

Running Head: SOCIAL SUPPORT

The Effects of Social Support on the Accuracy of Children's

Reports: Implications for the Forensic Interview

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The Effects of Social Support on the Accuracy of Children's Reports: Implications for the Forensic Interview

Over the past two decades, child abuse has steadily gained recognition as a major societal and legal problem. This deserved recognition has brought increasing numbers of children into contact with the legal system (Myers, 1992). When children enter our legal system, a system that was designed for adults, alarming issues are raised. One particularly troubling issue is the reliability of children's testimony. Given the inherently private nature of an act of child abuse, especially child sexual abuse, there is often no evidence of abuse other than a child's report (Myers, 1992). Thus, a child's word is central to investigation and prosecution efforts. But can it be trusted? There are few topics these days that are as emotionally charged or hotly debated within public, private, and professional circles as the accuracy of children's testimony. And with good reason--children's reports can prompt investigations that lead to the discovery and prosecution of actual child abuse, or investigations that target innocent adults for abuse they did not commit. In any legal case that is built primarily on eyewitness testimony--adult or child testimony--there is the potential for justice or injustice, depending on the accuracy of the testimony.

To approach the ultimate goals of uncovering truth and reaching just outcomes in child abuse cases, we can turn to social science for help. There we find a growing body of research that is well represented in this volume, research aimed at understanding children's capabilities and discovering techniques for maximizing the accuracy of children's testimony. In typical child testimony studies, children witness or participate in an event, then they are given a mock forensic interview during which they are asked to report what happened. In this interview, child participants are asked various types of questions that differ along a continuum of suggestibility, from the least suggestive "free recall questions"

(e.g., "What happened when you were here last time?") to more focused, cued-recall questions that usually take two forms: misleading questions, which are the most suggestive (e.g., "When you were here, you played with toys, didn't you?") and specific questions, which are focused but less suggestive or coercive ("When you were here, did you play with toys?"). Child witness researchers are often interested in generalizing their results to the real world context of a sexual abuse investigation in which an important concern is whether children who have not been abused will falsely report abuse in response to misleading questions. Thus, interview questions are sometimes misleading about "abuse-relevant" events (e.g., "When you were here, the babysitter kissed you, didn't he?"). The degree to which children give accurate accounts about the event, particularly the degree to which they can resist interviewers' misleading suggestions about what might have happened, is of primary concern.

Using this paradigm, researchers have studied a variety of factors that affect the accuracy of children's eyewitness reports (for reviews, see Ceci & Bruck, 1993; Davis, 1998; Goodman, Emery, & Haugaard, 1998; Warren & McGough, 1996). One such factor is social support, a situational, socioemotional variable. In this chapter, we discuss the psychological construct of social support and review literature examining the effect of social support on children's eyewitness accuracy and suggestibility. We conclude with directives for future research and a discussion of our own current research in this area.

Social Support and Children's Testimony: A Review of Previous Research

Social support has been of interest to researchers across disciplines such as psychology, sociology, and communications. Generally, social support may be conceptualized as a form of interaction or communication that fosters a feeling of well-being

in the target (Burlinson, Albrecht, Goldsmith, & Sarason, 1994). More specifically, social support has been operationally defined in varied ways, such as informational support (e.g., providing advice), emotional support (i.e., providing affection and nurturance), network support (i.e., being a part of a common group), and esteem support (the bolstering of self-esteem over time by others) (Burlinson et al., 1994; Cutrona & Russell, 1990; Tardy, 1994; Zalkowitz, 1989). Perceived social support generally leads to better physical and emotional health, and more fulfilling social relationships (e.g., Sarason, Sarason, & Pierce, 1990).

There is growing interest in the effect of social support on children's eyewitness reports, because various aspects of settings that child witnesses encounter (e.g., the forensic interview, the courtroom) can be either socially supportive or intimidating. For example, children may be questioned by a cold, intimidating interviewer or by a friendly, warm person. Children may be left alone during an interview or on the witness stand, or they may be allowed to have a supportive person by their side (Myers, 1996). Conventional wisdom about the effects of social support is mixed: Some professionals argue for child-friendly interview techniques (e.g., Wood, McClure, & Birch, 1996) and for the presence of support persons, reasoning that social support will be emotionally calming and therefore conducive to children giving accurate reports of past events. Others argue that nearby support persons may be distracting at best and suggestive at worst, and that children who are interviewed in a socially supportive manner will want to give answers that will please their friendly interrogator rather than answers that are accurate.

Psychological research and theory reveal that social context is an important influence on behavior and cognitive development and that there are compelling reasons to expect beneficial effects of social support on children's eyewitness

reports. Developmental research demonstrates that young children are sensitive to social context cues, and in particular, children respond to social support. For example, children have been found to regulate their emotional expression to receive social support (e.g., Zeman & Shipman, 1996). Perceived social support has been found to enhance adolescents' and adults' psychological well-being and perceived ability to cope with life stress (for a review see Cohen & Wills, 1985; Wolchick, Sandler, & Braver, 1990), grade-school students' academic performance (Harris & Rosenthal, 1985; Rosenthal & Jacobson, 1968), and the accuracy of students' short-term recall (Kelley & Gorham, 1988). The latter findings would be predicted by current developmental theories that stress the importance of environmental support for children to reach their maximum levels of cognitive performance (e.g., Fischer, 1980; Vygotsky, 1934/1978), in contrast to earlier, more strictly age- or stage-bound developmental theories (Inhelder & Piaget, 1958).

In light of such research and theory, psychological researchers interested in children's eyewitness testimony have theorized that social support will help, not hinder, report accuracy. Researchers have investigated the effect of social support on children's eyewitness reports in two lines of research. In both, social support has been conceptualized as the provision of emotional support during a mock forensic interview, but the source of the support has differed, as it does in forensic settings. Specifically, support has been provided by either the presence of child peers or by the actions or identity of an interviewer. Next, we review the studies from each of these lines of research.

Peer-Provided Social Support

Researchers who operationalize social support as the presence of a supportive person have studied the effects of children being interviewed alone versus in the presence of a

same-aged peer. The first researchers to do so were Moston and Engelberg (1992). They suggested that forensic interviews are often anxiety-provoking for young children, pointing to evidence from child witness studies in which a few children appeared so distressed during the interview that the experiment either was terminated or a child's parent had to accompany the child during the interview (e.g., Goodman & Reed, 1986; Marin, Holmes, Guh, & Kovac, 1979). Because of the stress, Moston and Engelberg argued, children would prefer to be with a same-aged peer than by themselves during a forensic interview. (Such a preference is consistent with social psychological research demonstrating that people generally prefer to be with others in anxiety-provoking situations, Rofe, 1984; Schachter, 1959.) They reasoned that the presence of a peer would provide emotional support, reduce children's anxiety, and in turn, increase children's ability to answer interview questions accurately.

Moston conducted several studies to test these ideas. In the first (Moston, 1992, Experiment 1), 7 to 10 year olds watched a staged classroom demonstration, then were individually asked to freely report what they had witnessed. The amount of correct information children reported was unaffected by being interviewed in the presence of a peer who neither witnessed the demonstration nor was allowed to discuss the event with the participant. In subsequent studies (Experiments 2 and 3), 7 to 10 year olds and their peers were allowed to discuss what they had witnessed prior to the interview (whether or not the peers had witnessed the demonstration). These child participants reported more correct information than when they were interviewed alone or in the presence of peers with whom they had not discussed the demonstration. Moston maintained that peers did not contribute information to the children's reports. Even so, it is possible that rehearsal or cuing resulting from the discussion--not the emotionally supportive presence of peers--may have accounted for the increase in correct information. Moston failed to measure

children's level of anxiety during the interview, so the theorized mediational effect of anxiety could not be tested.

Greenstock and Pipe (1996) replicated and extended Moston's work. In a group, 5- to 10-year-old children experienced an interactive teaching session with an unfamiliar adult. Three days later, children were individually queried about the event with free recall and more focused cued-recall questions, some of which were misleading and some of which were specific, or less leading. Children were interviewed either alone or in the presence of a peer who had not participated in the session and who did not discuss the event. Children's interview anxiety was assessed with a modified version of the state anxiety scale of the State-Trait Anxiety Inventory for Children (STAIC, Spielberger, 1979) and with a heart rate measure. Consistent with Moston's initial findings, children who were interviewed in the presence of a peer were no more accurate than were children interviewed alone. They were also no more or less suggestible or anxious.

In a similar study with 5 to 7 year olds (Greenstock & Pipe, 1997, Experiment 2), a condition was added in which children were allowed to discuss the event with a peer prior to the interview and the peer was allowed to make comments during the interview. The peer was either informed (had participated in the target event) or uninformed (had not participated in the event). Failing to replicate Moston's (1992) results, the study revealed no main effects of peer support on the amount of correct information child participants recalled in response to free recall, specific, and misleading questions. Greenstock and Pipe also examined the number of correct items reported together by the child participant and the peer during their pre-interview discussion and during free recall. Participant/peer pairs in the informed peer-support condition reported more correct information than did participant/peer pairs in the uninformed peer-support condition or participants interviewed without a peer.

Further, support condition did not affect children's level of anxiety during the interview. Thus, neither these results nor Moston's provide direct evidence that peer presence increases children's report accuracy by increasing perceived emotional support and decreasing anxiety. Instead, these data suggest that increased accuracy associated with peer presence may be purely informational or cognitive in nature--the result of information pooling, cuing, or rehearsal.

Two other peer-support studies, however, have found some evidence for an effect of peer presence that may extend beyond cuing or informational effects. Greenstock and Pipe (1997, Experiment 1) studied children's recall of a naturally-occurring stressful event: a dentist visit. Five to 6 year olds and 7 to 10 year olds were interviewed 2 to 4 days after a dentist visit. Children were interviewed either alone, with an informed peer (i.e., a child who had recently visited the dentist) or an uninformed peer (i.e., a child who had not visited the dentist). Children and peers were allowed to discuss the event before the interview, but the peer was not allowed to speak during the interview. Older children's suggestibility was not affected by peer presence, but young children interviewed alone were less accurate in response to misleading questions than young children interviewed in the presence of a peer (informed or uninformed). Again, however, neither younger nor older children's level of self-reported anxiety was affected by support condition.

Finally, in a study by Cornah and Memon (1996), 6 to 7 year olds participated in a science demonstration with an unfamiliar adult. Two days later their classroom teacher suggested unexperienced details about that demonstration. After 3 more days, children were individually asked specific questions about the demonstration either alone, with an uninformed peer, or with a presumably informed peer (i.e., a peer the child believed had also participated in the demonstration, but who had not).

Children and peers did not discuss the event. In contrast to Moston's (1992, Experiment 1) and Greenstock and Pipe's (1996, Experiment 1) results, when peers were present (uninformed or presumably informed), children's responses were more accurate than when they were interviewed alone. Further, when presumably informed peers were present, children were less suggestible about the unexperienced details than when interviewed with an uninformed peer or alone. Children's interview anxiety was not assessed.

Several observations can be made about these studies. Although mixed, the results demonstrate that peer presence can improve the accuracy of children's reports during forensic interviews when children and peers are allowed to discuss the event in question (Greenstock & Pipe, 1997, Experiment 2; Moston, 1992, Experiments 2 and 3). Importantly, peer presence may reduce children's suggestibility (Cornah & Memon, 1996; Greenstock & Pipe, 1997, Experiment 1). Yet none of these studies definitively explain why, aside from possible cuing and rehearsal resulting from discussion, peer support did or did not improve children's eyewitness accuracy. None demonstrated that social support reduces anxiety during interviews, the main tenet of Moston and Engelberg's (1992) theory. In fact, Greenstock and Pipe's (1996, 1997) failure to find between-condition differences in children's anxiety weighs in against the theorized anxiety-reduction process.

In addition, results from these peer support studies may not be very helpful in understanding how children respond during actual forensic interviews. That is, children are rarely given pretrial forensic interviews with peers or siblings present, although in most states victims have the right to have a support person present. Usually, a child and an interviewer interact in a closed social situation, and children rarely have the opportunity to discuss events with peers. When children give testimony in court,

however, they are often allowed to take comforting items to the witness stand (e.g., a favorite blanket or a stuffed animal) or to request that support persons accompany them (Myers, 1996). Thus, the results of these peer support studies may be more generalizable to courtroom interviews than pretrial forensic interviews. However, this generalizability is limited by the fact that courtroom interviews are likely to be perceived as more stressful than were the interviews in these studies. That is, some (though not all) actual child witnesses (Goodman et al., 1992) and child participants who recount events in real courtrooms (Saywitz & Nathanson, 1993) perceive the experience to be unpleasant and anxiety-provoking.

Interviewer-Provided Social Support

Because many more children undergo pretrial forensic interviews than ever testify in court, a question of equal or greater importance in terms of ecological validity is: How might children perform when an interviewer provides or withholds social support? In the context of a forensic interview, social support is best understood as defined by Burleson et al. (1994): an interactional or communicative process occurring between people. Social support (or the lack thereof) may be communicated to a child by the interviewer through the interviewer's verbal or nonverbal behavior. Research examining adults' non-eyewitness task performance reveals positive effects of experimenter-provided support. For example, Sarason and Sarason (1986) and Tardy (1992, 1994) found that experimenter-provided support (e.g., offers to help if the subjects desired) led to more accurate performance on anagram-solving tasks relative to when support was withheld. In addition, communication research demonstrates that short-term recall for non-eyewitness tasks is improved when experimenters display supportive behaviors (e.g., reduction in physical distance, forward leaning of the body, head nods, and eye contact, Anderson, 1985; Mehrabian, 1969) than when such

immediacy behaviors are withheld from research participants (Kelley & Gorham, 1988). However, one eyewitness testimony study with adult men participants found no benefits of interviewer-provided support in the form of head nods, smiles, forward leans, and periodic compliments (Marquis, Marshall, & Oskamp, 1972).

There have been several investigations of interviewer-provided support on the accuracy of children's reports. In some of these studies, interviewer support has been operationally defined in terms of interviewer identity (mother vs. stranger). In other studies, social support has been operationalized in terms of the behaviors exhibited by unfamiliar interviewers. The former research includes a study by Goodman, Sharna, Thomas, and Consladine (1995) in which 4 year olds were interviewed by their mothers or by strangers about an earlier play session with an unfamiliar adult. Compared to children interviewed by strangers, children interviewed by their mothers were more accurate in response to specific questions and more resistant to misleading suggestions that the playperson had abused them. Assuming that mothers are more supportive than strangers, Goodman and colleagues' findings suggest that supportive interviewers are more likely than nonsupportive interviewers to obtain accurate information from children.

A somewhat mixed picture is presented by Ricci, Beal, and Dekle's (1996) research. In their first experiment, 5 year olds were interviewed by strangers or by their mother about a staged theft the children had seen in a slide presentation. Compared to children interviewed by their mother, children interviewed by the stranger were less accurate in response to specific questions, but more accurate in response to a single misleading question. We hesitate to interpret these results as directly contrasting Goodman et al.'s because of several important differences in methodology (differences that have implications for ecological validity).

Specifically, Ricci et al.'s stimulus event was witnessed from a slide show rather than directly experienced, and there was only one misleading question, which was not about a personally significant event. Further, results must be interpreted cautiously because the interview questions were not standardized across interviewer conditions: Although all interviewers were given a prepared list of interview questions, they were allowed to embellish or repeat the questions at will. This might be a more ecologically valid approach, but it also allowed for loss of the experimental control necessary for direct comparisons between the two interviewer conditions. In fact, in a follow-up study in which interviewers were not allowed to deviate from prepared questions (Ricci et al., 1996, Experiment 2), 5 year olds who were interviewed by strangers were no more or less accurate than those interviewed by their mother. Interestingly, children interviewed by strangers appeared less relaxed to independent raters than did children interviewed by their mother.

Tobey and Goodman (1992) also defined social support in terms of interviewer identity. Four year olds participated in a play session with an unfamiliar adult who was described to the children as a babysitter. After an 11-day delay, children were interviewed about the play session by a female interviewer with free recall, specific, and misleading questions. Before the interview, half of the children were approached by a uniformed police officer (actually a university security officer) who explained that the babysitter "may have done some bad things," and that his partner (the interviewer, who was dressed similarly) needed to ask the children some questions. The remaining children were not approached by the police officer and were not led to believe that the interviewer was also a police officer. Results were mixed, but suggested some benefits for the presumably more supportive "civilian" interview condition. Compared to children in the police condition, children in the civilian condition reported more correct and incorrect information

in response to free recall questions, they were no different in terms of general resistance to misleading questions (but they spontaneously volunteered less incorrect information during the misleading questioning), and they were more accurate in identifying the babysitter from a photo lineup.

Although these studies are quite informative about ecologically valid concerns (the impact of questioning by parents and police investigators), definitive conclusions about the effects of social support *per se* cannot be drawn from their results because interviewer identity was confounded with supportiveness in each study. There have been two studies without this confound, studies that directly test the effects of interviewer-provided support on children's reports. In the first study, Goodman, Bottoms, Rudy, and Schwartz-Kenney (1991) tracked 3 to 4 year olds and 5 to 7 year olds who received routine inoculations at a medical clinic (a naturally-occurring stressful situation). Children were interviewed about their clinic visit with free recall, specific, and misleading questions. For half of the children, the interviewer acted in a supportive manner by giving the children a snack, smiling frequently, and complimenting them periodically without regard for accuracy. The remaining children were interviewed without these supportive behaviors. Citing developmental theories that stress the importance of environmental support for children to perform at their "optimal level" (e.g., Fischer, 1980), Goodman and colleagues theorized that children would be most accurate overall when interview techniques were supportive. They also predicted that interviewer-provided support would decrease children's intimidation, and in turn, decrease their suggestibility. Their study revealed sporadic effects of interviewer-provided support that were generally in the direction of increasing children's accuracy. For example, social support reduced the number of inaccuracies in all children's free recall. After a four-week delay, social support also reduced younger children's errors in response to misleading questions and questions that incorrectly

suggested that abuse had occurred at the clinic. Even so, support increased younger children's omission errors to misleading questions concerning peripheral characteristics of the clinic setting.

In the second study, Carter, Bottoms, and Levine (1996) investigated the effect of linguistically complicated interview questions as well as the effects of interviewer-provided social support. Five to 7 year olds played with an unfamiliar adult, then were immediately interviewed about it by a male interviewer. Social support and intimidation were operationalized in terms of specific behaviors noted in the clinical literature to convey emotional warmth or the lack thereof (Mehrabian, 1969; Kelley & Gorham, 1988). For example, in the supportive condition, the interviewer built rapport with the child, used a warm and friendly voice, gazed and smiled at the child often, and assumed a relaxed body position. In the nonsupportive condition, the interviewer withheld these behaviors. This manipulation produced more consistent and specific effects than those reported by Goodman et al. (1991), perhaps because the nonsupportive condition was operationalized as more "intimidating" than "neutral" (Goodman et al.'s nonsupportive condition was more accurately described as "neutral"). Compared to children in the nonsupportive condition, children in the supportive condition were more resistant to misleading questions. Support had no effect on children's responses to specific questions or to free recall questions. The researchers theorized that interviewer-provided support increased children's resistance to misleading information by decreasing children's anxiety, lessening intimidation, and increasing feelings of empowerment. They provided no evidence of this theorized mechanism, however.

New Directions for Social Support Research

The research we have reviewed represents an excellent start in investigating social support, an important situational factor that may influence children's accuracy in forensically relevant interview situations. Based on this body of work, we believe that researchers can already make some tentative recommendations to professionals who conduct child forensic interviews, including the suggestion that interviewers behave in a socially supportive rather than an intimidating manner during forensic interviews, a suggestion others have made (e.g., Wood et al., 1996). More research is necessary, however, before we fully understand the effects of peer- and interviewer-provided social support and, in turn, before we can make other policy recommendations with confidence. Next, we discuss some of the issues that we believe are priorities for future research. Specifically, we suggest that researchers should (a) identify the psychological mechanism responsible for the effects of social support, (b) investigate possible individual difference factors that might moderate the effects of social support, and (c) explore the limits of social support's benefits. We end by summarizing our own research program, in which we are currently addressing some of these issues.

Understanding the Mechanism Underlying the Effects of Social Support

Studies of social support and children's testimony have been designed to test the extent to which peer- or interviewer-provided social support influences children's reports. In our view, it is time for researchers to move beyond demonstrating support effects and, instead, attempt to identify the underlying mechanisms responsible for those effects (an effort also called for by Carter and colleagues, 1996). Although we know that peer presence can sometimes help children (particularly younger

children) report events accurately, we do not understand the underlying reasons for this effect. Do children perceive a same-aged peer as a source of emotional support? Does this in turn allow the children to be less anxious and more effective as they search their memory for the answers to interview questions? Or can other competing explanations that are more purely cognitive in nature (e.g., information pooling, rehearsal, cuing) account for the effects? In directly testing Moston and Engelberg's (1992) theory, Greenstock and Pipe (1996) found no evidence that anxiety mediates the effect of peer-provided support on children's accuracy. Thus, there may be some other mechanism underlying the effect in studies that uncovered benefits of peer support. Before Moston and Engelberg's theory is completely dismissed, however, it is fair to say that anxiety may well be a mediator under other circumstances. That is, Greenstock and Pipe may not have tested the mediation of anxiety very effectively, because it is doubtful that their child participants were very anxious in the first place. The possible mediation of anxiety cannot be fully tested unless a peer-support study includes somewhat stressful conditions, an ethically difficult, but not impossible, situation to arrange or to capitalize on in naturally occurring circumstances. Identifying the psychological mechanism by which peer support affects children's reports may also help us understand discrepancies in the existing literature (i.e., some studies found positive effects and others found no effects of peer support).

Similarly, how does interviewer-provided support help children resist an interviewer's misleading questions? Does interviewer-provided support affect a child's testimony via a different mechanism than peer-provided social support? Both Goodman et al. (1991) and Carter et al. (1996) offered explanations for their effects, but the explanations have not been empirically validated. Recall that Goodman et al. suggested that interviewer-provided support would decrease children's suggestibility by lowering their intimidation. Carter et al. (1996)

were a bit more specific, theorizing that interviewer support reduced children's anxiety and intimidation, increased their feelings of empowerment, and in turn, increased their resistance to misinformation. In support, they cited Sarason and Sarason's (1986) finding that subjects completing a complex cognitive task were more self-confident and less anxious when they were given social support than when they were not. Carter and colleagues' (1996) findings of increased accuracy only in response to misleading questions supported their argument that the effect of social support is specific to suggestibility resistance. (Goodman et al.'s findings of increased free recall accuracy do not fit with this specific explanation, however.)

We have interpreted these previous explanations to mean that interviewer-provided support makes children feel better able to resist the interviewer, which in turn leads to increased resistance to misleading questions. We believe that such an interpretation clearly indicates the social psychological construct of perceived self-efficacy (Davis & Bottoms, 1998). Self-efficacy is a personal cognition about one's ability to perform a task in a given situation, or "people's judgments of their capabilities to organize and execute courses of action required to attain designated types of performances" (Bandura, 1986, p. 391). Unlike judgments about one's stable dispositions or competencies, efficacy judgments are transient and altered by social contexts. According to Bandura (1982, 1997), people base their efficacy judgments on cognitive appraisals of information derived from a variety of sources including self-performance, suggestion or exhortation from others, and physiological indices (e.g., heart rate, perspiration). Research with children has shown that efficacy judgments are good predictors of academic and achievement-oriented behavior (e.g., Schunk, 1989, 1991) and that interventions which increase children's appraisals of their ability to complete academic tasks increase their performance.

We propose that the psychological mediator between interviewer-provided social support and decreased suggestibility is a psychological construct we term "resistance efficacy": children's perceived self-efficacy for resisting an interviewer's suggestions. We theorize that social support increases children's perceived resistance efficacy, which in turn increases their resistance to misleading questions. That is, when an interviewer is supportive, children feel more empowered and able to directly contradict an interviewer's misleading suggestions. In contrast, when an interviewer is not supportive, children may feel intimidated and less able to resist an interviewer's suggestions, and in turn, be more suggestible.

Identifying Individual Differences in Responsiveness to Social Support

Another imperative for future research is the study of individual differences in children's responsiveness to social support manipulations. Several researchers have noted the importance of individual differences in explaining between-subjects variability in children's testimony (e.g., Eisen, Goodman, Davis, & Qin, in press; Goodman & Quas, 1996; Merrit, Ornstein, & Spieker, 1994; Quas et al., in press). We think there is good reason to expect interactions between individual differences and situational variables such as the social supportiveness of an interview. For example, Carter et al. (1996) theorized that social support reserves (i.e., the amount of social support already existing in one's life) will moderate the effects of interviewer-provided support on children's suggestibility. That is, children who are high in support reserves are already predisposed to feel empowered, but children low in support reserves are not and may be more sensitive to variations of supportiveness in their environment. Children low in support reserves may experience particularly striking increases in resistance to misinformation under supportive interview conditions relative to children high in

support reserves. In fact, there is support for this reasoning in a study with adult participants (Sarason & Sarason, 1986). Compared to participants who were high in social support reserves, participants low in support reserves exhibited greater gains in performance on an anagram task when they were offered help from an experimenter.

Social support might also be particularly effective in increasing interview accuracy in children who are dispositionally shy or those who suffer from low self-esteem. Children who are low in self-esteem may doubt their abilities more than children who are high in self-esteem (Harter & Pike, 1984), and thus, may be more sensitive to interviewer-provided social support. Social support may help such children to relax and answer questions to their maximum capability, when they might otherwise be intimidated and withdrawn. Given that abused children--many of the very children who undergo forensic interviews--often suffer from low self-esteem and general withdrawal (e.g., Kaufman & Cicchetti, 1989), it is worthwhile to determine whether temperamentally shy children or those with low self-esteem benefit more than others from social support.

Finally, another individual difference variable that may determine a child's responsiveness to social support is emotional quality of attachment to significant others. Goodman and her colleagues (Goodman, Quas, Batterman-Faunce, Riddlesberger, & Kuhn, 1997; see also Goodman & Quas, 1996) have reported that attachment style, or the manner in which children have formed relationships with primary caregivers (Bowlby, 1969), is related to children's memory and suggestibility. In line with predictions from attachment theory (Bowlby, 1969), Goodman et al. (1997) found that children's reactions to a stressful medical procedure were related to their parents' romantic attachment style. (Because there is often a correspondence between parental and child attachment style, parental attachment style was used as

a proxy for children's attachment; Bartholomew, 1990; Shaver & Hazan, 1993). Specifically, children whose parents reported insecure attachment (i.e., avoidant and anxious-ambivalent attachments) were more distressed during a stressful medical procedure and made more errors in response to specific and misleading interview questions about the procedure than children whose parents reported secure attachment. The emotional quality of a forensic interview (supportive or nonsupportive) may make attachment issues salient. In particular, insecurely attached children, who are generally more apprehensive and less trusting of others during social interactions, may be more sensitive to interviewer supportiveness than securely attached children, who are generally at ease during social interactions.

We have highlighted only a few dispositional factors that might cause a child to be more or less sensitive to manipulations of social support. Of course, there may be numerous others. Identifying individual difference variables and controlling for them in social support studies should allow for a more specific examination of the effects of social support. Identification may also have direct practical benefits for forensic interviewing. It may bring us closer to the goal of targeting children who are particularly at risk for suggestibility and who might benefit from special supportive interventions.

Exploring the Limits of Social Support Benefits

A third challenge for future research is to determine the potential limits of the positive effects of social support. The studies we have reviewed demonstrate that social support given without regard to children's actual accuracy improves the accuracy of children's reports. However, in none of the studies were children given social support contingent upon expected or desired answers. Social support used as a positive reinforcer for certain types of answers may have detrimental effects on

children's accuracy (Garven, Wood, Malpass, & Shaw, in press).

There may be other limitations to the benefits of social support. For example, Carter and colleagues (1996) characterized their results as tentative without replication "under conditions that are sometimes encountered in actual abuse cases . . . multiple interviews or long delays" (p. 351). The advent of organized, interdisciplinary responses to child abuse allegations (like those coordinated at children's advocacy centers, Sorenson, 1993; Sorenson, Bottoms, & Perona, 1997) has reduced the number of interviews children undergo and the delay between alleged incidents and forensic interviews. Even so, some alleged victims are still questioned repeatedly in forensic settings, sometimes after a significant delay (Gray, 1993; Steward & Steward, 1996). In addition, suspected child abuse victims may participate in multiple therapy sessions in which a therapist will ask them about alleged abuse in a warm and supportive manner. Will repeated exposure to socially supportive interviews be beneficial or have detrimental effects? What is the impact of social support after a significant delay?

We know of no studies investigating the effects of multiple exposures to peer-provided support. Goodman et al. (1991) conducted the only examination of repeated exposure to interviewer-provided support. Children in that study received either one or two interviews (which were either both supportive or both neutral). Effects of support were sporadic across the two interviews, and there was no interaction of the support variable and the number of interviews (which would indicate either a positive or negative effect of repeated exposure to support). The effects of social support over the course of more interviews is not known. Critics and courts (e.g., *State v. Michaels*, 1993) have voiced concern that multiple supportive interviews will increase suggestibility. In light of the psychological research and theory we have reviewed, however, we would expect a positive effect

across multiple interviews, perhaps even an additive effect as repeated exposure to a supportive interviewer builds a child's resistance efficacy.

Regarding the variable of delay, we would expect social support to have its strongest effect after a significant delay, when children doubt their own memory (suggestibility increases for adults and children after memory decays, Gudjonsson, 1992; Loftus, 1979). In fact, Goodman and colleagues (1991) found the strongest effects of support after a 4-week delay as compared to a 2-week delay. But no one has investigated the effects of interviewer-provided or peer-provided support over a longer delay.

Our Current Research Program

We are currently conducting studies to address some of the issues we outlined above. Next, we briefly summarize an experiment in which our primary goals were to: (a) replicate prior research demonstrating the benefits of interviewer-provided support on children's eyewitness reports, (b) explore the relative abilities of anxiety and resistance efficacy to explain the effects of social support on children's suggestibility, and (c) explore individual difference factors as potential moderators of the effects of social support.

In our study (Davis, 1998; Davis & Bottoms, 1998), which was modeled after Carter et al. (1996), 81 6 and 7 year olds individually played with a female research assistant who was introduced to each child as a babysitter. Some of the play activities involved innocuous touching (e.g., the babysitter traced the child's body with a crayon and asked the child to tickle her). Immediately afterwards, each child was given a mock forensic interview by a male research assistant, who explained that he was the babysitter's boss and he wanted to find out if the babysitter

was doing a good job. The interview consisted of free recall, specific, and misleading questions, and was given under supportive or intimidating conditions. As in Carter et al.'s study, the supportive condition was designed to be child-friendly; that is, the interviewer displayed behaviors found by clinical research to convey emotional warmth (e.g., rapport-building, supportive eye contact, smiles). In contrast, in the nonsupportive condition, the interviewer did not display any supportive behaviors, and, in fact, behaved in an intimidating manner by actively avoiding eye contact, smiles, and so forth.

After the interview, children were greeted by a third new adult who administered a shortened version of the state anxiety scale of the STAIC (Papay & Spielberger, 1986; Spielberger, 1979) so that we could test previous assertions that anxiety mediates the effect of support on children's suggestibility (Carter et al., 1996; Moston & Engelberg, 1992). To test our own competing theory regarding resistance efficacy as the mediator, children were also given a specially-constructed Resistance Efficacy Scale for Children (RES). The RES items are designed to tap children's perceived ability to resist the interviewer (e.g., "How easy or hard it would be to tell the interviewer he was wrong about something, if you know he's wrong?"). Items are accompanied by age-appropriate response scales and orienting practice trials.

As expected, preliminary analyses of our data reveal a replication of Carter et al.'s results: Interviewer-provided support enhanced the accuracy of children's reports by significantly increasing their resistance to misleading questions. Support did not affect children's answers to specific questions. In addition, for the first time, we found that social support influences children's anxiety during a mock forensic interview. Although overall anxiety levels were low for all children, children in the nonsupportive condition rated themselves as significantly more

anxious than did children in the supportive condition (*M*s were 1.6 and 1.4, respectively, on the STAIC, which ranges from 1, indicating low levels of anxiety, to 3, indicating high levels of anxiety). Contrary to others' predictions, however, anxiety did not mediate the effect of interviewer support on children's suggestibility. Instead, our analyses revealed that children's feelings of resistance efficacy were enhanced by social support, and that resistance efficacy mediated the effect of interviewer support on children's accuracy in response to misleading questions (especially for the oldest children in our sample). Specifically, interviewer support increased older children's feelings of Resistance Efficacy, which in turn increased their resistance to misleading questions.

Thus, ours is the third study to reveal the benefits of interviewer-provided social support on children's suggestibility. It is the first study to demonstrate that a lack of emotional support from an interviewer can have a detrimental effect on children's well-being by increasing their anxiety, and a negative effect on children's accuracy by decreasing their resistance efficacy. We are currently examining our data for the answers to other critical questions such as whether the impact of social support is mediated by individual differences in such domains as social support reserves, attachment style, temperamental shyness, and self-esteem. We are also beginning a new study to investigate the effects of repeated exposure to social support after more than a year's delay.

Conclusion

In this chapter, we have shown that empirical evidence generally disputes speculation that "child-friendly" interviewing methods will lead children to fabricate details or entire abuse allegations to please interviewers. Rather, studies investigating peer-provided support have yielded mixed results, but none has

revealed detrimental effects on children's accuracy. Studies investigating interviewer-provided support reveal more solid benefits. Perhaps future research will examine the effectiveness of different modes of communicating social support to children. In light of the evidence we have reviewed, we are confident in our recommendation that forensic interviewers should guard against false reports by interviewing children in a socially supportive, non-intimidating manner. Of course, avoidance of misleading questions is also advised, but because children's responses to open-ended and specific questions are often brief, and because forensic interviewers do not know what really happened during target events, it would be impossible for interviewers to avoid all detailed, even misleading questions.

We hope that researchers will continue research on social support, a variable that is of significant theoretical interest to psychology, but also of applied importance because it is an easily implemented intervention that may have measurable effects on the accuracy of actual child witnesses.

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