‘Genius is 1% inspiration and 99% perspiration’... or is it? An investigation of the impact of motivation and feedback on deception detection

Stephen Porter¹*, Sean McCabe², Michael Woodworth³ and Kristine A. Peace¹

1Grant MacEwan College, Canada
2University of Nebraska-Lincoln, USA
3University of British Columbia (Okanagan), Canada

Purpose. Although most people perform around the level of chance in making credibility judgments, some researchers have hypothesized that high motivation and the provision of accurate feedback could lead to a higher accuracy rate. This study examined the influence of these factors on judgment accuracy and whether any improvement following feedback was related to social facilitation, a gradual incorporation of successful assessment strategies, or a re-evaluation of ‘tunnel vision’ decision-making.

Methods. Participants (N = 151) were randomly assigned to conditions according to motivation level (high/low) and feedback (accurate, inaccurate or none). They then judged the credibility of 12 videotaped speakers either lying or telling the truth about a personal experience.

Results. Highly motivated observers performed less accurately (M = 46.0%), but more confidently, than those in the low-motivation condition (M = 60.0%). Although there was no main effect of feedback, the provision of any feedback (accurate or inaccurate) served to diminish the motivational impairment effect. Further, high motivation was associated with a relatively low ‘hit’ rate and high ‘false-alarm’ rate. This suggested that in the absence of feedback the judgments of highly motivated participants were made through tunnel vision.

Conclusions. The results suggest that it is important for lie-catchers to monitor their motivation level to ensure that over-enthusiasm is not clouding their judgments. It may be useful for professionals engaged in deception detection to regularly discuss their judgments with colleagues as a form of feedback in order to re-evaluate their own decision-making strategies.

*Correspondence should be addressed to Stephen Porter, PhD, Dalhousie University, Department of Psychology, Halifax, Nova Scotia, Canada, B3H 4J1 (e-mail: sbporter@dal.ca).
The detection of deception is of great consequence in many contexts, including suspect interviews, the courtroom, and parole hearings. While most observers attempting to detect lies ‘flip a coin’ and perform around the level of chance (e.g. Bond & DePaulo, 2006; Ekman & O’Sullivan, 1991; Vrij, 2000), or even below chance (Porter, Woodworth, & Birt, 2000), they tend to overestimate their accuracy (e.g. Memon, Vrij, & Bull, 2003; Vrij, 2004). Further, training programs aimed at improving credibility assessments have produced, at best, modest improvements in performance relative to control groups (see Meissner & Kassin, 2002; Porter et al., 2000; Vrij, 2000; cf. Vrij, Evans, Akehurst, & Mann, 2004).

This difficulty in detecting deceit does not appear to result from an absence of actual differences in the behaviours of liars and truth-tellers. Many studies indicate that lying is associated with subtle changes in both verbal (e.g. Porter, Yuille, & Lehman, 1999; Vrij, Edward, & Bull, 2001) and non-verbal (e.g. Ekman, O’Sullivan, Friesen, & Scherer, 1976; Vrij, Akehurst, Soukara, & Bull, 2004) behaviours. A meta-analysis by DePaulo et al. (2003) indicated that deceptive accounts tend to contain fewer ordinary imperfections and unusual contents. Liars also tend to make a more negative impression and are relatively tense when being deceptive. However, such signals are not apparent to most observers, who tend to rely on erroneous, stereotypical cues to deception. For example, Akehurst, Kohnken, Vrij, and Bull (1996) found that both laypersons and police relied on behavioural signs of deception that are not empirically supported. Ruback and Hopper (1986) found that parole officers often relied on false cues such as fidgeting in their parole decisions. Further, Kassin and Fong (1999) found that participants trained in detecting deception with the ‘Reid technique’ (used internationally in police training) did worse than chance, while their untrained counterparts performed at the level of chance (also see Kassin, 2004; Vrij, Mann, & Fisher, 2006). Studies repeatedly have shown that observers rely too heavily upon emotion-based signs of guilt (i.e. ‘shifty eyes’ and nervous gestures), over empirically-based cues to deception (e.g. Mann, Vrij, & Bull, 2004; Strömwall & Granhag, 2003; Vrij, 2004).

Given that there are behavioural correlates of deception and people often rely on erroneous cues, it is possible that empirically based training could increase detection accuracy (e.g. Vrij et al., 2004). Porter et al. (2000) examined the ability of a group of Canadian parole officers to detect deception at baseline and over the course of 2 days of training using 24 videotaped targets. For the first six video judgments, the officers received no feedback concerning their accuracy. Then, for the final 18 videos they received accurate feedback following each judgment. A control group of undergraduate participants judged the same videos; one-third received no feedback on accuracy for any of the videos, one-third received accurate feedback following each of the 24 judgments, and another third received empirically based information on cues to deception in addition to accurate feedback following each of the judgments. Relative to their baseline performance, all feedback groups (the parole officers and the two student groups) became better in detecting deception than the no-feedback group (although the improvements were modest) and the parole officers improved upon their baseline performance. One interpretation of these results was that immediate, accurate feedback was incorporated into the decision-making strategies of the observers facilitating their judgment accuracy. However, a different explanation concerns a motivation factor. Because another person provided the feedback, participants may have been highly motivated (relative to the no-feedback group) to improve their performance and this motivation led to improved decision-making. However, as described below, a previous study established that high levels of motivation may, in fact, impair credibility assessment performance (Forrest & Feldman, 2000). Thus, an alternative explanation for Porter et al.’s
results is that, feedback could have served to eliminate or control a motivational impairment effect, perhaps by causing observers to reflect upon and re-evaluate single-minded, ‘tunnel vision’ decision-making. In particular, the parole officers would have been highly motivated to demonstrate their skills; feedback simply may have informed them of their mistakes and caused them to rethink their decision-making strategies.

Does motivation facilitate the detection of deception?

In a recent text providing an excellent overview of detecting deception in forensic contexts, editors Granhag and Strömwall (2004) concluded that ‘the future expert lie-catcher needs to be highly motivated’ (p. 321), also recommended by O’Sullivan and Ekman (2004) in their commentary on lie-catching experts, or ‘wizards’. But would higher motivation really improve one’s ability to spot lies? While it has been established that higher levels of motivation in the liar are associated with greater difficulty in lying successfully (e.g. DePaulo, Blank, Swaim, & Hairfield, 1992; DePaulo & Kirkendol, 1988; DePaulo et al., 2003), little research has addressed the effect of motivating the observer/judge. One factor that leads us to hypothesize that a high level of motivation may not be helpful in credibility assessment is the inherent complexity of the task. With other types of judgment tasks, high levels of motivation generally facilitate performance when the task is relatively easy, but impair performance when the task is difficult (e.g. Kim & Baron, 1988). Pelham and Neter (1995) conducted three studies involving different motivation and judgment task manipulations. In each study, high motivation impaired performance on more complicated tasks involving a greater cognitive load. This prompted the authors to conclude that Thomas Edison’s claim that ‘genius is 1% inspiration and 99% perspiration’ was valid only if the task is easy (p. 590). To our knowledge, only one study has focused specifically on motivation and deception detection. Forrest and Feldman (2000) induced a high level of involvement/motivation in observers by informing them that they would be asked questions about the interpersonal interactions occurring in a video and that success in this task was associated with intelligence and good social skills. They found that highly motivated participants were less accurate in detecting deception than their less involved counterparts paralleling the motivation impairment effect seen in deceivers. The authors speculated that the highly motivated participants were over-focusing on the verbal message to the neglect of valid non-verbal cues. However, aspects of this study preclude strong conclusions about motivation and detection. Participants were not asked to decide whether the target was ‘lying’, but rather to rate the speakers’ sincerity on a scale of 1–7. Also, because the clips were very brief (approximately 15 s) time pressure may have contributed to judgment quality.

Does feedback facilitate the detection of deception?

A second possible factor contributing to accuracy in deception detection identified by Porter et al. (2000) was the provision of immediate and accurate feedback. Granhag and Strömwall (2004) concluded that lie-catchers require ‘clear and regular feedback’ (p. 321), an argument with face validity but no empirical validation. In the only previous research to examine the effect of feedback on accuracy, Zuckerman and colleagues (Zuckerman, Koestner, & Alton, 1984; Zuckerman, Koestner, & Colelle, 1985) had observers evaluate the honesty of speakers in two sessions. In the first session, they received accuracy feedback following each judgment. During the second session, half of
the observers judged the honesty of the same speaker while the other half judged a
different target. The results indicated that feedback increased the accuracy of judgments
only for the original target, bringing into question the generalizability of the skill
acquisition. According to Porter et al. (2000), participants who were given accurate
feedback improved modestly in their ability to detect lies in different targets relative to a
control group who received no feedback. Thus, it was possible that the participants
incorporated (consciously or unconsciously) the feedback into more successful
decision-making strategies. However, in light of the findings of Zuckerman and
colleagues, another possibility was that feedback from another person – regardless of its
validity – could have led to improved performance through one of the two mechanisms.
First, feedback could lead the observer to work harder at the task (i.e. increase
motivation). Second, it could cause the observer to re-evaluate stereotyped, ‘tunnel
vision’ decision-making (i.e. reducing a possible motivational impairment effect).

A novel research strategy to resolve this issue is to provide observers with
inaccurate feedback and examine its impact on their judgment accuracy. If inaccurate
feedback impairs performance whereas accurate feedback improves performance, the
conclusion would be that the feedback information itself has the main influence on
accuracy. However, if inaccurate feedback influences performance in the same manner
as accurate feedback, we could conclude either that feedback in general leads to
increased motivation or a reduction in ‘tunnel vision’ decision-making. Finally, we could
determine which of the latter explanations is correct by manipulating motivation level.
If motivation is found to negatively influence judgment accuracy and feedback positively
influenced it, we could conclude that a feedback effect is best explained by a reduction
in tunnel vision decision-making.

In the present study, the effects and possible interaction of motivation and feedback on
the accuracy of credibility judgments of videotaped liars and truth-tellers were examined.
First, a high or low level of motivation was induced prior to the credibility assessment task.
Then, the observers were provided either with no feedback, consistent accurate feedback,
or consistent inaccurate feedback concerning the accuracy of their judgments.

Method
Participants
Undergraduate students (N = 151) participated in the study in exchange for course
credits. Females comprised 78.8% of the sample, the mean age was 19.95 years
(SD = 4.59), and the average years of university education was 1.66 (SD = 0.93).

Materials
The deception stimuli were videotapes that had been created for previous research (see
Porter, Campbell, Stapleton, & Birt, 2002; Porter et al., 1999). The original 75 participants
prepared and described highly stressful personal experiences, half of which were truthful
and half, completely falsified. During the interview, they were asked to freely recall what
happened during the alleged incident and then were asked specific questions. Twelve
videos (six true, six lies) were randomly selected for the present study. The first 2-min
segment of the free recall accounts was shown to the observers on a large screen television.
Observers used response booklets to report their credibility judgments (‘please indicate
whether you think the person was lying or telling the truth’), confidence and cue usage.
Procedure
The experiment used a $2 \times 3$ between-subjects design with motivation (high versus low) and feedback (accurate, inaccurate or none) as independent variables and judgment performance as the main dependent variable of interest. Participants were tested in small groups in a large testing room and spaced appropriately. Following each clip, participants indicated whether they believed the target was being honest or lying, the major cues on which they relied, and their confidence (7-point scale from ‘0’ (no confidence) to ‘6’ (absolutely confident)) in each judgment. They then moved to the next page of their booklet for the ensuing judgment and were instructed not to go back in the booklet at any point.

Motivation manipulation
Participants in the low-motivation condition were told the following by the experimenter:

The detection of deception has previously been shown to be a very difficult task and most people usually perform poorly, around the level of chance. Thus, people trying to detect deception often make mistakes concerning whether someone is telling the truth. We are interested in seeing how skilled students are at detecting deception, as well as the cues they use when trying to detect deception. We expect that – like most other people – you will perform around the level of chance or worse. Although this is quite a difficult task, you are asked to just do your best and don’t worry or feel pressured if you feel you are not doing well on the task.

On the other hand, participants in the high-motivation condition were offered a monetary/gift incentive and were told that a small number of people are particularly skilled lie-catchers. Specifically, they were told:

For several years now, psychologists have been interested in studying how well people can detect if someone else is being deceptive. While it has been shown to be a difficult task for some, experiments have shown that a few people may be highly skilled in detecting deception. You may be one of them. We are interested in seeing whether you are one of the people who are better at detecting deception in another person, as well as the cues you use when detecting deception. You are asked to pay attention and to do your best to correctly determine whether the people on the videotapes are being deceptive or telling the truth. Because certain people are better at detecting deception than others, we are offering rewards of $25 and $50 in gift certificates to the two people in the entire experiment who perform most accurately in determining the truthfulness of the videotaped targets.

(At the end of the data collection portion of the study, the two highest-scoring participants were awarded the prizes).

After the observers had made all their judgments, they were asked to rate their general level of motivation (from ‘0’ (completely unmotivated) to ‘6’ (completely motivated)) to make accurate judgments.

Feedback manipulation
For the feedback manipulation, participants in the accurate feedback condition were given correct feedback concerning the veracity of the targets immediately following each judgment (‘that speaker was telling the truth/lying’). Participants in the inaccurate feedback condition were consistently provided inaccurate information regarding the
truthfulness of each target. Finally, participants in the no feedback condition received no feedback concerning the honesty of the targets.

Results
Manipulation check/preliminary analyses
The self-reported motivation ratings by the high-motivation group were significantly higher ($M = 4.47$, $SD = 1.14$) than those of the low-motivation group ($M = 3.79$, $SD = 1.09$), $t(149) = 3.73$, $p < .001$.

To ensure that randomization had ensured similarity in judgment ability for the three feedback conditions at baseline, an analysis of variance (ANOVA) was conducted with feedback condition as the independent variable and accuracy on the first video as the dependent variable. The ANOVA yielded a non-significant finding, $F(2, 148) = 0.04$, $p > .05$ (means for the no feedback, inaccurate and accurate feedback conditions were 50, 52.9 and 52%, respectively).

Confidence and accuracy
Ratings of confidence in the credibility judgments were negatively correlated with total accuracy, $r(150) = -.26$, $p < .01$. Although male judges were more confident than female judges ($M = 3.79$, $SD = 0.94$ vs. $M = 3.31$, $SD = 0.76$), $t(149) = 3.03$, $p < .01$, there was no significant gender difference in the accuracy of the judgments, $t(149) = 89$, $p > .05$.

A $2 \times 3$ (motivation × feedback) ANOVA was conducted with confidence ratings as the dependent variable. The analysis yielded a significant main effect of motivation, $F(1, 145) = 6.5$, $p < .05$, but no main effect of feedback or interaction effect ($p > .05$). Participants in the high-motivation condition reported higher levels of confidence ($M = 3.58$, $SD = 0.88$) in their decisions than those in the low-motivation condition ($M = 3.24$, $SD = 0.74$), $t(149) = 2.53$, $p < .05$.

Impact of motivation and feedback on deception detection accuracy
A $2 \times 3$ multivariate analysis of variance (MANOVA) was performed with motivation level and feedback as independent factors and percentage accuracy scores (total, truth and lie) as dependent variables. The analysis revealed a multivariate main effect for motivation, $F(2, 144) = 3.24$, $p < .05$, but not for feedback, $F(4, 288) = 1.4$, $p > .05$. There was a significant interaction of motivation and feedback, $F(4, 288) = 2.46$, $p < .05$. Univariate analyses revealed that the motivation factor was significant for true videos only, $F(1, 145) = 6.52$, $p < .05$, such that highly motivated participants performed worse ($M = 44.2\%$, $SD = 21.5$) than low motivated participants ($M = 53.5\%$, $SD = 24.2$). Univariate analyses revealed an interaction of motivation and feedback for overall accuracy, $F(2, 145) = 3.6$, $p < .05$, and deceptive targets, $F(2, 145) = 3.62$, $p < .05$. For overall accuracy, low motivation combined with no feedback produced the highest accuracy level ($M = 60.0\%$, $SD = 17.18$) compared to a low mean accuracy rate of 46.0% ($SD = 12.76$) for the high motivation, no feedback condition. Follow-up Tukey multiple comparisons indicated that the accuracy rates of these two groups were significantly different ($p < .05$), but no other comparisons were significant. For deceptive targets, the same pattern was evidenced, but multiple comparisons between the groups were not significant.
Since the mean accuracy rates for accurate and inaccurate feedback conditions were virtually the same ($M = 49.0\%$, $SD = 13.03$ vs. $M = 49.0\%$, $SD = 18.21$, respectively), their data were combined to examine more generally the effect of feedback on accuracy. A $2 \times 2$ ANOVA was conducted with percentage accuracy as the dependent measure. The analysis revealed a main effect for motivation, $F(1, 147) = 7.33$, $p < .01$, no main effect of feedback ($p > .05$) and an interaction between motivation and feedback, $F(2, 145) = 7.29$, $p < .01$ (see Figure 1). As indicated in the above analysis, the high-motivation group performed worse than the low-motivation group. However, the interaction indicated that the motivation impairment occurred only for observers who did not receive any feedback. For the feedback group, the low-motivation participants ($M = 49.02\%$, $SD = 14.11$) did not differ from the high-motivation participants ($M = 49.0\%$, $SD = 15.67$). Considering deceptive targets specifically, data from the inaccurate and accurate feedback conditions were combined for a $2 \times 2$ ANOVA. The results indicated a significant interaction, $F(1, 147) = 6.4$, $p < .05$, but no main effects. As Figure 2 indicates, any feedback reversed the motivational impairment effect for judgments of deceptive targets.

**First six vs. the final six videos**

The data were analyzed in terms of the relative accuracy of the first and second six sets of judgments, with the assumption that any impact of feedback would be stronger on later judgments than earlier judgments. A MANOVA with motivation and feedback as between-subjects variables and video set as a within-subjects variable was conducted. A significant feedback/video set interaction would suggest that feedback may have had a progressive impact with successive judgments. The results yielded a main effect for video set, $F(1, 147) = 6.68$, $p < .05$, such that accuracy was higher for the first set of videos ($M = 54\%$, $SD = 0.22$) than the second set ($M = 46.7\%$, $SD = 18.8$) overall. However, there was no interaction between feedback and video set (nor a main effect of

![Figure 1. Accuracy of judgments as a function of motivation level and feedback.](image-url)
motivation), suggesting that feedback did not have a stronger effect on accuracy with later judgments.

**Signal detection analysis: Examining discrimination accuracy and response bias**

**Hits and false alarms**

As recommended by Meissner and Kassin (2002), observer decisions were investigated in terms of estimates of ‘hits’ (the proportion of deceptive targets correctly identified as deceptive) and ‘false alarms’ (the proportion of honest targets incorrectly identified as deceptive). A 2 × 2 MANOVA with hit and false-alarm rates as the dependent variables revealed a multivariate main effect of motivation, $F(2, 146) = 4.42, p < .05$, no multivariate main effect of feedback, $F(2, 146) = 2.82, p > .05$, and a significant interaction of motivation and feedback, $F(2, 146) = 4.11, p < .05$. Univariate analyses revealed that highly motivated observers had a higher rate of false alarms ($M = 55.8\%, SD = 21.5\%$) than observers in the low-motivation group ($M = 46.5\%, SD = 24.2\%$), $F(2, 146) = 8.26, p < .01$, but the two groups did not differ in their hit rates ($p > .05$). Univariate analyses revealed that the interaction effect was significant for hit rates, $F(1, 147) = 6.4, p < .05$, but not false alarms. The highest hit rate was obtained by participants in the low motivation, no feedback condition ($M = 56.7\%, SD = 19.2\%$) and the lowest by participants in the high-motivation, no feedback condition ($M = 45.3\%, SD = 15.6\%$). Feedback served to reverse the pattern; the hit rates for participants in the low-motivation, feedback condition and high-motivation, feedback condition were $M = 49.4\%, SD = 19.4\%$ and $M = 55\%, SD = 21.1\%$, respectively.

**Discrimination accuracy and response bias**

Next, the hit and false-alarm rates were used to calculate estimates of both discrimination accuracy and response bias (see Meissner & Kassin, 2002). Discrimination accuracy measured with $A'$ reflects observers' ability to correctly detect deception versus correctly reject its absence (an $A'$ near 1.0 indicates good
discrimination ability). Response bias measured with $B_{D^e}$ reflects the degree of evidence required for the observer to decide that deception is occurring (a $B_{D^e}$ equal to 0.0 indicates that no bias is occurring, higher numbers reflect a conservative bias or tendency to decide that deception is not occurring, and lower numbers reflect a liberal bias or tendency to decide that deception is occurring).

A $2 \times 2$ MANOVA with discrimination accuracy and response bias as the dependent variables revealed a multivariate main effect of motivation, $F(2, 146) = 6.27, p < .01$, no multivariate main effect of feedback, $F(2, 146) = 1.91, p > .05$, and a significant interaction of motivation and feedback, $F(2, 146) = 4.32, p < .05$. Univariate analyses revealed that highly motivated observers had lower discrimination accuracy rates ($M = .49, SD = .06$) than participants in the low-motivation condition ($M = .53, SD = .08$). $F(2, 146) = 9.4, p < .01$. The motivation groups did not differ in their response biases ($p > .05$), despite a trend. Univariate analyses revealed that the interaction effect was significant for both discrimination accuracy, $F(1, 147) = 6.11, p < .05$, and response bias scores $F(1, 147) = 5.88, p < .05$. The interaction indicated that feedback served to somewhat improve discrimination ability in the high-motivation group; discrimination accuracy was highest for the low-motivation, no feedback group ($M = .55, SD = .10$) and lowest for the high-motivation, no feedback group ($M = .49, SD = .04$). When feedback was present, the low-motivation and high-motivation groups performed similarly ($M = .50, SD = .07$ vs. $M = .49, SD = .07$, respectively). In terms of response bias, the significant interaction indicated that feedback influenced the decisions of low-motivated participants by making them more conservative ($M = .29, SD = .20$ versus $M = .15, SD = .29$ with no feedback) in perceiving that deception was occurring, but led highly motivated participants to adopt a more liberal bias in perceiving deception ($M = .14, SD = .39$ versus $M = .25, SD = .24$ with no feedback).

**Cue use and accuracy of deception detection**

Cues reported for each credibility judgment were coded as speech content cues, speech qualitative cues (e.g., pauses), facial cues or body cues. Neither was significantly correlated with the overall accuracy of the judgments ($ps > .05$). In examining the relation between cue use and accuracy with honest and deceptive targets, only one significant correlation was found; number of body cues negatively correlated with accuracy in identifying honest speakers, $r(150) = -.20$.

To examine whether motivation or feedback influenced cue usage, a two-way MANOVA was conducted with total number of cues and primary cue usage (first cue listed for the judgments from the cue categories above) as dependent measures. The results revealed a main effect for motivation, $F(8, 140) = 2.83, p < .05$, no main effect of feedback and a motivation/feedback interaction, $F(8, 140) = 3.42, p < .01$. Follow-up univariate comparisons indicated that, relative to low motivated participants, highly motivated participants were more likely to mention body cues ($M = 3.88, SD = 4.21$ vs. $M = 2.36, SD = 2.69$) and less likely to mention speech content cues as the primary cue ($M = 4.23, SD = 2.98$ vs. $M = 5.54, SD = 3.12$). There were significant motivation/feedback interactions for total number of cues, $F(1, 147) = 7.63, p < .01$, number of speech content cues, $F(1, 147) = 10.51, p < .01$ and number of speech content cues listed as the primary cue, $F(1, 147) = 8.83, p < .01$. For each, feedback led highly motivated participants to provide more cues than those who received no feedback, whereas feedback led unmotivated participants to provide fewer cues.
Discussion

Despite the large body of research on deception detection, few studies have addressed the impact of two factors that seem, to us, to have major relevance to credibility assessment - motivation and feedback. First, individuals engaged in the task of deception detection may vary substantially in their level of motivation. In the courtroom, for example, judges and juries may be highly motivated to determine the honesty of a witness or accused person whereas a potential victim of fraud such as a store clerk may not be so motivated. We might expect police investigators to be extremely motivated to detect lies in their suspects, especially in serious crimes. What is the impact of this high level of motivation? Second, depending on the circumstances, some observers may receive prompt and accurate feedback on the validity of their decisions (e.g. a confession in a police interrogation) while for many others feedback may take months or years to occur, or may not happen at all.

Consistent with previous research, observers in the present study were not skilled at detecting lies. However, the findings suggested that the level of motivation directly, and the provision of feedback indirectly, influenced detection accuracy. One intriguing finding was a ‘motivation impairment’ effect such that high motivation in observers lowered their accuracy relative to their less motivated counterparts, corroborating the finding by Forrest and Feldman (2000). The pattern is consistent with research on other types of judgment tasks indicating that a high level of motivation facilitates performance when a task is easy, but impairs performance when it is complex (e.g. Pelham & Neter, 1995). Most deception researchers would agree that credibility assessment is a multifaceted, complex task.

We agree with Forrest and Feldman (2000) that the most likely explanation for the motivational impairment effect is that, highly motivated but naïve observers focus on stereotypical cues or subjectively stumble on a ‘Pinocchio’s nose’ and quickly develop tunnel vision (e.g. Ben-Shakhar & Elaad, 2003; DePaulo et al., 2003; Vrij, 2004). However, whereas Forrest and Feldman speculated that a high level of motivation led observers to over-attend to the targets’ speech to the exclusion of non-verbal cues, we found that highly motivated observers focused too much on the targets’ body language and not enough on their story. This builds on previous studies showing that observers often over-rely on non-verbal cues in assessing credibility. For example, Kaufmann, Drevland, Wessel, Overskeid, and Magnussen (2003) found that credibility assessments in rape cases are based largely on the emotion expressed by the complainant and not on the content of the allegation itself. We also found that highly motivated observers were overconfident in their judgments which may have contributed to the over-focusing and a lack of self-reflection.

There was little difference in the accuracy levels of participants who had been provided either accurate or inaccurate feedback, indicating that the judges did not successfully incorporate feedback into their specific decision-making strategies. However, there was a significant interaction between motivation and feedback in judgment accuracy, such that the presence of feedback (regardless of its validity) moderated the motivation impairment effect relative to those who received no feedback. This suggested that feedback may have served to reduce the tunnel vision problem witnessed in the highly motivated participants with no feedback. When feedback was given to the highly motivated participants, it may have added a ‘correction’ factor and may have adjusted their decision strategies. However, feedback did not facilitate judgments by the low-motivation participants. Indeed, the
low-motivation participants were not compelled to do well at their task and may have
found the additional information/feedback to be unnecessary or even bothersome
(considering their already relatively low level of motivation).

In applying signal detection analyses to the credibility judgments, it was found that
highly motivated observers had relatively poor discrimination ability and made more
false alarms than unmotivated observers, although their response bias was not
significantly greater than their counterparts. Feedback served to somewhat improve
discrimination ability in the high-motivation group. Feedback also affected judgment
biases inducing a more conservative stance in perceiving deception by low-motivated
observers and a more liberal stance by highly motivated participants.

Some limitations to our study should be noted. Although the motivated judges were
provided a gift incentive to make accurate judgments, the importance of detecting lies was
not equivalent to the significance of the task in forensic settings. Further, as a reviewer
pointed out, it is possible that our ‘low-motivation’ instructions inadvertently created not
only low motivation but also an expectancy of poor performance in our participants.

In conclusion, we believe that our results are relevant to understanding the ‘investigator
bias’ effects observed in previous studies (Kassin, Meissner, & Norwick, 2005; Masip,
Alonso, Garrido, & Anton, 2005; Meissner & Kassin, 2002, 2004), such that police
investigators often demonstrate poorer discrimination and overconfidence in their
decreation judgments. A high level of motivation due to self-expectations and
public/superordinate demands combined with the time pressures inherent in serious
crime investigations may be a recipe for tunnel vision decision-making. Our findings
emphasize the need for investigators to monitor their motivation level to ensure that
overzealousness is not clouding their judgments. We recommend that such professionals
regularly discuss their judgments with colleagues as a form of ‘feedback’ to re-evaluate their
own decision-making strategies. Additionally, researchers who are attempting to develop
empirically based training to improve credibility assessments need to consider motivation
and feedback if we hope to effect positive change in forensic settings.

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