Children’s testimony and the emotional victim effect

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Purpose. Two experiments were conducted to examine the effects of (1) child victims’ emotional expression during testimony and (2) the camera perspective used to record the testimony, on judgements of credibility.

Methods. Law students (N = 155 in Experiment 1; N = 86 in Experiment 2) watched a child harassment complainant provide a statement in an emotional or neutral manner, presented using different camera perspectives: balanced focus (i.e., a shot portraying an equal focus on the child complainant and the interviewer) versus picture-in-picture (PiP; i.e., a shot portraying only the child with an inset window depicting both the child and the interviewer in the corner of the screen) in Experiment 1 and PiP versus child focus (i.e., a shot depicting only the child) in Experiment 2.

Results. Although no effect was found for camera perspective, the results provide support for an emotional victim effect (EVE); the child was perceived as more credible and truthful when communicating the statement in an emotional (vs. neutral) manner. Moreover, the results provide corroborating evidence for the assumption that the EVE rests on both cognitive (expectancy confirmation) and affective (compassion) mechanisms.

Conclusions. These findings extend previous research by showing that the EVE and its underlying mechanisms apply to judgements of child complainants in the context of non-sexual crimes and appear to be robust against variations of camera perspectives. Legal implications are discussed.

In recent years, researchers have presented robust evidence that crime victims’ emotional displays have a profound influence on their perceived credibility. Typically, victims who show clear signs of distress when talking about their victimization are perceived as more credible, and are believed more readily, than victims who display little emotion or positive feelings (Ask & Landström, 2010; Bollingmo, Wessel, Eilertsen, & Magnussen, 2008; Bollingmo, Wessel, Sandvold, Eilertsen, & Magnussen, 2009; Golding, Fryman, Marsil, & Yozwiak, 2003; Hackett, Day, & Mohr, 2008; Kaufmann, Drevland, Wessel, Overskeid, & Magnussen, 2003; Rose, Nadler, & Clark, 2006). In addition, negative emotional victim behaviour is associated with more guilty verdicts (Bollingmo et al., 2008; Kaufmann et al., 2003) and harsher punishments (Tsoudis & Smith-Lovin, 1998) for the alleged perpetrator.

Two accounts have been proposed as explanations for the emotional victim effect (EVE): First, according to the stereotype-based view, it is assumed that people have

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stereotypical beliefs about ‘normal’ reactions to victimization, including emotional displays (Calhoun, Cann, Selby, & Magee, 1981; Winkel & Koppelaar, 1991). Hence, victims who behave atypically (i.e., show little or no emotion) are discredited because they violate normative expectations. This view has gained support in recent experimental studies, showing that the magnitude of the EVE depends on the strength of perceivers’ stereotypical expectations (Hackett et al., 2008) and that the effect is strengthened under conditions that promote stereotype use (e.g., high cognitive load; Ask & Landström, 2010). Moreover, survey research has shown that professionals in the criminal justice system consider emotional reactions such as crying to be an indicator of credibility in adult (Ask, 2010) as well as child victims (Coolbear, 1992; Melinder, Goodman, Eilertsen, & Magnussen, 2004).

The second account of the EVE holds that the perception of victim credibility involves affective reactions on behalf of the observer. This notion was first introduced by Ask and Landström (2010), who showed that an emotional (vs. numbed) victim was deemed more credible, in part, because she evoked stronger feelings of compassion in the observers. The affective account draws on previous work on emotion contagion (Hatfield, Cacioppo, & Rapson, 1993) and research showing that emotional communication is crucial for the elicitation of empathic responses (Stel, van Baaren, & Vonk, 2008). Subsequent research has provided further evidence for affective components in credibility judgements, showing that observers’ feelings correlate with perceptions of credibility (Landström, Ask, & Sommar, 2012a,b), and that manipulations of observers’ affective state directly influence credibility judgements (Ask & Reinhard, 2012). It is important to note that the stereotype-based and the affective accounts are not mutually exclusive. In fact, the two mechanisms appear to operate in parallel and contribute uniquely to the EVE (Ask & Landström, 2010). In sum, the EVE and the mechanisms behind it have been studied extensively for adult female rape victims. However, thus far there is little research as to how – if at all – EVE affects credibility assessments of other groups of crime victims, for instance, children who have become victims of non-sexual offences, which is the focus of this study.

**Emotions and child victim credibility**

Similar to research on adults, most studies on the EVE with children have focused on victims of sexual abuse. Golding et al. (2003) and Cooper (2011) manipulated the demeanour of child sexual abuse victims and found that an emotional and teary victim was perceived as more credible and rendered more guilty verdicts than a calm (Cooper, 2011; Golding et al., 2003) or hysterically crying victim (Golding et al., 2003), regardless of victim gender (Cooper, 2011). In a similar study, Wessel, Magnussen, and Melinder (2013) found that when displaying sadness during disclosure of maltreatment details, girls were rated as more credible and reliable than when displaying neutral, positive or angry emotions.

In reality, however, crime victims’ emotional reactions differ dramatically. In assessment interviews regarding sexual abuse, child victims displayed emotions such as happiness, anger, sadness, anxiety, shame, and guilt (Wood, Orsak, Murphy, & Cross, 1996). Moreover, a majority of the child victims were calm and neutral when disclosing abuse, and only a few of them cried during forensic interviews (Sayfan, Mitchell, Goodman, Eisen, & Qin, 2008) and in trial settings (Goodman et al., 1992). To date, very few studies investigating the EVE have included child complainants of both sexes (but see
Cooper, 2011, for an exception). To increase the generality of our findings, we recruited two children of opposite sexes as victims in this study.

Camera perspective bias

The use of video-recorded testimonies as evidence in court has become increasingly common (Cashmore, 2002; Landström, 2010). In Sweden and several other countries, children under the age of 15 rarely testify in court. Instead, the court is presented with a videotaped police interview with the child. Research has shown that the traditional in-court routine can be traumatizing for the child (Goodman et al., 1992). Thus, the possibility for child witnesses to testify out of court is a positive development for the sake of these children, as they tend to show less pre-trial anxiety and are more relaxed during trial, than children who testify in court (Goodman et al., 1998).

However, when recording testimonial evidence on video one must consider the camera perspective from which the recording is made. Research has shown that the camera perspective from which a criminal confession is videotaped influences assessments of the voluntariness of the confession and of the suspect’s guilt (Lassiter, 2002; Lassiter, Beers, et al., 2002; Lassiter, Geers, Munhall, Handley, & Beers, 2001; Lassiter & Irvine, 1986; Ratcliff, Lassiter, Schmidt, & Snyder, 2006). When the camera is focused on the suspect only, confessions tend to be perceived as more voluntary and reliable than when the camera is focused on both the interrogator and the suspect, or on the interrogator alone. The camera perspective also influences assessments of children’s credibility (Landström & Granhag, 2008). When the camera is focused on the child alone, the child’s statement is assessed as more truthful, compared with when the focus is on both the child and the interviewer. Thus, the use of out-of-court testimonies introduces an additional source of potential extralegal influence and this camera perspective bias may occur in evaluations of both children’s and adults’ testimonies. Furthermore, research has shown that the camera perspective bias is prominent in real-life high stake situations (Landström, Roos af Hjelmsäter, & Granhag, 2007), and that legal professionals such as police officers and judges are not immune to the bias (Lassiter, Diamond, Schmidt, & Elek, 2007).

One explanation for the camera perspective bias rests on the concept of illusory causation. Attribution research has shown that when one stimulus (e.g., a person) is more prominent than others, people tend to overestimate its causal influence on observed events (MacArthur, 1980; Taylor & Fiske, 1975). Thus, when only the witness is depicted, observers tend to attribute a more causal role to him/her than they would have if both the interviewer and the witness had been portrayed. This, in turn, creates the perception that the testimony was given spontaneously and without influence from the interviewer. Using eye-tracking devices, it has been demonstrated that not only the visual content of the video but also the visual attention of observers, mediates this bias (Ware, Lassiter, Patterson, & Ransom, 2008).

One way to reduce the camera perspective bias is to focus recordings equally on the interviewer and the target (e.g., Lassiter, Geers, Handley, Weiland, & Munhall, 2002). It is thus promising that legislative guidelines in Sweden (Aklagarmyndigheten [The Swedish Prosecution Authority], 2006) prescribe that both the child and the police interviewer should be visible in video-recorded interviews. However, this prescription allows room for interpretation: Only three of the 21 police districts in Sweden use a balanced shot of the interviewer and the child on full screen. The remaining 18 districts use a picture-in-picture mode (henceforth PiP), displaying only the child on full screen,
while a shot of the child and the interviewer is shown in a small window in the top left corner of the screen (numbers were obtained by calling the largest police department in each of the 21 police districts in Sweden). From a psychological perspective, little is known about the use of PiP mode as a substitute for a balanced focus. In this study, we investigate if these two camera perspectives affect the perceived credibility of child victims (Experiment 1).

Moreover, while the two camera perspectives investigated in Experiment 1 differ from each other in several forensically relevant aspects, they still show both the child and the interviewer. Experiment 2 was conducted to investigate whether the PiP mode produces judgements that differ from a camera perspective where only the child is visible (child focus mode). Thus, Experiment 1 is a more practically relevant comparison (as both perspectives are used by the Swedish police), whereas Experiment 2 is a more theoretically relevant comparison (i.e., related to the theory of illusory causation).

The PiP practice is not limited to the use by the Swedish police. To date, the police (& Children’s Safe Houses1) in at least 15 other countries (Finland, Norway, Denmark, Iceland, the United Kingdom, France, Kosovo, Netherlands, Poland, Romania, Germany, New Zealand, Australia, Mauritius, and the Cayman Island) are using the same audio/video recording system as Sweden – the Indico System (www.indicosys.com) – to different degrees. The system uses two cameras to record a child’s testimony and allows for the use of PiP. However, the PiP routine differs among different countries (and different police districts) and typically the judge decides how she/he wants to see the layout of the child’s testimony (T. Farbrot, Indico System, personal communication, 18, October 2013).

Credibility assessment in Swedish courts
Credibility assessment is a key component in court proceedings where witness statements are the main source of evidence. In Sweden, lay judges serve together with professional judges in both district and appellate courts, whereas only professional judges serve in the Supreme Court. The Supreme Court has issued guidelines to be followed by the lower courts when assessing the reliability of statements (NJA, 2010). The guidelines include a set of criteria (e.g., richness of detail, consistency) assumed to be present predominantly in credible (truthful) statements (Strömwall, 2010; Willén & Strömwall, 2012). Similar criteria are being employed in other countries (e.g., Ellison, 2005; May & Wierda, 2002), and are used in both criminal law and asylum cases (Kagan, 2003). In this study, we investigate whether judgements along the criteria of the Swedish Supreme Court are susceptible to the EVE and camera perspective bias.

We recruited participants among law students, rather than from a general student or community population, for two important reasons. First, we argue that legal training may be necessary to understand and apply the credibility criteria recommended by the Swedish Supreme Court. Second, because previous research suggests that legal expertise may protect against the EVE in credibility judgements (Wessel, Drevland, Eilertsen, & Magnussen, 2006), the use of legally informed participants would increase the practical applicability of our findings. All participants in this research had studied criminal law and,

1 At the Children’s Safe House social services, police, prosecution and health care all work together under one roof and, thus, reduce the number of agency contacts for child victims of crime.
hence, were familiar with the credibility criteria recommended by the Swedish Supreme Court (NJA, 2010) and applied by lower and appellate courts.

**EXPERIMENT 1**

We predicted, in line with previous research (Cooper, 2011; Golding et al., 2003; Wessel et al., 2013), that child victims who behave in an emotionally sad manner would be perceived as more credible than child victims who do not display such emotions (Hypothesis 1). Moreover, and in line with the findings of Ask and Landström (2010), we predicted that the effect of emotional display on credibility judgements would be mediated by the extent to which the victims’ behaviours are consistent with observers’ expectations (Hypothesis 2a) and by the extent to which observers experience compassionate affect when watching the victims’ statements (Hypothesis 2b). Finally, in line with previous research (Landström & Granhag, 2008), we predicted that camera perspective would influence the perception of the child victims’ credibility; the observers in PiP mode condition (that maximizes the salience of the child) would perceive the children as more credible compared to those in the balanced mode condition (providing an equal focus to the child and interviewer; Hypothesis 3).

**Method**

**Participants**

One hundred and fifty-five law students (95 women, 60 men) between 20 and 38 years of age ($M = 23.21$, $SD = 3.01$) were recruited at two major Swedish universities. Each participant received a cinema ticket (worth approximately €10) for participating.

**Design and procedure**

Participants were randomly assigned to one of four conditions defined by a 2 (complainant demeanour: emotional vs. neutral) × 2 (camera perspective: PiP vs. balanced focus) factorial design and attended experimental sessions in a lecture hall in groups of 5–20 participants. The number of participants in each cell of the design ranged from 34 to 41. Upon arrival, participants were informed through verbal and written instructions that they were to watch a video clip from a videotaped police interview with an 8-year-old child harassment complainant, and later to answer questions about their perception of the interview and the complainant. Written background information stated that the interview had been conducted 1 week after the alleged harassment. Participants were informed that the police had started an investigation as several other children had reported being harassed in similar ways by the same four accused boys. The police had interviewed the accused boys, all of whom denied having harassed the complainant, claiming instead that they had participated in a game with him/her on equal terms.

**Materials**

The video material shown to participants depicted a staged police interview with a child harassment complainant, enacted by a girl or boy child actor (both 8 years old). A professional actress, with experience from directing child actors, trained both children
for the purpose of the study. Both actors performed the same scripted statement, and the
director provided instructions to maximize the similarity between the performances.

In adherence to the factorial design, four different versions of the video were created.
First, the complainant’s demeanour was manipulated. In the emotional version, the child
displayed apparent negative emotions. For example, the child hesitated and avoided eye
contact with the interviewer when disclosing delicate details about the event. In addition,
the child curled up in the chair, shivered, and sobbed several times during the interview.
In the neutral version, the child was composed, maintained eye contact and showed little
sign of emotions. The length of the videos was approximately 5 min. The final versions of
the children’s testimonies were shown to a group of psychology students and to a group of
police officers experienced in conducting child interviews. Both groups indicated that the
videos seemed realistic and resembled authentic police interviews.

Second, for the purpose of manipulating camera perspective, two cameras videotaped
the interviews simultaneously. Both cameras were positioned in front of the interviewer
and the complainant, at head height, at a distance of approximately 3 m. The complainant
and the interviewer were half facing each other and half facing the cameras. The first
camera recorded the complainant and the interviewer in full body view; recordings from
this camera were used for the balanced focus condition. The second camera recorded
only the complainant in full body view. To create videos for the PiP condition, the
recording from the second camera was displayed on full screen, while the simultaneous
recording from the first camera was displayed in a small inset window in the top left corner
of the screen. The aspect ratio of the full screen and the inset window (in the PiP mode)
were 4:3. The inset window covered 1/9 of the area of the full screen. The videos were
shown on a 136-inch, 4:3 projection screen, similar in size to the screens used in many
Swedish courtrooms.

We recorded the children’s testimonies in a room matching the appearance of the
child interrogation rooms at the City Police Department and at the City Children’s Safe
House. Thus, the camera equipment, camera angles, lighting, sound levels and furniture
were the same as in real-life child interviews.

The verbal content of the statement was identical between the different versions. In
short, the complainant told the interviewer that she/he had arrived early to school that
morning to return a book to the library. In the schoolyard, she/he encountered a group of
four older (11-year olds) pupils. The older boys grabbed his/her hat and started playing
‘monkey in the middle’ with him/her. According to the complainant, the act was not a game
on equal terms. The boys were both older and taller, and the complainant was unable to
recapture the hat. When she/he asked to get the hat back, one of the boys – described
by the complainant as the leader—laughed and ran to the lavatory and flushed the hat down
the toilet. The complainant contacted the janitor who reported the incident to both
teachers and parents involved. The interview protocol was modelled after real-life police
interviews held in Sweden and started with a free recall phase and ended with a few specific
questions. The interviewer started by saying ‘Okay, you have previously expressed that
someone at your school did something to you. I want you to tell me everything you
remember about this as detailed as possible. I want you to tell me absolutely everything,
because even such details as you may think are unimportant might be important for me to
understand what happened’. The child was later encouraged to ‘tell more’ and the
interview ended with open-ended questions concerning the accused boys (i.e., if the child
knew them from before, knew any of their names, how many they were, who did what).
Dependent measures
After watching the video, the participants were asked to rate the extent to which the complainant displayed feelings of discomfort, agitation, anger, sadness, and despair during the interview. All ratings were made on 7-point scales (1 = not at all, 7 = very much).

The main dependent variable was the extent to which participants believed that the complainant had actually experienced the harassment (1 = not at all, 7 = very much); this measure will be referred to as authenticity. In addition, participants were asked to rate the statement along eight dimensions, corresponding to criteria for credibility assessment specified by the Swedish Supreme Court (NJA, 2010; Schelin, 2007). Four items concerned the logical structure of the statement (the extent to which the statement was clear, logic, detailed and consistent). The other four items addressed the overall impression of the communication (the extent to which the complainant related the event in a spontaneous, vivid, natural, and credible manner). All criteria were rated on 7-point scales (1 = not at all, 7 = very much). A principal component analysis using VARIMAX rotation was performed on the eight credibility assessment criteria. The analysis yielded a two-factor solution, accounting for 62.4% of the variance, confirming the expected variable grouping; the items assessing logical structure and impression cues all had high loadings on the intended factor (> .60) and low loadings on the other factor (< .29). Hence, average composite variables corresponding to logical structure (α = .75) and impression (α = .81) were created.

As a measure of expectancy confirmation, the participants were asked to rate to what extent the complainant’s demeanour during the interview matched the demeanour that they would expect from a victim of harassment (1 = did not match at all, 7 = matched completely). Furthermore, the participants were asked to assess the amount of compassion that they felt with the complainant (1 = no compassion at all, 7 = very strong compassion). The measures of expectancy confirmation and compassion were taken verbatim from the study of Ask and Landström (2010).

Preliminary analyses showed that none of dependent measures differed significantly as a function of participant gender, participant university, or child actor (p > .05). Furthermore, there were no significant interactions between the above factors and the independent variables. Hence, the ratings from all participants and for both actors are treated jointly in all the following analyses.

Results
Manipulation check
To test the effectiveness of the complainant demeanour manipulation, a one-way multivariate analysis of variance with complainant demeanour (emotional vs. neutral) was conducted on the ratings of complainant emotions. There was a significant multivariate effect of complainant demeanour, Wilks’ \( \lambda = 0.68 \), \( F(5, 149) = 13.79, p < .001, \eta^2_p = .32 \). Univariate analyses showed that the complainant in the emotional (vs. neutral) condition was perceived to display significantly (\( p < .001 \)) more discomfort (\( Ms = 5.81 \) vs. 4.68), agitation (\( Ms = 3.89 \) vs. 2.43), sadness (\( Ms = 4.53 \) vs. 3.47), and despair (\( Ms = 3.47 \) vs. 2.73), but only marginally (\( p = .090 \)) more anger (\( Ms = 2.18 \) vs. 1.89). Hence, the manipulation of complainant demeanour was successful.
Credibility judgements

A 2 (complainant demeanour: emotional vs. neutral) × 2 (camera perspective: PiP vs. balanced focus) between-groups analysis of variance (ANOVA) was conducted on participants’ authenticity judgements. The mean values across conditions are displayed in Table 1. The analysis showed a significant main effect of complainant demeanour, $F(1, 151) = 9.05, p = .003, \eta^2_p = .06$. In line with Hypothesis 1, participants who watched the emotional demeanour believed to a higher degree that the child had actually experienced the harassment ($M = 4.99, SD = 1.37$) than did those who watched the neutral demeanour ($M = 4.26, SD = 1.54$). Inconsistent with Hypothesis 3, however, the main effect of camera perspective was not significant, $F(1, 151) < 1, p = .359$. The Complainant demeanour × Camera perspective interaction was not significant, $F(1, 151) = 1.11, p = .294$.

Consistent with the analysis of authenticity judgements, an ANOVA showed a significant effect of complainant demeanour on the impression variable, $F(1, 151) = 11.74, p = .001, \eta^2_p = .07$. In support of Hypothesis 1, participants who watched the emotional demeanour found the target’s demeanour to better match their expectations ($M = 4.76, SD = 1.33$) than did those who watched the neutral demeanour ($M = 4.35, SD = 1.08$). Again, we failed to find support for Hypothesis 3; the main effect of camera perspective was not significant, $F(1, 151) = 2.15, p = .145$. No significant interaction between complainant demeanour and camera perspective was observed, $F(1, 151) < 1, p = .847$.

In contrast, an ANOVA did not show a significant main effect of complainant demeanour on the perceived logical structure of the complainants’ statement, $F(1, 151) = 1.21, p = .272$. Moreover, the main effect of camera perspective, $F(1, 151) < 1, p = .718$, and the Complainant demeanour × Camera perspective interaction, $F(1, 151) < 1, p = .418$, were not significant.

Table 1. Mean ratings on dependent measures as a function of camera perspective and complainant demeanour

<table>
<thead>
<tr>
<th>Measure</th>
<th>Picture-in-picture</th>
<th>Balanced focus</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Emotional demeanour</td>
<td>Neutral demeanour</td>
</tr>
<tr>
<td>Authenticity</td>
<td>4.74 (1.48)</td>
<td>4.27 (1.47)</td>
</tr>
<tr>
<td>Impression</td>
<td>3.81 (1.18)</td>
<td>3.19 (0.91)</td>
</tr>
<tr>
<td>Logical structure</td>
<td>4.35 (0.84)</td>
<td>4.39 (0.84)</td>
</tr>
<tr>
<td>Expectancy confirmation</td>
<td>4.76 (1.46)</td>
<td>4.18 (1.65)</td>
</tr>
<tr>
<td>Compassion</td>
<td>5.00 (1.28)</td>
<td>4.53 (1.28)</td>
</tr>
</tbody>
</table>

Note. Numbers in brackets represent standard deviations. All scales ranged from 1 (low) to 7 (high).

Mechanisms of the emotional victim effect

An ANOVA performed on the judgements of how well the complainants’ demeanour matched participants’ expectations revealed a significant main effect of complainant demeanour, $F(1, 151) = 8.45, p = .004, \eta^2_p = .05$. In line with Hypothesis 2a, participants who watched the emotional demeanour found the target’s demeanour to better match their expectations ($M = 4.76, SD = 1.33$) than did participants who watched a
neutral demeanour ($M = 4.07, SD = 1.55$). The main effect of camera perspective was not significant, $F(1, 151) < 1, p = .649$, nor was the interaction between complainant demeanour and camera perspective, $F(1, 151) < 1, p = .694$. An ANOVA on participants’ ratings of felt compassion revealed a significant main effect of complainant demeanour, $F(1, 151) = 4.13, p = .044$, $\eta^2_p = .03$. Consistent with Hypothesis 2b, participants who watched the emotional demeanour experienced significantly more compassion with the complainant ($M = 4.95, SD = 1.28$) than did those who watched the neutral demeanour ($M = 4.54, SD = 1.19$). We did not find a significant effect of camera perspective, $F(1, 151) < 1, p = .873$, nor did we find a significant interaction between complainant demeanour and camera perspective, $F(1, 151) < 1, p = .735$.

Further analyses were conducted to examine the hypotheses that complainant demeanour influences credibility through indirect paths, via expectancy confirmation (Hypothesis 2a) and felt compassion (Hypothesis 2b). First, a series of regression analyses were run with complainant demeanour as the independent variable, authenticity as the dependent variable, and expectancy confirmation and compassion as proposed mediators (see Figure 1). Replicating the main analyses, complainant demeanour was a significant predictor of authenticity ($B = -.73, SE = .23, p = .002$) and of both the proposed mediators (for expectancy confirmation, $B = -.68, SE = .23, p = .004$; for compassion, $B = -.40, SE = .20, p = .045$). Our mediators were in turn positively related to authenticity (for expectancy confirmation, $B = .28, SE = .07, p < .001$; for compassion, $B = .47, SE = .09, p < .001$). Finally, when the proposed mediators were included in the regression analysis, the direct effect of complainant demeanour on authenticity dropped to non-significance ($B = -.35, SE = .20, p = .082$), indicating full mediation.

As the critical test of our mediation hypotheses, we employed the bootstrapping method recommended by Preacher and Hayes (2008). Using 5,000 bootstrap re-samples and a 95% confidence level, we obtained confidence intervals for the total indirect effect, as well as for both proposed mediators separately. The confidence intervals for the total indirect effect $[-.67, -.10]$, expectancy confirmation $[-.40, -.05]$, and compassion $[-.43, -.01]$ did not include zero, indicating successful mediation through both expectancy confirmation and compassion. In sum, both Hypothesis 2a and Hypothesis 2b were supported.

A final regression analysis was performed to examine whether or not expectancy confirmation was linearly related to the intensity of the complainant’s emotional display. Specifically, it could be that participants perceived the complainants to behave more in line with expectations the more intense emotions they displayed (i.e., a linear relationship).
Alternatively, it could be that expectations were confirmed only at an intermediate level of emotional intensity, and that expectancy violation occurred if the complainants displayed too much or too little emotion (i.e., quadratic relationship).\(^2\) A hierarchical regression analysis confirmed that a linear measure of rated complainant emotions (averaged to form an index variable; Cronbach’s \(\alpha = .74\)) significantly predicted ratings of expectancy confirmation, \(B = .67, SE = .10, t(154) = 6.59, p < .001\). A quadratic term entered in a second step of the analysis did, however, not contribute to a significant increase in explained variance, \(\Delta R^2 < .01, F(1, 152) < 1, p = .624\). Hence, the analysis suggested that participants expected intense emotional displays from the complainants.

**EXPERIMENT 2**

Experiment 1 investigated but found no differences between the two camera perspectives predominantly used by the Swedish police for video recording of children’s testimonies: a shot portraying only the child with an inset window depicting both the child and the interviewer (i.e., a PiP shot), and a shot portraying the child and the interviewer in a balanced view. One possible explanation for this null finding may be that, although the two shots differed from each other in several aspects, they both showed both the child and the interviewer. Thus, according to the theory of illusory causation (MacArthur, 1980), and previous research (e.g., Lassiter, Beers, et al., 2002; Lassiter, Geers, et al., 2002), these two versions did not differ in the one aspect that has proven to be critical to observers’ assessments – the salience of the interviewer. Another equally possible explanation for this result is that observers are immune to variations in camera perspectives when children testify about emotional criminal events.

To explore the role of the salience of the interviewer, Experiment 2 used the stimuli material from Experiment 1 and compared the PiP mode against a child focus mode (i.e., a shot depicting only the child in full body view). We predicted, in line with Landström and Granhag (2008) that the observers watching the child alone would rate the testimony as significantly more reliable compared to those watching the PiP shot, displaying both the child and the interviewer (Hypothesis 1). Furthermore, we expected that the support for the EVE found in Experiment 1, as well as the two proposed mechanisms behind it, would be replicated in Experiment 2. Hence, as in Experiment 1, we predicted that the observers would perceive the child complainant as more truthful when displaying clear signs of negative affect than when behaving in a neutral way (Hypothesis 2). In addition, we predicted that the effect of emotional demeanour on credibility judgements would be mediated by expectancy confirmation and compassion (Hypothesis 3).

**Method**

**Participants and design**

Eighty-six law students (39 men, 46 women, 1 unreported), with ages ranging from 19 to 49 years \((M = 23.27, SD = 5.40)\) participated in Experiment 2. The students were recruited at a major Swedish University and were paid one cinema ticket (approximate value €10). The participants were randomly assigned to one of four conditions defined by a 2 (camera perspective: PiP vs. child focus) \(\times\) 2 (complainant demeanour: emotional vs. neutral) factorial design, with 19–24 participants in each cell.

\(^2\) We thank an anonymous reviewer for bringing this possibility to our attention.
Procedure and materials

The procedure and material were the same as in Experiment 1, with the exception of one of the camera-perspective conditions. In accordance with the factorial design, four video clips were created. The camera perspective was manipulated so that half the participants were shown a video depicting only the child (henceforth ‘child focus’). The other half of the participants was shown the PiP video version used in Experiment 1. To study the EVE, the child’s demeanour (hereafter ‘complainant demeanour’) was manipulated, so that in the emotional version the child showed apparent negative emotions, and in the neutral version the child showed little sign of emotions. The verbal content of the statement was identical between the different versions.

Results

Credibility judgements

A 2 (camera perspective: PiP vs. child focus) × 2 (complainant demeanour: emotional vs. neutral) between-groups ANOVA with the participants’ authenticity judgements as dependent variable showed, inconsistent with Hypothesis 1, that the main effect of camera perspective was not significant $F(1, 85) < 1, p = .493$. The analysis showed a significant main effect of complainant demeanour, $F(1, 85) = 21.17, p < .001, \eta^2_p = .21$. Participants who watched the emotional demeanour believed, in line with Hypothesis 2, to a higher degree that the child had actually experienced the harassment ($M = 5.44, SD = 1.65$) than did those who watched the neutral demeanour ($M = 3.85, SD = 1.52$). The interaction between camera perspective and complainant demeanour was not significant $F(1, 85) < 1, p = .369$.

Again, we failed to find support for Hypothesis 1 as a second ANOVA on the impression variable showed a non-significant effect of camera perspective $F(1, 85) < 1, p = .50$. However, consistent with the analysis of authenticity judgements, a significant effect of complainant demeanour was detected, $F(1, 85) = 28.86, p < .001, \eta^2_p = .26$. In support of Hypothesis 2, participants who watched the emotional demeanour found that the complainant made a significantly more credible impression ($M = 4.51, SD = 1.11$) than did those who watched the neutral demeanour ($M = 3.27, SD = 1.01$). No significant interaction between camera perspective and complainant demeanour was detected $F(1, 85) < 1, p = .512$.

As in Experiment 1, an ANOVA performed on the logical structure variable did not show significant main effects of camera perspective $F(1, 85) < 1, p = .743$.

<table>
<thead>
<tr>
<th>Measure</th>
<th>Picture-in-picture</th>
<th>Child focus</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Emotional demeanour</td>
<td>Neutral demeanour</td>
</tr>
<tr>
<td>Authenticity</td>
<td>5.40 (1.53)</td>
<td>4.13 (1.66)</td>
</tr>
<tr>
<td>Impression</td>
<td>4.66 (1.01)</td>
<td>3.28 (1.12)</td>
</tr>
<tr>
<td>Logical structure</td>
<td>4.70 (0.96)</td>
<td>4.28 (0.94)</td>
</tr>
<tr>
<td>Expectancy confirmation</td>
<td>5.20 (1.47)</td>
<td>3.70 (1.87)</td>
</tr>
<tr>
<td>Compassion</td>
<td>5.80 (0.89)</td>
<td>4.39 (1.75)</td>
</tr>
</tbody>
</table>

Note. Numbers in brackets represent standard deviations. All scales ranged from 1 (low) to 7 (high).
complainants’ statement $F(1, 85) = 2.22$, $p = .140$, or a significant Complainant demeanor × Camera perspective interaction $F(1, 85) < 1, p = .546$ (Table 2).

**Mechanisms of the emotional victim effect**
Consistent with Experiment 1, an ANOVA performed on the expectancy confirmation variable revealed a significant main effect of complainant demeanor, $F(1, 85) = 11.98$, $p = .001$, $\eta^2_p = .13$; participants who watched the emotional demeanor found the target’s demeanor to better match their expectations ($M = 5.13, SD = 1.44$) than did participants who watched a neutral demeanor ($M = 3.91, SD = 1.74$). The main effect of camera perspective was not significant, $F(1, 85) < 1, p = .689$, nor was the interaction between complainant demeanor and camera perspective, $F(1, 85) < 1, p = .414$.

In a similar vein, an ANOVA performed on the compassion variable showed a significant main effect of complainant demeanor, $F(1, 85) = 13.99, p < .001, \eta^2_p = .15$. Participants who watched the emotional demeanor experienced significantly more compassion with the complainant ($M = 5.46, SD = 1.37$) than did those watching the neutral demeanor ($M = 4.23, SD = 1.61$). We did not find a significant effect of camera perspective, $F(1, 85) = 2.38, p = .127$, nor did we find a significant interaction between complainant demeanor and camera perspective, $F(1, 85) < 1, p = .553$.

To examine Hypothesis 3, a series of regression analyses were run with complainant demeanor as the independent variable, authenticity as the dependent variable, and expectancy confirmation and compassion as proposed mediators (see Figure 2). Complainant demeanor was a significant predictor of authenticity ($B = -1.58, SE = .34, p < .001$) and of both the proposed mediators (for expectancy confirmation, $B = -1.21, SE = .35, p < .001$; for compassion, $B = -1.23, SE = .33, p < .001$). Our mediators were in turn positively related to authenticity (for expectancy confirmation, $B = .39, SE = .11, p < .001$; for compassion, $B = .26, SE = .11, p = .024$). Finally, when the proposed mediators were included in the regression analysis, the direct effect of complainant demeanor on authenticity was substantially reduced ($B = -.79, SE = .31, p = .015$), but remained significant.

Bootstrapping (Preacher & Hayes, 2008) using 5,000 bootstrap re-samples yielded 95% confidence intervals that did not include zero for the total indirect effect $[-1.28, -1.43]$, for expectancy confirmation $[-1.01, -1.18]$, and for compassion $[-.76, -.03]$, indicating mediation through both expectancy confirmation and compassion. Thus, Hypothesis 3 was supported. However, because the direct effect of complainant demeanor on

![Figure 2](image_url)

**Figure 2.** The effect of complainant demeanor on authenticity ratings partially mediated by perceived expectancy confirmation and experienced compassion. Numbers represent unstandardized regression coefficients. *$p < .05$. ***$p < .001$.**
authenticity judgements remained significant even after controlling for the mediators [−1.41, −.17], the mediation was partial rather than full.

As in Experiment 1, a hierarchical regression analysis was performed to test whether rated expectancy confirmation was a linear or quadratic function of the intensity of complainant’s emotional display (average rated intensity of emotions; $\alpha = .83$). The linear term significantly predicted ratings of expectancy confirmation, $B = .87$, $SE = .11$, $t(85) = 7.92$, $p < .001$. The quadratic term entered in step two did, however, not contribute to a significant increase in explained variance, $\Delta R^2 < .01$, $F(1, 83) < 1$, $p = .378$. Again, the analysis showed that participants’ expectations were more strongly confirmed the more intense emotions displayed by the complainant.

**GENERAL DISCUSSION**

Extending previous work on the perception of adult crime victims (e.g., Ask & Landström, 2010; Kaufmann et al., 2003), we found evidence that the EVE generalizes to judgements of child complainants reporting child harassment. Our observers rated the complainant as more credible and truthful when the child produced a statement in an emotionally involved – as opposed to neutral – manner. This study, thus, shows that the EVE is not limited to adult victims of violent sexual crimes, which have been the focus of most previous research. This study also replicates the results of Ask and Landström (2010), corroborating the finding that the EVE is mediated jointly by ‘cold’ cognitive (i.e., expectancy confirmation) and ‘hot’ affective (i.e., compassion) mechanisms. Finally, this study shows that complainant demeanour influenced observers’ ratings of impression-related credibility criteria that are used by legal practitioners in courts and other legal settings, whereas criteria related to the statements’ logical structure were impervious to such influence.

**Mechanisms of the emotional victim effect**

The current findings add to the growing evidence that the perception of credibility involves affective as well as cognitive components (e.g., Ask & Landström, 2010; Ask & Reinhard, 2012). Our mediation analysis suggests that participants considered the emotional complainants to be more credible and truthful partly because they elicited stronger feelings of compassion, and partly because they corresponded better with observers’ expectations, than did the neutral complainants. Importantly, these mediation paths were replicated even though this study differed considerably from the original demonstration by Ask and Landström (2010) in terms of the age of the complainant (child vs. adult victims), the nature of the crime (child harassment vs. rape), and the population studied (law students vs. police trainees). This indicates that the mechanisms underlying the EVE generalize beyond any particular legal context.

The two mechanisms have different implications for the prevention of EVE in actual criminal cases. The expectancy mechanism, because it rests on observers’ cognitive representations of ‘typical’ crime victim behaviour, may be addressed via educational measures or other information strategies. For instance, jurors, police officers, and others who assess the credibility of complainants may benefit from information about the variability in emotional responses to criminal victimization. Encouraging findings were presented by Bollingmo et al. (2009) who found a significant reduction in the EVE when observers were explicitly warned against using emotional expression as a sign of
credibility. Even when observers are aware that emotional demeanour is not a valid basis for credibility judgements, however, additional prerequisites may be necessary to prevent the EVE. Because the suppression of stereotypes requires considerable cognitive resources (Devine, 1989), it is unlikely that observers will successfully counteract the EVE when mental resources are taxed (e.g., while conducting a challenging police interview). In fact, Ask and Landström (2010) found that the magnitude of the EVE increased when police trainees were placed under cognitive load. Hence, successful elimination of the EVE may require efforts to minimize cognitive strain in situations where credibility judgements are made.

One limitation of this as well as previous research on EVE is that the participants are asked about their expectations for the victim only after watching the victim’s statement. However, the very nature of expectancy questions is made a priori. Thus, it is possible that the participants’ expectancy judgements are biased by the victim’s statement. Future research must address this issue more closely to see if expectancy questions made prior to watching the statement differ from those made afterwards.

The affective mechanism, because it rests on mental processes, which are rarely under volitional control (Moors & De Houwer, 2006), is less likely to be influenced by explicit instruction or other cognitive interventions. Instead, it may be more fruitful to consider factors that moderate the likelihood of the observer reacting affectively to the testimony in the first place. One such factor might be the medium through which a complainant is presented to observers. Research shows that a testimony presented live (i.e., with observers present) is perceived as more emotionally involving than the same testimony presented on video, which in turn is seen as more vivid than testimonies communicated via audio or plain text (Nisbett & Ross, 1980). Hence, one might expect that the EVE would be more pronounced for testimonies presented via perceptually rich channels. This is a theoretically and practically interesting prediction that may be examined in future research.

It should be noted that, although our analyses indicated that the EVE was mediated by expectancy confirmation and compassion, the direct effect of emotional demeanour on authenticity judgements remained marginally (Experiment 1) or entirely (Experiment 2) significant after controlling for the mediators. This implies that we may not have fully captured the mechanisms underlying the EVE, and that researchers should continue to explore these mechanisms further.

**Credibility assessment criteria**

In line with previous research on rape victims, the emotional demeanour displayed by the children in this study affected observers’ credibility assessments. As predicted, the emotional victim was believed to a greater extent to have actually experienced the harassment, compared to the neutral victim. In addition, we found that observers’ assessments of the overall impression of the complainant (i.e., the extent to which the child related the event in a spontaneous, vivid, natural, and credible manner) were affected by the displayed emotionality of the child. In contrast, the observers’ judgements that concerned the logical structure of the statement (i.e., the extent to which the statement was clear, logic, detailed and consistent) were unaffected by the victim’s emotionality. The reason why the two classes of criteria are differently affected by demeanour could be that the logical-structure criteria encourage an analysis of the statement’s verbal content, whereas the impression-related criteria direct the observer’s attention to non-verbal behaviours (e.g., demeanour).
There is a large body of research showing that credibility assessments tend to be more accurate when based on verbal content instead of demeanour (Vrij, 2008). Accordingly, the Swedish Supreme Court (NJA, 2010) recently updated their guidelines for credibility assessments, recommending that less weight be given to non-verbal behaviour. In this study, we included criteria from these updated guidelines, but nonetheless found that the complainant’s demeanour influenced several of them. Legal professionals frequently employ these or similar criteria when practicing national (e.g., Ellison, 2005; Schelin, 2007) and international criminal law (May & Wierda, 2002) as well as in asylum cases (Kagan, 2003). However, the scientific evaluation of such criteria is very rare (for an exception, see Willén & Strömwall, 2012) and this study thus contributes to this important, but often neglected, area.

**Camera perspective**

In contrast to our predictions, to the findings of Landström and Granhag (2008), Lassiter and colleagues (e.g., Lassiter, 2001; Lassiter, Beers, *et al.*, 2002; Lassiter, Geers, *et al.*, 2002), and to the theory of illusory causation (MacArthur, 1980; Taylor & Fiske, 1975), we found no significant effects of the camera perspectives used in the present study. That is, the balanced focus did not produce judgements that differed significantly from the PiP mode. Moreover, the PiP mode did not produce significantly different judgements than the child focus. These null findings are most likely not due to lack of statistical power, as our sample sizes would allow us to detect the medium-to-large sized effect typically reported in the literature (e.g., Ratcliff *et al.*, 2006, Cohen’s *d* = 0.63).

There are at least two plausible explanations why we failed to show support for the camera perspective bias. The first one lies in the elements of the situation. In the study by Landström and Granhag (2008), children were interviewed about a neutral event (i.e., interacting with a stranger outside their schoolyard), whereas the children in this study were interviewed about an emotional experience (i.e., being harassed by older children at school). It is possible that when taking part of an emotionally involving interview, observers direct their attention more towards the child, leaving less room for extra-legal factors, such as the camera perspective bias, to influence their judgements.

The second, equally plausible explanation relates to the questions asked in the different studies. Landström and Granhag (2008) found that a child focus generated greater leniency towards the child (vs. a balanced shot on the child and the interviewer) only when the observers were asked to directly assess the child’s veracity (i.e., dichotomous truth–lie judgement). This study, on the other hand, used more indirect measures of credibility derived from the criteria used by the Swedish Supreme Court (e.g., rating the statement as authentic, clear, logic, credible, etc.). Possibly, the effect of camera perspective is greater for direct than for indirect measures of credibility. In addition, in contrast to Lassiter, Geers, *et al.* (2002), this study asked the participants to assess authenticity and credibility, not voluntariness or guilt. It is plausible that judgements along the latter dimensions to a greater extent encourage participants to consider the potential influence of the interviewer, and thus, reflect upon the interviewer as an external causal agent. These speculations, however, need to be empirically investigated in future research.

Regardless of which of the above accounts best explains the current results, our finding that observers were unaffected by camera perspective does indicate that judgements of child complainants are not inevitably influenced by the way video recordings (or the editing of the recordings) are conducted. This is an encouraging
finding given that different countries, and different police districts edit interviews quite differently. However, while this is a positive finding, research regarding the PiP mode is scarce and further research is needed before more definite conclusions can be drawn about the camera perspective and its effects on observers’ credibility ratings. One fruitful way to investigate this would be to use eye-tracking measures to further examine observers’ visual attention, which has previously been found to mediate the camera perspective bias (Ware et al., 2008).

Conclusions
In conclusion, this research has shown that the EVE influences observers’ judgements of credibility in cases involving child victims of non-sexual crimes. In addition, it lends further support to the affective and cognitive mechanisms mediating the effect. These findings have important implications for the prevention of the EVE in legal settings.

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References


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