. If children were relatively insensitive to our explicit references to severity, one would not expect children to infer different actions that were described in an identical fashion across scenarios. Nevertheless, to address this concern future research could provide children more specific information about the transgressions in issue or inquire into children's assumptions about the transgressions that occurred.

Whether children's reasoning about the vignettes truly captures their reasoning with respect to their own decision making is of course subject to question, a problem that Piaget (1932) long ago recognized when questioning children about their moral judgments. One way to test this is to examine whether individual differences in children's reasoning predict differences in disclosure behavior. Research examining relations between children's attitudes about the morality of lying and honesty has tended to find low correlations (London & Nunez, 2002; Lyon, et al., 2008; Pipe & Wilson, 1994; Talwar et al., 2002). However, no research has examined the possible relation between children's attitudes about secrecy and their failure to volunteer information, as opposed to their attitudes about and proclivity toward lying. Examining individual differences in children's attitudes about transgression secrecy is also of interest in its own right; one could move toward understanding the underlying reasons for children's distinctions by searching for relations between children's attitudes about disclosure and other attitudes, such as the aforementioned trust in adults.

Future Directions

In examining children's attitudes about transgression disclosure, this study focused exclusively on adult instigators, given their obvious relevance to child maltreatment. But because the results suggest that nonmaltreated children's increasing protectiveness of their parents may parallel their attitudes about peers, future research should include both adult and peer instigators. Similarly, our assumptions that the patterns of disclosure endorsement are related to trust in adults, with trust in an instigator leading to less disclosure endorsement against that instigator and with trust

in a recipient leading to greater disclosure endorsement to that confidant, are worthy of direct test. Although researchers have not explored the relation between trust and secrecy with respect to young children's relationship to their parents, researchers examining developing conceptions of friendship have noted such a connection (Rotenberg, 1991). Future work could explicitly test for links among children's expectations of adult supportiveness, adult reactions to disclosure, and their disclosure endorsement, and determine whether these links vary between maltreated and nonmaltreated children.

Future research might also assess the influence of other factors on children's attitudes about transgression disclosure. In this study, the instigator in the vignettes instructed the child not to tell. Whether this influenced children's judgments is unclear. If children based their judgments on their trust in the different adults involved, rather than fear of retribution, then the admonition may not have had an effect. Conversely, stronger language by the instigator might affect children's judgments. For example, explicit threats of punishment (or, in the case of parents, loss of love) might have an effect, as might explicit requests to keep the transgression a secret, or elicitation of a promise by the story child not to disclose. At the same time, it would be interesting to assess children's attitudes about various approaches that recipients might take to encourage disclosure.

Finally, future research with maltreated children might attempt to tease apart whether specific aspects of maltreatment influence children's judgments about transgression disclosure, including, for example, the effects of severity or type of maltreatment, children's relationship to the perpetrator, and the possibly confounding effects of state intervention. One might, for example, interpret the finding in our study that older maltreated children endorse more disclosure than nonmaltreated children as reassuring, because it suggests that children who experience maltreatment do not think that transgressions should be kept a secret. However, the maltreated children in this study were of necessity those children who had been identified as such by the state, and were extreme cases of maltreatment because the children had been removed from their parents' custody. It may be that children who suffer from isolated types of maltreatment (such as sexual abuse in an otherwise non-neglectful and nonabusive home) maintain positive attitudes toward transgression secrecy.

In conclusion, this study provides a first step toward an understanding of how children reason about disclosing the wrongdoing of adults, particularly those close to them. Theoretically, the findings contribute to our understanding of children's developing attitudes about the effect of social relationships on secrecy and the effects that adverse experiences may have on those attitudes. Practically, the results suggest that children's deference to parents may be a double-edged sword. Protectiveness of parents is surely a virtuous trait. In extreme circumstances, however, it may hinder society's ability to help children whose trust is misplaced.

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