
Reid Training and Sensitivity to Developmental Maturity in Interrogation: Results from a National Survey of Police

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Although research has demonstrated that youthfulness is a risk factor for providing false confessions during criminal interrogations, it is unclear whether interrogation training programs address this issue. The goal was to analyze differences between Reid-trained (RT) and non-Reid-trained (non-RT) police in their sensitivity to the developmental maturity of young suspects. 1,828 police officers, 514 of whom were RT, completed surveys about their perceptions and practices during interrogation with children, adolescents, or adults. Results indicate that, compared with non-RT police, RT police demonstrate less sensitivity to the developmental maturity of adolescents in terms of (1) perceptions of their competencies during interrogation and (2) use of psychologically coercive questioning techniques. These findings have implications for the development of juvenile interrogation training programs. Copyright © 2009 John Wiley & Sons, Ltd.

INTRODUCTION

The context of juvenile interrogations has become increasingly important to understand as the rate of juveniles being prosecuted has increased and their age has decreased; in 2006, 2.4 million juveniles were formally arrested, 32% (758,208) of whom were age 14 or younger (Snyder & Sickmund, 2006). Meanwhile youthfulness has been identified as a personal risk factor for false confessions (see Kassin & Gudjonsson, 2004; Owen-Kostelnik, Reppucci, & Meyer, 2006) because it is marked by dispositional tendencies toward compliance and suggestibility. In addition to personal risk factors, such as youthfulness, scholars have identified situational

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risk factors (see Kassir & Gudjonsson, 2004) for false confessions such as inaccurate investigative deception-detection techniques and psychologically coercive questioning practices. Research (Feld, 2006; Reppucci, Meyer, & Kostelnik, in press) on reported and observed practices during juvenile interrogation has informed an understanding of the degree to which law enforcement officers do or do not account for young age as a personal risk factor for false confessions. Findings from these *aggregate* analyses indicate that police use the same interrogation techniques with juveniles as they do with adults, suggesting that they do not account for the influence of young age as a personal risk factor for false confessions in their practices during interrogation. However, little research has explored the degree to which the demographic and professional characteristics of law enforcement officers could uniquely explain variability in sensitivity to developmental differences of suspects of different ages in interrogation. We are therefore interested in identifying which factors among law enforcement officers might predict their likelihood to account for or discount the role of youthfulness as a risk factor for false confessions. This paper addresses the role of one of these specific factors, namely training in the “Reid technique.”

Reid Training and Techniques

There are numerous interrogation techniques that are commonly taught to police and detectives. We focus on the “Reid technique” because it is the most commonly cited interrogation training program due to the fact that it is so widely disseminated. According to the firm’s website (John E. Reid & Associates, Inc., 2004, paragraph 2), “When asked which vendors they rely on most for building their own interviewing and interrogation skills and that of staff, a whopping 80% of security pros cited John E. Reid and Associates, Inc.” To date more than 300,000 police personnel have received this training.

The interrogation questioning tactics taught by Reid & Associates (Inbau, Reid, Buckley, & Jayne, 2001) have been categorized by researchers (e.g. Kassir & McNall, 1991) into two general types, namely, maximization and minimization. Maximization tactics are designed to intimidate suspects and include confronting suspects with accusations of guilt, which sometimes involves presenting fabricated evidence to support these accusations. Minimization tactics are designed to minimize the perceived consequences of confession and involve gaining a suspect’s trust by offering sympathy, understanding, face-saving excuses, and themes to minimize the moral seriousness of the crime. Although courts do bar explicit threats and quid pro quo promises of leniency regardless of the trustworthiness of the confession in a particular case (*Arizona v. Fulminante*, 1991), and although the minimization and maximization tactics create pragmatic *implications* of threat or leniency, they do fall within the ambit of judicially permitted police practices (Feld, 2006; Kassir & McNall, 1991).

In an attempt to investigate the extent to which “Reid techniques” are used during actual interrogations, Leo (1996) observed live interrogations of adult suspects. He found that detectives used, on average, 5.62 techniques per interrogation and that these techniques were commonly “Reid-like.” Specifically, he found that officers confronted suspects with evidence of their guilt and appealed to

their self-interest in 85–88% of the cases, and confronted suspects with false evidence of their guilt and minimized the moral seriousness of the offense in 22–43% of the cases. Likewise, Kassin et al. (2007) used a self-report measure of interrogation tactics and found that officers “always/often” confront suspects with evidence of guilt and appeal to self-interests, and “sometimes” confront suspects with false evidence of their guilt and minimize the moral seriousness of the offense.

Researchers have conducted experimental laboratory studies (e.g. Kassin & Kiechel, 1996; Russano, Meissner, Narchet, & Kassin, 2005) to identify interrogation techniques, such as maximization and minimization, that compromise the “diagnosticity” of the process by increasing the risk of eliciting false confessions. Findings from *Alt* key paradigm studies (Forrest, Wadkins, & Miller, 2002; Horselenberg, Merckelbach, & Josephs, 2003; Kassin & Kiechel, 1996; Redlich & Goodman, 2003) suggest that presenting false evidence increases the risk that innocent people will confess to and internalize blame for acts they did not commit. Likewise, findings from the novel experimental paradigm of Russano et al. (2005) indicate that both the use of implicit minimization and the explicit offer of a deal increase the rate of both true and false confessions, thus reducing the diagnostic value of confession evidence.

Juvenile Interrogation

Although the Supreme Court has rejected the notion that juveniles should be afforded special protections during interrogation (*Fare v. Michael C.*, 1979, *Yarborough v. Alvarado*, 2004), research indicates that a disproportionate number of false confessions are provided by juveniles; in a database of 125 proven false confessions, 33% involved confessions from juveniles, most of whom confessed to brutal murders (Drizin & Leo, 2004). Further, Gross, Jacoby, Matheson, Montgomery, and Patil (2005) found that 42% of the cases of juvenile exonerees involved false confessions, compared with 13% of the cases of adult exonerees. Laboratory experiments have replicated the pattern of these naturalistic findings. For example, Redlich and Goodman (2003) used the *Alt* key methodology to assess relative likelihoods of false confessions between different age groups, including 12- and 13-year-olds, 15- and 16-year-olds, and young adults, and found marked developmental differences: The 12- and 13-year-olds were more likely to confess (78% compliance rate) than were the 15- and 16-year-olds (72% compliance rate), who were more likely to confess than were the young adults (59% compliance rate). Moreover, Redlich and Goodman demonstrated that juveniles are particularly vulnerable to the false evidence effect; they found a significantly stronger false-evidence effect on the likelihood of false confession with both their 12- and 13-year-old and 15- and 16-year-old participants than with their adult participants.

As the message that young age is a personal risk factor for false confessions has become clear, Owen-Kostelnik et al. (2006) proposed theoretical explanations for this phenomenon. These theoretical explanations are drawn from studies that suggest that youthfulness is (1) negatively related to comprehension of Miranda rights (Grisso, 1980, 1981; Redlich, Silverman, & Steiner, 2003; Viljoen & Roesch, 2003) and positively related to the decision to waive these rights (Viljoen, Klaver, & Roesch, 2005); (2) positively related to measures of psychosocial immaturity, which

is associated with diminished decision-making abilities within the legal context (Cauffman & Woolard, 2005; Fried & Reppucci, 2001; Grisso et al., 2003; Scott, Reppucci, & Woolard, 1995; Steinberg & Cauffman, 1996; Steinberg & Schwartz, 2000); (3) positively related to susceptibility to stress, which has been shown to impact judgment (Furby & Beyth-Marom, 1992; Spear, 2000), meaning that adolescents' already skewed cost-benefit analyses are vulnerable to further distortion; and (4) positively related to measures of interrogative suggestibility (Singh & Gudjonsson, 1992), which is associated with providing false confessions (Gudjonsson, 2003).

Although scholars seem to agree that youthfulness is a risk factor for false confessions, it has been unclear until recently whether law enforcement officers understand this notion or take it into account when interrogating young suspects. Recent research findings suggest that law enforcement officers question juvenile suspects similarly to how they question adult suspects (Feld, 2006; Meyer & Reppucci, 2007; Reppucci et al., in press). Feld conducted an observational study of *juvenile* (16–17 years old) suspects comparable to that of Leo (1996) described above. Feld concluded “after the vast majority (80%) waived their Miranda rights, police interrogated them in much the same way as they did adults. Police used similar interrogation techniques as in Leo’s research” (pp. 303–304).

Further, aggregate analyses of the national survey of police officers that is the basis for the current paper suggest that, while police acknowledge developmental differences between children (defined as 13 years old or younger), adolescents (defined as 14–17 years old)¹ and adults (defined as 18 years old or older) outside of the interrogation context, and to some extent how these developmental limitations may affect the reliability of reports obtained from young suspects within the interrogation context, they do not seem to apply this fundamental developmental knowledge to their reported practices in the interrogation context, as they report using the same interrogation tactics with children, adolescents, and adults (Meyer & Reppucci, 2007; Reppucci et al., in press). Indeed, there were no relationships between factors measuring perceptions of maturity both inside and outside of the interrogation context and reported practices with different age suspects (Reppucci et al., in press).

Evidence about the attention that the Reid training pays to developmental differences between juveniles and adults and how to handle juveniles during interrogations is mixed. On the one hand, researchers who have attended the Reid training note that no special instructions are given for interrogating youths; rather, the method advocated is to follow that for interrogating adults (Meyer & Reppucci, 2007). Similarly, the Reid training manual states that when interrogating a juvenile “the same general rules prevail as for adults” (Inbau et al., 2001, p. 99). On the other hand, the Reid group has acknowledged on its website (http://www.reid.com/educational_info/criticfalseconf.html) that “every interrogator must exercise extreme caution and care when interviewing or interrogating a juvenile.” In

¹ The choice to create two different versions of the survey concerning interrogation of young suspects (child, adolescent) was made based on literature that suggests that there are developmental differences between children who are 13 years old or younger and youth who are between 14 and 17 years old (e.g. Grisso, 1981; Scott, Reppucci, & Woolard, 1995). These age definitions have also been used by states to formulate legal policy; for example, the majority of states have established 14 years as the youngest age at which youth can be transferred to adult criminal court.

addition, at a recent conference (September, 2007, El Paso, TX) about interrogation and confessions, when Joseph Buckley, president of John E. Reid & Associates, was asked by an audience member how the firm handles training law enforcement about interrogating juveniles, he claimed that the training “urges caution.” Therefore, the role that Reid training has played with respect to increasing or decreasing sensitivity to developmental differences in interrogation is unclear.

Training and Interrogation Questioning

Kassin et al. (2007) used regression models to assess whether individual differences in law enforcement survey respondents’ characteristics (experience, training, confidence in lie detection ability, number of interrogations, and average length of interrogations) predicted the self-reported use of clusters of techniques (“isolation, rapport, and minimization,” “confrontation,” “threatening the suspect,” “presentation of evidence”). Each of the respondent characteristics was significantly related to one or more of the clusters of techniques. Most relevant to the current study, “training” was related to increased use of “isolation, rapport, and minimization” and “presentation of evidence.” However, although Kassin et al. included years of experience and number of interrogations in the simultaneous regression models, other potential confounding variables (e.g. race, education) were not included in the analyses. In addition, although 82% of the participants of Kassin et al. reported that they had received special training, including seminars and workshops on how to conduct interviews and interrogation, only 11% of this group identified this training as the Reid technique. Even though the respondents may not have recalled the specific type of training they had received, meaning that the results reported could be an underestimate of the actual number of those who were Reid trained, there is no way to confirm that such is the case.

The Current Study

Our goals are to extend the exploration of the relationship between training and situational risk factors for false confessions (i.e. the use of problematic questioning techniques) to the context of *juvenile* interrogation, where the personal risk factor of youthfulness for false confessions is by definition in play, and to more narrowly define “training” as reported attendance of the Reid program. Further, we seek to disentangle the effect of the Reid training variable from other variables to which it could be related by exploring the correlations between the professional, demographic, and training variables and using hierarchical regression models to assess the extent to which Reid training is related to situational risk factors for false confessions above and beyond identified covariates. Finally, in addition to investigating the reported use of techniques, we explore perceptions of different aged suspects’ maturity in the interrogation context in terms of suggestibility and comprehension of rights.

Based on (1) our experiences attending a Reid training workshop during which precautionary notes on conducting juvenile interrogations were absent, (2) the fact that the Reid manual explicitly states that the same techniques should be used with youth as are used with adults and a lack of specific instructions beyond “urging

caution,” and (3) previous findings that have demonstrated relationships between training and the use of psychologically coercive questioning techniques, we hypothesize that Reid-trained officers are (1) no more aware of the developmental immaturity of children and adolescents in the interrogation context, and (2) more likely to use minimization and maximization questioning techniques with children, adolescents, and adults, than non-Reid-trained officers.

METHODS

Participants

1,828 law enforcement officers, 29% (514) of whom reported having received Reid training, recruited from ten police agencies across the United States, completed the survey. The police agencies varied in size, geographical location, population, density of the location, and area crime rate. The reason the non-Reid-trained (non-RT) officers outnumbered the Reid-trained (RT) officers to the extent they did in our sample is that the sample is predominately composed of patrol officers. Our survey indicates that, although patrol officers do conduct interrogations,² they are less likely to receive specialized training in interrogation. Approximately 70% (1,275) of the participants were patrol officers and 23% (413) were detectives; 57% (237) of the detectives and 21% (262) of the patrol officers reported having received Reid training. Although 53% of detectives and 19% of patrol officers reported receiving interrogation training other than Reid, no single training other than Reid emerged as common; the two most common alternative trainings indicated were the Behavior Analysis Training Institute (www.liedetection.com/bati.htm) and Practical Kinesic Interview and Interrogation (www.kinesic.com/Interrogation_courses.htm). Fourteen detectives and seven patrol officers reported attending the Behavior Analysis Training Institute and 18 detectives and 12 patrol officers reported receiving training from Kinesic Interview and Interrogation.

Five hundred and seventy-six participants completed the child version of the survey (162, 414, and 24 of whom had, had not, or did not indicate whether they had received Reid training respectively), 591 participants completed the youth version of the survey (189, 402, and 24 of whom had, had not, or did not indicate whether they had received Reid training respectively), and 590 participants completed the adult version of the survey (163, 427, and 19 of whom had, had not, or did not indicate whether they had received Reid training respectively).

Table 1 presents professional and demographic information (age, gender, ethnicity, status of detective or patrol officer, education, work experience, frequency of interrogation of adults and youth) for the RT and non-RT participants. The RT participants were significantly more likely to be older, Caucasian, and detectives, and

² Department administrators consistently explained that patrol officers do conduct interrogations frequently, but that detectives tend to conduct interrogations for serious crimes. Within the patrol officer sample, 7, 8, 20, 30, and 30% indicated that they interrogate adults never, yearly, monthly, weekly, or daily respectively, and 11, 18, 35, 22, and 8% indicated that they interrogate youth with these degrees of frequency, respectively. Within the detective sample, 2, 4, 22, 51, and 19% indicated that they interrogate adults never, yearly, monthly, weekly, or daily respectively, and 9, 24, 39, 21, and 4% indicated that they interrogate youth with these degrees of frequency respectively.

Table 1. Demographic and professional information of participants

Demographic/work information	Reid trained (N = 514)	Non-Reid trained (N = 1243)
Age*		
Mean years (SD)	38.97 (7.70)	35.94 (7.56)
Gender		
% male	79.7%	79.6%
% female	16.0%	14.6%
Ethnicity**		
% Caucasian	62.8%	50.1%
% minority	29.2%	39.3%
Position**		
% detective	46.0%	14.2%
% patrol	51.1%	81.5%
Highest education**		
% high school degree	33.9%	44.0%
% BA or higher degree	58.9%	49.2%
Work experience*		
Mean years (SD)	14.19 (7.65)	10.85 (7.33)
Frequency interrogate adults		
% never	4.1%	7.9%
% yearly	3.7%	7.4%
% monthly	20.3%	17.2%
% weekly	42.3%	32.5%
% daily	26.7%	31.3%
Frequency interrogate youth		
% never	9.9%	14.6%
% yearly	23.0%	20.0%
% monthly	37.0%	34.2%
% weekly	22.2%	20.6%
% daily	4.9%	6.8%

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

had significantly more years of education and work experience than non-RT participants.

Survey Instrument

The Police Interrogation Survey (PIS) assesses law enforcement officers' (1) perceptions of suspects' developmental maturity in the interrogation context and (2) reported interrogation questioning practices. Participants received one of three versions of the survey, which contain the same items about interrogation concerning either (1) *children* under 14 years of age, (2) *adolescents* between the ages of 14 and 17 years, or (3) *adults* 18 years and older.

The survey includes 35 Likert-style items on a six-point scale (1 = strongly disagree, 6 = strongly agree) to assess perceptions of maturity, a checklist of techniques to assess use of reported practice in past year, and ten demographic items, including "Have you attended the Reid Interviewing and Interrogation Training?" and "Has your department trained you to use the Reid interviewing and interrogation techniques?".³ Wording for some of the perception of maturity items

³ Results were the same for participants who reported attending Reid training and receiving Reid training in their department, so these two groups were combined to form one "Reid-trained" group for this article.

Table 2. Structural factor analysis (SFA) loadings of PIS items

Item/Item	Unstandardized loadings	Standardized loadings
Factor 1: Suggestibility		
The reports of events given by children are more susceptible to suggestion by interviewers than are those given by adults.	1.00	.66
Children are more likely to confess to crimes they did not commit than adults.	.97	.56
Compared to adults, children are more easily influenced by trickery during interviewing.	.91	.58
Children incorporate elements of stories told by police into their own reports when they are interviewed or interrogated for more than a couple of hours.	.78	.49
Factor 2: Comprehension		
Children understand their right to an attorney.	1.00	.90
Children understand their right to remain silent.	.96	.81
Miranda rights are well understood by children.	.91	.84
Children understand the intent of a police interrogation.	.59	.57

The term “children” is used here, although “adolescents” or “adults” were also used depending on the version of the survey.

Suggestibility: model fit, $\chi^2(2) = 6.1, p = .05, CFI = .99, RMSEA = .03$ (CI .00–.07); invariance established, difference in $\chi^2 = 2.7$ and $df = 3, p > .05$.

Comprehension: model fit, $\chi^2(2) = 6.6, p = .05, CFI = .99, RMSEA = .06$ (CI .00–.12); invariance established, difference in $\chi^2 = 9.3$ and $df = 6, p > .05$.

can be found in Table 2, in which item factor loadings are presented. The checklist of techniques includes, for example, “building rapport with the suspect,” “asking questions repeatedly,” “discouraging the suspect from making denials,” “presenting false evidence,” “using deceit,” and “minimizing the seriousness of the crime.”

Participants were first asked whether they had conducted interrogations with children/adolescents/adults (depending on survey version) in the past year; only those participants who had conducted interrogations in the last year were instructed to provide responses about their use of interrogation techniques. The original survey was developed for a study of Baltimore County officers (Meyer & Reppucci, 2007) and was based on a review of relevant developmental literature, police training manuals, pretests, and consultation with police departments, police organizations, and academic scholars. This survey was then altered slightly after discussing the results with the Baltimore County police administration; 16 items were added to provide clarification of ambiguous results initially obtained (see Reppucci et al., in press).

Procedures for Survey Distribution

Following the Baltimore County pilot study, researchers contacted 54 U.S. police agencies. Packets, including a cover letter describing the purpose and procedure of the study, a letter of support from the Baltimore County Police Department, and copies of the surveys, were mailed to the police chiefs of each department. Fourteen

agencies (27.2%) contacted the researchers to indicate willingness to participate; in addition, three agencies contacted the researchers with interests and questions. Due to funding constrictions, data were collected from only ten of the interested departments in addition to Baltimore County.

Because the study was only conducted in agencies in which police administration indicated interest and willingness to participate, we interviewed administrators to get a sense of their motivation for participating to ensure that the participating police departments were not self-selecting for any particular reason. It is conceivable that the participating agencies are particularly sensitive to the issue of juvenile false confessions. This “sensitivity” could come from a progressive interest in protecting juveniles and the public from false confessions and could have trickled down from the administration to the officers performing interrogations. If this were the case, it would be expected that law enforcement officers in agencies not included in this sample would recognize less vulnerability in the interrogation context and endorse the use of more psychologically coercive interrogation strategies than the participants in the current study. Alternatively, the “sensitivity” could be motivated by problems that have occurred within the participating agencies with false confessions, which could potentially inflate the level of endorsement of psychologically coercive interrogation strategies, depending on how representative of the department these problems were. Based on discussions with both the administration and the participants, we concluded that the motivations for participation were mixed; there were three agencies (participants represent 21% of the total sample) that were explicitly progressive, two (participants represent 43% of total sample) that noted local recent incidents involving false confessions, and five (participants represent 36% of total sample) that seemed confused about what the purpose of the study was. Of the five agencies that seemed confused, two (participants represent 23% of total sample) implied that they thought the study was about developing tactics to help elicit confessions from juveniles, and three others (participants represent 13% of total sample) suggested that they thought the study was about interviewing young witnesses/victims). Regardless of what motivated each individual agency, it seems safe to assume that there was enough variety in motivation to facilitate a representative sample of law enforcement officers.

Two researchers traveled to each police agency to distribute the surveys and met with department chiefs and/or designated personnel heads to review project procedures and discuss agency interrogation policies. The researchers attended several of each agency’s patrol officer and detective roll calls to recruit participants and to provide explanation and rationale for the project. Participation was voluntary and confidentiality was assured. The percentage of sworn officers in each department who were asked to participate and did ranged from 90.5% to 100%, with a mean of 97%.

Data Analysis

Structural factor analysis (SFA) was conducted on the PIS to confirm latent factors represented by the observed survey items. For each confirmed latent factor, a multiple-group SFA model with invariance loadings (McArdle, 1996) was used to model factorial invariance with multiple groups to determine whether factorial invariance was established across the different survey versions (child, adolescent,

adult). Tests for fit of the factor models were conducted using the chi-square test, the comparative fit index (CFI; Bentler, 1990), and the root mean squared error of approximation (RMSEA; Steiger, 1990), and tests of factorial invariance were conducted using chi-square to degrees of freedom difference statistics. A non-significant chi-square indicates good model fit, as does a CFI at or above .95 and an RMSEA at or below .10 (Tabachnik & Fidell, 2001). Using these criteria, the following factors were confirmed: (1) perception of suspect's suggestibility (suggestibility factor), (2) perception of suspect's comprehension of rights and intent of police interrogation (comprehension factor). Table 2 presents factor items and unstandardized and standardized factor loadings as well as model fit and invariance statistics. The standardized indicator loadings estimated for each latent factor were all above .40 and all were statistically significant, and invariance was established across each survey version for all of the factors.

Because the reported uses of techniques are dichotomous variables and the continuous latent factor scores were dichotomized (agreement = mean factor score of 3.75–6.0), chi-square tests and logistic regression were employed to make group comparisons. Two main types of group comparison were conducted: (1) comparisons between RT and non-RT groups within survey versions, and (2) comparisons within RT and non-RT groups between survey versions. Chi-square tests were used to assess group differences in sensitivity to developmental maturity in interrogation by comparing the percentage of police who agreed with latent factors and endorsed use of techniques (1) within the RT groups, across the child, adolescent and adult survey versions, and (2) with the survey versions, across the RT and non-RT groups. Then, hierarchical logistic regression analyses were used to determine whether the RT group variable added significantly to the prediction of the likelihood of agreement with latent factors and the likelihood of endorsing use of the techniques after accounting for the group covariates. Preliminary analyses indicated that age, ethnicity, professional role, education, and work experience were significantly related to RT status (see Table 1); although there is not a substantive body of literature that suggests that these variables are related to interrogation perceptions or practices, they were all included in the first step of the hierarchical logistic regression analyses.⁴

RESULTS

Only statistically significant results are presented.

Perception of Developmental Maturity

Table 3 displays the percentage of police in the RT and non-RT groups who endorsed agreement with the suggestibility and comprehension latent factors for the child, adolescent, and adult survey versions.

⁴ Although the two groups did not differ significantly in the frequency with which they conduct interrogations with juveniles or adults, analyses were conducted for all dependent variables with those police who indicated that they never or rarely conduct interrogation removed from the dataset. Removing these participants did not change the results; therefore, all participants were included in the analyses.

Table 3. Percentage of police who reported agreement with factors

Factor	RT	Non-RT
Suggestibility factor		
Child survey version	74.6%	70.0%
Adolescent survey version	44.5%	57.8%
Comprehension factor		
Child survey version	54.1%	46.3%
Adolescent survey version	83.1%	69.9%
Adult survey version	89.4%	86.4%

Agreement with suggestibility factor indicates sensitivity to developmental maturity, whereas agreement with comprehension factor indicates lack of sensitivity to developmental maturity.

Comparisons between RT Groups Within Survey Versions

Compared to non-RT police, RT police were significantly less likely to agree that adolescents are suggestible (S) in interrogation and more likely to agree that adolescents comprehend (C) their rights to and intent of a police interrogation (S, $\chi^2(1, 827) = 12.50, p < .01$; C, $\chi^2(1, 571) = 5.30, p < .05$). The RT group variable added significantly to prediction of agreement with the suggestibility factor with adolescents after accounting for the covariates (see Table 4).

Comparisons within RT Groups Between Survey Versions

Both the RT and non-RT police were significantly more likely to agree with the suggestibility factor for children in comparison with adolescents (RT, $\chi^2(1, 488) = 45.33, p < .01$; non-RT, $\chi^2(1, 1167) = 18.76, p < .01$). The non-RT police were significantly less likely to agree with the comprehension factor with children in

Table 4. Significant Reid training variable logistic regression statistics

Dependent variables	95% CI for exp <i>b</i>				$\Delta - 2LL$
	<i>B</i> (SE)	Lower	exp <i>b</i>	Upper	Block 1 – Block 2
Suggestibility factor: adolescent	0.41 (0.28)**	1.29	1.49	1.69	5.53*
False evidence: adolescent	0.78 (0.27)**	1.29	2.18	3.68	11.37**
False evidence: adult	0.69 (.22)*	1.99	1.29	3.10	5.83*
Deceit: adolescent	.87 (.26)**	1.42	2.38	3.99	15.54**
Minimization: child	.52 (.27)*	1.00	1.69	2.84	5.25*
Minimization: adolescent	.68 (.23)**	1.26	1.97	3.09	9.25**

Block 1 includes age, work experience, professional role, education, and ethnicity. Block 2 adds Reid training to the model. Non-RT = 0, RT = 1; * $p < .05$; ** $p < .01$.

Suggestibility factor adolescent: $R^2 = .03$. Model $\chi^2(6) = 14.54, p < .05$.

False evidence adolescent: $R^2 = .12$. Model $\chi^2(6) = 35.40, p < .01$.

False evidence adult: $R^2 = .08$. Model $\chi^2(6) = 26.99, p < .01$.

Deceit adolescent: $R^2 = .09$. Model $\chi^2(6) = 28.53, p < .01$.

Minimization child: $R^2 = .14$. Model $\chi^2(6) = 42.88, p < .01$.

Minimization adolescent: $R^2 = .09$. Model $\chi^2(6) = 32.07, p < .01$.

comparison with adolescents ($\chi^2(1, 791) = 45.38, p < .01$) and adults ($\chi^2(1, 822) = 95.54, p < .01$), and with adolescents in comparison with adults ($\chi^2(1, 809) = 32.59, p < .01$). The RT police were significantly less likely to agree with the comprehension factor with children in comparison with adolescents ($\chi^2(1, 339) = 23.99, p < .01$) and adults ($\chi^2(1, 318) = 47.41, p < .01$); no difference was detected in the RT group's likelihood of agreement with adolescents in comparison with adults.

Summary

The RT and non-RT groups demonstrate similar levels of sensitivity to the developmental maturity of children; about three-quarters of both groups agree that children are suggestible in the interrogation context and about half of both groups agree that children comprehend their rights and the intent of interrogation. In addition, both the RT and non-RT police perceive differences in the suggestibility of children in comparison with adolescents. However, the RT group demonstrates less sensitivity to developmental maturity of adolescents than the non-RT police, as evidenced by (1) the RT group's lower likelihood of agreeing that adolescents are suggestible (RT group variable accounted for significantly more variance in the suggestibility factor after accounting for the covariates) and higher likelihood of agreeing that they comprehend their rights and intent of interrogation, and (2) the lack of difference in the RT group's likelihood of agreeing with the comprehension factor across the adolescent and adult survey versions. Whereas less than half of RT police agreed that adolescents are suggestible, more than half of non-RT police agreed that such is the case, and whereas 83% RT police agreed that adolescents understand their rights, fewer (69%) non-RT police agreed that such is the case. Both groups were similarly likely to agree (86–89%) that adults understand their rights and intent of a police interrogation.

Use of Psychologically Coercive Questioning Techniques

Table 5 displays the percentage of police in the RT and non-RT groups who endorsed use of presenting false evidence, deceit, and minimizing the seriousness of the crime in the child, adolescent, and adult survey versions.

Comparisons Between RT Groups within Survey Versions

Compared with non-RT police, the RT group was more likely to endorse the use of presenting false evidence (FE) and deceit (D) with adolescents (FE, $\chi^2(1, 440) = 16.33, p < .01$; D, $\chi^2(1, 520) = 27.57, p < .01$) and adults (FE, $\chi^2(1, 557) = 16.11, p < .01$; D, $\chi^2(1, 557) = 10.76, p < .01$), and more likely to endorse the use of minimization with children ($\chi^2(1, 440) = 15.89, p < .01$), adolescents ($\chi^2(1, 521) = 16.02, p < .01$), and adults ($\chi^2(1, 557) = 12.28, p < .01$). The RT group variable added significantly to prediction of use of each of the techniques with adolescents, as well as the use of the false evidence technique with adults and the

Table 5. Percentage of police who endorsed using psychologically coercive questioning techniques

Technique	RT	Non-RT
Present false evidence		
Child survey version	18.6%	18.3%
Youth survey version	32.7%	17.2%
Adult survey version	41.2%	24.2%
Deceit		
Child survey version	26.4%	23.8%
Youth survey version	46.5%	23.9%
Adult survey version	48.1%	33.2%
Minimize moral seriousness of crime		
Child survey version	53.5%	33.1%
Youth survey version	65.5%	41.8%
Adult survey version	73.1%	57.2%

minimization technique with children after accounting for the covariates (see Table 4).

Comparisons within RT Groups Between Survey Versions

The RT group was significantly more likely to endorse use of false evidence (FE), deceit (D), and minimization (M) with adolescents (FE, $\chi^2(1, 301) = 7.36, p < .05$; D, $\chi^2(1, 301) = 12.73, p < .01$; M, $\chi^2(1, 301) = 5.96, p < .05$) and adults (FE, $\chi^2(1, 289) = 17.08, p = .01$; D, $\chi^2(1, 289) = 14.31, p < .01$; M, $\chi^2(1, 289) = 12.01, p < .01$) than with children; there were no differences in the RT group's likelihood of endorsing these techniques between the adolescent and adult survey versions. The non-RT group was significantly more likely to report using the false evidence and deceit techniques with adults than with children (FE, $\chi^2(1, 702) = 3.62, p < .05$; D, $\chi^2(1, 708) = 7.56, p < .05$) or adolescents (FE, $\chi^2(1, 746) = 5.49, p < .05$; D, $\chi^2(1, 659) = 7.80, p < .05$); there were no differences in the non-RT group's likelihood of endorsing these techniques between the child and adolescent survey versions. The non-RT group was significantly more likely to report using the minimization technique with adults than with children ($\chi^2(1, 708) = 40.57, p < .01$) and adolescents ($\chi^2(1, 696) = 17.49, p < .01$), and with adolescents than with children ($\chi^2(1, 660) = 5.32, p < .05$).

Summary

Although the RT group was more likely than the non-RT group to report using the minimization technique with children, the two groups were similarly likely to report using the false evidence and deceit techniques with children (18–26% of police reported using these techniques with children). In addition, both RT and non-RT police demonstrate sensitivity to the developmental maturity of children as evidenced by the significant differences in both groups likelihood of endorsing use of the false evidence, deceit, and minimization techniques with children as compared with adults.

However, in comparison with non-RT police, the RT group demonstrates less sensitivity to developmental maturity of adolescents as evidenced by (1) the RT group's higher likelihood of endorsing use of the false evidence, deceit, and minimization techniques with adolescents (the RT group variable accounted for significantly more variance in the use of all three techniques after accounting for the covariates), and (2) the lack of differences in the RT group's likelihood of using these techniques across the adolescent and adult survey versions. Between 33 and 61% and 42 and 73% of the RT group reported using these techniques with adolescents and adults respectively, compared with between 17 and 42% and 24 and 57% of the non-RT group.

DISCUSSION

Our goal was to gain an understanding of the role of attending the Reid training program as a potential contributor to situational risk factors for eliciting false confessions from juveniles by investigating relationships between Reid training and (1) perceptions of the developmental maturity (in terms of suggestibility and comprehension of the rights and intent of police interrogation) of suspects, and (2) reported use of psychologically coercive interrogation techniques. We were further interested in determining whether the training variable accounted for significantly more variance in the responses in the areas of concern after accounting for the effects of the demographic and work-related characteristics on which the two groups differed. Two types of comparison were employed: (1) comparisons within survey versions (child, adolescent, adult suspects), between the RT and non-RT groups, and (2) within the RT and non-RT groups, between the survey versions.

Overall, findings from the comparisons within survey versions indicate that RT police are *less* sensitive to the developmental maturity of suspects between the ages of 14 and 17 ("adolescent") than non-RT police. RT police were more likely than non-RT police to endorse developmentally insensitive perceptions and techniques, and the effect of the training variable was significant for each analysis (with the exception of the comprehension factor) after accounting for the covariates. In addition, whereas there were differences within the non-RT group's likelihood of endorsing developmentally insensitive perceptions and techniques between adolescents and adults, there were no differences within the RT group's likelihood of endorsing such between adolescents and adults, indicating that they perceive adolescents to be as mature as adults and treat them as such during interrogation.

The fact that RT police are both more likely to report using problematic interrogation strategies with adolescents and to view adolescents as more mature than non-RT police is interesting. One possible explanation is that RT police are trained to use certain techniques; thus, they may use them more than non-RT police in their interrogations, and then construct a post hoc narrative (see, e.g., Haidt, 2001, for a discussion of post hoc reasoning) about the appropriateness of using these techniques with adolescents that involves inflating perceptions of their maturity or competency in the interrogation context. Another possible explanation might lie in the nature of crimes that RT versus non-RT police investigate. Although there were no differences in the frequency with which the RT and non-RT police conducted juvenile and adult interrogations, it is possible that the RT police are

more likely than the non-RT police to conduct interrogations for more serious crimes. Meanwhile, social psychologists have often demonstrated that, when explaining behavior, individuals are more likely to favor dispositional attributions than situational ones (see, e.g., Brown & Fish, 1983; Martin & Tesser, 1992; Miller, Norman, & Wright, 1978), preferring the notion that people do what they do because of the types of person they are to the notion that unpredictable situations have the power to make people behave in seemingly arbitrary ways. Although there is no reason to believe that suspects interrogated for serious crimes are more mature or competent to be interrogated than suspects interrogated for less serious crimes, dispositional attributions could conceivably skew perceptions of suspects. If RT police do, in fact, interrogate suspects in more serious cases than non-RT police, such logic could explain why they are more likely to view adolescent suspects as more mature than non-RT police. Indeed, one anecdotal explanation for why they use the same techniques to question children and adolescents as adults that we heard from police officers while conducting the study was “The juveniles we interrogate aren’t kids, they’re monsters.”

Although RT police demonstrate less sensitivity to the developmental maturity of youth compared with non-RT police, results indicate that they demonstrate similar levels of sensitivity to the developmental maturity of children. The only difference between the two groups regarding children was their likelihood to report using the minimization technique; RT police were more likely than non-RT police to report using this technique with children. In addition, both groups were more likely to agree that children are more suggestible than adolescents and less likely to agree that they understand their rights than adults, and both groups were less likely to report using psychologically coercive questioning techniques with children than with adolescents or adults. Of course developmental differences between children and adolescents could explain in large part the variability with which police account for developmental maturity between the two groups of juveniles. In addition, the fact that children are less likely to be interrogated for serious crimes than adolescents in conjunction with the hypotheses presented above about post hoc constructions of reasoning and dispositional attributions could partially explain the differential degree to which police account for developmental maturity.

Overall, our results extend the finding by Kassin et al. (2007) that training is related to increased usage of “isolation, rapport, and minimization” and “presentation of evidence” to the juvenile context. Moreover, the origination of the effect has been more specifically defined by limiting the meaning to having attended the Reid training and by assessing the extent of its impact above and beyond that of demographic and work-related covariates. Police who attend the Reid training program seem to absorb the message that “the successful interrogator must possess a great deal of inner confidence in his ability to detect truth or deception, elicit confessions from the guilty, and stand behind decisions of truthfulness” (Inbau et al., 2001), and apply this notion to interrogations of youth. In addition, although the RT police demonstrate some sensitivity to the developmental maturity of children, and seem to take this into account when interrogating children, they do not do so any more than non-RT police.

It should be noted that, although RT police reported using a number of psychologically coercive interrogation techniques with young suspects, they also expressed an encouraging interest in receiving more training and developing more

standard procedures for interrogating juveniles. These interests seemed to pervade group distinctions, as there were no significant differences in the percentage of non-RT and RT police who reported a need for more training (70+%) or standard procedures (50+%) (Kostelnik, Meyer, & Reppucci, 2007). Although the wording on the survey questions left the type of training and standard procedures ambiguous, i.e. it is not clear that they were interested in receiving developmentally sensitive training, there is reason to be optimistic that law enforcement professionals are willing to adopt new interrogation procedures and see the benefit in doing so. Specifically, a National Institute of Justice study (Geller, 1993) and more recent interviews (Sullivan, 2004) with officials from departments that voluntarily videotape interrogations suggest that the majority of law enforcement officers whose departments videotape interrogations find the practice useful and that concerns that police would reject the policy of videotaping interrogations are unfounded. Moreover, we have encountered anecdotal evidence of several officials developing their own developmentally sensitive training programs; however, we know of no studies that document the effectiveness of these training programs.

Limitations

A couple of broad limitations should be considered. The first limitation is that participants were asked to respond about their beliefs and practices about interrogation in general, as opposed to about a defined interrogation involving a common crime and suspect. As noted above in the discussion of how the severity of the crime could influence perceptions of suspects, it is conceivable that officers have different perceptions and behave differently during interrogations as a function of the suspect in front of them and the crime s/he is suspected of committing. Therefore, because participants might have been responding in reference to different mental representations of suspects/crimes, the results are limited to helping create an understanding regarding the range of perceptions and behaviors about interrogations in general, as opposed to interrogations for certain kinds of crime or with certain kinds of suspect (e.g. race, gender, mental disability, history of contact with law enforcement), with the exception of age. More importantly, the possibility that RT police are more likely to conduct interrogations for serious crimes than non-RT police could represent a confounding variable between the groups that was not controlled for in this study. Future research should examine the role of the severity of the crime in influencing perceptions and practices during interrogation, and how it may mediate training effects.

A second limitation is that, because the survey was a self-report measure of interrogation perceptions and practices, it is vulnerable to social desirability biases. Because a few police openly expressed some mistrust to the researchers, it is possible that they hesitated to admit to using certain interrogation techniques, and they may be representative of others who decided to say nothing. However, based on the anecdotal experience of the data collectors (e.g. statements such as "it's not like you were asking us if we break out the rubber hose!"), the fact that many participants did endorse using harsh interrogation techniques, and that all of the techniques on the check-list are legal, it seems unlikely that social desirability created a large bias in the participants' responses. Nevertheless, different groups of police may have

experienced social desirability pressure to various degrees based on their diverse roles and responsibilities within their departments, which could have impacted the group comparisons. Therefore, multi-method convergence is important for the interpretation of these results; future direct-observation or interrogation video-review projects should include measures of demographics, professional roles, and training to determine the extent to which the current results are convergent with others from different methodologies.

Summary and Implications

Our results are the first to evaluate the differences between RT and non-RT police in the usage of interrogation techniques with different aged suspects that have been shown to increase the risk of false confessions, particularly from young suspects. As mentioned in the introduction, because the Reid technique is the most commonly used training program for interrogators, it is critical to understand the impact of this training on how RT police in comparison with non-RT police view and treat children, adolescents, and adults in interrogation. Overall, findings suggest two clear conclusions: RT police (1) view adolescents as more mature and competent in the interrogation context than non-RT police and (2) use more psychologically coercive interrogation techniques with adolescents than non-RT police. Of note, the Reid technique is one of many different interrogation training programs. Future research should explore the extent to which other interrogation training programs increase or diminish the risk of eliciting false confessions and what specific factors about training programs (e.g. the techniques that they advocate and the extent to which they convey confidence in the reliability of information elicited from these techniques) contribute to these patterns.

There are multiple examples of psychological research informing legal procedures. For example, research on the developmental needs of young children has already been used to shape training of investigators to question young witnesses/victims (see Owen-Kostelnik et al., 2006) and eyewitness identification guidelines have been created on the basis of evidence from psychological research showing that some lineup identification procedures lead to increased risk of false identifications (Wells et al., 1998). Thus, the implementation and evaluation of developmentally sensitive interrogation training programs have the potential for creating a nexus between social scientists, advocates, and law enforcement officers, who all share the common goal of increasing both the accuracy and justice of the process of law enforcement.

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