Journal of Applied Developmental Psychology 43 (2016) 1–7

Contents lists available at ScienceDirect

Journal of Applied Developmental Psychology

Valence, implicated actor, and children's acquiescence to false suggestions

Kyndra C. Cleveland [a,*], Jodi A. Quas [b,1], Thomas D. Lyon [c,2]

[a] 4201 Social & Behavioral Sciences Gateway, University of California, Irvine, Irvine, CA 92697-7085, United States
[b] 4328 Social & Behavioral Sciences Gateway, University of California, Irvine, Irvine, CA 92697-7085, United States
[c] University of Southern California, 699 Exposition Boulevard, Los Angeles, CA 90089, United States

ARTICLE INFO

Article history:
Received 2 November 2014
Received in revised form 17 November 2015
Accepted 11 December 2015
Available online 7 January 2016

Keywords:
Valence
Suggestibility
Acquiescence
Selective reinforcement
Interviewer bias
Children

ABSTRACT

Although adverse effects of suggestive interviewing on children's accuracy are well documented, it remains unclear as to whether these effects vary depending on the valence of and the actor implicated in suggestions. In this study, 124 3-8-year-olds participated in a classroom activity and were later questioned about positive and negative false details. The interviewer provided positive reinforcement when children acquiesced to suggestions and negative feedback when they did not. Following reinforcement or feedback, young children were comparably suggestible for positive and negative details. With age, resistance to suggestions about negative details emerged first, followed by resistance to suggestions about positive details. Across age, more negative feedback was required to induce acquiescence to negative than positive false details. Finally, children were less willing to acquiesce when they (versus the confederate) were implicated. Findings highlight the interactive effects of valence and children's age on their eyewitness performance in suggestive contexts.

During the past several decades, an impressive body of research has emerged concerning children's memory, suggestibility, and propensity toward false reports. Among the most consistent findings, in addition to age-related improvements in accuracy, is the powerful effect of interviewers' suggestions on children's performance (Bruck & Ceci, 1999; Cassel, Roebers, & Bjorklund, 1996; Lamb, La Rooy, Malloy, & Katz, 2011; Poole & Lindsay, 1995). What remains less well documented, however, is how the content of those suggestions influences children's errors.

We contend that both the valence of a falsely suggested act (i.e., whether the act could be construed as positive or negative) and whether the child or someone else is implicated in the act influence the likelihood of children's acquiescence. Abuse experiences – or portions thereof – often involve negative acts most often perceived of as undesirable. Children, especially those who are young and who lack complex understanding of the dynamics of the abuse, may feel complicit in those acts (Anderson, Martin, Mullen, Romans, & Herbison, 1993; Hazzard, Celano, Gould, Lawry, & Webb, 1995; Quas, Goodman, & Jones, 2003). Scientific research, however, has often focused on how interviewer's suggestions about positive, desirable acts affect children's acquiescence. As we describe here, there are both theoretical and empirical reasons to suspect that the valence of falsely suggested acts, as well as who is allegedly complicit in those acts, will directly influence how easily children of different ages can be led to acquiescence. We tested these possibilities in the present research. Before describing our study, we review relevant theory and research concerning interviewer suggestion, event valence, implicated actor, and children's developmental level.

Interviewer suggestion

A contemporary development in the field of children's eyewitness abilities involves the distinction between suggestive questions and suggestive context (e.g., Bruck & Ceci, 2004; Goodman & Quas, 2008). Suggestive questions can be detrimental because they often imply in their phrasing that events or portions thereof occurred when in fact they did not. Whereas at times even older children are susceptible to err in response to suggestive questions, younger children are more susceptible, especially in response to tag and presumptive questions (e.g., "You came in at night, didn't you?" and "When he came in your room, was he mad?"; Cassel et al., 1996; Lamb & Fauchier, 2001; Lyon, Malloy, Quas, & Talwar, 2008). In addition to the suggestiveness of questions, the context surrounding the interview itself can be quite influential in affecting children's suggestibility. This context may include pre-interview statements made by the interviewer as well as his or her behaviors during the interview that convey what the interviewer

* Corresponding author. Tel.: +1 352 354 3423.
E-mail addresses: kyndral@uci.edu (K.C. Cleveland), jquas@uci.edu (J.A. Quas), tlyon@law.usc.edu (T.D. Lyon).
[1] Tel.: +1 949 824 7693.
[2] Tel.: +1 213 740 0142.

http://dx.doi.org/10.1016/j.appdev.2015.12.003
0193-3973/

wants to hear (Leichtman & Ceci, 1995; see also Goodman & Quas, 2008). This type of suggestive context can be heuristically labeled as interviewer bias.

Theoretically, the powerful effect of interviewer bias makes logical sense. Even young children understand basic conversational pragmatics. They understand that adults are sources of information and children should listen and learn from adults (Bjorklund et al., 2000; Clément, Koenig, & Harris, 2004; see also Ceci & Bruck, 1993). Through verbal reinforcement, they can quickly adapt their responses (Salzinger, 1959). Finally, children recognize adults' status as knowledgeable authority figures (Taylor, Cartwright, & Bowden, 1991) and, without explicit instructions or guidance, may not question the accuracy of what adults say (Koenig & Harris, 2005), leading to children's common willingness to agree with information provided by adults, including their suggestions (Ceci, Ross, & Toglia, 1987).

In a series of studies, children's propensity to err after being subjected to highly biased interviewers was demonstrated by Garven and colleagues (Billings et al., 2007; Garven, Wood, & Malpass, 2000; Garven, Wood, Malpass, & Shaw, 1998). In an initial investigation, the researchers reviewed transcripts from the highly publicized, controversial "McMartin preschool" sexual abuse case from the 1980s and identified interviewer behaviors that appeared to be most influential in creating a suggestive, biased context (Garven et al., 1998). These included telling children that their peers already disclosed, giving children praise/reinforcement for assenting to interviewer suggestions and negative feedback for disagreeing ("positive and negative consequences"), repeating questions children had already answered, and asking children to imagine or pretend that details occurred and then asking children to describe those details. The researchers then experimentally manipulated the use of these interviewer strategies in mock forensic interviews with children about a prior interaction with an adult and found adverse effects on children's accuracy (Billings et al., 2007; Garven et al., 1998).

The most influential of the interviewer techniques appeared to be positive and negative consequences. Such is not surprising given the reinforcement and punishment properties of this strategy. The praise children received reinforced acquiescing, whereas the negative feedback children received served as punishment for not acquiescing. Both reinforcement and punishment are classic forms of operant conditioning well known for their effects on a wide range of behaviors across the lifespan (Tharp & Wetzel, 1969). Selective reinforcement may play a crucial role in creating a biased context because of its direct effect on children's efforts to comply with and please adult conversational partners (Lamb & Brown, 2006; see also Ceci & Bruck, 1993). Such would suggest, as many have argued, that children's errors often are a result not of alterations in memory per se, but instead, a result of social acquiescence to the biased interviewer (Bjorklund et al., 2000; Cassel et al., 1996).

Valence

Despite the significance of Garven and colleagues' work in highlighting the effects of selective reinforcement and biased interviewers on children's suggestibility, the work does not provide insight into potentially important nuances in the effects, nuances that may directly influence conclusions that have been drawn about children's eyewitness accuracy and acquiescence tendencies. One such condition concerns the valence of the alleged acts, that is, whether the acts could be considered positive or negative. In one of Garven et al.'s (2000) studies, for example, children acquiesced nearly twice as often to fantastic than mundane details following exposure to the positive and negative consequence strategy, a pattern that has led to speculation that the use of selective reinforcement may actually induce children to acquiesce at higher rates for fantastic than mundane details. However, the fantastic details were primarily positive (e.g., visitor taking children on a helicopter) and hence may have been desirable to children, whereas the mundane details were largely negative (e.g., touching, throwing, stealing) and hence may have led to avoidance on the part of children. The differences in valence could also have accounted for the pattern of results obtained, an interpretation consistent with other lines of work.

Studies of children's beliefs about the plausibility of fantastic and real events, for instance, have revealed the existence of a positivity bias. Children tend to report that positive fantastic and real events can occur but negative fantastic and real events cannot (Carrick & Quas, 2006; Samuels & Taylor, 1994). Likewise, in a classic false memory study conducted by Ceci, Loftus, Leichtman, and Bruck (1994) that employed highly biased interview techniques (e.g., repeatedly interviewing children and asking children to visualize events), children were significantly more likely to assent to suggested positive than negative events. The precise effect of valence, however, was not entirely clear because the suggested, false events varied not only in valence but also in level of child participation and event type. For instance, some false events implied children's direct and active involvement, (e.g., falling off a tricycle and getting stitches), whereas others implied minimal involvement (e.g., waiting for a bus). Direct participation can affect children's suggestibility, regardless of the valence of the events (Tobey & Goodman, 1992). In order to assess the importance of valence, it is necessary to vary directly and in a comparable manner the valence of suggested events provided by a biased interviewer.

Actor implicated

Another important consideration when evaluating children's suggestibility, especially in relation to a negative act, is the actor allegedly involved. Billings et al. (2007) exposed children to an interaction with a toy that later went missing. Children were then questioned suggestively about the missing toy. During the interview, a subset of the children was reinforced for acquiescing to questions implying that the toy was taken, possibly by them or by other children. Children were more likely to report that other children had taken the toy than to admit their own involvement, leading the authors to conclude that "[t]o the degree that children understood the possible negative implications for themselves, they became less willing to make false statements" (p. 134). Although such an interpretation is plausible, the interviewer implied that the other children who took the toy probably just wanted to play with it and would be returning it later, making it unclear whether children understood that they might be acquiescing to other children stealing.

Other research more clearly supports the proposition that children's acquiescence for negative events is affected by the alleged actors involved. For instance, children are more willing to disclose minor transgressions when someone else rather than they committed the transgression (Lyon & Dorado, 2008; Lyon et al., 2008), and when a stranger rather than a trusted adult committed the transgression (Lewis, Stanger, & Sullivan, 1989; Polak & Harris, 1999; Tye, Amato, Honts, Devitt, & Peters, 1999; Wilson, Smith, & Ross, 2003). Given that prior studies indicate that children are less willing to implicate themselves than someone else as having been involved in a negative event that actually occurred, (Lyon & Dorado, 2008; Lyon et al., 2008), children may similarly avoid implicating themselves more than someone else in a suggested negative act. Whether this tendency to acquiesce to false events that implicate others more than the self varies depending on whether the alleged act is negative or positive, though, needs to be tested directly.

Developmental level

Of course, any evaluation of children's suggestibility needs to consider their age or developmental level. In prior interviewer bias studies, particularly those that included interviewers' use of selective