The Impact of Likeability and Rapport on Children's Willingness to Disclose a Transgression

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Abstract

A central issue for forensic interviewers in children's eyewitness testimony is assuring that their reports are credible and truthful without increasing false reports. It is important for researchers and the legal community to understand factors that influence children's abilities to remember and report witnessed events and provide them with an environment that fosters truthful disclosures. Therefore, the current program of research aims to address some of the gaps in our understanding of how social and interpersonal factors may influence children's willingness to disclose or conceal a theft. Specifically, in both studies in the program of research, children witnessed a transgressor (E1) steal $20 from a wallet. E1 then asked the children to lie and say that they did not take the money. Child age (7 to 13 years), as well as their willingness to disclose, when they chose to disclose, and the quality and accuracy of their testimonies were examined. In Study 1, children's (N = 152) perceived feelings of the likeability of and their familiarity and comfort with a transgressor and with an interviewer (E2) were examined. Children who reported higher likeability scores with E1 were more likely to attempt to lie by concealing the theft and more willing to keep it a secret. Children who reported higher likeability scores with E2 were more likely to indirectly disclose the theft. While children's willingness to attempt to lie decreased with age, younger children who told the truth reported higher feelings of likeability with the interviewer. In Study 2, the rapport-building phase of a forensic interview was experimentally manipulated to evaluate the effect of a novel, interactive approach to building rapport based on the relational aspects of rapport-building including mutual attentiveness, positivity, and coordination between child and interviewer (Interactional Rapport condition) compared to traditional, narrative practice of describing various experienced events (Narrative Practice Rapport condition). Children (N = 114) also completed a measure of rapport to indicate their subjective level of rapport with the interviewer. The main findings of Study 2

indicated that older children in the Interactional Rapport condition were significantly more likely to be truthful, disclose the transgression earlier, and give more details. Together, the results of the current program of research suggest that how children feel about and the interactions with the adults involved in misdeeds and subsequent interviews are important avenues to investigate when studying children's disclosures. Additionally, results of Study 2 indicate that by expanding the traditional concept of verbal, narrative practice based rapport-building to consider the implementation of a new, interactive method of building rapport may have beneficial effects on children's disclosures. The results of these studies have important implications not only for forensic interviewers and best practice guidelines, but also for adults who work with children in schools, the community, and in everyday situations where making children feel comfortable enough to disclose truthful reports is crucial.

Résumé

Une question primordiale pour les enquêteurs judicaires dans les témoignages des enfants est de s'assurer que leurs témoignages sont crédibles et honnêtes sans augmenter les faux témoignages. Il est important pour les chercheurs et la communauté juridique de comprendre les facteurs qui influencent les capacités des enfants à se rappeler et à signaler les événements dont ils ont été témoins et de leur fournir un environnement qui favorise les témoignages honnêtes. Par conséquent, le programme de recherche actuel vise à combler certaines lacunes dans notre compréhension de la façon dont les facteurs sociaux et interpersonnels peuvent influencer la volonté des enfants à divulguer ou dissimuler un vol. Plus précisément, dans les deux études du programme de recherche, des enfants ont été témoins d'un transgresseur (E1) qui vole $20 d'un portefeuille. E1 a ensuite demandé aux enfants de mentir et de dire qu'il n'avait pas pris l'argent. L'âge des enfants (7 à 13 ans), ainsi que leur volonté de divulguer, quand ils ont choisi de divulguer, et la qualité et l'exactitude de leurs témoignages ont été examinés. Dans l'étude 1, les sentiments perçus chez les enfants (N = 152) concernant la sympathie, la familiarité et le confort avec un transgresseur et un intervieweur (E2) ont été examinés. Les enfants qui ont déclaré des perceptions de sympathie plus élevées avec E1 étaient plus susceptibles à tenter de mentir en cachant le vol et plus disposés à garder le secret. Les enfants qui ont déclaré des perceptions de sympathie plus élevées avec E2 étaient plus susceptibles de divulguer le vol indirectement. Alors que la volonté des enfants d'essayer de mentir a diminué avec l'âge, les enfants plus jeunes qui ont dit la vérité ont rapporté des sentiments plus élevés de sympathie avec l'intervieweur. Dans l'étude 2, la phase d'établissement de relations d'un entretien judiciaire a été manipulée expérimentalement pour évaluer l'effet d'une nouvelle approche interactive de l'établissement de relations basée sur les aspects relationnels, notamment l'attention mutuelle, la positivité et la coordination entre l'enfant et l'intervieweur (condition de rapport interactionnel) relativement à la

pratique narrative traditionnelle de description de divers événements vécus (condition de rapport de pratique narrative). Les enfants (N = 114) ont également rempli une mesure de rapport pour indiquer leur niveau subjectif de lien avec l'intervieweur. Les principaux résultats de l'étude 2 ont indiqué que les enfants plus âgés dans la condition de rapport interactionnel étaient significativement plus susceptibles à être honnêtes, à divulguer la transgression plus tôt, et à donner plus de détails. Ensemble, les résultats du programme de recherche actuel suggèrent que la façon dont les enfants se sentent et les interactions avec les adultes impliqués dans les méfaits et les entretiens ultérieurs sont des pistes importantes à explorer lors de l'étude des révélations des enfants. De plus, les résultats de l'étude 2 indiquent qu'en élargissant le concept traditionnel de rapport verbal basé sur la pratique narrative pour envisager la mise en œuvre d'une nouvelle méthode interactive d'établissement de rapport peut avoir des effets bénéfiques sur les révélations des enfants. Les résultats de ces études ont des implications importantes non seulement pour les enquêteurs juridiques et les directives sur les meilleures pratiques, mais aussi pour les adultes qui travaillent avec les enfants dans les écoles, la communauté et dans des situations quotidiennes où il est essentiel de mettre les enfants à l'aise pour divulguer des témoignages honnêtes.

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Contribution to Original Knowledge

This program of research contributes to the current literature on factors that influence children's willingness to lie about or disclose another's transgression. Of interest specifically was how certain interpersonal, social factors influence children's reports. The findings of Study 1 provide the first experimental evidence that children's feelings towards the adults involved in a transgression and interview can concurrently impact their disclosures. Study 2 is the first known study to manipulate the rapport-building stage to include an interactive activity instead of the standard narrative practice. Findings revealed that the interactive activity fostered stronger feelings of rapport compared to traditional narrative practice and had a positive impact on older children's willingness and ability to give truthful disclosures. Findings suggest that expanding the rapport-building stage of forensic interviews to include a rapport-building activity based on mutual attention, positivity, and coordination of behaviour (Tickle-Degnen & Rosenthal, 1987, 1990) may be a new avenue for forensic researchers and practitioners to investigate.

Contribution of Authors

I, Ida Foster, am the primary author of this dissertation and have conceptualized, collected, and written this dissertation in its entirety. My doctoral supervisor, Dr. Victoria Talwar, played an integral role in the supervision of this dissertation project, overseeing the entire research project for both studies, from conceptualization to manuscript submission. While I participated in participant recruitment, testing, coding, and data input, I also received significant assistance from the more than dozen volunteers and undergraduate research students who helped with the data collection for both studies. I am also the principal author for both manuscripts. I received significant assistance from the co-authors of my manuscripts, Dr. Talwar and Dr. Angela Crossman (John Jay College of Criminal Justice), who helped me to formulate the research questions and design the experimental methodology for both studies. While I wrote the full drafts for each manuscript on my own, my co-authors provided invaluable assistance with the structure and editing of both manuscripts before they were submitted for publication. Dr. Crossman and Dr. Armando Bertone (McGill University) served on my doctoral committee and helped to approve the theoretical basis and methodology and provided critical, constructive feedback to the first draft of my dissertation.

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Chapter 1: Introduction

In the United States, a child under the age of 18 who is an alleged victim or a witness to a crime is presumed competent to stand trial (Legal Information Institute, Cornell Law School, 2021). In Canada, reforms to the *Canadian Evidence Act* in 2006 declared that children under the age of 14 are presumed to have the ability to testify, as long as they can understand and respond to questions and promise to tell the truth (Bala et al., 2011; Northcott, 2009). Unfortunately, children can sometimes be reluctant to disclose the crimes of others and may keep others' behaviour secret (e.g., Rush et al., 2014) for a variety of reasons, both internal and external. Their age, cognitive abilities, moral development, social factors, pressure to protect the transgressor from criminal consequences, and other external factors may all affect children's willingness to disclose (Lyon et al., 2014; Pantell et al., 2017; Talwar & Crossman, 2011; Talwar et al., 2016). Therefore, a central issue for interviewers in children's eyewitness testimony is assuring that despite a child's resistance, their reports are credible and truthful without increasing false reports. This has led researchers in the forensic community to examine factors that influence children's testimonies including whether or not they disclose criminal activities and the quality and accuracy of these testimonies (Hershkowitz, 2009). It is important that both researchers and legal professionals understand factors that influence children's abilities to remember and report criminal events and provide them with an environment that fosters their truthful disclosures.

One potentially impactful external social factor could be interpersonal influences. Such influences can include the child's relationship with the person who has committed the transgression and who may ask them to conceal it, as well as their relationship with the interviewer. Children need to feel comfortable enough to tell the truth when interviewed and

interviewers need to counter possible feelings of pressure to lie or conceal negative transgressions where the child has been a witness or victim. However, there has been little research on how these relationships may influence children's disclosures (Pantell et al., 2017; Pipe et al., 2007; Talwar & Crossman, 2011). In particular, little if any attention has focused on how children's perceptions of likeability, familiarity, and comfort with the adult(s) involved in transgressions and those involved in their subsequent investigation concurrently impact their disclosures. Likewise, the purpose of a rapport-building phase at the beginning of a forensic interview is to make children feel comfortable (Collins et al., 2014; Lamb et al., 2018). While in the field, investigators may engage in minimal or "simple" rapport building at the start of the interview (Ahern et al., 2015; Saywitz et al., 2015), and researchers suggest that asking children open-ended questions about neutral or positive personal information and personally meaningful experiences may put children at ease and facilitate their disclosures (Ahern et al., 2015; Hershkowitz, 2011). However, few studies have examined the effectiveness of this stage in actually building rapport with children and whether it influences their testimonies (Lavoie et al., 2021; Saywitz et al., 2015). Moreover, no studies to date have attempted to move away from narrative rapport-building to consider if a different type of activity, such as an interaction built on trust and rapport theory (e.g., Tickle-Degnen & Rosenthal, 1987, 1990), may positively affect children's feelings of rapport with the interviewer and the quality and accuracy of their subsequent disclosures.

The current program of research aims to fill these gaps in the literature. Study 1 evaluates children's perceived feelings of likeability, familiarity, and comfort with a transgressor and interviewer. Study 2 investigates whether a novel method of building rapport through a trust-building activity effectively creates a sense of rapport in the child, and whether it influences their

willingness to disclose and the quality of their testimonies. The goal of this program of research is to shed light on children's possible motivations and justifications for concealing or disclosing an event and provide new avenues to investigate that may help front-line workers including psychologists, interviewers, parents, and educators overcome children's reluctance and facilitate their ability and willingness to give detailed, truthful, and accurate event reports through new evidence-based interview practices.

Chapter 2: Literature Review

Children can be called upon as witnesses in criminal cases and court proceedings (Bala et al., 2000, 2010). Similar to adults, children can be asked to testify about crimes that they have witnessed, or those of which they have been victims. In recent years, there has been an increase in the number of children testifying in Canadian courtrooms (Hardy & van Leeuwen, 2004; Sas, 2002). Therefore, it is important that both researchers and legal professionals understand children's abilities to remember and report criminal events and provide them with an environment that fosters truth-telling.

Historically, children were assumed to not be competent and were not allowed to testify in legal proceedings (Quinn, 1986). However, due to the significant increase in children being called as witnesses in legal settings, changes to legal policies made it easier for children to testify (Bussey & Grimbeck, 2000; Northcott, 2009; Talwar et al., 2011). Namely, reforms to the *Canadian Evidence Act* in 2006 declared that children under 14 years old were presumed to have the ability to testify, as long as they could understand and respond to questions, and promise to tell the truth (Bala et al., 2011; Northcott, 2009). A child's testimony against the alleged perpetrator is often considered to be critical evidence in many legal cases, and children's understanding of truth and lies can influence whether or not they are called upon to testify (Talwar & Crossman, 2012). Nevertheless, research has indicated that although children 3 to 7 years old may report that lying to conceal a transgression is bad, children still lie to hide their own transgressions (Talwar & Lee, 2002a). This suggests that even if children have the moral understanding of truth and lies, they can still choose to lie, and that asking children if they know the difference between the two does not necessarily lead to truthful testimonies. Therefore, a central issue in children's eyewitness testimony is assuring that their reports are truthful and

credible, and thus, research into variables that might influence the veracity and credibility of children's testimonies is warranted.

The Importance of Effective Interviews

When children are victims, they may be reluctant to disclose their experiences and risk more victimization, which may lead to further negative consequences (Hershkowitz et al., 2007); they may also feel pressure to not disclose and protect the wrongdoer from criminal consequences (Talwar et al., 2016). Although the majority of research on interviewing child witnesses is in relation to child sexual abuse (Lyon, 2014), the interviewing techniques used are effective with all types of child witnesses. Research with abused and non-abused children has shown that if children are interviewed using open-ended questions, in a supportive and friendly manner, and are encouraged to describe their experiences, they are better able to provide more detailed, accurate, and reliable reports (Lamb et al., 2002, 2003; Orbach et al., 2000; Powell & Lancaster, 2003; Sternberg et al., 1997, 2001; Turoy-Smith & Powell, 2017). Conversely, if children are interviewed by intimidating adults or with inappropriate questions, this may encourage denials or false disclosures (Hershkowitz et al., 2007). Therefore, it is necessary for interviewers to use effective techniques when questioning child witnesses in order to promote truthfulness and avoid false reports.

Most of the forensic interview protocols used with children, such as the Cognitive Interview and the National Institute of Child Health and Human Development (NICHD) protocols start with a rapport-building phase and then follow with questions pertaining to the event in question (Brown et al., 2013; Fisher & Geiselman, 1992; Orbach et al., 2000; Sternberg et al., 2001). These include starting the interview with open-ended, free-recall questions that allow children to use their own words to describe an event (Lamb, 1998). Open-ended questions

allow children to provide free-recall accounts that might be brief but are typically accurate and they allow children to provide more forensically-related, detailed testimony (Brown et al., 2013). Additional open-ended non-suggestive prompts can be used to follow-up responses and gather more details (e.g., "Anything else?", "Tell me more about that"; Andrews et al., 2015; Memon et al., 2010). Similar to free-recall questions, follow-up prompts can help to increase the amount of information recalled (Hershkowitz et al., 2012). Cognitive load questions such as asking the child to recall the events in reverse order (Vrij et al., 2006, 2008) can also be included in a forensic interview to facilitate additional free recall and, at times, to impede deceptive responding. Open-ended, free recall questions may be followed by closed-ended questions, which are more directive questions seeking specific information and that might provide or limit answer options (e.g., "What color was his shirt?", "Was she wearing glasses?"). When responding to open-ended questions, children tend to provide more coherent and organized responses, compared to closed-ended questions (Feltis et al., 2010). Moreover, closed-ended questions can increase the probability of false responses and unelaborated responses in children (Andrews et al., 2015; Lyon, 2014), although children have more difficulty withholding information when they are asked closed-ended compared to open-ended questions (Lyon et al., 2008; Pipe & Wilson, 1994; Saykaly et al., 2013; Talwar & Lee, 2008; Talwar et al., 2016). Therefore, in order to promote truthful responses, interviewers should include both open- and closed-ended questions in their interview protocols and be aware of the potential pitfalls of both types of questions.

Children's Development of Lying

Despite what some might believe, children, like adults, do lie. Lying can be defined as a deliberate act of deception with the intention to mislead another person into falsely believing

what the liar knows not to be true (Talwar & Crossman, 2011). It requires the ability to introduce a false belief in someone else (Leduc et al., 2017). Occasional lying is normal and is seen as a function of children's increasing cognitive and social skill maturity (Evans & Lee, 2011, 2013; Lee, 2013; Talwar & Crossman, 2011, 2012; Talwar & Lee, 2008). This includes the emergence of the ability to inhibit truthful information, to use working memory to recall the lie, and to consider the perspective of the person they are lying to (i.e., theory-of-mind skills; see Talwar & Crossman, 2011, 2012, for reviews). Therefore, the emergence of lie-telling in preschool is considered to be a developmental milestone (Talwar & Crossman, 2011). While young children's lies are simple (e.g., Evans & Lee, 2013; Talwar & Crossman, 2011, 2012; Talwar & Lee, 2008; Williams et al., 2017), older children's lie-telling skills improve and they become better at maintaining their lies in response to questioning (e.g., Evans & Lee, 2011, 2013; Talwar et al., 2007; Wyman et al., 2019). Older children also develop the ability to tell more sophisticated and convincing lies, such as successfully lying to conceal their own or another's transgression (Evans & Lee, 2011, 2013; Talwar & Crossman, 2011; Talwar & Lee, 2002a). While young children tend to lie primarily to avoid a punishment or a task or to obtain a material benefit, Lavoie, Leduc, and colleagues (2017) found that children's lie-telling behaviour tends to follow a developmental trajectory from early childhood to early adolescence. Early adolescents told fewer lies, but they also had the highest probability of telling lies to protect others (Lavoie, Leduc, et al., 2017). Therefore, children's ability to lie develops and changes with age, and reflects children's increasing use of lying as a social strategy.

Importantly, forensic investigators seek to increase children's willingness to disclose, and decrease the likelihood of children's lying and concealment during investigations. However, developmental research findings regarding the willingness of children to disclose is mixed.

While some studies report that children's willingness tends to increase with age (e.g., Hershkowitz et al., 2005; London et al., 2005; Pipe et al., 2007; Smith et al., 2000), others report that older children may be more reluctant to disclose transgressions (e.g., Hershkowitz et al., 2007) and still others have found no relationship between age and disclosures (e.g., Gries et al., 1996; Rush et al., 2014). More recently, Leach and colleagues (2017) found that children's disclosure rates tend to increase throughout childhood. With regard to lying and concealment, previous research indicates that older children are more likely than younger children to conceal the wrongdoings of an adult (e.g., Bottoms et al., 2002; Gordon et al., 2014; Lyon et al., 2008; Talwar et al., 2004; see Talwar & Crossman, 2012, for a review). Research has also shown that children are willing to tell prosocial lies to protect others (Popliger et al., 2011) and that school-aged children are willing to protect a parent by making a false denial about a broken toy (Gordon et al., 2014). Others, however, have found that children's willingness to conceal decreases with age (e.g., Lyon et al., 2014; Pipe & Wilson, 1994).

Regardless of their willingness to disclose or conceal, the *ability* to do so effectively improves with age (Talwar & Crossman, 2011; Talwar & Lee, 2008) and may reflect children's developing cognitive maturity (Lee, 2013; Talwar & Crossman, 2011, 2012). Hence, a child's developmental capacity is an essential factor when considering their abilities to both disclose and lie about a transgression. While much of the existing literature has examined these developmental and cognitive factors, more consideration of social factors that influence children's lie-telling and disclosures is needed (Talwar & Crossman, 2011). Children's decisions about whether to tell the truth or lie are often made in the context of their interpersonal relations and their honesty can be influenced by social-environmental factors as well as their cognitive abilities (Talwar & Crossman, 2011). Therefore, one of the main goals of the present research

program is to investigate social influences on children's likelihood to conceal or disclose a transgression, namely, interpersonal variables. Specifically of interest are children's feelings towards the adults involved in transgressions – those who ask them to lie, and those who interview them to elicit truthful disclosures.

Children's Feelings and Willingness to Lie for Others

The impact of interpersonal variables, such as children's perceived feelings about the individuals involved in a transgression and its investigation, has been less well-researched in children's testimonies, but is worthy of exploration. Investigating children's subjective feelings towards both the person asking them to lie and the person interviewing them may be an important avenue to pursue when attempting to explain why children are willing to lie for others. The extent to which children may be willing to disclose – or deny – a transgression may be associated not only with child-related variables, but also with the relationship between the child and the alleged perpetrator and the subsequent investigator (Pipe et al., 2007). Indeed, children's concurrent perceptions of likeability and comfort level with the adults involved in transgressions, namely the person asking them to lie and the interviewer, may influence children's willingness to disclose or lie about the incident.

When children are interviewed in the course of an investigation, they often are asked about an event involving an interaction between themselves and an adult transgressor. When children testify in court, in most cases, the alleged transgressor in abuse cases is someone familiar to them (Gries et al., 1996; Northcott, 2009; Pipe et al., 2007). When children know and trust the perpetrator, they may experience feelings of confusion and ambivalence towards the abuser. They may even be threatened by the abuser not to disclose the abuse, fuelling children's fears of abandonment or of losing a non-offending caregiver (Gries et al., 1996). Children can

also feel a sense of loyalty to the offender and may feel obligated to protect them (Lyon, 2000). In some cases, the child may be asked to conceal a transgression ("keep it secret") and thus lie in order to protect the adult who committed the wrongdoing (Bottoms et al., 2002; Foster et al., 2019; Pipe & Goodman, 1991; Wyman et al., 2019). Concealing information and keeping secrets are not unusual for children. Young children in particular may be susceptible to requests to conceal information and keep secrets (e.g., Bottoms et al., 2002; Pipe & Goodman, 1991), fearing potential negative consequences or repercussions to their relationship with the alleged perpetrator if they do not (Pipe et al., 2007).

A great deal of research in laboratory settings has shown that children can and will lie to protect someone who has committed a transgression (e.g., Bottoms et al., 2002; Lyon et al., 2008; Popliger et al., 2011; Talwar et al., 2004). Children may be motivated to lie for someone they know and care about in real life, such as someone they consider to be a friend. Children, especially young children, may be more likely to lie to cover up a friend's transgression compared to a stranger's (Ekman, 1985). In older youth, secret-keeping is viewed as a way to maintain personal peer relationships, possibly due in part to the formation of a trust-bond between the two individuals (Lavoie, Nagar, & Talwar, 2017). However, it is unclear how feelings of friendship or likeability (i.e., feelings of familiarity, comfort, approachableness) with an adult may influence children's willingness to lie for them. An adult whom the child perceives as a "friend" may ask a child to lie to protect them if they have performed a transgression and, if the child feels a sense of familiarity, affection, loyalty, and/or comfort with this transgressor, they may feel a need to protect them and deny the transgression. Children's feelings towards the adult asking them to keep secrets and tell lies may fluctuate depending on the situation and on the underlying sense of closeness with the perpetrator.

While researchers have investigated children's willingness to lie for others, none have examined whether children's perceived friendliness and comfort with a transgressor they have just met influences their willingness to lie or disclose a transgression, particularly in relation to an investigator they have also just met. If a child is willing to lie for someone they have recently met but like and feel comfortable with, this could have important implications for real-life situations and shed new light on factors that influence children's disclosures. Therefore, the first study in this research program aims to examine this novel idea: how do children's perceptions of likeability, familiarity, and comfort with new adults who either perform a transgression or interview them about that transgression influence their disclosure in a subsequent interview?

The Importance of Rapport in Child Witness Interviews

When children give testimony, they can be questioned by several different individuals. In most situations, children have had no prior contact with these unfamiliar interviewers and are often asked to disclose sensitive and sometimes painful information to them. In such cases, the investigative interviewing process can be confusing and difficult for the child, especially since they are being asked to overcome any reservations they may have about cooperating with an unknown adult (Sternberg et al., 1997).

Interviewers have the important responsibility of properly interviewing children in order for them to disclose accurate information about a witnessed event. They can influence whether or not children disclose information, the number of details provided by the children and the accuracy of their statements (Cronch et al., 2006). It has been recommended that interviewers have certain skills and experience to do so, including the ability to establish and maintain rapport with the child through warmth, friendliness, and tact; a relaxed, empathetic, and warm approach; experience working with young children; and previous training in interviewing or counselling

(Wood & Garven, 2000; Wright & Powell, 2007). A child who is interviewed by an unfamiliar adult may be more likely to lie to the interviewer because of the unfamiliarity and the lack of trust the child might have in the new adult, while a child might consider a familiar interviewer to be more supportive than an interviewer they do not know (Quas & Schaaf, 2002).

Given the importance of ensuring accurate and truthful reports, unfamiliar interviewers need to gain the trust and cooperation of children by establishing rapport and commonality between the child and interviewer (Hershkowitz, 2011; Saywitz et al., 2015). The importance of establishing rapport has been considered a key component to gaining children's trust and cooperation (Saywitz et al., 2015). The relationship between the child and interviewer is believed to be an important factor in children's ability to communicate competently and self-disclose (Saywitz et al., 2015). Indeed, the process of eliciting information from children about events they have witnessed is often just as essential as the information itself, and is often overlooked (Powell & Lancaster, 2003). In fact, the majority of child interview protocols state that an important step in such interviews is the development of good child-interviewer rapport (Crossman et al., 2002; Poole & Lamb, 1998; Turoy-Smith & Powell, 2017). Therefore, most interview protocols suggest that the interview start with a rapport-building phase that is child-centered and within a supportive conversational environment (Poole & Lamb, 1998). But what exactly does that mean?

Building Rapport

Building rapport begins with the interviewer's first interaction with the child (Ruddock, 2006). Rapport-building is a specific stage at the beginning of an interview where the interviewer uses techniques to establish a connection (i.e., rapport) between themselves and the child to facilitate children's reporting (Saywitz et al., 2015, 2019). Forensic interview guidelines such as

the NICHD protocol (Lamb et al., 2018), the Cognitive Interview (Fisher & Geiselman, 1992), and the Stepwise Interview (Yuille et al., 1993) suggest that interviewers establish rapport at the beginning of the interview before asking questions about the suspected crime (Crossman et al., 2002; Poole & Lamb, 1998). The primary function of the rapport-building phase is to create a supportive environment and increase children's comfort and competence to recall and disclose past events (Collins et al., 2014; Lamb et al., 2018). The stronger the rapport between the child and interviewer, the more comfortable and detailed the child may be in their disclosures (Powell & Lancaster, 2003).

The emphasis of the limited previous research on rapport has been on this "rapport-building stage" to complete at the beginning of the interview process and on the narrative techniques used to build rapport without a clear focus on actually defining "rapport" and assessing if it has been established. Just because a rapport-building phase is included in questioning does not necessarily mean that rapport has been formed (Collins et al., 2014). Some interviewers merely attempt "simple rapport-building", such as asking a few personal questions about the child (e.g., "What grade are you in?"; Ahern et al., 2015; Saywitz et al., 2015), which may be insufficient to establish rapport. Therefore, one issue in the forensic literature is establishing a clear definition of "rapport" as it is often confounded with the similar but different concept of "supportiveness" (Saywitz et al., 2015). Some researchers consider supportiveness to be a form of rapport-building while others believe that good rapport-building is an aspect of supportiveness (see Saywitz et al., 2015, for a discussion). In the current program of study, an important part of establishing rapport is providing a supportive environment with a supportive interviewer. Once children feel respected, accepted, and safe, they are more likely to respond to questions honestly (Hughes & Baker, 1990).

While there is general consensus that rapport-building is vital (e.g., Crossman et al., 2002; Goodman et al., 2017; Poole & Lamb, 1998; Turoy-Smith & Powell, 2017), only a handful of studies have empirically examined the independent effects of rapport-building on interview outcomes (i.e., Brown et al., 2013; Hardy & van Leeuwen, 2004; Lyon et al., 2014; Roberts et al., 2004; Sauerland et al., 2018; Yi & Lamb, 2018; see Lavoie et al., 2021; Saywitz et al., 2015, for reviews). These studies have focused primarily on varying the types of questions used (e.g., closed, open-ended) and varying the type of narrative practice included during the rapport-building phase to examine their impact. Narrative practice involves giving children practice describing neutral experienced events in detail via the same open-ended questions and questioning technique the interviewer will use for the actual interview (Collins et al., 2014; Lyon et al., 2014). For instance, Sauerland and colleagues (2018) varied the amount of rapport-building with no rapport-building, minimal rapport-building that consisted of a few personal questions, and extensive rapport-building that used open-ended questions about themselves to provide children with narrative recall practice. They found limited evidence of effects of the rapport-building stage, with no effect on length of report. More recently, a meta-analysis of the effects of narrative-based rapport-building practices found that studies reported a range of effect sizes, from small to large effects, and that overall, these studies had a medium effect ($d = 0.55$) on children's disclosures, suggesting that more improvement in current practices is needed (Lavoie et al., 2021).

Relational Aspects of Rapport

While research has focused on rapport-building, the question of whether the techniques examined create meaningful rapport remains. As noted by Saywitz and colleagues (2015, 2019), there is a lack of research examining relational aspects of rapport-building, such as trust. Trust is

based on reliability (keeping one's promise), emotion (being supportive, avoiding criticism) and honesty (being neutral/genuine rather than manipulative/malicious; Rotenberg et al., 2005). Additionally, Tickle-Degnen and Rosenthal's (1987, 1990) widely-accepted model of rapport suggests that there are three key behavioural interrelated components of rapport: mutual attentiveness, positivity, and coordination (Abbe & Brandon, 2013; Saywitz et al., 2015). Mutual attentiveness is the first of the three components and creates a focused and cohesive interaction by having participants express mutual interest and engagement. This can include eye contact and open body posture and spatial configurations that signal communication, accessibility, and interest. Positivity refers to mutual friendliness and caring, such as smiling and head nodding, and coordination can be considered as having harmony or being "in sync" with the other person in a form of interactional synchrony (Tickle-Degnen & Rosenthal, 1987, 1990). Even in initial rapport settings, feelings and behaviours reflecting these three components should be present at some level, although the relative importance or weighting may be different at different times in an overall social experience (Tickle-Degnen & Rosenthal, 1990). Nevertheless, all three components should to be present for proper rapport to be achieved and further research examining how such a theoretically-driven, relational rapport-building stage can be used in child witness interviews is warranted.

Present Program of Research

The current program of research aims to address some of the gaps in our understanding of how social and interpersonal factors such as children's subjective feelings towards adults involved in investigations may affect children's disclosures. Therefore, Study 1 is the first of its kind to examine children's perceived feelings of likeability, familiarity, and comfort not only with an adult transgressor, but also an unknown adult interviewer and how these feelings

influence their testimonies. Specifically, of interest is whether children attempt to conceal a theft they witness, whether those who lie maintain their lie throughout the interview, and whether the children allude to the theft without directly implicating the transgressor.

Secondly, while most interviewing protocols emphasize the importance of the rapport-building phase in forensic interviews, few have examined whether building rapport verbally is an effective way of actually developing rapport and whether the interviewee actually felt rapport with the interviewer during the interview stage. Further, no studies have examined the effects of an interactive trust-building rapport activity on children's overall sense of engagement with the interviewer during an interview and on their ability to disclose accurate and truthful testimonies. Therefore, Study 2 involves examining how two different methods of building rapport in a forensic interview impact children's disclosures versus concealment of a transgression and the veracity, accuracy, and quality of their testimonies. Specifically, a novel method of building rapport interactively based on Tickle-Degnen and Rosenthal's (1987, 1990) theory of trust and rapport is compared to the standard, verbal narrative practice rapport-building currently employed in several forensic interviewing protocols.

These studies will contribute to the current literature on factors that influence children's willingness to lie or disclose another's transgression. Despite the importance of children giving truthful testimonies, most studies have been analogue studies where it is difficult to manipulate the levels of stress associated with memory retrieval of forensically-relevant situations (i.e., witnessing a theft and being asked to lie about it; Hershkowitz, 2011). Since children are usually reporting about a criminal event, such as an experience of abuse or a witnessed crime (Lyon & Saywitz, 1999), it is important to study how children recall information about a high-stakes event and the factors that influence their testimonies. The current program of research utilizes a

paradigm that can generalize to real-life situations where children are witnesses to crimes. Importantly, an essential and distinctive component of these studies is the inclusion of deception whereby a child is asked to lie about a witnessed transgression. Therefore, although these studies are conducted in a laboratory setting, the themes and topics children discuss in their eyewitness testimonies generalize to actual forensic settings.

Chapter 3: Manuscript 1

"I Like You So…": How Instigator and Interviewer Likeability and Familiarity Influence Children's Disclosures

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Abstract

This study examined how children's age and their ratings of the likeability of a transgressor (E1) and an interviewer (E2) influenced their testimonies after witnessing a theft. Children (N = 152; ages 7-13) witnessed a transgressor steal $20 from a wallet. E1 then asked the children to lie and say that they did not take the money. Children were interviewed about their experience with E1 and completed two questionnaires about E1 and E2. Children who reported higher likeability scores with E1 were more likely to attempt to lie by concealing the theft and more willing to keep it a secret. Children who reported higher likeability scores with E2 were more likely to indirectly disclose the theft. Age also played a role in children's ability to maintain their lie. The results have important implications for professionals who interview children and suggest that more research is needed to examine ways to increase children's comfort with interviews and interviewers.

Keywords: children, lying, disclosures, likeability, interviewing

"I Like You So…": How Instigator and Interviewer Likeability and Familiarity Influence Children's Disclosures

According to the American Academy of Pediatrics (AAP), more than 100,000 children appear in court every year (Pantell et al., 2017). Whether victim or witness, it is important that these children provide credible, honest, and accurate reports. However, despite the importance of telling the truth, many children may feel pressure to lie or conceal the truth, especially when they are asked to keep a transgression secret (Bottoms et al., 2002; Goodman & Melinder, 2007; Pipe & Goodman, 1991). A child's reluctance to disclose could be related to a variety of factors, both internal and external. For example, previous research has shown that children's age tends to be related to the amount of information they will disclose about a transgression, as well as the degree to which they might be willing to conceal transgression-relevant information during an investigative interview (i.e., to lie; Carl & Bussey, 2019; Evans & Lee, 2011; Lavoie, Leduc, et al., 2017; Talwar & Crossman, 2011). In contrast, there has been little research on interpersonal relationships – that is, how a child's relationship with the person who committed that transgression, and who may ask them to conceal it, versus their relationship and comfort level with the investigative interviewer, may influence their disclosures (Pantell et al., 2017; Pipe et al., 2007; Talwar & Crossman, 2011). In particular, little if any attention has focused on how children's perceptions of likeability, familiarity, and comfort with the adult(s) involved in transgressions and those involved in their subsequent investigation concurrently impact their disclosures. Children may not perceive their environment in the same way as adults; they may not pay attention to the same aspects of a person compared to an adult (Almerigogna et al., 2008). More and more, children's views and perspectives, no matter how young, are considered valuable (Fangstrom, 2017). These are important avenues to investigate as they may shed light

on children's motivations for lying or disclosing and provide new opportunities for forensic interviewers and others who work with children to intervene and promote truthfulness. Therefore, the current study aims to examine how children's age and their perceptions of the likeability and familiarity of an instigator and of an investigative interviewer influence their willingness to disclose or to lie about a transgression.

Development of Children's Truth and Lie-telling

Ensuring child witness honesty and accuracy is imperative during investigative interviews. In recent years, researchers have examined the development of children's ability to tell lies and give false reports (e.g., Evans & Lee, 2011; Foster et al., 2019; Talwar & Crossman, 2011, 2012; Wyman et al., 2019). While young children's lies are simple (e.g., Evans & Lee, 2013; Talwar & Crossman, 2011, 2012; Talwar & Lee, 2008; Williams et al., 2017), older children's lie-telling skills improve and they become better at maintaining their lies in response to questioning (e.g., Evans & Lee, 2011, 2013; Talwar et al., 2007; Wyman et al., 2019). Lie-telling ability may reflect a child's emerging cognitive maturity as the child begins to understand others' mental states and behaviours, while simultaneously learning to control his or her own behaviour to increase lie-telling effectiveness (e.g., Evans & Lee, 2011, 2013; Talwar & Lee, 2008; for reviews see Lee, 2013; Talwar & Crossman, 2011, 2012).

Young children's early lies tend to be motivated by the need to avoid punishment or negative consequences for their own transgression or to protect their self-interest (Evans & Lee, 2011, 2013; Lavoie, Leduc, et al., 2017; Talwar & Crossman, 2011; Talwar & Lee, 2002b; Williams et al., 2017). As they mature into later childhood and early adolescence, children tell lies increasingly for the benefit of others, sometimes at a cost to themselves, although the cost may not be high (Talwar & Crossman, 2011). They may also lie to protect others (Lavoie, Leduc,

et al., 2017). Indeed, children's lie-telling is sensitive to nuances of social context and school-aged children will tell polite lies to avoid hurting someone's feelings (Popliger et al., 2011; Talwar & Crossman, 2011). Therefore, children's ability to lie develops and changes with age, and reflects children's increasing use of lying as a social strategy.

When children are interviewed in the course of an investigation, they often are asked about an event involving an interaction between themselves and an adult transgressor. In some cases, the child may have been asked to conceal the transgression ("keep it secret") and thus lie in order to protect the adult who committed the wrongdoing (Bottoms et al., 2002; Foster et al., 2019; Pipe & Goodman, 1991; Wyman et al., 2019). Concealing information and keeping secrets are not unusual for children. In a study of self-reported secrets and lies, Lavoie, Nagar, and Talwar (2017) found that children 8 to 15 years of age reported concealing on average two secrets and telling 1.9 lies per day. A number of studies have found that older children (middle school age) are more likely than younger children (early elementary) to conceal an adult's transgression (e.g., Bottoms et al., 2002; Gordon et al., 2014), while others have found that children's willingness to conceal decreases with age (e.g., Lyon et al., 2014; Pipe & Wilson, 1994). Likewise, researchers have found that when interviewed about a harmful event, such as abuse, children's willingness to disclose might increase with age (e.g., Pipe et al., 2007) or decrease (e.g., Goodman-Brown et al., 2003). Younger children may be more susceptible to requests to conceal such information and keep it secret (e.g., Bottoms et al., 2002; Pipe & Goodman, 1991), fearing potential negative consequences or repercussions to their relationship with the alleged perpetrator (Pipe et al., 2007). In a realistic theft study, Foster et al. (2019) also found that children's willingness to disclose a theft and the consistency and length of their testimony increased with increasing child age. Clearly then, age is an important factor to

consider when examining children's testimonies, to better understand how it relates to children's willingness to disclose. Less is known, however, about the impact of other social and interpersonal motivational variables, such as children's perceived feelings of likeability, familiarity, and comfort with the adults involved, on children's disclosure versus concealment of a transgression.

Interpersonal Motivations for Children's Lying

Likeability and Familiarity with an Instigator

In forensic settings and when children testify in court, the alleged perpetrator is often someone familiar to them (Gries et al., 1996; Northcott, 2009; Pipe et al., 2007). In cases of child abuse, the child has had prior interaction with the perpetrator close to 90% of the time (Darkness to Light, 2015; Finkelhor & Shattuck, 2012). While the majority of perpetrators of child sexual abuse are non-relative acquaintances, about 1/3 of the time, children are abused by family members (Finkelhor & Shattuck, 2012; Whealin & Barnett, 2019). In forensic contexts, when children know and trust the perpetrator, they may experience feelings of confusion and ambivalence towards the abuser. Children can also feel a sense of loyalty to the offender and feel obligated to protect them (Lyon, 2000). In some cases, they may have also been threatened by the abuser not to disclose the abuse, fueling children's fears of retaliation, of abandonment, or of losing a non-offending caregiver (Gries et al., 1996). All of these could reduce a child's willingness to disclose.

A great deal of research in lab settings has shown that children can and will lie in experimental conditions (e.g., Carl & Bussey, 2019; Evans & Lee, 2011; Talwar & Lee, 2002b; Williams et al., 2013; see Talwar & Crossman 2011, 2012, for reviews) and to protect someone who has committed a transgression (e.g., Bottoms et al., 2002; Lyon et al., 2008; Popliger et al.,

2011; Talwar et al., 2004). Children might be particularly motivated to lie for someone they know and care about, such as someone they consider to be a friend. For example, early lie-telling research with 3- to 4-year-olds indicated that they were more likely to lie to cover up a friend's transgression compared to a stranger's (Ekman, 1985). This may reflect children's growing understanding of the role lie-telling plays in social interactions. A more recent study by Lavoie, Nagar, and Talwar (2017) reported that youth 12-15 years old viewed secret-keeping as a way to maintain personal peer relationships, possibly due in part to the formation of a trust bond between peers through the reliable keeping of secrets.

Thus, feelings of likeability, familiarity, closeness, and possibly trust with a transgressor may impact a child's willingness to conceal their transgression. However, while previous studies have examined different categories of familiar and non-familiar instigators (i.e., strangers, friends, parents), their actual levels of likeability and comfort with these adults have not been investigated or how they impact the likelihood that children will tell lies to conceal the transgressor's actions. In particular, it is not clear whether the degree to which a child experiences a sense of likeability with or connection to an individual influences their willingness to offer that individual protection through lying. Given the role that lie-telling often plays in social interactions and children's early-emerging sensitivity to that role, it seems likely it would make a difference. However, this question has yet to be probed, particularly when a child's feelings about an instigator are pitted against their feelings about an interviewer.

Likeability and Familiarity with an Interviewer

As with an instigator, children's feelings of familiarity, liking, and comfort with an investigative interviewer may influence their willingness to disclose or to lie about a transgression. However, interviewers may be at a disadvantage. When children are witnesses to

or victims of crimes, they are usually interviewed by adults with whom they have little-to-no prior contact, and are asked to provide important, possibly distressing information about the event in question and about the likely familiar, accused transgressor (Foster et al., 2019). In this context, investigative interviewers face the challenge of eliciting truthful event accounts and evaluating the veracity of children's allegations (London et al., 2008). It has been recommended that interviewers need certain skills and experience to do so, including the ability to establish and maintain rapport with the child through warmth, friendliness, and tact; a relaxed, empathetic, and warm approach; experience working with young children; and previous training in interviewing or counselling (Wood & Garven, 2000; Wright & Powell, 2007).

Despite their unfamiliarity, a critical task for interviewers is thus to use their interpersonal skills to make children feel comfortable enough to overcome their reluctance and disclose sensitive and sometimes painful information (Foster et al., 2019). Rotenberg et al., (2003) found that children disclosed personal information to unfamiliar adults they perceived as likeable and trustworthy. Therefore, a skilled interviewer may be able to build rapport and foster more feelings of familiarity and likability in the child, who might consider a familiar interviewer to be more supportive than an interviewer they do not know (Quas & Schaaf, 2002). Conversely, children may be more likely to lie to an unknown interviewer because of the unfamiliarity and lack of trust the child might have in the new adult. In an interview study about children's experience in out-of-home care in Finland, Helavirta and colleagues (2017) found that familiarity with the interviewer played a significant role in their comfort with interviewer. Children who reported that it was "easier" to be interviewed by a familiar interviewer were more likely to disclose more information about their cases. In other cases, however, children reported that

familiarity with the adult interviewer made them feel uncomfortable and they preferred speaking to a stranger instead (Helavirta et al., 2017).

Nevertheless, research has shown that interviewer familiarity can have a beneficial effect on children's accuracy when recalling a true event (Bjorklund et al., 2000), though results are mixed and could be related to child age. When interviewed repeatedly about a witnessed event, Quas and Schaaf (2002) reported that being questioned by an unfamiliar adult was beneficial for 5-year-olds, in that they gave more correct narrative detail than those questioned by an interviewer with whom they had already interacted. However, this was not found in 3-year-olds: they were less accurate when responding to direct questions asked by an unfamiliar as opposed to a familiar interviewer (Quas & Schaaf, 2002). In contrast, when Brubacher and colleagues (2019) manipulated interviewer familiarity by having either the same trained university student interviewer or a different interviewer question children over the course of two interviews about adults' transgressions, they found that the familiarity of the interviewer had little impact on their accounts.

Results on reporting to family members seem more consistent. In an early study by Peters (1990, as cited in Pipe & Goodman, 1991), children witnessed the theft of a book and were asked by the thief to keep it secret. The children were more likely to disclose the identity of the thief when questioned by their parents than by an unfamiliar interviewer. Similarly, Pipe and colleagues (2007) reported that the vast majority of alleged child sexual abuse victims in their study disclosed to family members, compared to someone outside of the family (e.g., teacher, neighbour, peer). Finally, Williams and colleagues found that children aged 6 to 9 years were more likely to lie to an unfamiliar adult compared to someone they know (Williams et al., 2013).

Notably, many of these studies used adult interviewers with whom the child is very familiar and close (i.e., parents). In real life situations, child witnesses are interviewed by unfamiliar adults. While much research has focused on the proper techniques interviewers can use to promote truthfulness (e.g., NICHD protocol, cognitive load questions, narrative elaboration), little is known about how children's perceived feelings towards unfamiliar interviewers influence their disclosures. Indeed, the relationship between the child and interviewer is believed to be an important factor in children's ability to communicate competently and self-disclose (Saywitz et al., 2015). Saywitz and colleagues note that successful rapport is dependent on an accord between the child's and the interviewer's subjective experiences in the interview; yet no studies to date have systematically examined this dynamic. Little, if any, research has examined whether certain characteristics of the interviewer themselves (e.g., Foster et al., 2019) or of their ability to effectively build rapport promote truthfulness. At this time, it is not known whether children's self-reported perceived feelings of likeability, familiarity, and comfort with an unfamiliar interviewer influences their willingness to disclose or lie about a transgression and if this varies as a function of concurrent feelings of likeability with the instigator or by child age.

Current Study

To investigate whether children's age and perceived feelings of liking, familiarity, and comfort with a transgressor and an interviewer impact their disclosures, children participated in an ecologically valid theft paradigm. Since children are usually reporting about a criminal event, such as an experience of abuse or witnessing a crime (Lyon & Saywitz, 1999), it is important to study how children recall information about a high-stakes event and the factors that influence their testimonies. Few studies (e.g., Quas et al., 2007; Tye et al., 1999) have created a situation analogous to experiencing a real-life crime. In the present study, in order to incite the emotions

and behaviours children might experience witnessing a realistic crime, and to mimic actual situations where children are asked to conceal the truth, children are asked by the transgressor to falsely deny a theft to protect them (i.e., lie by omission). A similar paradigm has been used in previous studies (see Foster et al., 2019; Wyman et al., 2019) and features a serious high-stakes event with apparent consequences to the transgressor where children are motivated to lie. It also provides a realistic scenario where the experimenter knows the truth and can verify the accuracy of children's statements.

Given that research has shown that individuals tend to agree with those they like (Chaiken, 1980) and that they are more likely to be persuaded to change their opinions and attitudes by communicators they deem likeable (Chaiken & Eagly, 1983), of primary interest for the current study was whether children's perceptions of instigator and interviewer likeability and familiarity influenced their willingness to disclose or lie about the theft. Following a series of rapport-building activities, children between 7 and 13 years of age witnessed a transgressor (known as E1) steal $20 from a wallet. E1 then asked the children to lie about the theft and not disclose it when interviewed by a second experimenter (known as E2). Children were interviewed using open-ended and closed-ended questions. Following the interview, children completed two questionnaires to assess whether their age and their perceptions of the likeability, familiarity, and comfort with the instigator and interviewer influenced their disclosures. Specifically, of interest was whether they attempted to conceal the theft, whether those who lied maintained their lie throughout the interview, and whether the children mentioned E1 asking them to keep a secret for them without necessarily directly disclosing the theft (i.e., an indirect disclosure such as "E1 asked me to keep a secret" or "E1 told me not to tell"). Although some studies have examined the role of transgressor and interviewer familiarity (i.e., parent versus

stranger) on children's willingness to lie (e.g., Tye et al., 1999; Williams et al., 2013), these studies did not include standardized measures where children could rate their level of likeability, familiarity, and comfort with the instigator and interviewer. Self-reported likeability and familiarity ratings allow for a more subjective assessment of the role of transgressor and interviewer likeability on children's willingness to lie.

Based on previous research (e.g., Foster et al., 2019; Lyon et al., 2014; Pipe et al., 2007; Pipe & Wilson, 1994), it was hypothesized that children's willingness to lie and attempt to conceal the theft would decrease with age and their willingness to disclose that E1 had asked them not to tell would increase with age. In terms of likeability, given that children have been shown to lie for their parents (e.g., Bottoms et al., 2002; Gordon et al., 2014; Pipe et al., 2007; Tye et al., 1999) and for their friends (e.g., Ekman, 1985), it was hypothesized that children's ratings of E1's perceived likeability and familiarity (i.e., stronger likeability scores) would predict increased willingness to conceal the theft and maintain the lie and a decreased willingness to mention E1 asking them not to disclose (i.e., indirectly disclose). Alternatively, although the research on interviewer familiarity is mixed, some report that children are more likely to lie to unfamiliar interviewers (e.g., Williams et al., 2013). Therefore, it was hypothesized that children's ratings of E2's perceived likeability and familiarity (i.e., stronger likeability scores) would predict decreased willingness to conceal the theft and increased willingness to indirectly disclose. It is also posited that there will be an interaction between children's age and their perceived feelings of likeability and familiarity on children's disclosures. Specifically, it is hypothesized that older children who report higher perceived feelings of likeability, familiarity, and comfort with E2 would be more likely to disclose the theft in free

recall, more likely to disclose when directly asked, and also more likely to indirectly disclose by mentioning the fact that they were asked to keep a secret.

Method

Participants

Participants included 152 children (*n* males = 75, *n* females = 77) between the ages of 7 and 13 years (*M*age = 10.25 years, *SD* = 1.63 years) from a large metropolitan area (i.e., population approximately 3,800,000). The children were predominately English or bilingual speakers from middle-income families. The majority of parents sought post-secondary education, with almost 75% of both parents having completed at least an undergraduate degree.

Procedure

All procedures were performed in compliance with relevant laws and institutional guidelines and the study was approved by the McGill University ethics review board (REB # 284-0115).

After parents completed the informed consent form, children and the transgressor (E1) went to a testing room to perform a series of activities (e.g., memory games; reading short stories), which were predominately used to build rapport between E1 and the child. Following the activities, E1 notified the children that they had to retrieve a forgotten jacket, which was located on a nearby table. E1 then found a wallet that had been placed near the jacket. E1 asked the children to open the wallet to see who the wallet belonged to. When the children provided the answer, the examiner responded that the person did not work at the lab and took back the wallet. At that point, the examiner looked in the wallet, saw a $20 bill inside, took it out, showed it to the children, and then took the money and put it in their pocket and said, "I'm going to take it".

The children were then brought into an interview room to be interviewed by the interviewer (E2). Before meeting E2, E1 asked the children that if they were asked about the

money, to lie by saying that E1 did not take the money from the wallet (i.e., implied to keep a secret). E1 told the children they were in financial need. E2, an adult with whom the children had never met before, then entered the interview room and E1 left. E2 advised the children that they would be asking them questions about their experiences with E1. The E2 interviewers were advised to maintain a consistently neutral tone of voice and non-verbal behaviour throughout the interview and they read the interview script verbatim.

Interviewers followed a standardized interview protocol that included questions and structure based on the Reality Interview method (RI; Colwell et al., 2002), a derivative of the ecologically valid Cognitive Interview (CI; Fisher & Geiselman, 1992; Memon et al., 2010). The interview started with basic open-ended rapport-building questions (e.g., asking about favorite subject in school; the child's last birthday) to help the child feel comfortable with the new adult. Children were then asked an open-ended free recall question ("Please describe in as much detail as possible, everything you can remember about what happened when you were with E1 from the time you arrived until the time you left"), along with a follow-up prompt ("Anything else?"), that allowed for a detailed report of everything they remembered with E1. Children were then asked a series of open- and closed-ended (Yes/No) questions with the goal of providing ample opportunities for children to disclose the theft. Children spent on average 14.5 minutes with E2 (M = 14.29, SD = 4.30).

Following the interview with E2, a third experimenter entered the room and explained the Likeability of E1 and E2 questionnaires to the children. The experimenter explained that the questions pertained to how they felt about E1 and E2. Children were asked to assent to complete the questionnaires on their own, or in the case of younger children, the questions were read to

them. Children indicated their answer using a 5-point smiley face Likert scale, which corresponded to the 5-point "Strongly Disagree" to "Strongly Agree" scale on the questionnaire.

Once the questionnaires were completed, the children were fully debriefed with their parent(s). They were advised that the theft was not real, that they had helped the researchers learn more about what makes children comfortable in interviews, and that it is important to tell a trusted adult if they are ever asked to lie for someone. If parents or children had questions, the experimenters answered them and made sure that the children understood the nature of the study and need for deception. Children were provided with a prize and parents received compensation for their time.

Materials

Likeability Questionnaires

Directly following the interview, children completed the Likeability of E1 and Likeability of E2 questionnaires to examine their ratings of likeability, familiarity, comfort with, attitude toward, and social perceptions of E1 and E2, respectively (see Appendices A and B). The likeability questionnaires were based on the Reysen Likeability Scale (Reysen, 2005), which is a scale that measures the perceived likeability, familiarity, and comfort with the target individual. The present study's Likeability of E1 and E2 questionnaires had strong internal consistency with Cronbach coefficient alphas of .86 and .85, respectively.

The Likeability of E1 and E2 questionnaires each asked the same eight questions including items such as whether the children considered E1 or E2 to be friendly, likeable, approachable, and whether they felt comfortable with them. For each item, children rated the target on a 5-point Likert scale ranging from "Strongly Disagree" to "Strongly Agree" (see Appendices A and B). Their responses were converted to a number from 0 to 4, and their total

scores were calculated with a maximum possible score of 32. A higher score on the questionnaire indicated perceptions of more comfort, familiarity, and overall likeability of that adult.

Coding Procedures

Interviews were videotaped and then transcribed into written transcripts. To analyze free recall responses, children who disclosed the theft in the free recall question were coded as truth-tellers. Children who did not disclose the theft were coded as "attempting to lie". Children who disclosed the theft at any point during the subsequent open- or closed-ended questions were coded as truth-tellers. Children who did not disclose the theft at any point during the open- or closed-ended questions were coded as lie-tellers. The last closed-ended Yes/No question was a direct question about the guilt of E1 ("Did E1 take the money from the wallet?") and was used as the index of lie maintenance. Children who disclosed that E1 had taken the money were scored as truth-tellers, even if they did not disclose in prior questions. Children who said "no" and had not previously disclosed E1 taking the money were coded as lie-tellers. Children's testimonies were also examined for whether or not children disclosed that E1 asked them not to tell E2 about the theft (coded as secret-keeping) in the free recall, open-or closed-ended questions.

Results

To examine the differences in children's disclosures, we conducted a series of hierarchical logistic regression analyses with (a) attempt to lie and conceal the theft (b) lie maintenance through the interview, and (c) whether children disclosed that E1 asked them not to tell E2 about the theft (and therefore keep a secret) as the predicted variables. Preliminary analyses revealed no significant gender effects on children's responses. Thus, the results for both genders were combined for subsequent analyses. For all logistic regression analyses, in order to control for the influence of time spent with E1 and E2, these two variables were entered in the

first step. Neither time measure was significantly correlated with Likeability ratings of E1 or E2. On the second step, the predictors of age, E1 Likeability score, and E2 Likeability score were input. Significance was assessed using a block chi-square test (also known as a $\chi 2$ difference test). In this test, the retention of the interaction term in a model must increase the variability accounted for to justify using a more complex model (Menard, 2002).

Attempt to Lie

Whether children attempted to lie about the theft in free recall was analyzed first. This was defined as whether children disclosed the theft in the first free-recall question or lied by omitting the theft. Overall, 21.1% (n = 32) of children told the truth at the start of the interview while 78.9% (n = 120) attempted to lie.

For the hierarchical logistic regression analysis predicting children's attempt to conceal the theft in free recall, the first step was significant, $\chi^2(2) = 8.67$, Nagelkerke $R^2 = .09$, $p = .013$. Time spent with E1 was a significant predictor of attempting to lie for E1, $b = .05$, $SE = .02$, Wald(1) = 5.12, $p = .023$, OR = 1.05, 95% CI [1.01, 1.10]. When children's age and their total scores on the Likeability of E1 and Likeability of E2 questionnaires were entered in the second step, there was a significant effect, $\chi^2(3) = 12.75$, Nagelkerke $R^2 = .21$, $p = .005$. Age was a significant predictor of children's attempt to conceal the theft, $b = -4.04$, $SE = .15$, Wald(1) = 7.02, $p = .008$, OR = .67, 95% CI [.50, .90]. With age, children were less likely to lie. Likeability of E1 scores were also a significant predictor of children's attempt to lie, $b = .14$, $SE = .06$, Wald (1) = 5.65, $p = .017$, OR = 1.02, 95% CI [1.03, 1.23]. Children who reported higher scores on the Likeability of E1 questionnaire (M = 23.26, SD = 4.59), and therefore more comfort and likeability with E1, were more likely to attempt to conceal the theft for them on the first free-

recall question, compared to children who disclosed the theft right away (M = 21.87, SD = 4.79). No interactions between age and likeability scores were significant.

Lie-Maintenance Throughout Interview

Of the 120 children who attempted to lie in free recall, 42 disclosed the theft later in the interview. More specifically, 18 children disclosed during the open-ended questions, 14 in the closed-ended questions, and 10 when directly asked if E1 took the money from the wallet. The remaining 78 children (65%) maintained their lie throughout the interview. Therefore, by the end of the interview, when children were directly asked "Did E1 take the money from the wallet?", 48.7% of children (n = 74) told the truth while 51.3% had maintained the lie (n = 78).

A hierarchical logistic regression analysis was conducted with children's maintenance of their lie throughout the interview as the dependent variable. The first step with time spent with E1 and E2 was significant, $\chi^2(2) = 8.22$, Nagelkerke $R^2 = .07$, $p = .016$. Specifically, time with E1 was a significant predictor whereby children who spent more time with E1 (M = 54.90, SD = 9.28) were more likely to lie throughout the interview and deny that E1 stole the money when directly asked compared to those who told the truth (M = 50.60, SD =10.14, b = .05, SE = .02, Wald (1) = 5.27, p = .022, OR = 1.05, 95% CI [1.00, 1.09]). Time spent with E2 was not a significant predictor (p = .420)

After controlling for the influence of time spent with E1 and E2, the best fitting model, which included children's age, their total scores on the Likeability of E1 and Likeability of E2 questionnaires, and the interactions between variables. There were no main effects, but there was a significant interaction between age and children's scores on the Likeability of E2 questionnaire, $\chi^2(4) = 15.21$, Nagelkerke $R^2 = .19$, $p = .004$, b = -.05, SE = .03, Wald (1) = 4.09, p = .043, OR = .95, 95% CI [.90, .99]. While older children who lied (M = 21.47, SD = 4.32) and

told the truth (*M* = 22.02, *SD* = 4.12) had similar Likeability scores for E2, younger children who told the truth had significantly higher scores (*M* = 23.51, *SD* = 5.09) than those who lied (*M* = 22.52, *SD* = 4.56).

Keeping a Secret by Not Telling the Interviewer Directly About the Theft

The final variable of interest was whether children indirectly disclosed during the interview by mentioning that E1 had asked them not to tell E2 about the theft. A hierarchical logistic regression analysis was conducted to assess the influence of time with E1 and E2 (step 1), children's age, and their perceived levels of Likeability of E1 and of E2 (step 2) on whether children ever disclosed that they had a secret. The first step was not significant, $\chi^2(2) = 1.76$, $p = .415$. In contrast, step 2 was significant, $\chi^2(3) = 24.22$, Nagelkerke $R^2 = .29$, $p < .001$. Age was a significant predictor of children's disclosure of being asked to keep a secret, *b* = .64, *SE* = .21, Wald (1) = 9.77, *p* = .002, Exp(B) = 1.90, 95% CI [1.27, 2.85]. As age increased, children were more likely to disclose to E2 that E1 had asked them not to tell E2 about the theft.

Likeability of E1 scores were also a significant predictor of children's indirect disclosures, *b* = -.24, *SE* = .08, Wald(1) = 9.33, *p* = .002. Exp(B) = .79, 95% CI [.67, .92]. Children who said that E1 asked them not to tell had significantly lower Likeability of E1 scores (*M* = 20.95, *SD* = 6.38) compared to children who did not disclose (*M* = 23.04, *SD* = 4.35). Additionally, children's Likeability with E2 scores were a significant predictor of children's willingness to indirectly disclose the theft, *b* = .29, *SE* = .09, Wald(1) = 9.57, *p* = .002, Exp(B) = 1.33, 95% CI [1.11, 1.59]. Children who revealed that E1 asked them not to tell E2 about the theft had significantly higher Likeability of E2 scores (*M* = 23.90, *SD* = 5.48) compared to children who did not disclose being asked to keep a secret (*M* = 22.20, *SD* = 4.36). There were no significant interactions.

Discussion

The present study aimed to contribute to researchers' and practitioners' understanding of how interpersonal and developmental factors influence children's testimonies. Specifically, this study examined how children's age and their ratings of the likeability, familiarity, and comfort with adults involved in a theft and its investigation influence their willingness to conceal or disclose that theft. By using a realistic theft-paradigm, where the children believed a crime had been committed with serious consequences to the transgressor, the authors sought to provide ecological validity and generalizability to the study. It was thought that a high-cost situation that children believed to be true would provoke emotions and behaviours similar to those children might experience witnessing a similar real-life crime. Although children were asked to lie by an experimenter-transgressor, this is comparable to a situation in which a child who has witnessed a crime is coached or asked by someone to conceal the transgression. To date, no previous research has directly examined children's subjective perceptions of experiences with a transgressor and an investigative interviewer concurrently, and how those feelings influence their testimonies. Therefore, these results provide initial insight into how interpersonal factors influence children's disclosure decision-making.

Likeability

The results of the current study have important implications for adults who interview children in forensic contexts. They suggest that children's perceived feelings of likeability, comfort, and familiarity with a transgressor who asks them to lie, and with an investigative interviewer, both have compelling effects on children's testimonies – even in the context of the extremely brief exposure of the current experiment. Overall, the majority of children in the present study lied by omission when first given the opportunity to disclose the theft in free recall.

This is in line with previous experimental research (e.g., Evans & Lee, 2011, 2013; Foster et al., 2019; Talwar & Lee, 2002a; Wyman et al., 2019; see Talwar & Crossman, 2011, 2012, for reviews) that has shown that school-aged children are willing to and capable of concealing information to protect another individual.

With regard to the transgressor, the amount of time children spent with the adult in the study was predictive of their willingness to disclose or conceal the theft. Children who spent more time with the transgressor were more willing to lie for them when questioned. In real-life cases, children usually know their alleged perpetrator (Children's Bureau of the U.S. Department of Health and Human Services, 2020) and therefore are likely to spend extended periods of time with them either over single or repeated events, which could influence their willingness to disclose or conceal wrongdoings. However, in the present study, even while controlling for the effect of time spent with the transgressor and interviewer, other predictors also had significant effects on children's testimonies.

One such predictor is children's ratings of perceived likeability and familiarity of the transgressor, which were not correlated with the time factor. Children were more willing to attempt to lie and conceal the theft and keep it a secret for a transgressor they rated as likeable and familiar. Specifically, in support of the proposed hypotheses regarding the likeability of the transgressor, children who reported higher levels of likeability towards the transgressor were more likely to attempt to conceal the theft for them by lying by omission. Likewise, children who liked the transgressor were also more willing to avoid telling the interviewer that the transgressor asked them not to disclose the theft and therefore keep it a secret (i.e., less likely to make an indirect disclosure). One reason for this may be that the children may have felt an underlying sense of familiarity, affection and/or loyalty to the transgressor and may even have felt the need

to protect him or her by denying the theft. Research has shown that adults will lie for others in order to protect them from looking bad, embarrassed or losing face, to protect their privacy, to avoid disapproval or unpleasantness, and to make other people appear better (DePaulo & Kashy, 1998). The children in the present study may have felt the need to protect the offender from getting into trouble given that they believed that the transgressor had stolen money because they were in financial need. Children have been known to lie to protect someone who has committed a transgression (Bottoms et al., 2002; Foster et al., 2019; Lyon et al., 2008; Talwar et al., 2004) and to protect someone they know, like a parent (Bok, 1983; Pantell et al., 2017; Tye et al., 1999). In this case, further investigation into why children felt the need to lie for the transgressor and how their feelings toward them influenced their testimonies is warranted.

Importantly, however, the interviewer can also have an effect on children's testimonies, although the hypothesis regarding the likeability of the interviewer was only partially supported. While there were no significant interviewer effects on children's lie-telling, children who felt more comfortable and familiar with the interviewer were more likely to indirectly disclose the theft by disclosing that the transgressor asked them not to tell. It could be that children were more likely to allude to the theft and disclose that they knew a secret because, while secrets are a form of concealment, they are not necessarily a form of explicit deception (Lavoie, Nagar, & Talwar, 2017). Additionally, children might have felt uncomfortable keeping the secret because they felt close to the interviewer. DePaulo and Kashy (1998) found that adults felt uncomfortable when they lied to people they felt close to, and when they did lie to them, they were other-oriented lies (i.e., lies told to protect, enhance or advantage others). Alternatively, children may have felt a sense of rapport and support from the interviewer. Research has shown that when

interviewers demonstrate supportive behaviours, it can reduce children's suggestibility and increase the accuracy of their testimonies (e.g., Goodman et al., 1991, Hershkowitz et al., 2006).

Unfortunately, there is little one can do about a child's feelings towards a transgressor. What the results suggest is that their perceived feelings towards a potential transgressor can have substantial weight in their willingness to lie for them. Therefore, in real-life eyewitness events, adults who question children should take into account *who* the alleged transgressor is and what the child's potential feelings of likeability, familiarity, and comfort with them might be. Moreover, children's perceived feelings toward the person interviewing them can also positively influence their testimonies and encourage more truthful disclosures. Most importantly, the relationship between the child and the interviewer is one that adults and researchers are able to experiment with in order to find better ways of making children feel comfortable in an interview. Although this is generally the purpose of the rapport-building stage in forensic interviews, there is a paucity of research on the effects of commonly-used rapport-building techniques on the reliability of children's reports (Saywitz et al., 2015). Having a better understanding of factors that influence children's comfort with interviewers could lead to more accurate ways of developing rapport, including information about personal characteristics of individual interviewers that help them build trust with children (e.g., Foster et al., 2019; Wood & Garven, 2000; Wright & Powell, 2007), and could perhaps lead to new areas forensic interviewers can work on in training to improve their rapport with children.

Age

The results of the current study also highlight that developmental factors such as children's age continue to play a role in how they give testimony. As hypothesized, children's willingness to attempt to lie decreased with age. As children grew older, they were less likely to

lie and they were more likely to indirectly disclose the theft to the interviewer by reporting that they knew a secret. This is consistent with previous findings that children are less likely to cover up a transgression with age (i.e., Evans & Lee, 2011; Foster et al., 2019; Lavoie, Leduc, et al., 2017). Previous research on secret-keeping, however, is mixed. While Bottoms and colleagues (2002) found that older children who were instructed to keep witnessed events a secret were more likely to withhold information compared to younger children, their sample of children ranged in age from 3 to 6 years old, which is younger than the sample of children in the present study. Lavoie, Nagar, and Talwar (2017) also found that older children and adolescents considered the secret-receivers' possible reactions to the information when considering whether or not to disclose a secret. In contrast to the present study, however, the authors interviewed their participants about their definitions and perceptions about secrets and lies; participants were not directly asked by an experimenter to keep a transgression secret. In the present study, given that children's conceptual understanding of secrecy develops over childhood, younger children may have believed that they should keep the secret, while older children realized that secrets can be shared with those they trust (Watson & Valtin, 1997). This understanding of trust is therefore imperative for secret disclosing. The current results suggest that while there may be a developmental trend in secret-keeping, other factors beyond age – such as children's ratings of the likeability, familiarity, and their comfort with adults – may also interact with age and influence their behaviour.

Indeed, there was an age by interviewer likeability interaction on children's ability to maintain their lie over the course of the interview, but not in the direction originally hypothesized. Specifically, while there was no difference in likeability scores for older children, younger children who told the truth by the end of the interview reported higher feelings of

likeability, comfort, and familiarity with the interviewer compared to those who maintained their lie throughout the interview. This suggests that feelings of comfort and likeability with an interviewer may be particularly important and impactful for younger, school-aged children.

Of note, the effect of age in this study is more likely to be an interpersonal motivational effect than a cognitive one. Research has shown that variables related to age, such as children's cognitive abilities, are related to their lie-telling. Many studies have reported a positive relationship between children's cognitive skills and their ability to tell a lie (e.g., Polak & Harris, 1999; Talwar & Crossman, 2011; Talwar & Lee, 2008; Williams et al., 2017), and that children become increasingly skilled at maintaining their lies due to their increasing cognitive maturity with age (Evans and Lee, 2011, 2013; Talwar et al., 2007). In the current study, however, children were less likely to lie with age, suggesting that social, interpersonal, and motivational factors, such as feelings of likeability, familiarity, and comfort may combine with developmental factors to play a role in children's lie-telling. These variables should be further investigated to have a more thorough understanding of children's lie-telling.

Limitations and Future Directions

There are a few limitations to the study. It was not ethically possible to recreate a more serious situation akin to those children report in actual court cases (e.g., abuse). However, the theft-paradigm used in the study did provide an ecologically valid situation in that it appeared to be real to the children in the study, and it included a high-cost event with supposed consequences to the transgressor. Children may be called upon to give a witness statement about a theft, albeit the emotional impact may be less than more serious crimes to which children are exposed. Nevertheless, given the ethical constraints, children were able to witness an actual "crime" when the transgressor stole the money, replicating a theft paradigm used in other studies (e.g., Foster et

al., 2019; Wyman et al., 2019) to effectively study children's lie-telling behaviours and disclosures.

Methodologically, it was also not possible to experimentally manipulate whether the transgressor or interviewer was likeable compared to unlikeable. Children were not assigned to "likeable" or "unlikeable" conditions. Ethically, it may be difficult to experimentally manipulate interviewer likeability, nor would it necessarily be ecologically valid. Given that interviewers are usually asking children questions about difficult and sometimes painful experiences, interview protocols indicate that a supportive interviewer is important to build rapport (Davis & Bottoms, 2002; Hershkowitz, 2011; Poole & Lamb, 1998; Saywitz et al., 2015). In terms of the present study, the goal was to evaluate children's *perceptions* of likeability, familiarity, and comfort with E1 and E2, regardless of any specific characteristics or behaviours manipulated as part of an experimental study. Relatedly, the questions about likeability were asked after children were interviewed and therefore after the children had made a decision whether or not to disclose or allude to the theft. It may be that children's responses to the likeability questions may have been affected by whether or not they elected to disclose. For example, a child who disclosed may have rated the transgressor lower in likeability than one who did not as a way of justifying their disclosure. This is a caveat to the present study. Despite this, the findings do suggest that children's perceived feelings towards adults involved in a transgression and subsequent interview are related to their disclosures. Given the methodology of the study, it was not possible to ask children about their likeability ratings before being interviewed without potentially influencing children's beliefs about the study. Giving children a likeability questionnaire right after the E1 interactions may cause children to be suspicious of the mock-theft paradigm. Future researchers are encouraged to creatively construct an experimental design that varies the

likeability of the adults involved as well as when the children are asked about their feelings towards them.

The current study was an analogue study and therefore provided the researchers with experimental control and the opportunity to know the real truth of the situation (Brubacher et al., 2019). Given the need for standardization, interviewers were instructed not to deviate from their scripts. In real-life forensic interviews, interviewers are able to use their discretion and include their own personality when questioning children. For the purposes of this study, this was not possible, and children may have felt even more comfortable with the interviewer with a less standardized script. Indeed, feelings of likeability, familiarity, and comfort with an adult interviewer may be very personal for some children. Therefore, the use of likeability questionnaires is recommended for use in replication studies using forensic interviewers. Admittedly, the current study's findings of differences in likeability scores do suggest small effects given the differences in mean scores. However, even a small effect is an important effect and suggests that the implications for forensic practice are both positive and negative. Moreover, given that the results suggest that the interviewer can have a positive effect on children's disclosures, more research should be conducted to examine ways to increase children's comfort with the interviewer and increase truthful disclosures. Specifically, future research could more thoroughly examine aspects of the rapport-building phase of forensic interviews for additional ways to effectively build rapport with children.

Finally, the present research indicated that whether children indirectly disclosed that the transgressor asked them not to tell the interviewer about the theft can be influenced by the child's feelings towards both the transgressor and the interviewer. Price and colleagues (2019) found that children who witnessed an adult perform a transgression and who described it as a secret

were less likely to disclose the transgression to an adult interviewer. Future research should continue to investigate how children understand and report secrets, especially when a transgressor specifically asks them to not disclose an indiscretion.

Conclusion

The present study evaluated children's (ages 7 to 13) willingness to tell a lie or disclose the truth after witnessing a theft. Of particular interest for this study was whether children's age, and their feelings toward a transgressor and an interviewer influenced their attempts to disclose the theft or to lie, their lie maintenance over the course of an interview, and their willingness to disclose being asked not to tell the interviewer about the theft. The present research provides the first experimental evidence that children's feelings towards the adults involved in a transgression can concurrently impact their disclosures.

Overall, many factors should be considered when evaluating children's ability to provide trustworthy testimony including their developmental level, the circumstances of the event in question, familial influences, and the environment and processes leading up to and including the testimony in court (Pantell et al., 2017). The current findings suggest that children's positive feelings for a transgressor can make them more likely to attempt to conceal the transgression and more likely to keep their secret. Importantly, children's positive feelings towards their interviewer can help mitigate this, in that children were more likely to reveal they were asked to keep a secret when they felt comfortable with the interviewer. Children's age also played a role, with interviewer likeability being more salient in eliciting disclosures from younger than older children. These results suggest that children's perceived feelings towards the adults involved in transgressions and their investigation should continue to be studied, and that in particular, future studies should examine how to make children more comfortable with unfamiliar interviewers.

Further research into their comfort and rapport with interviewers could lead to improvements in forensic interviewing best practice guidelines for professionals who interview children.

References

Almerigogna, J., Ost, J., Akehurst, L., & Fluck, M. (2008). How interviewers' nonverbal behaviors can affect children's perceptions and suggestibility. *Journal of Experimental Child Psychology, 100*(1), 17-39. https://doi.org/10.1016/j.jecp.2008.01.006

Bjorklund, D. F., Cassel, W. S., Bjorklund, B. R., Brown, R. D., Park, C. L., Ernst, K., & Owen, F. A. (2000). Social demand characteristics in children's and adults' eyewitness memory and suggestibility: The effect of different interviewers on free recall and recognition. *Applied Cognitive Psychology, 14*(5), 421-433. https://doi.org/10.1002/1099-0720(200009)14:5<421::AID-ACP659>3.0.CO;2-4

Bok, S. (1983). *Secrets: On the ethics of concealment and revelation*. Pantheon Books. https://doi.org/10.1002/pam.4050030250

Bottoms, B. L., Goodman, G. S., Schwartz-Kenney, B. M., & Thomas, S. N. (2002). Understanding children's use of secrecy in the context of eyewitness reports. *Law & Human Behavior*, *26*(3), 285–313. https://doi.org/10.1023/A:1015324304975

Brubacher, S. P., Poole, D. A., Dickinson, J. J., La Rooy, D., Szojka, Z. A., & Powell, M. B. (2019). Effects of interviewer familiarity and supportiveness on children's recall across repeated interviews. *Law and Human Behavior, 43*(6), 507-516. https://doi.org/10.1037/lhb0000346

Carl, T., & Bussey, K. (2019). Contextual and age-related determinants of children's lie telling to conceal a transgression. *Infant Child Development, 28*(3), e2129. https://doi.org/10.1002/icd.2129

Chaiken, S. (1980). Heuristic versus systematic information processing and the use of source versus message cues in persuasion. *Journal of Personality and Social Psychology, 39*(5), 752-766. https://doi.org/10.1037/0022-3514.39.5.752

Chaiken, S., & Eagly, A. H. (1983). Communication modality as a determinant of persuasion: The role of communicator salience. *Journal of Personality and Social Psychology, 45*(2), 241-256. https://doi.org/10.1037/0022-3514.45.2.241

Children's Bureau of the U.S. Department of Health and Human Service. (2020). *Child Maltreatment 2018.* https://www.acf.hhs.gov/sites/default/files/documents/cb/cm2018.pdf

Colwell, K., Hiscock, C. K., & Memon, A. (2002). Interviewing techniques and the assessment of statement credibility. *Applied Cognitive Psychology, 16*(3), 287-300. https://doi.org/10.1002/acp.788

Darkness to Light. (2015). *Sexual abuse statistics: Perpetrators*. http://www.d2l.org/wp-content/uploads/2017/01/Statistics_2_Perpetrators.pdf

Davis, S. L., & Bottoms, B. L. (2002). Effects of social support on children's eyewitness reports: A test of the underlying mechanism. *Law and Human Behavior, 26*(2), 185-215. https://doi.org/10.1023/A:1014692009941

DePaulo, B. M., & Kashy, D. A. (1998). Everyday lies in close and casual relationships. *Journal of Personality and Social Psychology, 74*(1), 63-79. https://doi.org/10.1037/0022-3514.74.1.63

Ekman P. (1985). Lying, leakage, and clues to deceit. In P. Ekman, (Ed.), *Telling lies: Clues to deceit in the marketplace, politics, and marriage* (pp. 25-42). WW Norton.

Evans, A. D., & Lee, K. (2011). Verbal deception from late childhood to middle adolescence and its relation to executive functioning skills. *Developmental Psychology, 47*(4), 1108-1116. https://doi.org/10.1037/a0023425

Evans, A. D., & Lee, K. (2013). Emergence of lying in very young children. *Developmental Psychology, 49*(10), 1958-1963. https://doi.org/10.1037/a0031409

Fangstrom, K. (2017). 'I don't even remember anything' Optimising the choice of method when interviewing preschoolers (Publication No. 10783391) [Doctoral dissertation, Uppsala University]. ProQuest Dissertations and Theses Global.

Finkelhor, D., & Shattuck, A. (2012). *Characteristics of crimes against juveniles*. Crimes against Children Research Center. https://www.academia.edu/9728770/Characteristics_of_crimes_against_juveniles

Fisher, R. P., & Geiselman, R. E. (1992). *Memory enhancing techniques for investigative interviewing: The cognitive interview*. Charles C. Thomas.

Foster, I., Wyman, J., Tong, D., Colwell, K., & Talwar, V. (2019). Does eyewitness and interviewer gender influence children's reports? An experimental analysis of eyewitness and interviewer gender on children's testimony. *Psychiatry, Psychology and Law*, *26*(4), 499-519. https://doi.org/10.1080/13218719.2018.1507844

Goodman, G. S., Bottoms, B. L., Schwartz-Kenney, B., & Rudy, L. (1991). Children's memory for a stressful event: Improving children's reports. *Journal of Narrative and Life History, 1*(1), 69–99. https://doi.org/10.1075/jnlh.1.1.05chi

Goodman, G. S., & Melinder, A. (2007). Child witness research and forensic interviews of young children: A review. *Legal and Criminological Psychology, 12*(1), 1-19. https://doi.org/10.1348/135532506X156620

Goodman-Brown, T. B., Edelstein, R. S., Goodman, G. S., Jones, D. P. H., & Gordon, D. S. (2003). Why children tell: A model of children's disclosure of sexual abuse. *Child Abuse & Neglect, 27*(5), 525-540. https://doi.org/10.1016/S0145-2134(03)00037-1

Gordon, H. M., Lyon, T. D., & Lee, K. (2014). Social and cognitive factors associated with children's secret-keeping for a parent. *Child Development, 85*(6), 2374-2388. https://doi.org/10.1111/cdev.12301

Gries, L. T., Goh, D. S., & Cavanaugh, J. (1996). Factors associated with disclosure during child sexual abuse assessment. *Journal of Child Sexual Abuse, 5*(3), 1-20. https://doi.org/10.1300/J070v05n03_01

Helavirta, S., Laakso, R., & Pösö, T. (2017). Familiarity of not: Children's choice of interviewer in a study of substitute care. *Child Care in Practice, 24*(3), 258-272. https://doi.org/10.1080/13575279.2017.1391748

Hershkowitz, I. (2011). Rapport building in investigative interviews of children. In M. E. Lamb, D. J. La Rooy, L. C. Malloy, & C. Katz (Eds.), *Children's testimony: A handbook of psychological research and forensic practice* (2nd ed., pp. 109-128). John Wiley & Sons.

Hershkowitz, I., Orbach, Y., Lamb, M. E., Sternberg, K. J., & Horowitz, D. (2006). Dynamics of forensic interviews with suspected abuse victims who do not disclose abuse. *Child Abuse and Neglect, 30*(7), 753–769. https://doi.org/10.1016/j.chiabu.2005.10.016

Lavoie, J., Leduc, K., Arruda, C., Crossman, A. M., & Talwar, V. (2017). Developmental profiles of children's spontaneous lie-telling behavior. *Cognitive Development, 41*, 33-45. https://doi.org/10.1016/j.cogdev.2016.12.002

Lavoie, J., Nagar, P. M., & Talwar, V. (2017). From Kantian to Machiavellian deceivers: Development of children's reasoning and self-reported use of secrets and lies. *Childhood, 24*(2), 197-211. https://doi.org/10.1177/0907568216671179

Lee, K. (2013). Little liars: Development of verbal deception in children. *Child Development Perspectives, 7*(2), 91-96. https://doi.org/10.1111/cdep.12023

London, K., Bruck, M., Wright, D. B., & Ceci, S. J. (2008). Review of the contemporary literature on how children report sexual abuse to others: Findings, methodological issues, and implications for forensic interviewers. *Memory, 16*(1), 29-47. https://doi.org/10.1080/09658210701725732

Lyon, T. D. (2000). Child witnesses and the oath: Empirical evidence. In H. L. Westcott, G. M. Davies, & R. H. C. Bull (Eds.), *Children's testimony: A handbook of psychological research and forensic practice*, (pp. 245 – 260). John Wiley & Sons. https://doi.org/10.1002/9780470713679.ch16

Lyon, T. D., Malloy, L. C., Quas, J. A., & Talwar, V. A. (2008). Coaching, truth induction, and young maltreated children's false allegations and false denials. *Child Development, 79*(4), 914-929. https://doi.org/10.1111/j.1467-8624.2008.01167.x

Lyon, T., & Saywitz, K. (1999). Young maltreated children's competence to take the oath. *Applied Developmental Science, 3*(1), 16-27. https://doi.org/10.2139/ssrn.161190

Lyon, T. D., Wandrey, L., Ahern, E., Licht, R., Sim, M., & Quas, J. A. (2014). Eliciting maltreated and nonmaltreated children's transgression disclosures: Narrative practice rapport building and a putative confession. *Child Development, 85*(4), 1756-1769. https://doi.org/10.1111/cdev.12223

Memon, A., Meissner, C. A., & Fraser, J. (2010). The Cognitive Interview: A meta-analytic review and study space analysis of the past 25 years. *Psychology, Public Policy, and Law, 16*(4), 340-372. https://doi.org/10.1037/a0020518

Menard, S. (2002). *Longitudinal research* (2nd ed.) Sage. https://dx.doi.org/10.4135/9781412984867

Northcott, M. (2009). *Facilitating testimony for child victims and witnesses*. Government of Canada Department of Justice. https://www.justice.gc.ca/eng/rp-pr/cj-jp/victim/rd09_2-rr09_2/p3.html

Pantell, R. H., & AAP Committee on Psychosocial Aspects of Child and Family Health. (2017). The child witness in the courtroom. *Pediatrics, 139*(3), e20164008; https://doi.org/10.1542/peds.2016-4008

Pipe, M-E., & Goodman, G. S. (1991). Elements of secrecy: Implications for children's testimony. *Behavioral Sciences and the Law, 9*(1), 33-41. https://doi.org/10.1002/bsl.2370090105

Pipe, M-E., Lamb, M. E., Orbach, Y., Sternberg, K. J., Stewart, H. L., & Esplin, P. W. (2007). Factors associated with nondisclosure of suspected abuse during forensic interviews. In M-E. Pipe, M. E Lamb, Y. Orbach, & A-C. Cederborg. (Eds.), *Child sexual abuse: Disclosure, delay, and denial* (pp. 77-96). Taylor Francis Group. https://doi.org/10.4324/9780203936832

Pipe, M-E. & Wilson, J. C. (1994). Cues and secrets: Influences on children's event reports. *Developmental Psychology, 30*(4), 515–525. https://doi.org/10.1037//0012-1649.30.4.515

Polak, A., & Harris, P. L. (1999). Deception by young children following noncompliance.

Developmental Psychology, 35(2), 561–568. https://doi.apa.org/doi/10.1037/0012-1649.35.2.561

Poole, D. A., & Lamb, M. E. (1998). *Investigative interviews of children*. American Psychological Association. https://doi.org/10.1037/10301-000

Popliger, M., Talwar, V., & Crossman, A. (2011). Predictors of children's prosocial lie-telling: Motivation, socialization variables, and moral understanding. *Journal of Experimental Child Psychology, 110*(3), 373-392. https://doi.org/10.1016/j.jecp.2011.05.003

Price, H. L., Evans, A. D., & Bruer, K. C. (2019). Transmission of children's disclosures of a transgression from peers to adults. *Applied Developmental Science, 25*(3), 228-239. https://doi.org/10.1080/10888691.2019.1586544

Quas, J. A., Davis, E. L., Goodman, G. S., & Myers, J. E. B. (2007). Repeated questions, deception, and children's true and false reports of body touch. *Child Maltreatment, 12*(1), 60-67. https://doi.org/10.1177/1077559506296141

Quas, J. A., & Schaaf, J. M. (2002). Children's memories of experience and nonexperienced events following repeated interviews. *Journal of Experimental Child Psychology, 83*(4), 304-338. https://doi.org/10.1016/S0022-0965(02)00150-9

Reysen, S. (2005). Construction of a new scale: The Reysen Likability Scale. *Social Behaviour and Personality, 33*(2), 201-208. https://doi.org/10.2224/sbp.2005.33.2.201

Rotenberg, K. J., Eisenberg, N., Cumming, C., Smith, A., Singh, M., & Terlicher, E. (2003). The contribution of adults' nonverbal cues and children's shyness to the development or rapport between adults and preschool children. *International Journal of Behavioral Development, 27*(1), 21-30. https://doi.org/10.1080/01650250143000571

Saywitz, K. J., Larson, R. P., Hobbs, S. D., & Wells, C. R. (2015). Developing rapport with children in forensic interviews: Systematic review of experimental research. *Behavioral Sciences and the Law, 33*(4), 372-389. https://doi.org/10.1002/bsl.2186

Talwar, V., & Crossman, A. (2011). From little white lies to filthy liars: The evolution of honesty and deception in young children. *Advances in Child Development and Behavior, 40*, 139-179. https://doi.org/10.1016/B978-0-12-386491-8.00004-9

Talwar, V., & Crossman, A. M. (2012). Children's lies and their detection: Implications for child witness testimony. *Developmental Review, 32*(4), 337-359. https://doi.org/10.1016/j.dr.2012.06.004

Talwar, V., Gordon, H., & Lee, K. (2007). Lying in the elementary school: Verbal deception and its relation to second-order belief understanding. *Developmental Psychology, 43*(3), 804–810. https://doi.org/10.1037/0012-1649.43.3.804

Talwar, V., & Lee, K. (2002a). Development of lying to conceal a transgression: Children's control of expressive behavior during verbal deception. *International Journal of Behavioral Development, 26*(5), 436–444. https://doi.org/10.1080/01650250143000373

Talwar, V., & Lee, K. (2002b). Emergence of white lie-telling in children between 3 and 7 years of age. *Merrill-Palmer Quarterly, 48*(2), 160-181. https://doi.org/10.1353/mpq.2002.0009

Talwar, V., & Lee, K. (2008). Social and cognitive correlates of children's lying behavior. *Child Development, 79*(4), 866-881. https://doi.org/10.1111/j.1467-8624.2008.01164.x

Talwar, V., Lee, K., Bala, N., & Lindsay, R. C. L. (2004). Children's lie-telling to conceal a parent's transgression: Legal implications. *Law and Human Behavior, 28*(4), 411-435. https://doi.org/10.1023/B:LAHU.0000039333.51399.f6

Tye, M. C., Amato, S. L., Honts, C. R., Devitt, M. K., & Peters, D. (1999). The willingness of children to lie and the assessment of credibility in an ecologically relevant laboratory setting. *Applied Developmental Science, 3*(2), 92-109. https://doi.org/10.1207/s1532480xads0302_4

Watson, A. J., & Valtin, R. (1997). A structural analysis of children's concepts of secrecy. *Australian Journal of Psychology, 49*(1), 49–54. https://doi.org/10.1080/00049539708259850

Whealin, J., & Barnett, E. (2019). *Child sexual abuse. PTSD: National Center for PTSD,* US Department of Veteran Affairs. https://www.ptsd.va.gov/professional/treat/type/sexual_abuse_child.asp

Williams, S. M., Kirmayer, M., Simon, T., & Talwar, V. (2013). Children's antisocial and prosocial lies to familiar and unfamiliar adults. *Infant and Child Development, 22*(4), 430-438. https://doi.org/10.1002/icd.1802

Williams, S., Leduc, K., Crossman, A. M., & Talwar, V. (2017). Young deceivers: The identification of lying, executive functions and antisocial lies in preschool aged children. *Infant and Child Development*, *26*(1), 1-17. https://doi.org/10.1002/icd.1956

Wood, J. M., & Garven, S. (2000). How sexual abuse interviews go astray: Implications for prosecutors, police, and child protection services. *Child Maltreatment, 5*(2), 109-118. https://doi.org/10.1177/1077559500005002003

Wright, R., & Powell, M. B. (2007). What makes a good investigative interviewer of children? A comparison of police officers' and experts' perceptions. *Policing: An International Journal of Police Strategies and Management, 30*(1), 21-31. https://doi.org/10.1108/13639510710725604

Wyman, J., Foster, I., Crossman, A., Colwell, K., & Talwar, V. (2019). The efficacy of free recall, cognitive load, and closed-ended questions when children are asked to falsely testify about a crime. *Applied Cognitive Psychology, 33*(4), 544-560. https://doi.org/10.1002/acp.3494

Chapter 4: Bridging Manuscripts 1 and 2

The following manuscript expands upon Study 1 by continuing to examine how interpersonal and developmental factors influence children's testimonies. Study 1 examined how children's age and their perceptions of the likeability, familiarity, and comfort with adults involved in a theft and its investigation influenced their willingness to conceal or disclose that theft. Results indicated that overall, the majority of children lied by omission when first given the opportunity to disclose a witnessed theft in free recall. However, children who reported higher feelings of likeability, familiarity, and comfort with an unknown adult interviewer were more likely to indirectly allude to the theft. Younger children who told the truth by the end of the interview also reported higher feelings of likeability and comfort with the interviewer. Children who reported these positive feelings may have felt a sense of rapport and support from the interviewer. However, there has been little examination on how interviewers can foster feelings of rapport in children to obtain reliable, truthful disclosures from them.

Therefore, the next step in this line of inquiry was to examine and manipulate how children interact with an unknown interviewer during the rapport-building phase of a forensic interview. An important objective of having a rapport-building phase at the beginning of forensic interviewing is to make children feel comfortable (Collins et al., 2014; Lamb et al, 2018), and rapport-building may help create a psychosocial context whereby children may feel comfortable enough to disclose about negative experiences (Saywitz et al., 2019). A necessary component of building good rapport in child witness interviews includes the establishment of a sense of commonality, trust, and cooperation (Hershkowitz, 2011; Roberts et al., 2004; Saywitz et al., 2015). Therefore, the goal of Study 2 was to examine how a novel interactive method of building rapport based on trust may influence children's disclosure. Both studies reported in Manuscripts

1 and 2 have important implications for adults who interview children in forensic contexts. The results can help provide a better understanding of how interpersonal factors may influence children's testimonies and could lead to more innovative ways of developing rapport and perhaps even to improvements in forensic interviewing best practice guidelines.

Chapter 5: Manuscript 2

The Role of Rapport in Eliciting Children's Truthful Reports

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Abstract

The present study examined how children's ages and the type of rapport used during the rapport-building stage of an eyewitness interview influenced their willingness to conceal or disclose a witnessed theft and the quality of their reports. Children (N = 114, ages 7–13) witnessed a transgressor steal money from a wallet who asked them to lie and say that they did not take the money when interviewed by a novel interviewer using open- and closed-ended questions. Children were asked to either describe various experienced events (Narrative Practice Rapport condition) or participate in an interactive activity designed to focus on the relational aspects of rapport-building including mutual attentiveness, positivity, and coordination between child and interviewer (Interactional Rapport condition). Children also completed a measure of rapport to indicate their subjective level of rapport with the interviewer. The main finding indicated that older children in the Interactional Rapport condition were significantly more likely to be truthful, disclose the transgression earlier, and give more details. The study provides an initial, exploratory understanding of how the rapport-building phase in eyewitness interviews may play an important role in children's disclosure decision-making and may be another area for researchers and practitioners to study in order to promote more truthful disclosures.

Keywords: children, lying, disclosures, theft, rapport, rapport-building, witness interviews

The Role of Rapport in Eliciting Children's Truthful Reports

Over the past 50 years in North America, children have increasingly been asked to testify and serve as witnesses in civil, criminal, and family courts (Hardy & van Leeuwen, 2004; Pantell et al., 2017; Sas, 2002). Key concerns with child witnesses are that they may not disclose wrongdoing by others (London et al., 2008) and, when they do, there may be inaccuracies in their reports (Ceci & Bruck, 1993). Children can be reluctant to disclose the crimes of others and are sometimes willing to keep others' behaviours secret (e.g., Rush et al., 2014). They may feel pressure to not disclose and/or to protect the wrongdoer from criminal consequences (Lyon et al., 2014; Talwar et al., 2016). Therefore, despite some children's reluctance, an ongoing challenge for interviewers is to elicit true event disclosures without increasing false reports.

Research has shown that children are more likely to lie to an unfamiliar adult compared to someone they know (Williams et al., 2013), but that accuracy and resistance to suggestion increase with supportive interviewers (e.g., Davis & Bottoms, 2002; Goodman et al., 1991; Quas & Lench, 2007). Although there has been much research on how to question children to elicit their accurate recall and reduce the impact of interviewer suggestions (e.g., Brown et al., 2013; Hardy & van Leeuwen, 2004; Lamb et al., 2018; Yi & Lamb, 2018), less is known about possible social factors that could influence an interviewer's ability to obtain reliable, truthful disclosures from children. To date, there has been little systematic research to investigate an "optimal psychosocial atmosphere" (Saywitz et al., 2019, p. 23) whereby individual children will give truthful, detailed disclosures despite anxiety, fears, and pressure to keep secrets (Saywitz et al., 2015).

The Importance of Rapport in Child Witness Interviews

Rapport-building may help establish a psychosocial context in which children can overcome their reluctance to disclose to previously unknown interviewers (e.g., Saywitz et al., 2011) and feel comfortable enough to tell the truth when interviewed about their experiences. Thus, it is important for interviewers to build rapport with children, establishing a sense of commonality, trust, and cooperation (Hershkowitz, 2011; Saywitz et al., 2015), while countering possible feelings of pressure to lie or conceal negative transgressions when children have been witnesses or victims (Foster et al., 2019).

Building rapport begins with the interviewer's first interaction with the child (Ruddock, 2006). Rapport-building often refers to a specific stage at the beginning of an interview where the interviewer uses techniques to establish a connection (i.e., rapport) between themselves and the child to facilitate children's reporting (Saywitz et al., 2015, 2019). Forensic interview guidelines such as the NICHD protocol (Lamb et al., 2018), the Cognitive Interview (Fisher & Geiselman, 1992), and the Stepwise Interview (Yuille et al., 1993) suggest that interviewers establish rapport at the beginning of the interview before asking questions about the suspected crime (Crossman et al., 2002; Poole & Lamb, 1998). The primary function of rapport-building is to create a supportive environment and increase children's comfort and competence to recall and disclose past events (Collins et al., 2014; Lamb et al., 2018). The stronger the rapport between the child and interviewer, the more comfortable and detailed the child may be in their disclosures (Powell & Lancaster, 2003).

While there is general consensus that rapport-building is vital (e.g., Crossman et al., 2002; Goodman et al., 2017; Poole & Lamb, 1998; Turoy-Smith & Powell, 2017), few studies have examined the effectiveness of this stage in actually building rapport with children and

whether it influences their testimonies (Lavoie et al., 2021; Saywitz et al., 2015). Moreover, field research suggests that interviewers often fail to establish rapport during the rapport-building phase (e.g., Lewy et al., 2015; Teoh & Lamb, 2013). For example, some interviewers merely attempt "simple rapport-building", such as asking a few personal questions about the child (e.g., "What grade are you in?"; Ahern et al., 2015; Saywitz et al., 2015), which may be insufficient to establish rapport. Therefore, just because a rapport-building phase is included in questioning does not necessarily mean that rapport has been formed (Collins et al., 2014).

Only a handful of studies have experimentally examined the independent effects of rapport-building on interview outcomes (e.g., Brown et al., 2013; Hardy & van Leeuwen, 2004; Lyon et al., 2014; Roberts et al., 2004; Sauerland et al., 2018; Yi & Lamb, 2018; see Lavoie et al., 2021; Saywitz et al., 2015, for reviews) and most have not included a measure of whether children actually felt rapport with the interviewer. These studies have focused primarily on varying the types of questions used (e.g., closed, open-ended) and varying the type of narrative practice children experience (i.e., the opportunity to practice describing neutral experienced events in detail via open-ended questions prior to the actual interview; Collins et al., 2014; Lyon et al., 2014) as a manipulation of the rapport-building stage. For instance, Roberts and colleagues (2004) used open- and closed-ended questions as two different types of rapport-building styles and reported that while children in the open-ended rapport-building condition gave more accurate reports and were better able to resist misleading suggestions, children did not produce more detailed reports. Importantly, Roberts et al. suggested that time may have been a confound, with children spending significantly more time building rapport with the interviewer in the open- compared to closed-ended question condition (on average 16 minutes versus 6 minutes, respectively) and controlling for time in rapport-building would be important in future studies.

Similarly, Brown et al. (2013) examined the effects of different rapport-building methods by varying question type (i.e., open-ended compared to closed-ended questions) and whether or not children practiced recalling a recent past event. All children engaged in a rapport-building conversation that involved questions pertaining to their families, things they liked to do, and their schools. Consistent with Roberts et al. (2004), the authors found that rapport-building with open-ended invitations and the practice recall of a recent past event was associated with more detailed responses in the substantive interview. In contrast, Sauerland and colleagues (2018) varied the amount of rapport-building with no rapport-building, minimal rapport-building that consisted of a few personal questions, and extensive rapport-building that used open-ended questions about the children allowing narrative recall practice. They found limited evidence of the effects of the rapport-building, with no effect on length of reports. However, they did report that adolescents who had extensive rapport were more likely to be accurate than younger children or adults. Similarly, in terms of children's willingness to disclose, Lyon and colleagues (2014) found that narrative practice rapport-building with 4- to 9-year-old children did not increase the likelihood that children would disclose another's transgression. Yi and Lamb (2018) also found that narrative practice did not increase the likelihood of children aged 3 to 6 years disclosing another's secret. Overall, the limited evidence and mixed results suggests the use of open-ended questions with narrative practice rapport-building may improve children's detailed reports, but that it may not increase children's willingness to disclose (Lavoie et al., 2021), and might not create actual feelings of rapport among children.

Relational Aspects of Rapport

While a few studies have examined the impact of narrative practice rapport-building on children's reports, there remains a lack of research into the likely mechanisms for its impact,

including the relational aspects of rapport-building, such as trust (Saywitz et al., 2015, 2019). Trust is based on reliability (keeping one's promise), emotion (being supportive, avoiding criticism) and honesty (being neutral/genuine rather than manipulative/malicious; Rotenberg et al., 2005). Additionally, Tickle-Degnen and Rosenthal's (1987, 1990) widely-accepted model of rapport suggests that there are three key, interrelated behavioural components of rapport – mutual attentiveness, positivity, and coordination (Abbe & Brandon, 2013; Saywitz et al., 2015). Mutual attentiveness creates a focused and cohesive interaction by having participants express mutual interest and engagement. This can include eye contact, open body posture, and spatial configurations that signal communication, accessibility, and interest. Positivity refers to mutual friendliness and caring, and coordination can be considered as having harmony or being "in sync" with the other person in a form of interactional synchrony (Tickle-Degnen & Rosenthal, 1987, 1990). All three components should be present at some level for proper rapport to be achieved.

Given the importance of ensuring accurate and truthful reports, unfamiliar interviewers need to gain the trust and cooperation of children by establishing rapport and commonality between the child and interviewer (Hershkowitz, 2011; Saywitz et al., 2015). Indeed, the goal of the rapport-building phase of forensic interviewing is to make the child feel comfortable (Collins et al., 2014; Lamb et al., 2018) and the relationship between the child and interviewer is believed to be an important factor in children's ability to communicate competently and self-disclose (Saywitz et al., 2015). Once children feel respected, accepted, and safe, they are more likely to respond to questions honestly (Hughes & Baker, 1990). In a study by Collins and colleagues (2014), Scottish interviewers noted that younger children tended to be reluctant to communicate at first, but that rapport-building provided them with reassurance and made them feel

comfortable with the interviewer, and that generally, children's anxieties about the interview situation decreased over time. More recently, Foster and colleagues (2021) found that children were more likely to disclose a transgression to an unfamiliar interviewer when they expressed stronger feelings of comfort with and likeability of that interviewer. Thus, effective rapport-building at the start of an interview may require attention to relational, emotional aspects of an interview. Yet, "emotional", trust-building rapport techniques on children's disclosures have not been examined. To date, no research has examined the role of interactional rapport that focuses on building trust and connection with the child prior to the substantive portion of the interview.

Age

Previous research on rapport-building has focused primarily on children aged 3 to 9 years, so little is known about whether the same rapport-building techniques are equally effective with older children and adolescents (Magnusson et al., 2020; Saywitz et al., 2019). For instance, with regard to question types, Wyman and colleagues (2019) found that while children 10 to 11 years of age were more likely to disclose another's transgression in free-recall open-ended questions, younger children were more likely to only disclose when asked closed-ended questions about the event. Hence, research with older children and adolescents is important, given that not all types of rapport-building are likely to be equally effective for children of varying ages (Rotenberg et al., 2003; Saywitz et al., 2019). Indeed, field investigators reported uniquely negative experiences developing rapport with older children and adolescents (Collins et al., 2014). Therefore, although it is important to attempt to build rapport with all children regardless of age, their developmental levels need to be considered and adaptations may be necessary, depending on their presentation at the beginning of the rapport-building stage (Collins et al., 2014).

Age can have an important influence not only on rapport-building effectiveness, but also on children's ability to give accurate and detailed testimony. Generally, children give increasingly accurate, detailed reports, while becoming less susceptible to suggestive, misleading interviewer questions with age (Eisen et al., 2002; Goodman & Reed, 1986). In contrast, in terms of children's disclosures, much research has examined children's willingness to lie and give false reports in experimental studies (e.g., Evans & Lee, 2011, 2013; Foster et al., 2019; Wyman et al., 2019; see Talwar & Crossman, 2011, 2012). Increasingly from school age, children will conceal information to avoid negative consequences for themselves (e.g., Evans & Lee, 2013; Talwar & Lee, 2002, 2008) or to protect others (e.g., Bottoms et al., 2002; Gordon et al., 2014; Lavoie et al., 2017; Lyon et al., 2008, 2014; Talwar et al., 2004, 2016). Thus, while some studies report that children's willingness to disclose tends to increase with age (e.g., Hershkowitz et al., 2005; London et al., 2005; Pipe et al., 2007; Smith et al., 2000), others report that older children may be more reluctant to disclose transgressions (e.g., Hershkowitz et al., 2007) and still others have found no relationship between age and disclosures (e.g., Gries et al., 1996; Rush et al., 2014). More recently, Leach and colleagues (2017) found that children's disclosure rates tend to increase during childhood through early adolescence, at which point disclosures tended to decline. Overall, despite the belief that developmental sensitivity is a crucial rapport-building principle, questions remain regarding how developmental differences influence rapport development and effectiveness (Saywitz et al., 2015).

Current Study

The primary goal of the current study was to examine whether an interactional rapport-building phase would influence the likelihood children would disclose another's transgression and the accuracy of their testimonies compared to narrative practice rapport-building. Therefore,

the current study aimed to examine the effect of two rapport-building techniques with children 7 to 13 years of age. Potential developmental differences of the rapport-building techniques between younger (7 to 9) and older (10 to 13) children were examined as well.

To examine children's willingness to disclose a crime, children witnessed an ecologically valid theft paradigm. In this realistic theft-paradigm, the children witnessed an alleged crime with serious consequences to the transgressor, who asked the children to lie and falsely deny the transgression. This high-cost situation was used to provoke emotions and behaviours similar to those children may experience witnessing a comparable real-life theft. Asking children to lie by an experimenter-transgressor is analogous to a situation in which a child eyewitness is coached or asked by someone to lie to conceal a wrongdoing.

Children were then interviewed about the event by a novel interviewer. Children either engaged in a Narrative Practice Rapport condition or an Interactional Rapport condition with that interviewer. Narrative Practice Rapport involved asking the child to describe various experienced events. The Interactional Rapport condition included an interactive activity designed to focus on the relational aspects of rapport-building including mutual attentiveness, positivity, and coordination between child and interviewer. The activity was designed based on research on play therapy, which suggests that engaging in an interactive activity with children allows the adult to show interest in the child's world, alters the typical power imbalance present in these interactions, reduces the child's anxiety, and encourages communication (Carter et al., 1996; Hudak, 2000; Springer et al., 2012). In the current study, we employed a magic trick activity where the interviewer and child worked together to learn and perform the trick. After the rapport-building phase, children were interviewed about their interactions with the transgressor using open-ended questions (free recall question, reverse order, and retell questions) and closed-ended

questions. We examined whether children truthfully disclosed the theft or concealed the crime, the length of their reports, and accuracy of details. As the relationship between the child and interviewer is key to establishing rapport, a measure of rapport was included to assess children's actual feelings of rapport with the interviewer as well.

Based upon Tickle-Degnen and Rosenthal's (1987, 1990) theory of rapport, it was expected that children in the Interactional Rapport condition would report feeling stronger rapport with the interviewer compared to children in the Narrative Rapport condition. Moreover, it was posited that children in the Interactional Rapport condition would be more likely to disclose during the interview and less likely to conceal the theft. Based upon research with narrative practice rapport-building, it was expected that children in the Narrative Practice Rapport condition would give longer and more accurate reports. Based upon previous research, it was expected that that older children would disclose the theft earlier in the interview, during free recall, and that their disclosures would be longer and more detailed than the younger children. Finally, it was posited that older children in the Interactional Rapport condition would give more truthful disclosures in free recall and that they would disclose the theft when directly asked more than younger children.

Method

Participants

Participants included 114 children (*n* males = 58, *n* females = 56) between the ages of 7 and 13 years (*M* = 10.11 years, *SD* = 1.68) from a large metropolitan area (i.e., population approximately 3,800,000). There were 57 children in the younger age group, between 7-9 years of age (*M* = 8.75 years, *SD* =.80; 29 females), and 57 children in the older age group between 10-13 years of age (*M* = 11.47 years, *SD* = 1.13; 27 females). There were 57 children in the

Narrative Practice Rapport condition (27 younger children and 30 older children; *M* = 9.96 years, *SD* = 1.72) and 57 children in the Interactional Rapport condition (30 younger children and 27 older children; *M* = 10.26 years, *SD* = 1.65). The children were predominately English or bilingual speakers from middle-income families. Parental consent was obtained for all children prior to participation. The study was approved by the McGill University ethics review board (REB # 232-1016).

Materials

Child/Adult Rapport Measure-Child Report (CHARM-C)

Directly following the interview, children completed the CHARM-C as a measure of perceived rapport with the interviewer (Gurland & Grolnick, 2003). The questionnaire included 20 items rated on a 4-point Likert scale ranging from 1 (Not True at All) to 4 (Very True). Sample items include "The interviewer gave me a relaxed feeling; made me feel important; seemed to like children). Responses were reverse-scored when necessary (e.g., The interviewer only pretended to be my friend; didn't want to get to know me better). The scores on the 20 items were totaled to create summary scores with higher scores indicating greater rapport.

Additionally, children were asked a follow-up question about their subjective impression of the interview. Depending on their condition, the children were asked a final closed-ended question at the end of the questionnaire: "Did the magic trick (or practice questions) make you feel more comfortable with the interviewer?"

Procedure

Transgression Event

Following parental completion of the consent form, the child and the primary experimenter (E1) went to a testing room to perform a series of activities (e.g., memory games;

reading short stories), which were primarily an opportunity for the child and interviewer to get to know each other. After the activities, a confederate came into the room to look for a notebook. In doing so, they found a wallet on a nearby table. The confederate asked E1 and the child if the wallet was theirs, to which both participants replied no. The confederate then left the wallet on the table, took their book, and left the room. E1 then told the child that they had to retrieve their jacket, which happened to be located near the wallet. E1 gave the wallet to the children and asked them to open it to see to whom it belonged. When the children provided the answer, the examiner feigned surprise and responded that the person did not work at the lab and took the wallet back. Then E1 looked in the wallet, saw that there was a $20 bill inside, took it out, showed it to the child, and then stole the money by putting it in their pocket and saying, "I'm going to take it".

The children were then brought into an interview room to be interviewed by the interviewer (E2). Just before meeting E2, E1 asked the children to lie to E2 if they were asked about the theft. E1 asked the children to say that E1 did not take the money from the wallet, even though they did. E1 informed the children that they were in financial hardship. E2, an adult the children had never met before, then entered the interview room and E1 left. E2 informed the children that they would be asking them questions about their experiences with E1.

Rapport Conditions

The interview with E2 started with either the Narrative Practice Rapport condition or the Interactional Rapport condition to make the child feel comfortable with the new interviewing adult. In the Narrative Practice Rapport condition (M_{duration} = 7.39 minutes, SD = 1.60), interviewers asked the children open-ended questions to get to know them, based on questions used in the Revised NICHD protocol and in previous studies (Brown et al., 2013; Orbach et al.,

2000; Sternberg et al., 2001). Children were asked to tell the interviewer about themselves: to describe an event that made them angry or sad, to describe everything they could remember about their last birthday, and to describe everything that happened from the time they woke up that morning. They were asked the angry or sad question in order to practice describing a previous event that elicited negative emotion. Children were asked to describe the events of their last birthday to give them practice with a sequential narrative in the past, and about the morning so that they would provide a sequential narrative of a more recent set of events. Interviewers were trained to engage the children with follow-up questions, find similarities in interests, and maintain an overall supportive and open tone through verbal and non-verbal behaviours.

In the Interactional Rapport condition (M_{duration} = 7.33 minutes, *SD* = 1.33), interviewers engaged the children in an interactive activity to build comfort and rapport. This was done because developmentally appropriate play activities have been found by psychotherapists to be a useful way to establish rapport between children and therapists in clinical settings (Hudak, 2000; Springer et al., 2012). Specifically, the child and interviewer engaged in learning a magic trick using playing cards. This interactive activity was chosen for its developmental appropriateness for the age range of 7-13 years of age. To help build trust between the child and interviewer, children were asked to help the interviewer practice the magic trick because they were learning how to do it. In order to do so, the interviewer said they needed to demonstrate the magic trick and teach it to the children. The interviewer explained that if they can teach the trick, then they know it.

The magic trick included the three essential components of rapport detailed in Tickle-Degnen and Rosenthal's theory (1987, 1990). It was constructed to include *mutual attentiveness* so that the child and interviewer would experience a feeling of mutual interest in what the other

person was saying or doing throughout the rapport-building and interview stages (Tickle-Degnen & Rosenthal, 1990). Throughout the magic trick, the interviewer focused on directing their attention to the child while maintaining the child's attention and engaged in an open and inviting body posture (e.g., forward leaning, eye contact). Interviewers maintained *positivity* by displaying mutual friendliness and caring including smiling and head nodding. They also engaged in behavioural *coordination* and interactional synchrony with the children by not only showing them the magic trick but also teaching them how to do it and then having both the child and the interviewer practice the magic trick together. In this way, children and the interviewer engaged in a form of mimicry, reciprocity, and shared understanding (Abbe & Brandon, 2013), ideally to establish trust and rapport in this condition. Children were also provided with a copy of the magic trick instructions at the end of the study so they could practice at home.

To control for length of time when comparing conditions of rapport (Roberts et al., 2004), time spent in the rapport phase was kept to approximately 7.5 minutes in both conditions. This is consistent with Davies and colleagues' (2000) study that indicated that shorter rapport-building (less than 8 minutes) was associated with longer testimonies. Rapport longer than 8 minutes was thought to reduce children's attention and/or the interviewer's progress during the substantive questioning stage. Additionally, interviewers were instructed to maintain a consistent tone of voice and non-verbal behaviour throughout the interview.

Interview Questions

After the rapport-building phase, all children received the same standardized interview. First children were asked an open-ended free recall question ("Please describe in as much detail as possible, everything that happened with E1" [the transgressor]) and received a follow-up prompt ("Anything else?") to allow for a detailed explanation of everything they remembered

with E1. Children were then asked two follow-up open-ended questions. They were asked a reverse order question ("Describe everything you remember from upstairs with E1, but backwards") and retell question ("One last time, please describe everything you remember from upstairs with E1"). Children were then asked a series of closed-ended questions (e.g., "Did anything happen that was unexpected?", "Did you see a wallet?", "Did you see money in the wallet?", "Did someone take the money from the wallet?", "Did E1 take the money from the wallet?") with the goal of providing ample opportunities for children to disclose the theft.

Following the interview, a third experimenter entered the room and explained the CHARM-C questionnaire to the children. The experimenter explained that the questions pertained to how they felt interacting with E2 (the interviewer). Children were asked to assent to complete the questionnaire either on their own, or in the case of younger children, the questions were read to them. Children indicated their answers by pointing to a sheet with the answers written and four smiley faces that corresponded to the 4-point Likert scale ranging from 1 (Not True at All) to 4 (Very True).

Once the children finished the questionnaire, they were fully debriefed with their parent(s). Children learned that the theft was not real, that they had helped the researchers learn more about what makes children comfortable in interviews, and that they should always tell a trusted adult if they are ever asked to lie for someone. Both experimenters answered any questions the parents or children had and ensured that the children understood the true nature of the study and the need for deception. Parents received compensation for their time ($20) and the children were provided with a prize.

Coding Procedures

Children's interviews were video-taped and then transcribed into written manuscripts. Children who disclosed the theft in the open-ended questions (free recall, reverse order, retell) were coded as truth-tellers while children who did not disclose were coded as attempting to conceal (i.e., lie-tellers). The last closed-ended, Yes/No question was a direct question about the guilt of E1 ("Did E1 take the money from the wallet?"). Children who disclosed that E1 had taken the money were scored as truth-tellers, even if they did not disclose in prior questions. Children who said "no" and had not previously disclosed E1 taking the money were coded as lie-tellers. Transcripts were coded separately by two interviewers with 100% inter-coder agreement.

Children's replies to the open-ended questions were also examined for the length of their responses and the number of accurate transgression details reported regarding the theft situation. The length of testimony for the open-ended questions included the total number of words disclosed as measured by a word processing program. The number of accurate transgression details was calculated by counting each unique (new) detail disclosed about the theft of the money and E1 asking the child to lie. This metric was modeled after Statement Validity Analysis (SVA) coding procedures that have been used in previous studies to analyze testimony content and credibility in true and false witness statements (Wyman et al., 2020; see Colwell et al., 2013, for a review). For example, the statement "She took twenty dollars from the wallet. She told me not to tell anyone." includes 14 words and 10 transgression details (see Wyman et al., 2020). The first author was the main coder of the transcripts and a second individual coded 25% of the transcripts to establish reliability. There was substantial agreement between the two raters who coded the number of accurate transgression details (Kappa = .77, $p < .001$).

Results

Preliminary analyses revealed no significant gender effects on children's responses. Thus, the results for both genders were combined for subsequent analyses.

Children's Feelings of Rapport

First, to examine whether children's feelings of rapport with the interviewer differed based on rapport condition (Narrative Practice vs Interactional Rapport) and age (younger vs older), a two-way ANOVA was conducted. The main effect of condition was statistically significant, $F(1, 113) = 6.89$, $p = .010$, partial $\eta^2 = .06$. Children in the Interactional Rapport condition felt significantly more rapport with the interviewer as measured by the CHARM-C ($M = 68.11$, $SD = 8.37$) compared to the children in the Narrative Practice Rapport condition ($M = 63.16$, $SD = 10.29$). Additionally, there was a significant main effect of age, $F(1, 113) = 4.61$, $p = .034$, partial $\eta^2 = .04$. The younger children felt significantly more rapport with the interviewer ($M = 67.76$, $SD = 7.92$) compared to the older children ($M = 63.64$, $SD = 10.73$). The interaction between the two variables was not significant ($p = .292$).

Following the CHARM-C, children were also asked if the interaction at the beginning of the interview (magic trick or narrative questions) made them feel more comfortable with the interviewer (yes/no). A logistic regression with condition and age as predictors was conducted on children's responses. For this and subsequent logistic regressions, the independent variables were entered first as predictors (see Menard, 2002) and additional predictors (i.e., interactions) were added on the second step to determine whether they contributed significantly to the model. Significance was assessed by a block χ^2 test (or χ^2 difference test). The model was significant, $\chi^2(2) = 10.99$, $p = .004$. The model explained 14.9% (Nagelkerke R^2) of the variance and correctly classified 74.3% of the cases. Condition was a significant predictor of children feeling

comfortable with the interviewer, b = -.79, SE = .26, Wald(1) = 9.37, p = .002, OR = .46, 95% CI [.28, .75]. In the Interactional Rapport condition, 46 (88.5%) children said that the use of the magic trick made them feel more comfortable with the interviewer, whereas only 35 (61.4%) children in the Narrative Practice Rapport condition reported that the interaction made them feel more comfortable with the interviewer. Age was not a significant predictor (p = .960). The interaction entered on the second step was not significant (p = .290).

Of note, children's feelings of rapport with the interviewer were not significantly correlated with any of the outcome measures reported below (see Table 1). Therefore, these variables were not included in the following analyses.

Children's Concealment

Children's Attempts to Lie in Response to Open-Ended Questions

Overall, 80 (70.2%) children attempted to conceal the theft throughout the interview's open-ended questions. In contrast, in the first free-recall open-ended question, 24 (21.1%) children disclosed the crime. In the follow-up, open-ended questions (reverse order [4 children] and retell [6 children]), 10 (8.8%) more children disclosed the crime. In total at the end of the open-ended questions, 34 children (29.8%) had told the truth and disclosed the theft. A logistic regression with age and condition on the first step, and the interaction between the two variables on the second step was conducted with children's truthful disclosures in the open-ended questions as the predicted variable. The first model was significant, χ^2 (2) = 9.48, Nagelkerke R^2 = 0.11, p =.009, correctly classifying 74.6% of the cases. Age group (b = -1.11, SE = .44, Wald(1) = 6.38, p = .012, OR = .33, 95% CI [.14, .78]) significantly predicted children's attempts to lie and conceal the theft in open-ended questions. Fewer older children (59.6%) attempted to conceal compared to younger children (80.7%). Rapport condition was not

significant (p = .072). However, the second step was significant, χ^2 (1) = 4.73, Nagelkerke R^2 = 0.17, p = .030, as was the interaction between age and condition, b = .96, SE = .45, Wald(1) = 4.65, p = .031, OR = 2.61, 95% CI [1.09, 6.25]. As seen in Table 2, more older children in the Interactional Rapport Condition told the truth and disclosed than younger children, or children in the Narrative Practice Rapport condition.

Children's Lie-Maintenance by the End of the Interview

Following the open-ended questions, children were asked a series of closed-ended questions. While all the children who disclosed in the open-ended questions continued to maintain their true disclosure, 17 more children disclosed during the closed-ended questions (14.9%). Overall, 51 (44.7%) children disclosed the transgression by the end of the interview. Of those children who disclosed, only 13 mentioned that they were asked by the E1 to "keep a secret and not tell" in the interview. Specifically, 9 children (15.8%) in the Interactional Rapport Condition and 4 children (7%) in the Narrative Practice Rapport condition mentioned E1 asking them to keep the secret. Overall, 63 children (55.3%) maintained their lie throughout the interview until the end and made no disclosure of the theft.

A logistic regression with age and condition on the first step, and the interaction between the two variables on the second step was conducted on lie maintenance through the end of the interview. The first model was not significant, χ^2 (2) = 4.94, p = .085. The second step was significant, χ^2 (1) = 4.92, Nagelkerke R^2 = 0.11, p =.027, along with the interaction between age x condition, b = .87, SE = .40, Wald(1) = 4.79, p = .029, OR = 2.38, 95% CI [1.09, 5.15]). As seen in Table 3, more older children in the Interactional Rapport Condition told the truth and disclosed than younger children, or children in the Narrative Practice Rapport condition.

Quality of Children's Free-Recall Disclosures

Effect of Rapport and Age

To investigate the quality of children's disclosures in response to open-ended questions as a function of age group, rapport conditions, and children's attempting to lie, univariate ANOVAs were conducted. Separate analyses were computed for length of testimony and for the number of unique accurate transgression details pertaining to the theft situation including whether children reported being asked to lie by E1. Similar to the attempt to conceal section above, children were classified as giving a true report if they disclosed in any of the open-ended questions, and as attempting to conceal by lying by omission if they did not disclose the theft through all open-ended questions.

Children tended to offer more lengthy testimony in response to the free recall (M = 127.21; SD = 101.45), compared to the reverse order (M = 66.64; SD = 41.33) or retell questions (M = 84.46, SD = 76.30). For overall length of testimony in the open-ended questions (M = 216.16, SD = 157.27), there was a main effect of age group, $F(1, 112) = 4.67$, $p = .033$, partial $\eta^2 = .04$. Older children (M = 260.05, SD = 22.50) had longer overall testimony length in the open-ended questions than the younger children (M =185.66; SD = 26.07). There were no significant main effects of rapport condition ($p = .560$), or whether they disclosed or attempted to lie ($p = .260$). None of the interactions among these variables were significant ($ps > .05$).

In the open-ended questions, overall children reported on average 15.79 (SD = 16.40) details, with most elicited in the free recall (M = 7.67, SD = 11.95), and some added in response to the reverse order (M = 2.61, SD = 4.16) and retell questions (M = 4.76, SD = 6.72). In terms of number of accurate transgression details reported in open-ended questions, there was a significant main effect of age group, $F(1, 112) = 7.47$, $p = .007$, partial $\eta^2 = .07$. Older children

gave significantly more details in response to free recall questions (M = 20.00, SD = 15.05) compared to the younger children (M = 9.09, SD = 13.82). There was also a significant main effect of attempting to lie, $F(1, 112) = 14.43$, $p < .001$, partial $\eta^2 = .12$. Children who told the truth gave significantly more details (M = 24.79, SD = 16.92) compared to children who concealed the theft and lied by omission (M = 9.98, SD = 12.98). There was no main effect of condition ($p = .560$). There was an age x condition interaction, $F(1, 112) = 4.07$, $p = .046$, partial $\eta^2 = .04$. As seen in Table 4, older children in the Interactional Rapport condition gave more accurate details than other children.

Discussion

The present study examined how children's age and the type of rapport used during the rapport-building stage of an eyewitness interview influenced their willingness to conceal or disclose a witnessed theft. The main finding of the current study was that, in the Interactional Rapport condition, older children were significantly more likely to be truthful and disclose the transgression and to give more details. The current results provide an initial, exploratory understanding of how the rapport-building phase in eyewitness interviews may play an important role in children's disclosure decision-making and may be another area for researchers and practitioners to study in order to promote more truthful disclosures.

Children's Disclosures

Overall, the majority of children attempted to conceal the theft in the open-ended questions. Only 21.1% of children spontaneously disclosed the theft in the free-recall questions. This is similar to previous research which has found children who are motivated to conceal information from an interviewer are likely to do so on free-recall questions (e.g., Pipe & Wilson, 1994; Saykaly et al., 2016). However, free recall questions also elicited the most details and

those that truthfully disclosed gave more detailed reports than children who attempted to conceal. This is consistent with research and recommendations to use free recall to obtain children's accurate and detailed reports (e.g., Cronch et al., 2006; Goodman & Melinder, 2007; Orbach et al., 2000). Although previous research has suggested cognitive load questions may help elicit children's disclosures (e.g., Wyman et al., 2019), in the current study, asking children to give reverse order and retell questions led to only a modest increase (8.8%) in children's disclosures and a small number of added details. These findings are similar to Saykaly et al. (2016) which also found that such questions did not much improve the quality or quantity of children's truthful reports. In contrast, closed-ended questions did lead to more children disclosing the truth. This is congruent with previous studies which suggest that when children have been coached to conceal a wrongdoing by a transgressor, they may be reluctant to disclose the truth until directly questioned about it (e.g., Bottoms et al., 2002; Pipe & Wilson, 1994; Talwar et al., 2004).

Rapport-Building

While previous research has examined the effectiveness of narrative rapport-building on children's accuracy and disclosures, no research had examined rapport-building that was focused on establishing trust between the child and the interviewer. Furthermore, previous studies that have examined the effects of narrative rapport have been with young children aged 3 to 9 years. In the current study, we examined a novel method of building rapport via a trust-building interactive activity based upon Tickle-Degnen and Rosenthal's (1987, 1990) theory of rapport. Specifically, the Interactional Rapport condition was designed to build feelings of rapport and trust in children between 7 and 13 years of age. By using an interactive activity such as the demonstration, teaching, and practice of a magic trick, children were able to actively participate in an activity to build rapport and trust. It was believed that this interactive activity would

increase children's feelings of rapport and engagement with the interviewer and lead children to be more forthcoming in their disclosures during an interview. While previous studies have not measured whether children felt rapport with the interviewer in the rapport-building stage, in the current study, we confirmed that children did feel rapport by administering to them a measure of rapport and asking them about whether they felt comfortable with the interviewers. The Interactional Rapport condition led to significantly higher feelings of rapport than children in the Narrative Practice Rapport condition felt.

Notably, the current study found that older children in the Interactional Rapport condition were significantly more likely to be forthcoming about the theft and to disclose it either in the open-ended questions or later when directly questioned. Hence, the approach was particularly effective with older children. The children in the Narrative Practice Rapport condition were overall more likely to lie by omission, even when asked directly about the theft. This is in line with Lyon and colleagues' (2014) study of children 4 to 9 years old whereby narrative practice rapport-building did not increase children's disclosures. The current finding that fewer older children attempted to conceal in open-ended questions is also consistent with previous research that has found that older children are less willing to lie overall and less willing to lie to protect someone else (e.g., Evans & Lee, 2011; Foster et al., 2019; Lavoie et al., 2017; Lyon et al., 2014; Pipe & Wilson, 1994). Moreover, in Magnusson et al.'s (2020) study of forensic interviewers' experiences interviewing children, interviewers reported that narrative practice could have negative effects if the child does not understand why they are talking about unrelated events. They noted that children's age also needs to be considered given that some interviewers found narrative practice particularly difficult with young children, while others found it more difficult with older children. The current findings therefore suggest that the interactional trust-building

rapport activity may be an effective way to increase older children's willingness to disclose about another's transgression.

Quality of Children's Testimonies

Overall, older children gave longer reports than younger children. This is consistent with previous research findings that as children grow older their reports increase in length, regardless of veracity (e.g., Craig et al., 1999; Goodman & Reed, 1986; Talwar et al., 2007). However, there was no difference between the conditions. Thus, while Interactional Rapport did not increase the length of children's reports, it also did not lead to shorter responses than Narrative Practice. Children in the Narrative Practice Rapport also did not produce longer testimonies as hypothesized. While there have been mixed results, some research has reported that children who practiced answering open-ended questions in narrative practice provided longer descriptions compared to children who did not practice (e.g., Sternberg et al., 1997). This benefit may accrue with interactional rapport-building activities as well.

In terms of the number of accurate details, children who told the truth gave more accurate details. This is not surprising given the fact that the children were asked by the transgressor to lie and conceal the theft. By omitting the theft, children who concealed consequently did not disclose many details related to the theft and omitted pertinent details about the incident in general (e.g., presence of the wallet) to avoid detection.

There was an effect of age in that older children gave significantly more details in open-ended questions compared to younger children. While there was no main effect of condition, there was an age by condition interaction in relation to the number of accurate details. Older children in the Interactional Rapport condition gave more details. No age effect was found amongst children who were in the Narrative Practice Rapport condition. Similarly, Sauerland and

colleagues (2018) found that adolescents who had extensive rapport were more accurate than younger children. Thus, taken together, it suggests that older children and adolescents may benefit from an interactional rapport-building phase.

Feelings of Rapport and Comfort with the Interviewer

Children completed a measure of rapport, the CHARM-C questionnaire, in order to indicate their subjective level of rapport with the interviewer in both the Narrative Practice Rapport and Interactional Rapport conditions. Given that the purpose of the Interactional Rapport condition was to create more trust and rapport than in the traditional verbal, narrative practice method of rapport, it was hypothesized that children in the Interactional Rapport condition would feel the most rapport with the interviewer. This hypothesis was supported in that children in this condition reported higher CHARM-C scores and they reported feeling more comfortable with the interviewer. However, while younger children reported higher CHARM-C scores, they did not explicitly state that they felt more comfortable with the interviewer. Regardless of age, almost 90% of children in the Interactional Rapport condition confirmed that the magic trick made them feel comfortable compared to just over 60% of the children in the Narrative Practice Rapport condition. This suggests that, across ages, the trust-building interactive activity did make children feel more comfortable with the interviewer. Despite the current findings that children's subjective feelings of rapport were not strongly linked with the outcome variables under investigation, these beginning, exploratory results suggest that future studies should continue to examine children's subjective feelings of rapport and their impact on children's testimonies.

Limitations and Future Directions

There are a few caveats to the present study. Ethically, it was not possible to recreate in a laboratory setting a more serious situation with a higher emotional impact similar to those children report upon in court cases (e.g., abuse). Nevertheless, given the ethical constraints, the theft-paradigm used did provide an ecologically-valid situation in that children believed they had witnessed a real "crime" with expected negative consequences to the transgressor. This study also replicated the theft paradigm used in other studies to realistically study children's lie-telling and disclosures (e.g., Foster et al., 2019, 2021; Wyman et al., 2019). Additionally, in order to further increase ecological validity, future studies could examine whether a delay in interview influences children's disclosures.

The current findings provide support for expanding the traditional concept of verbal, narrative practice based rapport-building by considering the implementation of a new, interactive method of building rapport based on Tickle-Degnen and Rosenthal's (1987, 1990) theory of rapport and trust. Although the authors chose to use a magic trick as their method of building trust through an interactive, reciprocal activity, other activities may also be just as or even more effective. Future research should examine what elements are most important for establishing rapport and building trust with the interviewer.

Future research should also examine the impact of child characteristics on rapport. For instance, Yi and Lamb (2018) found that children with low social desirability scores tended to disclose a secret more often than those with high social desirability scores. In the current study, children may have wanted to behave in socially desirable ways and please either the transgressor or the interviewer. In a recent study by Foster et al. (2021), children who preferred a transgressor were more likely to lie for them, and those that preferred the interviewer were more likely to

disclose a transgression. Other individual differences such as intellectual ability, verbal intelligence, and personality characteristics could also be examined (Yi & Lamb, 2018). Therefore, more research into children's individual differences may shed more light on how rapport with adults involved in transgressions and interviews may influence their testimonies. Future studies may wish to include such measures to control for their possible effects on children's willingness to disclose and the quality of their testimonies.

The current study's strong effects of age and Magnusson et al.'s (2020) study of forensic interviewers highlight the need to continue to examine children's developmental differences when examining the effects of rapport-building. Not all types of rapport-building are likely to be equally effective for children of varying ages (Rotenberg et al., 2003). Given that this is one of the first studies to examine rapport-building on children's disclosures, more research to examine developmental differences with a wider age range, from pre-schoolers to adolescents, is needed. Furthermore, given that this was the first study to examine the effects of a trust-building, interactive rapport-building activity, more research is needed to further extend the theory that this may be a more effective way of building rapport compared to standard narrative practice. A future study could include a combined narrative and interactional rapport-building phase to establish whether a combined method is most effective. Finally, as Saywitz and colleagues (2015, 2019) note, successful rapport is dependent on an accord between the child's and the interviewer's subjective experiences in the interview; yet no studies to date have examined this dynamic using measures of perceived rapport like the CHARM.

Conclusion

This was the first known study to manipulate rapport-building to include an interactive activity instead of the standard narrative practice. The current findings suggest that a rapport-

building activity based on mutual attention, positivity and coordination of behaviour may increase the likelihood that older children truthfully disclose another's transgression. These findings suggest future investigation is needed to examine additional techniques for operationalizing rapport-building at the beginning of interviews to increase children's disclosures and accurate, detailed reports.

References

Abbe, A., & Brandon, S. E. (2013). The role of rapport in investigative interviewing: A review. *Journal of Investigative Psychology and Offender Profiling, 10*(3), 237-249. https://doi.org/10.1002/jip.1386

Ahern, E. C., Stolzenberg, S. N., & Lyon, T. D. (2015). Do prosecutors use interview instructions or build rapport with child witnesses? *Behavioral Sciences and the Law, 33*(4), 476-492. https://doi.org/10.1002/bsl.2183

Bottoms, B. L., Goodman, G. S., Schwartz-Kenney, B. M., & Thomas, S. N. (2002). Understanding children's use of secrecy in the context of eyewitness reports. *Law & Human Behavior, 26*(3), 285–313. https://doi.org/10.1023/A:1015324304975

Brown, D. A., Lamb, M. E., Lewis, C., Pipe, M-E., Orbach, Y., & Wolfman, M. (2013). The NICHD investigative interview protocol: An analogue study. *Journal of Experimental Psychology: Applied, 19*(4), 367-382. https://doi.org/10.1037/a0035143

Carter, C. A., Bottoms, B. L., & Levine, M. (1996). Linguistic and socioemotional influences on the accuracy of children's reports. *Law and Human Behavior, 20*(3), 335-358. https://doi.org/10.1007/BF01499027

Ceci, S. J., & Bruck, M. (1993). The suggestibility of the child witness: A historical review and synthesis. *Psychological Bulletin, 113*(3), 403-439. https://doi.org/10.1037/0033-2909.113.3.403

Collins, K., Doherty-Sneddon, G., & Doherty, M. J. (2014). Practitioner perspectives on rapport building during child investigative interviews. *Psychology, Crime & Law, 20*, 884-901, https://doi.org/10.1080/1068316X.2014.888428

Colwell, K., Hiscock-Anisman, C. K., & Fede, J. (2013). Assessment criteria indicative of deception (ACID): An example of the new paradigm of differential recall enhancement. In B. Cooper, D. Griesel, & M. Ternes (Eds.), *Applied issues in eyewitness memory, credibility assessment, and investigative interviewing* (pp. 259–291). Springer. https://doi.org/10.1007/978-1-4614-5547-9_11

Craig, R. A., Sheibe, R., Raskin, D. C., Kircher, J. C., & Dodd, D. H. (1999). Interviewer questions and content analysis of children's statements of sexual abuse. *Applied Developmental Science, 3*(2), 77-85. https://doi.org/10.1207/s1532480xads0302_2

Cronch, L. E., Viljoen, J. L., & Hansen, D. J. (2006). Forensic interviewing in child sexual abuse cases: Current techniques and future directions. *Aggression and Violent Behavior, 11*(3), 195-207. https://doi.org/10.1016/j.avb.2005.07.009

Crossman, A. M., Powell, M. B., Principe, G. F., & Ceci, S. J. (2002). Child testimony in custody cases. *Journal of Forensic Psychology Practice, 2*(1), 1-31. https://doi.org/10.1300/J158v02n01_01

Davis, S. L., & Bottoms, B. L. (2002). Effects of social support on children's eyewitness reports: A test of the underlying mechanism. *Law and Human Behavior, 26*(2), 185-215. https://doi.org/10.1023/A:1014692009941

Davies, G. M., Westcott, H. L., & Horan, N. (2000). The impact of questioning style on the content of investigative interviews with suspected child sexual abuse victims. *Psychology, Crime and Law, 6*(2), 87-97. https://doi.org/10.1080/10683160008410834

Eisen, M. L., Morgan, D. Y., & Mickes, L. (2002). Individual differences in eyewitness memory and suggestibility: Examining relations between acquiescence, dissociation and resistance

to misleading information. *Personality & Individual Differences, 33*(4), 553–572. https://doi.org/10.1016/S0191-8869(01)00172-6

Evans, A. D., & Lee, K. (2011). Verbal deception from late childhood to middle adolescence and its relation to executive functioning skills. *Developmental Psychology, 47*(4), 1108-1116. https://doi.org/10.1037/a0023425

Evans, A. D., & Lee, K. (2013). Emergence of lying in very young children. *Developmental Psychology, 49*(10), 1958-1963. https://doi.org/10.1037/a0031409

Fisher, R. P., & Geiselman, R. E. (1992). *Memory enhancing techniques for investigative interviewing: The cognitive interview*. Charles C. Thomas.

Foster, I., Talwar, V., & Crossman, A. (2021). *"I like you so…": How instigator and interviewer likeability and familiarity influence children's disclosures* [Manuscript submitted for publication]. Department of Educational and Counselling Psychology, McGill University.

Foster, I., Wyman, J., Tong, D., Colwell, K., & Talwar, V. (2019). Does eyewitness and interviewer gender influence children's reports? An experimental analysis of eyewitness and interviewer gender on children's testimony. *Psychiatry, Psychology and Law*, *26*(4), 499-519. https://doi.org/10.1080/13218719.2018.1507844

Goodman, G. S., Bottoms, B. L., Schwartz-Kenney, B., & Rudy, L. (1991). Children's memory for a stressful event: Improving children's reports. *Journal of Narrative and Life History, 1*(1), 69–99. https://doi.org/10.1075/jnlh.1.1.05chi

Goodman, G. S., Goldfarb, D., Quas, J. A., & Lyon, A. (2017). Psychological counseling and accuracy of memory for child sexual abuse. *American Psychologist, 72*(9), 920. https://doi.org/10.1037/amp0000282

Goodman, G. S., & Melinder, A. (2007). Child witness research and forensic interviews of young children: A review. *Legal and Criminological Psychology, 12*(1), 1-19. https://doi.org/10.1348/135532506X156620

Goodman, G. S., & Reed, R. S. (1986). Age differences in eyewitness testimony. *Law & Human Behavior, 10*(4), 317–332. https://doi.org/10.1007/BF01047344

Gordon, H. M., Lyon, T. D., & Lee, K. (2014). Social and cognitive factors associated with children's secret-keeping for a parent. *Child Development, 85*(6), 2374-2388. https://doi.org/10.1111/cdev.12301

Gries, L. T., Goh, D. S., & Cavanaugh, J. (1996). Factors associated with disclosure during child sexual abuse assessment. *Journal of Child Sexual Abuse, 5*(3), 1-20. https://doi.org/10.1300/J070v05n03_01

Gurland, S. T., & Grolnick, W. S. (2003). Children's expectancies and perceptions of adults: Effects on rapport. *Child Development, 74*(4), 1212-1224. doi:10.1111/1467-8624.00602

Hardy, C. L., & van Leeuwen, S. A. (2004). Interviewing young children: Effects of probe structure and focus of rapport-building talk on the qualities of young children's eyewitness statements. *Canadian Journal of Behavioural Science, 36*(2), 155-165. https://doi.org/10.1037/h0087226

Hershkowitz, I. (2011). Rapport building in investigative interviews of children. In M. E. Lamb, D. J. La Rooy, L. C. Malloy, & C. Katz (Eds.), *Children's testimony: A handbook of psychological research and forensic practice* (2nd ed., pp. 109-128). John Wiley & Sons.

Hershkowitz, I., Horowitz, D., & Lamb, M. E. (2005). Trends in children's disclosure of abuse in Israel: A national study. *Child Abuse & Neglect, 29(*11), 1203-1214. https://doi.org/10.1016/j.chiabu.2005.04.008

Hershkowitz, I., Lanes, O., & Lamb, M. E. (2007). Exploring the disclose of child sexual abuse with alleged victims and their parents. *Child Abuse & Neglect, 31*(2), 111-123. https://doi.org/10.1016/j.chiabu.2006.09.004

Hudak, D. (2000). The therapeutic use of ball play in psychotherapy with children. *International Journal of Play Therapy, 9*(1), 1-10. https://doi.org/10.1037/h0089437

Hughes, J. N., & Baker, D. B. (1990). *The Guilford school practitioner series. The clinical child interview*. Guilford Press.

Lamb, M. E., Brown, D. A., Hershkowitz, I., Orbach, Y., & Esplin, P. W. (2018). *Tell me what happened: Questioning children about abuse* (2nd ed.,) Wiley Blackwell. https://doi.org/10.1002/9780470773291

Lavoie, J., Leduc, K., Arruda, C., Crossman, A. M., & Talwar, V. (2017). Developmental profiles of children's spontaneous lie-telling behavior. *Cognitive Development, 41*, 33-45. https://doi.org/10.1016/j.cogdev.2016.12.002

Lavoie, J., Wyman, J., Crossman, A. M., & Talwar, V. (2021). Meta-analysis of the effects of two interviewing practices on children's disclosures of sensitive information: Rapport practices and question type. *Child Abuse and Neglect, 113*, 1-12. https://doi.org/10.1016/j.chiabu.2021.104930

Leach, C., Powell, M. B., Sharman, S. J., & Anglim, J. (2017). The relationship between children's age and disclosures of sexual abuse during forensic interviews. *Child Maltreatment, 22*(1), 79-88. https://doi.org/10.1177/1077559516675723

Lewy, J., Cyr, M., & Dion, J. (2015). Impact of interviewers' supportive comments and children's reluctance to cooperate during sexual abuse disclosure. *Child Abuse & Neglect, 43*, 112-122. https://doi.org/10.1016/j.chiabu.2015.03.002

London, K., Bruck, M., Ceci, S. J., & Shuman, D. W. (2005). Disclosure of child sexual abuse: What does the research tell us about the ways that children tell? *Psychology, Public Policy, and Law, 11*(1), 194-226. https://doi.org/10.1037/1076-8971.11.1.194

London, K., Bruck, M., Wright, D. B., & Ceci, S. J. (2008). Review of the contemporary literature on how children report sexual abuse to others: Findings, methodological issues, and implications for forensic interviewers. *Memory, 16*(1), 29-47. https://doi.org/10.1080/09658210701725732

Lyon, T. D., Malloy, L. C., Quas, J. A., & Talwar, V. A. (2008). Coaching, truth induction, and young maltreated children's false allegations and false denials. *Child Development, 79*(4), 914-929. https://doi.org/10.1111/j.1467-8624.2008.01167.x

Lyon, T. D., Wandrey, L., Ahern, E., Licht, R., Sim, M., & Quas, J. A. (2014). Eliciting maltreated and nonmaltreated children's transgression disclosures: Narrative practice rapport building and a putative confession. *Child Development, 85*(4), 1756-1769. https://doi.org/10.1111/cdev.12223

Magnusson, M., Ernberg, E., Landström, S., & Akehurst, L. (2020). Forensic interviewers' experiences of interviewing children of different ages. *Psychology, Crime and Law, 26*(10), 967-689. https://doi.org/10.1080/1068316X.2020.1742343

Menard, S. (2002). *Longitudinal research* (2nd ed.) Sage. https://dx.doi.org/10.4135/9781412984867

Orbach, Y., Hershkowitz, I., Lamb, M. E., Sternberg, K. J., Esplin, P. W., & Horowitz, D. (2000). Assessing the value of structured protocols for forensic interviews of alleged child abuse victims. *Child Abuse and Neglect, 24*(6), 733-752. https://doi.org/1016/S0145-2134(00)00137-X

Pantell, R. H., & AAP Committee on Psychosocial Aspects of Child and Family Health. (2017). The child witness in the courtroom. *Pediatrics, 139*(3), e20164008. https://doi.org/10.1542/peds.2016-4008

Pipe, M-E., Lamb, M. E., Orbach, Y., Sternberg, K. J., Stewart, H. L., & Esplin, P. W. (2007). Factors associated with nondisclosure of suspected abuse during forensic interviews. In M-E. Pipe, M. E Lamb, Y. Orbach, & A-C. Cederborg. (Eds.), *Child sexual abuse: Disclosure, delay, and denial* (pp. 77-96). Taylor Francis Group. https://doi.org/10.4324/9780203936832

Pipe, M-E. & Wilson, J. C. (1994). Cues and secrets: Influences on children's event reports. *Developmental Psychology, 30*(4), 515–525. https://doi.org/10.1037//0012-1649.30.4.515

Poole, D. A., & Lamb, M. E. (1998). *Investigative interviews of children*. American Psychological Association. https://doi.org/10.1037/10301-000

Powell, M. B., & Lancaster, S. (2003). Guidelines for interviewing children during child custody evaluations. *Australian Psychologist, 38*(1), 46-54. https://doi.org/10.1080/00050060310001707017

Quas, J. A., & Lench, H. C. (2007). Arousal at encoding, arousal at retrieval, interviewer support, and children's memory for a mild stressor. *Applied Cognitive Psychology, 21*(3), 289-305. https://doi.org/10.1002/acp.1279

Roberts, K. P., Lamb, M. E., & Sternberg K. J. (2004). The effects of rapport-building style on children's reports of a staged event. *Applied Cognitive Psychology, 18*(2), 189-202. https://doi.org/10.1002/acp.957

Rotenberg, K. J., Eisenberg, N., Cumming, C., Smith, A., Singh, M., & Terlicher, E. (2003). The contribution of adults' nonverbal cues and children's shyness to the development or

rapport between adults and preschool children. *International Journal of Behavioral Development, 27*(1), 21-30. https://doi.org/10.1080/01650250143000571

Rotenberg, K. J., Fox, C., Green, S., Ruderman, L., Slater, K., Stevens, K., & Carlo, G. (2005). Construction and validation of a children's interpersonal trust belief scale. *British Journal of Developmental Psychology, 23*(2), 271-293. https://doi.org/10.1348/026151005X26192

Ruddock, A. C. (2006). *The relationship of interviewer rapport behaviors to the amount and type of disclosure from children during child abuse investigations* (Publication No. 3211747) [Doctoral dissertation, Alliant International University]. ProQuest Dissertations and Theses Global.

Rush, E. B., Lyon, T. D., Ahern, E. C., & Quas, J. A. (2014). Disclosure suspicion bias and abuse disclosure: Comparisons between sexual and physical abuse. *Child Maltreatment, 19*(2), 113-118. https://doi.org/10.1177/1077559514538114

Sas, R. (2002). *The interaction between children's developmental capabilities and the courtroom environment: The impact on testimonial competency*. Government of Canada Department of Justice. https://www.justice.gc.ca/eng/rp-pr/csj-sjc/ccs-ajc/rr02_6/rr02_6.pdf

Sauerland, M., Brackmann, N., & Otgaar, H. (2018). Rapport: Little effect on children's, adolescents', and adults' statement quantity, accuracy, and suggestibility. *Journal of Child Custody, 15*(4), 268-285. https://doi.org/10.1080/15379418.2018.1509759

Saykaly, C., Crossman, A., Morris, M., & Talwar, V. (2016). Question type and its effect on children's maintenance and accuracy during courtroom testimony. *Journal of Forensic Practice, 18*(2), 104–117. https://doi.org/10.1108/JFP-01-2015-0010

Saywitz, K. J., Larson, R. P., Hobbs, S. D., & Wells, C. R. (2015). Developing rapport with children in forensic interviews: Systematic review of experimental research. *Behavioral Sciences and the Law, 33*(4), 372-389. https://doi.org/10.1002/bsl.2186

Saywitz, K. J., Lyon, T. D., & Goodman, G. S. (2011). Interviewing children. In J. E. B. Myers (Ed.), *The APSAC handbook on child maltreatment* (3rd ed., pp. 337-360). Sage.

Saywitz, J. J., Wells, C. R., Larson, R. P., & Hobbs, S. D. (2019). Effects of interviewer support on children's memory and suggestibility: Systematic review and meta-analyses of experimental research. *Trauma, Violence, and Abuse, 20*(1), 22-39. https://doi.org/10.1177/1524838016683457

Smith, D. W., Letourneau, E. J., Saunders, B. E., Kilpatrick, D. G., Resnick, H. S., & Best, C. L. (2000). Delay in disclosure of childhood rape: Results from a national survey. *Child Abuse & Neglect, 24*(2), 273-287. https://doi.org/10.1016/S0145-2134(99)00130-1

Springer, C., Misurell, J. R., & Hiller, A. (2012). Game-based cognitive-behavioral therapy (GB-CBT) group program for children who have experienced sexual abuse: A three-month follow-up investigation. *Journal of Child Sexual Abuse, 21*(6), 646-664. https://doi.org/10.1080/10538712.2012.722592

Sternberg, J. J., Lamb, M. E., Hershkowitz, I., Yudilevitch, L., Orbach, Y., Esplin, P. W., & Hova, M. (1997). Effects of introductory style on children's ability to describe experiences of sexual abuse. *Child Abuse & Neglect, 21*(11), 1133-1146. https://doi.org/10.1016/S0145-2134(97)00071-9

Sternberg, K. J., Lamb, M. E., Orbach, Y., Esplin, P. W., & Mitchell, S. (2001). Use of a structured investigative protocol enhances young children's responses to free recall

prompts in the course of forensic interviews. *Journal of Applied Psychology, 86*(5), 997-1005. https://doi.org/10.1037//0021-9010.86.5.997

Talwar, V., & Crossman, A. (2011). From little white lies to filthy liars: The evolution of honesty and deception in young children. *Advances in Child Development and Behavior, 40*, 139-179. https://doi.org/10.1016/B978-0-12-386491-8.00004-9

Talwar, V., & Crossman, A. M. (2012). Children's lies and their detection: Implications for child witness testimony. *Developmental Review, 32*(4), 337-359. https://doi.org/10.1016/j.dr.2012.06.004

Talwar, V., Gordon, H., & Lee, K. (2007). Lying in the elementary school: Verbal deception and its relation to second-order belief understanding. *Developmental Psychology, 43*(3), 804–810. https://doi.org/10.1037/0012-1649.43.3.804

Talwar, V., & Lee, K. (2002). Emergence of white lie-telling in children between 3 and 7 years of age. *Merrill-Palmer Quarterly, 48*(2), 160-181. https://doi.org/10.1353/mpq.2002.0009

Talwar, V., & Lee, K. (2008). Social and cognitive correlates of children's lying behavior. *Child Development*, *79*(4), 866-881. https://doi.org/10.1111/j.1467-8624.2008.01164.x

Talwar, V., Lee, K., Bala, N., & Lindsay, R. C. L. (2004). Children's lie-telling to conceal a parent's transgression: Legal implications. *Law and Human Behavior*, *28*(4), 411-435. https://doi.org/10.1023/B:LAHU.0000039333.51399.f6

Talwar, V., Yachison, S., & Leduc, K. (2016). Promoting honesty: The influence of stories on children's lie-telling behaviours and moral understanding. *Infant and Child Development, 25*(6), 484–501. https://doi.org/10.1002/icd.1949

Teoh, Y. S., & Lamb, M. (2013). Interviewer demeanor in forensic interviews of children. *Psychology, Crime & Law, 19*(2), 145-159. https://doi.org/10.1080/1068316X.2011.614610

Tickle-Degnen, L., & Rosenthal, R. (1987). Group rapport and nonverbal behavior. In C. Hendrick (Ed.), *Review of personality and social psychology*: *Vol. 9. Group processes and intergroup relations* (pp. 113-136). Sage.

Tickle-Degnen, L., & Rosenthal, R. (1990). The nature of rapport and its nonverbal correlates. *Psychology Inquiry, 1*(4), 285-293. https://doi.org/10.1207/s15327965pli0104_1

Turoy-Smith, K. M., & Powell, M. B. (2017). Interviewing of children for family law matters: A review. *Australian Psychologist, 52*(3), 165-173. https://doi.org/10.1111/ap.12193

Williams, S. M., Kirmayer, M., Simon, T., & Talwar, V. (2013). Children's antisocial and prosocial lies to familiar and unfamiliar adults. *Infant and Child Development, 22*(4), 430-438. https://doi.org/10.1002/icd.1802

Wyman, J., Foster, I., Crossman, A., Colwell, K., & Talwar, V. (2019). The efficacy of free recall, cognitive load, and closed-ended questions when children are asked to falsely testify about a crime. *Applied Cognitive Psychology*, *33*(4), 544-560. https://doi.org/10.1002/acp.3494

Wyman, J, Saykaly, C., & Talwar, V. (2020). The effectiveness of free-recall, cognitive instruction and closed-ended questions when students with and without disabilities provide eyewitness reports of another's transgression. *Psychology, Crime and Law*, Advance online publication. https://doi.org/10.1080/1068316X.2020.1852564

Yi, M., & Lamb, M. E. (2018). The effects of narrative practice on children's testimony and disclosure of secrets. *Applied Cognitive Psychology, 32*(3), 326-336. https://doi.org/10.1002/acp.3385

Yuille, J. C., Hunter, R., Joffe, R., & Zaparniuk, J. (1993). Interviewing children in sexual abuse cases. In G. S. Goodman & B. L. Bottoms (Eds.), *Child victims, child witnesses: Understanding and improving children's testimony* (pp. 95–115). The Guilford Press.

Table 1

Correlations Between Rapport and Testimony Variables

Variable	1	2	3	4	5	6	7	8
1. Total Charm C Score	-							
2. Condition	-.257**	-						
3. Age (Continuous)	-.201*	.093	-					
4.Attempt to Lie	.062	.174	-.296**	-				
5. Lie Maintenance	-.018	.159	-.276**	.709**	-			
6. Free Recall Length	-.049	-.079	.155	.114	-.109	-		
7. Free Recall Accuracy	.048	-.128	.248**	-.396**	-.251**	.232*	-	
8. More Comfortable	.065	-.309**	.038	-.138	-.183	.118	.169	-

*$p < .05$. ** $p < .01$

Table 2

Number of Children who Disclosed in Open-Ended Questions by Age, Rapport Condition, and Veracity

Age	Veracity	Rapport Condition	
		Interactional Rapport	Narrative Practice Rapport
7 – 9 years	Truth-teller	5 (16.7)	6 (22.2)
	Lie-Teller	25 (83.3)	21 (77.8)
10 – 13 years	Truth-teller	16 (59.3)	7 (23.3)
	Lie-Teller	11 (40.7)	23 (76.7)

Note. Percentages are presented in parentheses.

Table 3

Number of Children who Disclosed at the End of Interview by Age, Rapport Condition, and Veracity

Age	Veracity	Rapport Condition	
		Interactional Rapport	Narrative Practice Rapport
7 – 9 years	Truth-teller	11 (36.7)	11 (40.7)
	Maintained Lie	19 (63.3)	16 (59.3)
10 – 13 years	Truth-teller	19 (70.4)	10 (33.3)
	Maintained Lie	8 (29.6)	20 (66.7)

Note. Percentages are presented in parentheses.

Table 4

Mean Number of Details (SD) Children Gave in Open-Ended Questions by Age and Rapport Condition

Age	Rapport Condition	
	Interactional Rapport	Narrative Practice Rapport
7 – 9 years	6.72 (14.31)	11.63 (13.07)
10 – 13 years	26.70 (16.09)	13.97 (11.24)

Chapter 6: General Discussion

A central issue in children's eyewitness testimony is assuring that their reports are credible and truthful. Important concerns with child witnesses include that they may not disclose wrongdoing by others (London et al., 2008), and when they do, they may be inaccurate in their reports (Ceci & Bruck, 1993). Some may be reluctant to report the misdeeds of others or to disclose their own experience because they risk more victimization, which may lead to further negative consequences (Hershkowitz et al., 2007). They may also feel pressure to not disclose and/or protect the wrongdoer from criminal consequences (Lyon et al., 2014; Talwar et al., 2016) and so, keep others' behaviour secret (e.g., Rush et al., 2014). Despite these challenges, however, interviewers have the important responsibility of eliciting truthful event disclosures without increasing false reports. In these cases, interviewers rely on evidenced-based interview practices that help to overcome children's reluctance and facilitate their willingness and ability to give truthful, accurate, and detailed reports. One such interview practice is the inclusion of a rapport-building phase at the beginning of an interview. Few studies, however, have examined whether children have actually felt rapport during this stage or whether the rapport-building stage has an influence on their testimonies. Relatedly, social influences in an interview between a child and interviewer have also rarely been addressed but may very well play a role in children's willingness or reluctance to disclose witnessed experiences. Therefore, the two studies in this program of research were designed to evaluate how certain interpersonal, social variables influence children's disclosures. In the first study, children's perceived feelings of likeability, familiarity, and comfort with an instigator and an interviewer were examined. In the second study, the rapport-building phase of a forensic interview was experimentally manipulated to examine how a novel, interactive approach to building rapport based on trust compared to a

traditional, narrative practice rapport-building approach. Children's willingness to disclose, as well as when they chose to disclose, and the quality and accuracy of their testimonies were examined.

Interpersonal Findings

The primary purpose of this research program was to examine how social factors, namely interpersonal relationships, contribute to children's willingness to disclose or lie about a transgression. Previous research with victims of child abuse has suggested that children's willingness to make accusations in formal interviews can be dependent on their age, gender, and their relationship to the suspected transgressor (Hershkowitz et al., 2005, 2007; London et al., 2008; Pipe et al., 2007). In laboratory studies, transgressor and interviewer familiarity have been shown to influence children's willingness to disclose or conceal a wrongdoing (e.g., Bottoms et al., 2002; Popliger et al, 2011; Quas & Schaaf, 2002; Talwar et al., 2004; Tye et al., 1999; Williams et al., 2013). Lying can be considered an interpersonal experience (Talwar & Crossman, 2011), and interpersonal variables, such as children's perceived feelings about the individuals involved in transgressions and their investigations may impact children's likelihood to disclose or conceal information. However, as of yet there has been limited research on interpersonal factors that may affect children's veracity. In both Study 1 and Study 2, interpersonal relationships were examined. In order to examine these factors, children in both studies were asked to lie about a witnessed theft. An unknown adult with whom they had become familiar for approximately one hour found a wallet with a $20 bill inside. The experimenter-transgressor stole the money and then asked the children to lie about it when asked. Children were then questioned about their interactions with the transgressor in a mock-forensic interview by an unknown interviewer.

Findings from Study 1 suggest that children's concurrent perceived feelings of likeability, comfort, and familiarity with a transgressor who asks them to lie, and with an investigative interviewer, both have opposite but compelling effects on children's testimonies. Notably, this relationship was found even in the context of the extremely brief exposure in Study 1's experiment. Children were more likely to lie for and protect a transgressor they perceived as likeable. Not only were they less likely to disclose the theft, but they were also less likely to make an indirect disclosure and leak information to the interviewer about the theft. In contrast, children who reported higher feelings of likeability, comfort, and familiarity with the interviewer were more likely to indirectly disclose and allude to the theft by disclosing that the transgressor had asked them to keep a secret. Although children were not more likely to directly disclose, the results suggest that children may have felt a sense of trust, rapport, and support with the interviewer and felt comfortable enough to indirectly make a disclosure. This suggests that while children's feelings towards the interviewer may influence their disclosures, something more may be needed to have them be more direct and forthcoming in their reports.

Children's feelings towards the person asking them to lie or conceal a wrongdoing can have substantial impact on their decision-making processes. In real-life situations, it may be helpful for child witness interviewers to take into account who the alleged transgressor is and the relationship the child has with that individual. Researchers and forensic professionals cannot change the relationship a child has with a transgressor or children's feelings towards them, especially when those transgressors are known, trusted adults. In order to counter these possible positive feelings, interviewers need to work extra hard to make children feel comfortable and create an environment that fosters truth-telling. One way to do so is by building upon the relationship between the interviewer and the child in the rapport-building phase. The results of

Study 1 suggest that when children are comfortable and like the person interviewing them, they will be more likely to disclose a wrongdoing. To build on these feelings, interviewers need to establish rapport with children right from the start of a forensic interview. This is especially so given that a new meta-analysis of current rapport practices by Lavoie and colleagues (2021) suggests that while existing practices across reviewed studies had an overall medium effect on children's disclosures, more improvement in current practices is needed.

In that vein, the main goal of Study 2 was to build upon these results by focusing on the interactive relationship between the child and the interviewer in the rapport-building stage of a forensic interview. Given that the purpose of the rapport-building stage is to make children feel comfortable with the interviewer (Collins et al., 2014; Lamb et al, 2018), the aim of Study 2 was not only to examine its effectiveness in fostering feelings of rapport in children, but also whether experimentally manipulating the type of rapport-building used would influence children's disclosures. While forensic interview guidelines such as the NICHD protocol (Lamb et al., 2018), the Cognitive Interview (Fisher & Geiselman, 1992), and the Stepwise Interview (Yuille et al., 1993) suggest that interviewers should establish rapport at the beginning of the interview before asking questions about the suspected incident (Crossman et al., 2002; Poole & Lamb, 1998), the primary method of doing so is through narrative practice (i.e., the practice of describing experienced events in detail via open-ended questions prior to the actual interview; Collins et al., 2014; Lyon et al., 2014). Few studies have experimentally examined the independent effects of rapport-building on interview outcomes and overall, the limited evidence and mixed results suggest that the use of open-ended questions with narrative practice rapport-building may improve children's detailed reports, but that it may not increase children's willingness to disclose (e.g., Brown et al., 2013; Hardy & van Leeuwen, 2004; Lyon et al., 2014;

Roberts et al., 2004; Sauerland et al., 2018; Yi & Lamb, 2018). Moreover, most did not include a measure of whether children actually felt rapport with the interviewer and there remained a lack of research into the likely mechanisms behind the impact of rapport-building, including relational aspects such as trust (Saywitz et al., 2015, 2019).

Therefore, a novel method of building rapport via a trust-building activity based on Tickle-Degnen and Rosenthal's (1987, 1990) theory of rapport was examined as a potentially effective way of building rapport compared to the traditional narrative practice. Children and the interviewer engaged in a magic trick where the interviewer demonstrated, taught, and practiced the trick with the children. Not only did children feel more rapport and comfort with the interviewer in this condition compared to narrative practice, but they were also significantly more likely to be forthcoming about the theft and to disclose it either in the open-ended questions or later when directly questioned. These results were found particularly in older children aged 10 to 13. Children with whom narrative practice was used were overall more likely to lie by omission in open-ended questions and when asked directly about the theft in closed-ended questions. Results of Study 2 indicate that by expanding the traditional concept of verbal, narrative practice based rapport-building to instead consider the implementation of a new, interactive method of building rapport may have beneficial effects on children's disclosures

Developmental Findings

The results of the current program of research highlight the importance of continuing to consider children's developmental level when evaluating their willingness and ability to truthfully disclose or conceal a wrongdoing by lying. Children's ability to lie and disclose develops and changes with age and therefore their developmental capacity is an essential factor when considering their abilities to both disclose and lie about a transgression.

Indeed, the results of Study 1 and Study 2 support this notion. Children's age was a significant predictor of their disclosures in both studies. Similar to previous studies (e.g., Hershkowitz et al., 2005; Leach et al., 2017; London et al., 2005; Pipe et al., 2007; Smith et al., 2000), children overall were less likely to lie and more likely to disclose with age. In Study 1, there was also an interaction between age and interviewer likeability in that younger children who told the truth by the end of the interview when directly asked reported higher feelings of likeability and comfort with the interviewer compared to those who lied. This suggests that fostering positive feelings toward unknown interviewers may be particularly important for younger children. Older children were also more likely to indirectly disclose the theft to the interviewer by reporting that they knew a secret. It may be that older children understood that telling someone a secret involves feeling trust with that person and trusting in their discreetness (Watson & Valtin, 1997). Research has also shown that the expectation of trust as the basis of friendship increases in age across middle childhood (Furman & Bierman, 1984; Rotenberg, 1991). The findings in Study 1 suggest that social factors like trust, likeability, and comfort may interact with age to influence children's disclosures.

This was the basis for Study 2, which aimed to increase the trust children may feel with an unknown interviewer. In this study, an interaction built on trust and rapport theory (e.g., Tickle-Degnen & Rosenthal, 1987, 1990) – in this case the demonstration, teaching, and practice of a magic trick – was used as a novel method of building rapport and trust with children aged 7 to 13 years in a mock forensic interview. Older children (10 to 13 years old) who participated in the interactive rapport-building activity with the interviewer were significantly more likely to be truthful and disclose the transgression and to give more details about the theft in their reports. Not only were they more forthcoming in that they disclosed earlier in open-ended questions, but

they were also more truthful when directly asked about the transgressor's involvement in the theft in closed-ended questions. Moreover, regardless of whether they participated in an interactive or the traditional narrative practice based rapport-building, older children gave longer and more detailed reports to interviewers. This age effect on children's length and number of details in a report is consistent with previous research (see Craig et al., 1999; Foster et al., 2019; Goodman & Reed, 1986; Talwar et al., 2007; Wyman et al., 2019). Overall, the results of this program of research indicate that children's age is important to consider when examining factors that influence both children's lie-telling and their willingness to disclose.

Research Contributions

The current program of research contributes to the literature in several novel ways and has implications for future eyewitness research with children. Firstly, the use of the mock theft as the unique research paradigm in both studies was a strength of the current program of research and suggests ways future studies can be designed to experimentally investigate the impact of different factors on children's truthful disclosures. This paradigm allowed children to believe the theft was real and provided an opportunity for them to believe that the transgressor would have significant, tangible consequences if it came to light. It also created a situation analogous to others where children who have witnessed a crime are coached or encouraged by someone to conceal what they have witnessed. Moreover, this paradigm was one of the few studies to involve a high-cost situation that provided ecological validity to the studies (e.g., Foster et al., 2019; Quas et al., 2007; Tye et al., 1999; Wyman et al., 2019). By being an active participant in the theft and subsequent concealment, this paradigm aimed to provoke the same emotions and behaviours children experience witnessing a real-life crime. Some of these emotions, in turn, served to influence children's disclosures in Study 1. The use of this paradigm, therefore, was

key to the experimental manipulations in this program of research and provided an opportunity to analyze authentic child witness reports.

Most importantly, the findings from this program of research, especially that of Study 2, expand upon the few studies that have attempted to examine the impact of interpersonal social factors and the effectiveness of rapport-building on children's disclosures (i.e., Brown et al., 2013; Hardy & van Leeuwen, 2004; Lyon et al., 2014; Roberts et al., 2004; Sauerland et al., 2018; Yi & Lamb, 2018; see Lavoie et al., 2021; Saywitz et al., 2015, for reviews). While examining rapport in the rapport-building stage of forensic interviews seems to be gaining in popularity (e.g., Hershkowitz et al., 2021; Sauerland et al., 2018), this is a relatively new area of investigation for child eyewitness researchers. Despite the fact that most forensic interviews call for rapport to be established in a specific rapport-building phase at the beginning of an interview, whether or not children feel rapport, and whether these feelings of rapport actually increase truthful disclosures remains to be seen (Lavoie et al., 2021; Saywitz et al., 2015). The findings in Study 2 provide support for continued research into methods of effectively building rapport with children in forensic interviews and examining how these methods influence children's disclosures. The studies that have examined rapport-building have all used narrative practice or open-ended questions as the method of building rapport; no studies to date have attempted to build rapport interactively. Moreover, the majority of these studies, with the exception of Sauerland and colleagues (2018), have primarily focused on children aged 3 to 9 years old. Given that not all types of rapport-building are likely to be equally effective for children of varying ages (Rotenberg et al., 2003; Saywitz et al., 2019), it was important for the participants in Study 2 to represent older children and emerging adolescents. Finally, a major issue in forensic research is establishing a definition of rapport by distinguishing "rapport" from

"supportiveness" in the literature. It is often unclear whether researchers considered supportiveness to be an element of good rapport-building, or whether effective rapport-building is reflective of a supportive interviewer (Saywitz et al., 2015). Building rapport with children is thought to be beneficial because of the on-going support interviewers can give to children (Collins et al., 2014). Social support between a provider and a recipient is supposed to give the recipient a sense of well-being (Carter et al., 1996; Shumaker & Brownell, 1984). However, studies often fail to differentiate between the two constructs of "rapport" and "support". Moreover, some researchers refer to "supportiveness" as the interviewer's demeanor throughout the interview, and "rapport" as the rapport-building stage at the beginning of the interview, which further adds to the confusion. Therefore, as suggested by Saywitz and colleagues (2015), the subjective experience of rapport is important. Thus, in Study 2, we measured children's feelings of rapport with the interviewer and the study's findings contribute to the limited research on the independent effects of rapport-building on children's feelings of rapport, on children's disclosures and on the quality of those disclosures.

Practical Implications

Forensic Practice

The findings from both studies provide important information about how interpersonal, social variables influence children's disclosures or willingness to lie. Children's feelings towards transgressors and interviewers and how they build rapport with interviewers both had an effect on their reports in mock forensic interviews. Admittedly, Study 1's findings of differences in likeability scores suggest small effects given the differences in mean scores. However, even a small effect is an important effect and suggests that the implications for forensic practice are both positive and negative. As reported above, while it is not possible to change the relationship

a child has with an alleged transgressor and their associated feelings towards that individual, the relationship between the child and interviewer is something that can be experimentally manipulated and examined further in future studies. The findings suggest that going forward, child eyewitness researchers and forensic practitioners may want to consider how children's feelings impact their reports and how best to create conditions where they feel comfortable to disclose accurate testimony. More research is needed to help understand how children's feelings of comfort and trust may influence their reports, and how investigators can create conditions that foster their truthful, accurate testimony.

For this reason, Study 2 aimed to further investigate what is considered to be an important part of forensic interviews but which has rarely been examined – the rapport-building phase. As one of the first studies to experimentally manipulate rapport-building by including an interactional component based on a well-known theory of trust and rapport (Tickle-Degnen & Rosenthal, 1987, 1990), the results of Study 2 suggest important new ways forensic practitioners can attempt to build rapport with children. Given that it appears that experimental research into rapport is lagging behind theory and practical application, a significant adjustment in research and methodology is needed and should be considered (Saywitz et al., 2015). The findings suggest that further examination of techniques to develop rapport may be worthwhile in helping interviewers create interview conditions where children will feel more comfortable to disclose. Importantly, the study suggests that techniques that have an interactional component that emphasize *positivity*, *mutual attention*, and *coordination* may be beneficial. However, more research is needed to translate this into best practice guidelines for interviewers. Indeed, the results of applied research into new interviewing practices need to be communicated between

researchers and practitioners in order to have any practical, long-lasting effects in helping to develop the field of children's eyewitness reports.

Relatedly, the use of alternative, interactive approaches to rapport-building have been implemented in other adult-child interactions outside of the forensic field. One such area has been the use of play in the establishment of rapport in therapeutic settings. The use of interactive activities in play therapy dates back to the early history of psychotherapy, where play was seen as a child's natural way of establishing relationships, communicating, and solving problems (Seymour, 2016). Nondirective play therapy, sometimes called child-centered play therapy (CCPT), emphasizes that a therapist who establishes strong rapport with a child allows them to express their emotions in a safe environment and acts as a support and guide (Axline, 1974; Landreth, 1991). In CCPT, one of the therapist's goals is to create a welcoming, warm, caring, and accepting environment for the child be feel comfortable enough to express and play through their issues and eventually overcome them (Glover & Landreth, 2016). The use of play as a means of communication, teaching, catharsis, and rapport-building makes it a strong agent of therapeutic change (Reddy et al., 2005). Therefore, using play as a means of building rapport in forensic interviews could be a possible useful new addition to current rapport-building protocols. It may also be useful in establishing rapport in everyday interactions with children, such as in the school environment.

Individuals in School Settings

The results of this program of research also have important implications for professionals who work in school settings. Teachers, counsellors, and school psychologists are often the first in line to receive a student's disclosure or to suspect that maltreatment may have occurred. The findings of Study 1 support the notion that children's relationships with adults in the school

environment are important and that their feelings of likeability, comfort, familiarity, and trust with these adults will likely influence whether they choose to disclose sometimes painful or difficult information to them. Likewise, the results of Study 2 highlight the importance of taking the time to build rapport with the child before questioning them about a difficult situation or about something they have witnessed. Rapport may be a key first step in helping children understand that they are being listened to by adults they can trust, who respect their experiences, and recognize that they are important, competent sources of information (Saywitz et al., 2015). Taking a few minutes to do an interactive activity to build rapport with a child may help to communicate to the child that the adult cares about them, wants them to be comfortable, and is there to listen, however long it may take. This may be particularly important and practically valuable with children who are reserved and wary of disclosing, but also for students for whom more traditional verbal rapport-building techniques are difficult to implement due to language or cognitive impairments, verbal comprehension difficulties, social difficulties, and/or anxiety.

General Limitations and Future Directions

There are several ways to improve upon the methodology in both studies. As mentioned above, although both studies involved a high-stakes lie, it was not ethically possible to recreate a more serious situation with a higher emotional impact in the laboratory setting. Hence, it will be important to attempt to replicate these results in the laboratory as well as in naturalistic situations. It would be especially important to experimentally manipulate how unfamiliar interviewers build rapport during the rapport-building phase of forensic interviews with children who have more emotionally impactful experiences. However, researchers also need to keep in mind children's motivations for concealing painful experiences. Regardless of the rapport the child may feel towards the interviewer, interviewers cannot change the fact that disclosing this

type of experience could make the child's situation worse; the interviewer cannot promise that disclosure will unequivocally improve the child's situation. Depending on the child's age, they may know this, which may impact their willingness to disclose and that could overwhelm the interviewer's rapport-building techniques if not countered in some way.

In order to further increase ecological validity, future studies could also examine whether a delay in interview influences children's disclosures (Saywitz et al., 2015), or whether having two interviews, one right away and one after a delay, is impacted by rapport. Additionally, future researchers may also want to experimentally manipulate the familiarity of the person asking them to lie. Although some studies have used parents as the transgressor (e.g., Gordon et al., 2014; Popliger et al., 2011; Talwar et al., 2004; Tye et al., 1999), furthering this research by continuing to use parents, siblings, and/or friends may provide more support for considering the relationship between the child and an alleged transgressor.

Relatedly, as mentioned in Study 1, we did not experimentally manipulate whether the transgressor or interviewer was likeable compared to unlikeable. Children were not assigned to "likeable" or "unlikeable" conditions, and the questions about likeability were asked after the children were interviewed and therefore after the children had made a decision whether or not to disclose or allude to the theft. Laboratory studies where the experimenters know the truth about a situation provide a unique opportunity to ask children directly their reasons *why* they chose to disclose or lie. Using a post-interview questionnaire, either orally or in written format, may shed light into children's decision-making processes. Finally, future research should continue to examine the impact of children's individual and developmental characteristics including intellectual ability, verbal intelligence, personality characteristics, and social desirability (Yi & Lamb, 2018) on their willingness and ability to disclose a transgression.

The findings in Study 2 provide support for expanding the traditional concept of verbal, narrative practice based rapport-building by considering the implementation of a new, interactive method of building rapport based on Tickle-Degnen and Rosenthal's (1987, 1990) theory of rapport and trust. Although a magic trick was chosen as the method of building trust through an interactive, reciprocal activity in Study 2, other activities may also be just as or even more effective. Combining narrative and interactional rapport, perhaps by completing a puzzle while asking the child questions at the same time, may have an even stronger, cumulative effect. By participating in a shared, interactive activity, the child and interviewer establish *positivity*, *mutual attention*, and *coordination* if the task requires that the child and adult work together to complete a task (such as in the case of the magic trick). When individuals observe each other's actions, mirror neurons are activated in the brain. The mirror neuron system is an important contributor not only to the child's brain development, but also to their development of empathy and subjective sense of self (Levy, 2009). In turn, when adults express empathy during children's play, the child's mirror neurons are activated, there is an increase in awareness, and their adaptive neural networks are integrated, leading to a sense of well-being (Siegel, 2006, 2007). This opens the door to examine how neuropsychology may also play a role in children's disclosures. Future researchers need to examine what elements are most important for establishing rapport and building trust with the interviewer and find creative ways to do so.

Conclusion

The two studies in this program of research examined how interpersonal, social factors influenced children's willingness to disclose or conceal a theft. The program of research provides the first experimental evidence that children's feelings towards the adults involved in a transgression and its investigation can concurrently impact their disclosures, as well as the first

known study to manipulate rapport-building to include an interactive activity instead of the standard narrative practice. Children's feelings towards transgressors and interviewers and how they build rapport with interviewers both had an effect on their reports in mock forensic interviews. While it is not possible to change the relationship a child has with an alleged transgressor and their associated feelings towards that individual, the relationship between the child and interviewer is something that can be experimentally manipulated. The current findings suggest that a rapport-building activity based on *mutual attention, positivity* and *coordination* of behaviour may increase the likelihood that older children truthfully disclose another's transgression. Overall, the program of research highlights the need to continue to examine how interpersonal relationships influence children's reports and suggests that researchers should investigate new, creative, and interactive ways to build rapport with children. A better understanding of these variables can not only help individuals in forensic practice, but also parents and individuals in school, community, and everyday settings (e.g., psychologists, social workers, guidance counsellors, and teachers) as well.

Bibliography

Abbe, A., & Brandon, S. E. (2013). The role of rapport in investigative interviewing: A review. *Journal of Investigative Psychology and Offender Profiling, 10*(3), 237-249. https://doi.org/10.1002/jip.1386

Ahern, E. C., Stolzenberg, S. N., & Lyon, T. D. (2015). Do prosecutors use interview instructions or build rapport with child witnesses? *Behavioral Sciences and the Law, 33*(4), 476-492. https://doi.org/10.1002/bsl.2183

Almerigogna, J., Ost, J., Akehurst, L., & Fluck, M. (2008). How interviewers' nonverbal behaviors can affect children's perceptions and suggestibility. *Journal of Experimental Child Psychology, 100*(1), 17-39. https://doi.org/10.1016/j.jecp.2008.01.006

Andrews, S. J., Lamb, M. E., & Lyon, T. D. (2015). Question types, responsiveness and self-contradictions when prosecutors and defense attorneys question alleged victims of child sexual abuse. *Applied Cognitive Psychology, 29*(2), 253-261. https://doi.org/10.1002/acp.3103

Axline, V. M. (1974). *Play therapy*. Ballantine Books.

Bala, N., Lee, K., Lindsay, R., & Talwar, V. (2000). A legal and psychological critique of the present approach to the assessment of the competence of child witnesses. *Osgoode Hall Law Journal, 38*(3), 409-451. https://digitalcommons.osgoode.yorku.ca/ohlj/vol38/iss3/2

Bala, N., Lee, K., Lindsay, R., & Talwar, V. (2010). The competency of children to testify: Psychological research informing Canadian law reform. *International Journal of Children's Rights, 18*(1), 53-77. https://doi.org/10.1163/157181809X458544

Bala, N., Paetsch, J. J., Bertrand, L. D., & Thomas, M. (2011). *Testimonial support provisions for children and vulnerable adults (Bill C-2): Case law review and perceptions of the*

judiciary. Government of Canada Department of Justice. http://www.justice.gc.ca/eng/rp-pr/fl-lf/famil/rr10_vic3/rr10_vic3.pdf

Bjorklund, D. F., Cassel, W. S., Bjorklund, B. R., Brown, R. D., Park, C. L., Ernst, K., & Owen, F. A. (2000). Social demand characteristics in children's and adults' eyewitness memory and suggestibility: The effect of different interviewers on free recall and recognition. *Applied Cognitive Psychology, 14*(5), 421-433. https://doi.org/10.1002/1099-0720(200009)14:5<421::AID-ACP659>3.0.CO;2-4

Bok, S. (1983). *Secrets: On the ethics of concealment and revelation*. Pantheon Books. https://doi.org/10.1002/pam.4050030250

Bottoms, B. L., Goodman, G. S., Schwartz-Kenney, B. M., & Thomas, S. N. (2002). Understanding children's use of secrecy in the context of eyewitness reports. *Law & Human Behavior*, *26*(3), 285–313. https://doi.org/10.1023/A:1015324304975

Brown, D. A., Lamb, M. E., Lewis, C., Pipe, M-E., Orbach, Y., & Wolfman, M. (2013). The NICHD investigative interview protocol: An analogue study. *Journal of Experimental Psychology: Applied, 19*(4), 367-382. https://doi.org/10.1037/a0035143

Brubacher, S. P., Poole, D. A., Dickinson, J. J., La Rooy, D., Szojka, Z. A., & Powell, M. B. (2019). Effects of interviewer familiarity and supportiveness on children's recall across repeated interviews. *Law and Human Behavior, 43*(6), 507-516. https://doi.org/10.1037/lhb0000346

Bussey, K., & Grimbeck, E. J. (2000). Children's conceptions of lying and truth-telling: Implications for child witnesses. *Legal and Criminological Psychology, 5*(2), 187-199. https://doi.org/10.1348/135532500168083

Carl, T., & Bussey, K. (2019). Contextual and age-related determinants of children's lie telling to conceal a transgression. *Infant Child Development, 28*(3), e2129. https://doi.org/10.1002/icd.2129

Carter, C. A., Bottoms, B. L., & Levine, M. (1996). Linguistic and socioemotional influences on the accuracy of children's reports. *Law and Human Behavior, 20*(3), 335-358. https://doi.org/10.1007/BF01499027

Ceci, S. J., & Bruck, M. (1993). The suggestibility of the child witness: A historical review and synthesis. *Psychological Bulletin, 113*(3), 403-439. https://doi.org/10.1037/0033-2909.113.3.403

Chaiken, S. (1980). Heuristic versus systematic information processing and the use of source versus message cues in persuasion. *Journal of Personality and Social Psychology, 39*(5), 752-766. https://doi.org/10.1037/0022-3514.39.5.752

Chaiken, S., & Eagly, A. H. (1983). Communication modality as a determinant of persuasion: The role of communicator salience. *Journal of Personality and Social Psychology, 45*(2), 241-256. https://doi.org/10.1037/0022-3514.45.2.241

Children's Bureau of the U.S. Department of Health and Human Service. (2020). *Child Maltreatment 2018.* https://www.acf.hhs.gov/sites/default/files/documents/cb/cm2018.pdf

Collins, K., Doherty-Sneddon, G., & Doherty, M. J. (2014). Practitioner perspectives on rapport building during child investigative interviews. *Psychology, Crime & Law, 20*, 884-901, https://doi.org/10.1080/1068316X.2014.888428

Colwell, K., Hiscock, C. K., & Memon, A. (2002). Interviewing techniques and the assessment of statement credibility. *Applied Cognitive Psychology, 16*(3), 287-300. https://doi.org/10.1002/acp.788

Colwell, K., Hiscock-Anisman, C. K., & Fede, J. (2013). Assessment criteria indicative of deception (ACID): An example of the new paradigm of differential recall enhancement. In B. Cooper, D. Griesel, & M. Ternes (Eds.), *Applied issues in eyewitness memory, credibility assessment, and investigative interviewing* (pp. 259–291). Springer. https://doi.org/10.1007/978-1-4614-5547-9_11

Craig, R. A., Sheibe, R., Raskin, D. C., Kircher, J. C., & Dodd, D. H. (1999). Interviewer questions and content analysis of children's statements of sexual abuse. *Applied Developmental Science, 3*(2), 77-85. https://doi.org/10.1207/s1532480xads0302_2

Cronch, L. E., Viljoen, J. L., & Hansen, D. J. (2006). Forensic interviewing in child sexual abuse cases: Current techniques and future directions. *Aggression and Violent Behavior, 11*(3), 195-207. https://doi.org/10.1016/j.avb.2005.07.009

Crossman, A. M., Powell, M. B., Principe, G. F., & Ceci, S. J. (2002). Child testimony in custody cases. *Journal of Forensic Psychology Practice, 2*(1), 1-31. https://doi.org/10.1300/J158v02n01_01

Darkness to Light. (2015). *Sexual abuse statistics: Perpetrators*. http://www.d2l.org/wp-content/uploads/2017/01/Statistics_2_Perpetrators.pdf

Davis, S. L., & Bottoms, B. L. (2002). Effects of social support on children's eyewitness reports: A test of the underlying mechanism. *Law and Human Behavior, 26*(2), 185-215. https://doi.org/10.1023/A:1014692009941

Davies, G. M., Westcott, H. L., & Horan, N. (2000). The impact of questioning style on the content of investigative interviews with suspected child sexual abuse victims. *Psychology, Crime and Law, 6*(2), 87-97. https://doi.org/10.1080/10683160008410834

DePaulo, B. M., & Kashy, D. A. (1998). Everyday lies in close and casual relationships. *Journal of Personality and Social Psychology, 74*(1), 63-79. https://doi.org/10.1037/0022-3514.74.1.63

Eisen, M. L., Morgan, D. Y., & Mickes, L. (2002). Individual differences in eyewitness memory and suggestibility: Examining relations between acquiescence, dissociation and resistance to misleading information. *Personality & Individual Differences, 33*(4), 553–572. https://doi.org/10.1016/S0191-8869(01)00172-6

Ekman P. (1985). Lying, leakage, and clues to deceit. In P. Ekman, (Ed.), *Telling lies: Clues to deceit in the marketplace, politics, and marriage* (pp. 25-42). WW Norton.

Evans, A. D., & Lee, K. (2011). Verbal deception from late childhood to middle adolescence and its relation to executive functioning skills. *Developmental Psychology, 47*(4), 1108-1116. https://doi.org/10.1037/a0023425

Evans, A. D., & Lee, K. (2013). Emergence of lying in very young children. *Developmental Psychology, 49*(10), 1958-1963. https://doi.org/10.1037/a0031409

Fangstrom, K. (2017). 'I don't even remember anything' Optimising the choice of method when interviewing preschoolers (Publication No. 10783391) [Doctoral dissertation, Uppsala University]. ProQuest Dissertations and Theses Global.

Feltis, B. B., Powell, M. B., Snow, P. C., & Hughes-Scholes, C. H. (2010). An examination of the association between interviewer question type and story-grammar detail in child

witness interviews about abuse. *Child Abuse & Neglect, 34*(6), 407-413. https://doi.org/10.1016/j.chiabu.2009.09.019

Finkelhor, D., & Shattuck, A. (2012). *Characteristics of crimes against juveniles*. Crimes against Children Research Center. https://www.academia.edu/9728770/Characteristics_of_crimes_against_juveniles

Fisher, R. P., & Geiselman, R. E. (1992). *Memory enhancing techniques for investigative interviewing: The cognitive interview*. Charles C. Thomas.

Foster, I., Talwar, V., & Crossman, A. (2021). *"I like you so…": How instigator and interviewer likeability and familiarity influence children's disclosures* [Manuscript submitted for publication]. Department of Educational and Counselling Psychology, McGill University.

Foster, I., Wyman, J., Tong, D., Colwell, K., & Talwar, V. (2019). Does eyewitness and interviewer gender influence children's reports? An experimental analysis of eyewitness and interviewer gender on children's testimony. *Psychiatry, Psychology and Law, 26*(4), 499-519. https://doi.org/10.1080/13218719.2018.1507844

Furman, W., & Bierman, K. L. (1984). Children's conceptions of friendship: A multi method study of developmental changes. *Developmental Psychology, 20*(5), 925–931. https://doi.org/10.1037/0012-1649.20.5.925

Glover, G., & Landreth, G. L. (2016). Child-centered play therapy. In K. J. O'Connor, C. E. Schaefer, & L. D. Braverman (Eds.), *Handbook of play therapy* (2nd ed., pp. 93-118). Wiley.

Goodman, G. S., Bottoms, B. L., Schwartz-Kenney, B., & Rudy, L. (1991). Children's memory for a stressful event: Improving children's reports. *Journal of Narrative and Life History, 1*(1), 69–99. https://doi.org/10.1075/jnlh.1.1.05chi

Goodman, G. S., Goldfarb, D., Quas, J. A., & Lyon, A. (2017). Psychological counseling and accuracy of memory for child sexual abuse. *American Psychologist, 72*(9), 920. https://doi.org/10.1037/amp0000282

Goodman, G. S., & Melinder, A. (2007). Child witness research and forensic interviews of young children: A review. *Legal and Criminological Psychology, 12*(1), 1-19. https://doi.org/10.1348/135532506X156620

Goodman, G. S., & Reed, R. S. (1986). Age differences in eyewitness testimony. *Law & Human Behavior, 10*(4), 317–332. https://doi.org/10.1007/BF01047344

Goodman-Brown, T. B., Edelstein, R. S., Goodman, G. S., Jones, D. P. H., & Gordon, D. S. (2003). Why children tell: A model of children's disclosure of sexual abuse. *Child Abuse & Neglect, 27*(5), 525-540. https://doi.org/10.1016/S0145-2134(03)00037-1

Gordon, H. M., Lyon, T. D., & Lee, K. (2014). Social and cognitive factors associated with children's secret-keeping for a parent. *Child Development, 85*(6), 2374-2388. https://doi.org/10.1111/cdev.12301

Gries, L. T., Goh, D. S., & Cavanaugh, J. (1996). Factors associated with disclosure during child sexual abuse assessment. *Journal of Child Sexual Abuse, 5*(3), 1-20. https://doi.org/10.1300/J070v05n03_01

Gurland, S. T., & Grolnick, W. S. (2003). Children's expectancies and perceptions of adults: Effects on rapport. *Child Development, 74*(4), 1212-1224. doi:10.1111/1467-8624.00602

Hardy, C. L., & van Leeuwen, S. A. (2004). Interviewing young children: Effects of probe structure and focus of rapport-building talk on the qualities of young children's eyewitness statements. *Canadian Journal of Behavioural Science, 36*(2), 155-165. https://doi.org/10.1037/h0087226

Helavirta, S., Laakso, R., & Pösö, T. (2017). Familiarity of not: Children's choice of interviewer in a study of substitute care. *Child Care in Practice, 24*(3), 258-272. https://doi.org/10.1080/13575279.2017.1391748

Hershkowitz, I. (2009). Socioemotional factors in child sexual abuse investigations. *Child Maltreatment, 14(*2), 178-181. https://doi.org/10.1177/1077559508326224

Hershkowitz, I. (2011). Rapport building in investigative interviews of children. In M. E. Lamb, D. J. La Rooy, L. C. Malloy, & C. Katz (Eds.), *Children's testimony: A handbook of psychological research and forensic practice* (2nd ed., pp. 109-128). John Wiley & Sons.

Hershkowitz, I., Horowitz, D., & Lamb, M. E. (2005). Trends in children's disclosure of abuse in Israel: A national study. *Child Abuse & Neglect, 29(*11), 1203-1214. https://doi.org/10.1016/j.chiabu.2005.04.008

Hershkowitz, I., Lamb, M. E., Blasbalg, U., & Karni-Visel, Y. (2021). The dynamics of two-session interviews with suspected victims of abuse who are reluctant to make allegations. *Development and Psychopathology*, *33*(2), 739-747. https://doi.org/10.1017/S0954579420001820

Hershkowitz, I., Lamb, M. E., Orbach, Y., Katz, C., & Horowitz, D. (2012). The development of communicative and narrative skills among preschoolers: Lessons from forensic interviews about child abuse. *Child Development, 83*(2), 611-622. https://doi.org/10.1111/j.1467-8624.2011.01704.x

Hershkowitz, I., Lanes, O., & Lamb, M. E. (2007). Exploring the disclose of child sexual abuse with alleged victims and their parents. *Child Abuse & Neglect, 31*(2), 111-123. https://doi.org/10.1016/j.chiabu.2006.09.004

Hershkowitz, I., Orbach, Y., Lamb, M. E., Sternberg, K. J., & Horowitz, D. (2006). Dynamics of forensic interviews with suspected abuse victims who do not disclose abuse. *Child Abuse and Neglect, 30*(7), 753–769. https://doi.org/10.1016/j.chiabu.2005.10.016

Hudak, D. (2000). The therapeutic use of ball play in psychotherapy with children. *International Journal of Play Therapy, 9*(1), 1-10. https://doi.org/10.1037/h0089437

Hughes, J. N., & Baker, D. B. (1990). *The Guilford school practitioner series. The clinical child interview*. Guilford Press.

Lamb, M. E. (1998). Assessments of children's credibility in forensic contexts. *Current Directions in Psychological Science, 7*(2), 43-46. https://doi.org/10.1111/1467-8721.ep13175602

Lamb, M. E., Brown, D. A., Hershkowitz, I., Orbach, Y., & Esplin, P. W. (2018). *Tell me what happened: Questioning children about abuse* (2nd ed.,) Wiley Blackwell. https://doi.org/10.1002/9780470773291

Lamb, M. E., Orbach, Y., Sternberg, K. J., Esplin, P. W., & Hershkowitz, I. (2002). The effects of forensic interview practices on the quality of information provided by alleged victims of child abuse. In H. L. Wescott, G. M. Davies, & R. Bull (Eds.), *Children's testimony: A handbook of psychological research and forensic practice* (pp. 131-145). Wiley. https://doi.org/10.1002/9780470713679

Lamb, M. E., Sternberg, K. J., Orbach, Y., Esplin, P. W., Stewart, H. L., & Mitchell, S. (2003). Age differences in young children's responses to open-ended invitations in the course of forensic interviews. *Journal of Consulting and Clinical Psychology, 71*(5), 926-934. https://doi.org/10.1037/0022-006X.71.5.926

Landreth, G. L. (1991). *Play therapy: The art of the relationship*. Accelerated Development.

Lavoie, J., Leduc, K., Arruda, C., Crossman, A. M., & Talwar, V. (2017). Developmental profiles of children's spontaneous lie-telling behavior. *Cognitive Development, 41*, 33-45. https://doi.org/10.1016/j.cogdev.2016.12.002

Lavoie, J., Nagar, P. M., & Talwar, V. (2017). From Kantian to Machiavellian deceivers: Development of children's reasoning and self-reported use of secrets and lies. *Childhood, 24*(2), 197-211. https://doi.org/10.1177/0907568216671179

Lavoie, J. Wyman, J., Crossman, A. M., & Talwar, V. (2021). Meta-analysis of the effects of wo interviewing practices on children's disclosures of sensitive information: Rapport practices and question type. *Child Abuse and Neglect, 113*, 1-12. https://doi.org/10.1016/j.chiabu.2021.104930

Leach, C., Powell, M. B., Sharman, S. J., & Anglim, J. (2017). The relationship between children's age and disclosures of sexual abuse during forensic interviews. *Child Maltreatment, 22*(1), 79-88. https://doi.org/10.1177/1077559516675723

Leduc, K., Williams, S., Gomez-Garibello, C., & Talwar, V. (2017). The contributions of mental state understanding and executive functioning to preschool-aged children's emerging lie-telling. *British Journal of Developmental Psychology, 35*(2), 288-302. https://doi.org/10.1111/bjdp.12163

Lee, K. (2013). Little liars: Development of verbal deception in children. *Child Development Perspectives, 7*(2), 91-96. https://doi.org/10.1111/cdep.12023

Legal Information Institute, Cornell Law School. (2021). *18 U.S. Code § 3509 - Child victims' and child witnesses' rights*. Retrieved July 16, 2021, from https://www.law.cornell.edu/uscode/text/18/3509

Levy, A. J. (2009). Neurobiology and the therapeutic action of psychoanalytic play therapy with children. *Clinical Social Work Journal, 39*(1), 50–60. https://doi.org/10.1007/s10615-009-0229-x

Lewy, J., Cyr, M., & Dion, J. (2015). Impact of interviewers' supportive comments and children's reluctance to cooperate during sexual abuse disclosure. *Child Abuse & Neglect, 43*, 112-122. https://doi.org/10.1016/j.chiabu.2015.03.002

London, K., Bruck, M., Ceci, S. J., & Shuman, D. W. (2005). Disclosure of child sexual abuse: What does the research tell us about the ways that children tell? *Psychology, Public Policy, and Law, 11*(1), 194-226. https://doi.org/10.1037/1076-8971.11.1.194

London, K., Bruck, M., Wright, D. B., & Ceci, S. J. (2008). Review of the contemporary literature on how children report sexual abuse to others: Findings, methodological issues, and implications for forensic interviewers. *Memory, 16*(1), 29-47. https://doi.org/10.1080/09658210701725732

Lyon, T. D. (2000). Child witnesses and the oath: Empirical evidence. In H. L. Westcott, G. M. Davies, & R. H. C. Bull (Eds.), *Children's testimony: A handbook of psychological research and forensic practice*, (pp. 245 – 260). John Wiley & Sons. https://doi.org/10.1002/9780470713679.ch16

Lyon, T. D. (2014). Interviewing children. *Annual Review of Law and Social Science, 10*, 73-89. https://doi.org/10.1146/annurev-lawsocsci-110413-030913

Lyon, T. D., Malloy, L. C., Quas, J. A., & Talwar, V. A. (2008). Coaching, truth induction, and young maltreated children's false allegations and false denials. *Child Development, 79*(4), 914-929. https://doi.org/10.1111/j.1467-8624.2008.01167.x

Lyon, T., & Saywitz, K. (1999). Young maltreated children's competence to take the oath. *Applied Developmental Science, 3*(1), 16-27. https://doi.org/10.2139/ssrn.161190

Lyon, T. D., Wandrey, L., Ahern, E., Licht, R., Sim, M., & Quas, J. A. (2014). Eliciting maltreated and nonmaltreated children's transgression disclosures: Narrative practice rapport building and a putative confession. *Child Development, 85*(4), 1756-1769. https://doi.org/10.1111/cdev.12223

Magnusson, M., Ernberg, E., Landström, S., & Akehurst, L. (2020). Forensic interviewers' experiences of interviewing children of different ages. *Psychology, Crime and Law, 26*(10), 967-689. https://doi.org/10.1080/1068316X.2020.1742343

Memon, A., Meissner, C. A., & Fraser, J. (2010). The Cognitive Interview: A meta-analytic review and study space analysis of the past 25 years. *Psychology, Public Policy, and Law, 16*(4), 340-372. https://doi.org/10.1037/a0020518

Menard, S. (2002). *Longitudinal research* (2nd ed.) Sage. https://dx.doi.org/10.4135/9781412984867

Northcott, M. (2009). *Facilitating testimony for child victims and witnesses*. Government of Canada Department of Justice. https://www.justice.gc.ca/eng/rp-pr/cj-jp/victim/rd09_2-rr09_2/p3.html

Orbach, Y., Hershkowitz, I., Lamb, M. E., Sternberg, K. J., Esplin, P. W., & Horowitz, D. (2000). Assessing the value of structured protocols for forensic interviews of alleged child abuse victims. *Child Abuse and Neglect, 24*(6), 733-752. https://doi.org/1016/S0145-2134(00)00137-X

Pantell, R. H., & AAP Committee on Psychosocial Aspects of Child and Family Health. (2017). The child witness in the courtroom. *Pediatrics, 139*(3), e20164008; https://doi.org/10.1542/peds.2016-4008

Pipe, M-E., & Goodman, G. S. (1991). Elements of secrecy: Implications for children's testimony. *Behavioral Sciences and the Law, 9*(1), 33-41. https://doi.org/10.1002/bsl.2370090105

Pipe, M-E., Lamb, M. E., Orbach, Y., Sternberg, K. J., Stewart, H. L., & Esplin, P. W. (2007). Factors associated with nondisclosure of suspected abuse during forensic interviews. In M-E. Pipe, M. E Lamb, Y. Orbach, & A-C. Cederborg. (Eds.), *Child sexual abuse: Disclosure, delay, and denial* (pp. 77-96). Taylor Francis Group. https://doi.org/10.4324/9780203936832

Pipe, M-E. & Wilson, J. C. (1994). Cues and secrets: Influences on children's event reports. *Developmental Psychology, 30*(4), 515–525. https://doi.org/10.1037//0012-1649.30.4.515

Polak, A., & Harris, P. L. (1999). Deception by young children following noncompliance. *Developmental Psychology, 35*(2), 561–568. https://doi.apa.org/doi/10.1037/0012-1649.35.2.561

Poole, D. A., & Lamb, M. E. (1998). *Investigative interviews of children*. American Psychological Association. https://doi.org/10.1037/10301-000

Popliger, M., Talwar, V., & Crossman, A. (2011). Predictors of children's prosocial lie-telling: Motivation, socialization variables, and moral understanding. *Journal of Experimental Child Psychology, 110*(3), 373-392. https://doi.org/10.1016/j.jecp.2011.05.003

Powell, M. B., & Lancaster, S. (2003). Guidelines for interviewing children during child custody evaluations. *Australian Psychologist, 38*(1), 46-54. https://doi.org/10.1080/00050060310001707017

Price, H. L., Evans, A. D., & Bruer, K. C. (2019). Transmission of children's disclosures of a transgression from peers to adults. *Applied Developmental Science, 25*(3), 228-239. https://doi.org/10.1080/10888691.2019.1586544

Quas, J. A., Davis, E. L., Goodman, G. S., & Myers, J. E. B. (2007). Repeated questions, deception, and children's true and false reports of body touch. *Child Maltreatment, 12*(1), 60-67. https://doi.org/10.1177/1077559506296141

Quas, J. A., & Lench, H. C. (2007). Arousal at encoding, arousal at retrieval, interviewer support, and children's memory for a mild stressor. *Applied Cognitive Psychology, 21*(3), 289-305. https://doi.org/10.1002/acp.1279

Quas, J. A., & Schaaf, J. M. (2002). Children's memories of experience and nonexperienced events following repeated interviews. *Journal of Experimental Child Psychology, 83*(4), 304-338. https://doi.org/10.1016/S0022-0965(02)00150-9

Quinn, K. (1986). Competency to be a witness: A major child forensic issue. *The Bulletin of the American Academy of Psychiatry and Law, 14*(4) 311-321.

Reddy, L., Files-Hall, T., & Schaefer, C. E. (2005). *Empirically based play interventions for children.* American Psychological Association.

Reysen, S. (2005). Construction of a new scale: The Reysen Likability Scale. *Social Behaviour and Personality, 33*(2), 201-208. https://doi.org/10.2224/sbp.2005.33.2.201

Roberts, K. P., Lamb, M. E., & Sternberg K. J. (2004). The effects of rapport-building style on children's reports of a staged event. *Applied Cognitive Psychology, 18*(2), 189-202. https://doi.org/10.1002/acp.957

Rotenberg, K. J. (1991). *Children's interpersonal trust: Sensitivity to lying, deception and promise violations*. Springer.

Rotenberg, K. J., Eisenberg, N., Cumming, C., Smith, A., Singh, M., & Terlicher, E. (2003). The contribution of adults' nonverbal cues and children's shyness to the development or rapport between adults and preschool children. *International Journal of Behavioral Development, 27*(1), 21-30. https://doi.org/10.1080/01650250143000571

Rotenberg, K. J., Fox, C., Green, S., Ruderman, L., Slater, K., Stevens, K., & Carlo, G. (2005). Construction and validation of a children's interpersonal trust belief scale. *British Journal of Developmental Psychology*, *23*(2), 271-293. https://doi.org/10.1348/026151005X26192

Ruddock, A. C. (2006). *The relationship of interviewer rapport behaviors to the amount and type of disclosure from children during child abuse investigations* (Publication No. 3211747) [Doctoral dissertation, Alliant International University]. ProQuest Dissertations and Theses Global.

Rush, E. B., Lyon, T. D., Ahern, E. C., & Quas, J. A. (2014). Disclosure suspicion bias and abuse disclosure: Comparisons between sexual and physical abuse. *Child Maltreatment, 19*(2), 113-118. https://doi.org/10.1177/1077559514538114

Sas, R. (2002). *The interaction between children's developmental capabilities and the courtroom environment: The impact on testimonial competency*. Government of Canada Department of Justice. https://www.justice.gc.ca/eng/rp-pr/csj-sjc/ccs-ajc/rr02_6/rr02_6.pdf

Sauerland, M., Brackmann, N., & Otgaar, H. (2018). Rapport: Little effect on children's, adolescents', and adults' statement quantity, accuracy, and suggestibility. *Journal of Child Custody, 15*(4), 268-285. https://doi.org/10.1080/15379418.2018.1509759

Saykaly, C., Crossman, A., Morris, M., & Talwar, V. (2016). Question type and its effect on children's maintenance and accuracy during courtroom testimony. *Journal of Forensic Practice, 18*(2), 104–117. https://doi.org/10.1108/JFP-01-2015-0010

Saykaly, C., Talwar, V., Lee, K., Lindsay, R. C. L. & Bala, N. (2013). The influence of multiple interviews on the verbal markers of children's deception. *Law and Human Behavior, 37*(3), 187–196. https://doi.org/10.1037/lhb0000023.

Saywitz, K. J., Larson, R. P., Hobbs, S. D., & Wells, C. R. (2015). Developing rapport with children in forensic interviews: Systematic review of experimental research. *Behavioral Sciences and the Law, 33*(4), 372-389. https://doi.org/10.1002/bsl.2186

Saywitz, K. J., Lyon, T. D., & Goodman, G. S. (2011). Interviewing children. In J. E. B. Myers (Ed.), *The APSAC handbook on child maltreatment* (3rd ed., pp. 337-360). Sage.

Saywitz, J. J., Wells, C. R., Larson, R. P., & Hobbs, S. D. (2019). Effects of interviewer support on children's memory and suggestibility: Systematic review and meta-analyses of experimental research. *Trauma, Violence, and Abuse, 20*(1), 22-39. https://doi.org/10.1177/1524838016683457

Shumaker, S. A., & Brownell, A. (1984). Toward a theory of social support: Closing conceptual gaps. *Journal of Social Issues, 40*(4), 11-36. https://doi.org/10.1111/j.1540-4560.1984.tb01105.x

Seymour, J. W. (2016). An introduction to the field of play therapy. In K. J. O'Connor, C. E. Schaefer, & L. D. Braverman (Eds.), *Handbook of play therapy* (2nd ed., pp. 3-16). Wiley.

Siegel, D. J. (2006). An interpersonal neurobiology approach to psychotherapy: Awareness, mirror neurons, and neural plasticity in the development of well-being. *Psychiatric Annals, 36*(4), 247–258. https://doi.org/10.3928/00485713-20060401-06

Siegel, D. J. (2007). *The mindful brain: Reflection and attunement in the cultivation of well-being*. W. W. Norton & Co.

Smith, D. W., Letourneau, E. J., Saunders, B. E., Kilpatrick, D. G., Resnick, H. S., & Best, C. L. (2000). Delay in disclosure of childhood rape: Results from a national survey. *Child Abuse & Neglect, 24*(2), 273-287. https://doi.org/10.1016/S0145-2134(99)00130-1

Springer, C., Misurell, J. R., & Hiller, A. (2012). Game-based cognitive-behavioral therapy (GB-CBT) group program for children who have experienced sexual abuse: A three-month follow-up investigation. *Journal of Child Sexual Abuse, 21*(6), 646-664. https://doi.org/10.1080/10538712.2012.722592

Sternberg, J. J., Lamb, M. E., Hershkowitz, I., Yudilevitch, L., Orbach, Y., Esplin, P. W., & Hova, M. (1997). Effects of introductory style on children's ability to describe experiences of sexual abuse. *Child Abuse & Neglect, 21*(11), 1133-1146. https://doi.org/10.1016/S0145-2134(97)00071-9

Sternberg, K. J., Lamb, M. E., Orbach, Y., Esplin, P. W., & Mitchell, S. (2001). Use of a structured investigative protocol enhances young children's responses to free recall prompts in the course of forensic interviews. *Journal of Applied Psychology, 86*(5), 997-1005. https://doi.org/10.1037//0021-9010.86.5.997

Talwar, V., & Crossman, A. (2011). From little white lies to filthy liars: The evolution of honesty and deception in young children. *Advances in Child Development and Behavior, 40*, 139-179. https://doi.org/10.1016/B978-0-12-386491-8.00004-9

Talwar, V., & Crossman, A. M. (2012). Children's lies and their detection: Implications for child witness testimony. *Developmental Review, 32*(4), 337-359. https://doi.org/10.1016/j.dr.2012.06.004

Talwar, V., Gordon, H., & Lee, K. (2007). Lying in the elementary school: Verbal deception and its relation to second-order belief understanding. *Developmental Psychology, 43*(3), 804–810. https://doi.org/10.1037/0012-1649.43.3.804

Talwar, V., & Lee, K. (2002a). Development of lying to conceal a transgression: Children's control of expressive behavior during verbal deception. *International Journal of Behavioral Development, 26*(5), 436–444. https://doi.org/10.1080/01650250143000373

Talwar, V., & Lee, K. (2002b). Emergence of white lie-telling in children between 3 and 7 years of age. *Merrill-Palmer Quarterly*, *48*(2), 160-181. https://doi.org/10.1353/mpq.2002.0009

Talwar, V., & Lee, K. (2008). Social and cognitive correlates of children's lying behavior. *Child Development*, *79*(4), 866-881. https://doi.org/10.1111/j.1467-8624.2008.01164.x

Talwar, V., Lee, K., Bala, N., & Lindsay, R. C. L. (2004). Children's lie-telling to conceal a parent's transgression: Legal implications. *Law and Human Behavior*, *28*(4), 411-435. https://doi.org/10.1023/B:LAHU.0000039333.51399.f6

Talwar, V., Lindsay, R. C .L., & Lee, K. (2011). The Child Witness Project. In S. Anand (Ed.). *Paradoxes of Children's Rights: Essays in Honor of Professor Nicholas Bala* (pp. 77-92). Irwin Law Publishers.

Talwar, V., Yachison, S., & Leduc, K. (2016). Promoting honesty: The influence of stories on children's lie-telling behaviours and moral understanding. *Infant and Child Development*. *25*(6), 484–501. https://doi.org/10.1002/icd.1949

Teoh, Y. S., & Lamb, M. (2013). Interviewer demeanor in forensic interviews of children, *Psychology, Crime & Law, 19*(2), 145-159. https://doi.org/10.1080/1068316X.2011.614610

Tickle-Degnen, L., & Rosenthal, R. (1987). Group rapport and nonverbal behavior. In C. Hendrick (Ed.), *Review of personality and social psychology*: *Vol. 9. Group processes and intergroup relations* (pp. 113- 136). Sage.

Tickle-Degnen, L., & Rosenthal, R. (1990). The nature of rapport and its nonverbal correlates. *Psychology Inquiry, 1*(4), 285-293. https://doi.org/10.1207/s15327965pli0104_1

Turoy-Smith, K. M., & Powell, M. B. (2017). Interviewing of children for family law matters: A review. *Australian Psychologist, 52*(3), 165-173. https://doi.org/10.1111/ap.12193

Tye, M. C., Amato, S. L., Honts, C. R., Devitt, M. K., & Peters, D. (1999). The willingness of children to lie and the assessment of credibility in an ecologically relevant laboratory setting. *Applied Developmental Science, 3*(2), 92-109. https://doi.org/10.1207/s1532480xads0302_4

Vrij, A., Fisher, R., Mann, S., & Leal, S. (2006). Detecting deception by manipulating cognitive load. *Trends in Cognitive Science, 10*(4), 141-142. https://doi.org/10.1016/j.tics.2006.02.003

Vrij, A., Mann, S. M., Fisher, R. P., Leal, S., Milne, R., & Bull, R. (2008). Increasing cognitive load to facilitate lie detection: The benefit of recalling an event in reverse order. *Law and Human Behavior, 32*(3), 252-265. https://doi.org/10.1007/s10979-007-9103-y

Watson, A. J., & Valtin, R. (1997). A structural analysis of children's concepts of secrecy. *Australian Journal of Psychology, 49*(1), 49–54. https://doi.org/10.1080/00049539708259850

Whealin, J., & Barnett, E. (2019). *Child sexual abuse. PTSD: National Center for PTSD*, US Department of Veteran Affairs. https://www.ptsd.va.gov/professional/treat/type/sexual_abuse_child.asp

Williams, S. M., Kirmayer, M., Simon, T., & Talwar, V. (2013). Children's antisocial and prosocial lies to familiar and unfamiliar adults. *Infant and Child Development, 22*(4), 430-438. https://doi.org/10.1002/icd.1802

Williams, S., Leduc, K., Crossman, A. M., & Talwar, V. (2017). Young deceivers: The identification of lying, executive functions and antisocial lies in preschool aged children. *Infant and Child Development*, *26*(1), 1-17. https://doi.org/10.1002/icd.1956

Wood, J. M., & Garven, S. (2000). How sexual abuse interviews go astray: Implications for prosecutors, police, and child protection services. *Child Maltreatment, 5*(2), 109-118. https://doi.org/10.1177/1077559500005002003

Wright, R., & Powell, M. B. (2007). What makes a good investigative interviewer of children? A comparison of police officers' and experts' perceptions. *Policing: An International Journal of Police Strategies and Management, 30*(1), 21-31. https://doi.org/10.1108/13639510710725604

Wyman, J., Foster, I., Crossman, A., Colwell, K., & Talwar, V. (2019). The efficacy of free recall, cognitive load, and closed-ended questions when children are asked to falsely testify about a crime. *Applied Cognitive Psychology*, *33*(4), 544-560. https://doi.org/10.1002/acp.3494

Wyman, J, Saykaly, C., & Talwar, V. (2020). The effectiveness of free-recall, cognitive instruction and closed-ended questions when students with and without disabilities provide eyewitness reports of another's transgression. *Psychology, Crime and Law*,

Advance online publication. https://doi.org/10.1080/1068316X.2020.1852564

Yi, M., & Lamb, M. E. (2018). The effects of narrative practice on children's testimony and disclosure of secrets. *Applied Cognitive Psychology*, *32*(3), 326-336. https://doi.org/10.1002/acp.3385

Yuille, J. C., Hunter, R., Joffe, R., & Zaparniuk, J. (1993). Interviewing children in sexual abuse cases. In G. S. Goodman & B. L. Bottoms (Eds.), *Child victims, child witnesses: Understanding and improving children's testimony* (pp. 95–115). The Guilford Press.

Appendix A

Likeability of E1 Questionnaire

Read to Child: For the two people you interacted with today, we would like you to answer some questions regarding your perceived likeability with each of them. Your responses will remain private, and the two people who this survey is about will not see your responses while you are here. You do not have to complete these questionnaires, and you are free to stop the study now or at any other time, and it is okay if you do so. Do you agree to complete these questionnaires?
Child's verbal assent: _____ *(have child write his or her initials)*
Survey 1: This survey is about _____ (name of E1), the person you did the activities with upstairs. Circle how strongly you agree with each statement. There are no right or wrong answers, so please answer as honestly as possible.

1. This person is friendly.

Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree

2. This person is likeable.

Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree

3. I felt comfortable talking with this person.

Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree

4. This person is approachable.

Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree

5. I would ask this person for advice.

Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree

6. I see this person as a friend.

Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree

7. This person is similar to me.

Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree

8. I enjoyed my time with this person.

Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree

Appendix B

Likeability of E2 Questionnaire

Survey 2: This survey is about _____ (name of E2), the person who you just interviewed you in this room. Circle how strongly you agree with each statement. There are no right or wrong answers, so please answer as honestly as possible.

1. This person is friendly.

Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree

2. This person is likeable.

Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree

3. I felt comfortable talking with this person.

Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree

4. This person is approachable.

Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree

5. I would ask this person for advice.

Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree

6. I see this person as a friend.

Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree

7. This person is similar to me.

Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree

8. I enjoyed my time with this person.

Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree