



## Reports

On being happy and gullible: Mood effects on skepticism and the detection of deception<sup>☆</sup>Joseph P. Forgas<sup>\*</sup>, Rebekah East*School of Psychology, University of New South Wales, Sydney 2052, Australia*

## ARTICLE INFO

*Article history:*

Received 13 September 2006

Revised 2 April 2008

Available online 9 May 2008

*Keywords:*

Affect

Social judgments

Social cognition

Trust

Detection of deception

## ABSTRACT

Are we more likely to believe or disbelieve another person depending on our mood state? Based on past research on interpersonal communication and recent work on affect and social cognition, we predicted and found that negative mood increased and positive mood decreased people's skepticism and their ability to detect deception, consistent with the more externally focused, accommodative processing style promoted by negative affect. After a mood induction using positive, neutral or negative films, participants viewed deceptive or truthful interviews with individuals who denied committing a theft. Judgments of the targets' guilt and their truthfulness were collected. As predicted, negative mood increased judges' skepticism towards the targets, and improved their accuracy in detecting deceptive communications, while judges in a positive mood were more trusting and gullible. The relevance of these findings for everyday judgments of trust and the detection of deception are considered, and their implications for recent affect-cognition theories are discussed.

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## Introduction

Does temporary mood influence people's tendency to believe or disbelieve others, and their accuracy in detecting deception? More generally, does affect influence the level of gullibility or skepticism we manifest towards others? One of the most difficult and demanding tasks in everyday social life is to decide whether a person is truthful or deceptive (Jones, 1964). In a sense, interpersonal trust lies at the very heart of effective social interaction and successful personal relationships. Monitoring the veracity of the interpersonal messages we receive is a demanding task (Bond & DePaulo, 2006; Kraut, 1980), requiring the use of elaborate and highly constructive cognitive processes. Too much faith in the truthfulness of others can be just as problematic as too much skepticism. Knowing when to believe or disbelieve a person is also of critical importance in forensic, judicial and investigative domains.

*Detecting deception*

A number of personality and situational variables can influence how people make decisions about trust. Surprisingly, we know little about how short-term moods may influence people's tendency to believe or disbelieve others, and their ability to detect deception

(cf. Lane & DePaulo, 1999). This is all the more surprising, given that credibility decisions are most often made in affect-rich contexts. For example, deciding whether or not to believe a romantic partner, a friend, a child or an employee are usually tasks loaded with affective significance. This paper seeks to extend recent work on affect and social cognition to the domain of veracity judgments, by demonstrating for the first time that temporary good or bad moods can have a systematic and predictable influence on skepticism and the ability to detect deception.

We know from past research that there are a number of reasons why people are overly trusting when assessing veracity, and are rather poor at detecting deception (Bond & DePaulo, 2006; Ekman & O'Sullivan, 1991; Levine, Park, & McCornack, 1999). Untrained people often hold naïve theories about cues to deception and thus often focus on the wrong behaviors when trying to distinguish truths from lies, such as the infrequency or unexpectedness of a described event (Fiedler, 1989), or the falsifiability of statements (Fiedler & Walka, 1993). Veracity judgments are also distorted by common errors, such as the "truth bias". This tendency to assume that others are truthful may prevent people from actively searching for cues to deception and so reduces detection accuracy (McCornack & Parks, 1986). Mood may well be one influence on the truth bias, as people in a negative mood are significantly less likely to form positive, lenient and optimistic inferences in ambiguous situations (Forgas, 1995, 2002; Forgas, Bower, & Krantz, 1984), one issue we will explore here.

Another source of gullibility and the poor ability to detect deception is the 'correspondence bias', the common tendency to

<sup>☆</sup> We thank Mark Frank for his help with the target videotapes, and we are grateful for financial support to Joseph P. Forgas from the Australian Research Council, the Alexander von Humboldt Research Prize and the Rockefeller Foundation.

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assume that observed behaviors correspond to genuine internal dispositions (O'Sullivan, 2003). Several experiments suggest that positive mood increases and negative mood decreases the correspondence bias (Forgas, 1998), and by implication, the tendency to accept communications as genuine. Extrapolating from recent research on affect and social cognition, we may expect that positive mood should increase, and negative mood decrease both the truth bias, and the correspondence bias. Thus, negative mood should increase skepticism, as dysphoric individuals form less positive and optimistic inferences (Forgas, 1995, 2002; Forgas et al., 1984), and should be less influenced by the truth bias and the correspondence bias (Forgas, 1998). The psychological mechanisms underlying these mood effects will be considered next.

#### *Mood effects on interpersonal trust*

Affective experiences penetrate every aspect of our lives, and play an important role in influencing many of our cognitive and behavioral strategies (Fiedler, 2001; Forgas, 2002). Extensive research in recent years showed that affective states often have a strong affect-congruent influence on thinking, memory and judgments, and also influence the kinds of information processing strategies people adopt in social situations (Bless, 2001; Bless & Fiedler, 2006; Fiedler, 2001; Forgas, 2002). Surprisingly, the role of affective states on interpersonal trust and the detection of deception have received little attention. This is particularly interesting, given strong recent evidence that mood states play an important role in how people process social information and how they make sense of observed social behaviors in particular (Fiedler, 2001; Forgas, 1994, 2002; Sedikides, 1995).

Our interest here is in mild mood states rather than emotions, as subconscious moods have been found to have more uniform, enduring and reliable cognitive and behavioral consequences than is the case with highly context-specific emotions (Forgas, 2006). For our purposes, we may define moods as low-intensity, diffuse and relatively enduring affective states without a salient antecedent cause and therefore little cognitive content, whereas emotions are more intense, short-lived and usually have a definite cause and clear cognitive content (Forgas, 1995, 2002). Recent affect-cognition theories suggest that there are two cognitive mechanisms that are responsible for mood effects on judgments: (1) *informational effects* (influencing the content and valence of cognition), and (2) *processing effects* (influencing the process of cognition).

#### *Informational effects*

Moods may influence veracity judgments by selectively priming information that is associatively linked to the current mood state within a network of memory representations (Bower, 1981; Forgas, 1995). Thus positive mood should prime a more positive, trusting evaluation of a message, and negative mood should prime greater skepticism and rejection. Consistent with the affect-priming model, numerous studies found a mood-congruent bias in the way people form a variety of social judgments (Bless & Fiedler, 2006; Fiedler, 2001; Forgas, 1994, 1995; Forgas et al., 1984; Niedenthal, Halberstadt, Margolin, & Innes-Ker, 2000). Recent integrative theories of affect and cognition such as the Affect Infusion Model (AIM; Forgas, 1995, 2002) specifically predict that such affect congruence should be greatest when a more elaborate, constructive processing strategy is required to perform a task, as would be the case with most veracity and truthfulness judgments (Fiedler, 2001; Forgas, 1995; Sedikides, 1995). Because veracity judgments typically require judges to go beyond the information given (Bond & DePaulo, 2006; Kraut, 1980; O'Sullivan, 2003), we expected a mood-congruent influence on the degree of trust people manifest when judging potentially deceptive communications. In particular, negative mood, by selectively priming negative information, should make

judges more skeptical and suspicious, resulting in a stricter criterion for accepting all communications as truthful.

#### *Processing effects of mood*

In addition to the mood-congruent informational effects discussed above, moods may also impact the way information is processed (*processing effects*). Several studies showed that people in a negative mood tend to process external information in a more accommodative, detailed and systematic manner while those in a positive mood tend to adopt a more assimilative, heuristic, top-down processing style (Bless, 2001; Fiedler, 2001). Interestingly, this is just this kind of externally focused processing style that should also facilitate the detection of false or deceptive interpersonal communications (Bless & Fiedler, 2006).

Consistent with such a mood-induced processing dichotomy, people in a negative mood use more detailed schemas, produce and process persuasive messages more systematically (Bless, 2001; Forgas, 2007), rely more on new, external information (Fiedler, Fladung, & Hemmeter, 1987), and have better memory for such details (Fiedler, Lachnit, Fay, & Krug, 1992). Negative mood, by promoting a more accommodative processing style also reduces the incidence of some judgmental errors such as the correspondence bias (Forgas, 1998), and improves the accuracy of eyewitness recollections (Forgas, Vargas, & Laham, 2005). Extrapolating from this evidence, we expect here that negative mood should improve judges' accuracy and *sensitivity* to deception by promoting a more careful, accommodative processing style. Furthermore, accommodative processing in negative mood should also reduce such common judgmental errors as the 'truth bias' and the correspondence bias, thus increasing the criterion for the acceptance of doubtful messages.

#### *The present research*

Based on the evidence surveyed above, we expected that by priming mood-congruent information, negative moods should produce a more skeptical, doubtful judgmental style and positive mood promote a more gullible stance in veracity judgments (an *informational effect*). Negative affect should also promote a more accommodative and attentive information *processing style* that improves detection *sensitivity* and also reduces positivity biases such as the truth bias and the correspondence bias (a *processing effect*). In signal detection terms, negative affect should thus have a dual influence, both improving *discrimination*, and also increasing the *criterion* for accepting messages as true. The joint effect of these two processes should be increased overall skepticism in negative mood, and the better detection of deception (but not truthfulness) compared to positive mood judges.

## **Method**

### *Overview, design and participants*

Participants reported to the laboratory for what was described as two unrelated studies involving social judgments. The first task (the mood induction) was described as designed to select videos for use in future experiments. As part of this task, participants watched brief 10-min edited video films designed to elicit positive, neutral and negative affective states. Next, participants viewed four video clips of males and females who were either honest or deceptive when denying an alleged theft during a taped interrogation. Participants then made judgments about the target's guilt or innocence, and their truthfulness. The design was thus a three by two mixed design, with mood (happy, neutral, sad) and deception (deceptive, honest) as the independent variables. Participants were 117 students (42 men and 75 women) who received course credit for their participation. Their mean age was 21.15 years.

### Creation of the target tapes

Great care was taken to construct complex and realistic target videotapes that showed people in genuine or deceitful acts of denying having committed an alleged crime (theft). Half the targets were honest in their denials (not in fact having committed the crime), and the other half were deceitful (having committed the theft). Target tapes were prepared of 24 male and female undergraduate students from the University of New South Wales aged between 17–26 who volunteered for an experiment about lie detection.

Participants were instructed to “enter a room alone, where you will find a movie ticket in an envelope. You can decide whether to take the movie ticket, or leave it the envelope without the knowledge of the experimenter. However, you should always deny taking the movie ticket when subsequently questioned”. In order to motivate a convincing performance, they were told that if their denials were accepted they could keep the ticket (whether they have in fact taken it or not). As a result, all targets tried to convincingly deny taking the ticket, but some of them were truthful, and some of them were deceitful in their denials.

Next they underwent a structured videotaped interrogation answering a series of questions about what they did as they entered the room, whether they have taken the movie ticket, etc. Each clip showed a head shot only of the target. The four target tapes were selected from the 24 interviews recorded as the most realistic and convincing. The four tapes featured interviews with two males and two females, one of whom was innocent and one guilty of the theft. There was a short break between presentations of the four targets, allowing for judgments to be made.

### Mood induction

Participants in the positive mood condition watched a 10 min excerpt from a British comedy series, those in the neutral mood watched an excerpt from a nature documentary, and those in the negative mood condition watched an edited excerpt from a feature film about dying of cancer. These films were successfully used before to induce strong and reliable mood states (Forgas, 2002).

### Veracity judgments

Judges were instructed to watch “four brief interviews of students who have been accused of stealing a movie pass, some of whom may be deceitful in denying the theft”. Judges were also informed that there was more than one movie pass, so all targets could potentially be guilty of stealing. After each interview, judges decided whether the target was guilty or innocent of taking the movie pass, and rated the veracity of each target on an 8-point lying-truthful scale.

### Debriefing and mood validation

Participants were asked to complete a ‘Post-experimental questionnaire’, asking them, among other distracter questions, to indicate how the mood induction films made them feel on 8-point good-bad and happy-sad scales (the mood manipulation check). As in most prior studies, the mood manipulation check was carried out after the main experiment, consistent with past evidence showing that prematurely calling attention to the participants’ mood state may trigger motivated processing and may interfere with induced mood effects (Forgas, 2002). A careful debriefing concluded the procedure. We found no evidence of any awareness of the hypotheses or the manipulations. Care was taken to eliminate any residual mood effects.

## Results

### Mood validation

A planned contrast ANOVA of the mood self-ratings indicated that the mood manipulation was successful. The two mood assessment scales were highly correlated (*Chronbach's*  $\alpha = 0.89$ ), so were combined to form a single measure of mood valence. Participants in the happy mood condition felt significantly more positive ( $M = 5.3$ ,  $SD = 1.23$ ) than did those in the neutral mood condition ( $M = 4.1$ ,  $SD = 1.57$ ),  $F(1, 75) = 12.39$ ,  $p < .01$ ). Similarly, participants in the sad mood condition reported feeling significantly more negative mood ( $M = 2.97$ ,  $SD = 1.12$ ) than did those in the happy;  $F(1, 78) = 24.57$ ,  $p < .01$ ) and in the neutral conditions  $F(1, 75) = 14.47$ ,  $p < .01$ , respectively). These results confirm that the mood induction was indeed highly effective in producing significantly different affective states in the positive, neutral and negative mood groups.

### Judgments of guilt

The average guilt judgments for each judge were calculated (where 0 = not guilty, 1 = guilty) within each condition. As a Shapiro-Wilks test revealed no significant deviation from normality for this distribution,  $W = .963$ ;  $p = .24$ , these data were then entered into a 3 (Mood: positive, neutral, negative)  $\times$  2 (Deception: deceitful/honest) planned contrast ANOVA.

As predicted, we found a significant mood main effect on judgments of guilt,  $F(2, 114) = 12.51$ ,  $p < .01$ . Sad participants made significantly more guilty judgments than did happy,  $F(1, 78) = 10.56$ ,  $p < .01$ , or neutral judges,  $F(1, 75) = 6.86$ ,  $p < .05$ , but the difference between the neutral and the happy groups was not significant; see Fig. 1). The *deceptiveness* of the target’s communication (comparing those whose denials were truthful or deceptive) also had a highly significant main effect on judgments of guilt  $F(1, 114) = 64.85$ ,  $p < .01$ . Overall, judges were significantly less likely to attribute guilt to truthful targets (denials by innocent targets), than those who were deceptive, indicating that judges were well able to discriminate truthful from deceptive denials in determining guilt.

As expected, we also found a significant interaction between mood and deceptiveness, indicating that mood had a greater influence on guilt judgments of deceptive rather than truthful commu-

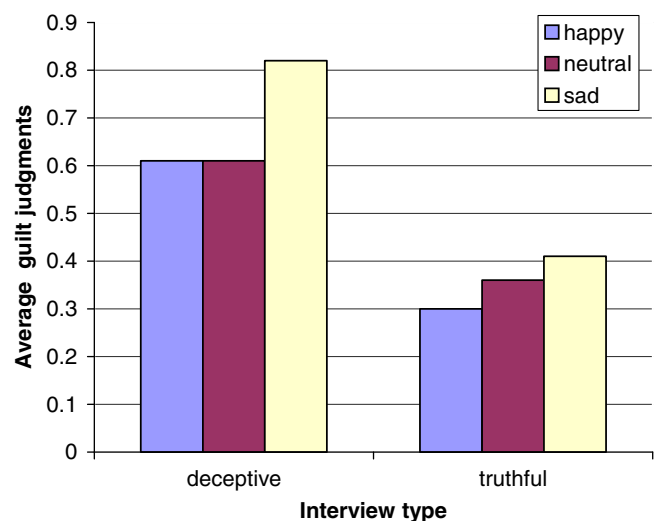


Fig. 1. The effects of mood and the target’s veracity (truthful, deceptive) on judgments of guilt of targets accused of committing a theft (average percentage of targets judged guilty in each condition).

nications,  $F(2, 114) = 4.83$ ;  $p < .05$ . An analysis of simple effects revealed that those in a negative mood formed significantly more guilty judgments of deceptive (guilty) rather than honest (innocent) targets,  $F(1, 38) = 11.34$ ,  $p < .01$ . Those in a happy and neutral mood failed to significantly discriminate between innocent and guilty targets. In other words, this analysis confirms that negative affect produced a significant advantage at accurately identifying guilt from deceptive communications.

Looking at deceptive communications separately, we also found that sad persons were significantly better at detecting deceptive communications and attributing guilt than were happy or neutral people,  $F(1, 78) = 9.30$ ,  $p < .01$ ,  $F(1, 75) = 7.88$ ;  $p < .01$ ; see Fig. 1). A similar analysis of truthful communications (denials by innocents) showed no differences between happy, neutral and sad groups in their ability to make correct not guilty judgments. We also found that the detection of deception rates were significantly better than chance (50%) by those in negative mood,  $t(39) = 8.51$ ;  $p < .01$ , whereas neutral and happy mood participants did not detect guilt above chance level,  $t(36) = 1.85$ ;  $ns$ , and  $t(39) = 1.16$ ;  $ns$ .

These results show that as predicted, those experiencing negative affect were able to detect deception at a rate significantly better than did happy and neutral mood participants even when targets engaged in elaborate and motivated deception to deny responsibility. In contrast, mood did not impact on participants' ability to accurately identify truths. This pattern is consistent with the predicted dual influence of negative affect on both increasing discrimination and detection sensitivity (through facilitating more attentive, accommodative processing), and also increasing overall skepticism and producing a stricter criterion for accepting messages as truthful (through negative affect priming and by reducing the truth bias and the fundamental attribution error).

#### Signal detection analysis

Next, in order to provide an overall measure of detection performance, a signal detection analysis based on all responses was carried out. As the range of judgments by individuals was too restricted, the  $d'$  and  $C$  indices were calculated for each group of happy, neutral and sad participants attempting to detect truthful, or deceptive communications. First, the overall hit rate and false alarm rate for each experimental group was calculated and measures of discrimination ( $d'$ ) and bias ( $C$ ) were derived using log transformed data to approximate a normal distribution using a method suggested by Brophy (1986). Higher values on the discrimination ( $d'$ ) measure indicate a greater ability to discriminate between deceptive vs. truthful targets. More positive values on the bias ( $C$ ) measure indicate a stricter and more conservative bias of rejecting doubtful information as incorrect, while negative values indicate a liberal bias of accepting information as correct.

The signal detection indices show that sad judges were overall more accurate in detecting deception (identifying guilty targets as guilty) than were neutral or happy judges ( $d' = 1.15$ , vs. .64, vs. .81, respectively), and they also displayed a higher overall conservative bias ( $C = .53$ , .35, .22, respectively). As implied by affect-cognition theories, these results support the prediction that negative mood should have a dual effect, increasing discrimination and detection sensitivity, and also producing a stricter and more conservative criterion for acceptance, increasing overall rejection rates, or skepticism. Whereas improved discrimination in negative mood should benefit the accurate detection of both truths and lies, an increased conservative bias in contrast should only improve the hit rate for deceptive messages but reduce the hit rate for truthful messages, a pattern that fits our findings here.

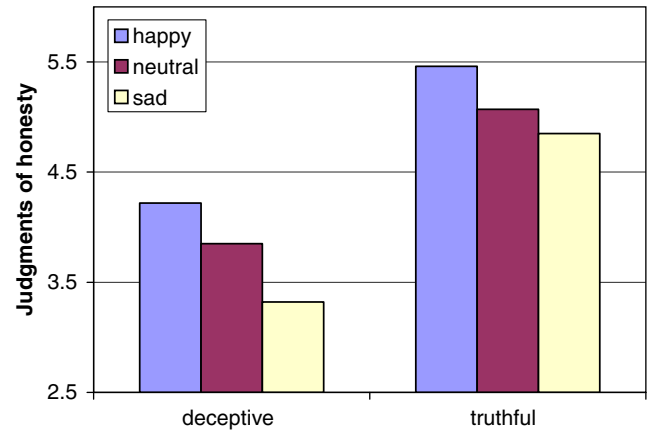


Fig. 2. The effects of mood and the target's veracity (truthful, deceptive) on judgments of the honesty of targets accused of committing a theft (mean ratings on 8-point scales).

#### Veracity ratings

An ANOVA of judgments of the targets' truthfulness on 8-point scales revealed a significant main effect due to the deceptiveness of their denials,  $F(1, 114) = 66.15$ ,  $p < .01$  (see Fig. 2). Overall, truthful targets were rated as significantly more credible than deceptive targets, confirming previous research that people are able to differentiate truthful from deceptive messages at a level better than chance (Bond & DePaulo, 2006). Further, as predicted, we also found a significant mood main effect on veracity ratings,  $F(2, 114) = 12.96$ ,  $p < .05$ . Those in a positive mood were significantly more likely to judge communications as truthful than did persons in a negative mood,  $F(1, 78) = 4.85$ ,  $p < .05$ . The neutral group occupied an intermediate position that was not significantly different from the negative or the positive groups,  $F(1, 75) = 3.24$ ;  $ns$  and  $F(1, 75) = 3.37$ ,  $ns$ . There was however no significant interaction between mood and target veracity on truthfulness judgments, suggesting that positive mood reduced, and negative mood increased skepticism towards both truthful and deceptive messages.

#### Discussion

These results provide clear evidence that transient mood can influence the level of gullibility or skepticism people display when evaluating others. Deciding when to trust, and when to be skeptical towards others is one of the most difficult and cognitively demanding tasks we all face in everyday life (Jones, 1964). Specifically, the data support our hypothesis that positive mood increases, and negative mood decreases people's tendency to accept the veracity of others' communications. Most interestingly, mood also had a significant influence on people's accuracy at detecting deception. We found that sad people were better able than happy and neutral mood people to accurately identify lies. These results have some interesting theoretical and practical implications for understanding the influence of mood on interpersonal skepticism.

#### Theoretical implications

This study extends previous work on mood effects on impression formation (Forgas & Bower, 1987; Forgas et al., 1984) to the new domain of judgments about trust, veracity and the detection of deception. Veracity judgments represent a demanding and constructive cognitive task that requires individuals to infer truthfulness from observed communications (Forgas, 2002). It is just these kinds of constructive judgments that have been found to

be particularly subject to mood-congruent biases in the past (Fiedler, 2001; Forgas, 1994, 1995; Sedikides, 1995). Recent affect-cognition research suggests that negative affect generally contributes to a more cautious, avoidant, pessimistic and critical interpersonal style, due to the selective priming and greater accessibility of negative information in memory. Positive moods on the other hand tend to produce a more benign, confident and optimistic interpretation of social situations, and reduced levels of suspiciousness as was found here (Forgas, 1999, 2002).

Our findings are also theoretically and empirically consistent with a growing body of literature highlighting the apparently beneficial processing effects of negative mood for a variety of social cognitive tasks (Bless, 2001; Bless & Fiedler, 2006; Fiedler, 2001). We found that in addition to priming negative information and increasing overall skepticism, negative affect also produced a specific advantage in sensitivity to detect deception. Those in negative mood detected deception significantly better than chance, and did better than neutral or happy participants. The cognitive benefits of negative affect can be understood in terms of the more accommodative, externally oriented processing style it induces (Bless & Fiedler, 2006) that reduces some judgmental errors, improves eyewitness accuracy, and improves the efficacy of strategic communications such as persuasive messages (Forgas, 1998, 2007; Forgas et al., 2005).

In our case, negative mood only facilitated the detection of lies, but had no significant beneficial effect on detecting truthfulness. This pattern is consistent with our prediction that negative moods have the dual processing and informational effect of both (1) increasing detection *sensitivity* (improve the accuracy of detecting both truthful and deceptive communications), and also (2) lead to more skeptical, negative stance in accepting fewer messages that will improve the detection of lies only. Thus, in signal detection terms, increased *discrimination* in negative mood should result in the better detection of both deception and truth, but the more skeptical, negative *criterion setting* should only increase hit rates for deception, and decrease hit rates for truth. Jointly, these processing and informational effects should produce just the pattern of findings we obtained, that is, the better detection of deception only but not truthfulness in negative mood (Figs. 1 and 2).

#### Practical implications

The ability to correctly detect truths and lies is of crucial importance in many applied settings, and is an important task for professionals such as jurors, judges, police officers, lawyers and psychologists in their daily work. Knowing when to trust, and when to distrust our acquaintances, friends and romantic partners is also of great importance in managing our daily interactions and personal relationships. The present demonstration of a mood effect on veracity judgments has some interesting practical implications. For example, realizing that positive mood increases, and negative mood decreases our tendency to accept communications as truthful could be an important aspect of 'affective intelligence' in everyday interpersonal encounters (Ciarrochi, Forgas, & Mayer, 2006).

Forensic professionals who routinely perform veracity judgments often do so in emotionally charged situations. Becoming more aware of mood effects on their judgments may be a potentially important skill. However, some care should be taken in generalizing our findings to real-life settings. Although the deceptive situation studied here was 'real' in the sense that communicators were genuinely motivated to deceive, it did not fully correspond to deceptive communications in real-life, as the transgression was sanctioned, and denials, although motivated, did not have serious personal consequences. Clearly it would be important to further assess the effects of mood on veracity judgments in real-life environments, such as in investigative, forensic and clinical settings.

Our findings may also help to highlight the potentially beneficial effects of negative mood and the possible undesirable consequences of good mood in some circumstances. There has been much emphasis on the various benefits of positive mood in the recent applied literature in clinical, organizational, counselling and health psychology (Ciarrochi et al., 2006). Happy people are often thought to be more creative, flexible, motivated and effective on a number of tasks (Forgas & George, 2001). Our findings, together with a growing number of recent experimental studies, suggest that positive affect is not always desirable. Several studies now show that people in a good mood are more likely to commit judgmental errors (Forgas, 1998), are more prone to eyewitness errors (Forgas et al., 2005), and are less effective persuaders (Forgas, 2007). To this list we may now add another caveat: people in a positive mood may also be more gullible and less able to detect deception than are people in negative mood. These findings thus extend the recent literature on mood effects on cognition and judgments (Bless & Fiedler, 2006; Fiedler, 2001; Forgas, 2002) to the new domain of veracity judgments, by showing that negative affect can produce desirable cognitive consequences in the performance of tasks such as the detection of deception.

#### Limitations and future directions

There are also some obvious limitations to these results. Past evidence suggests that mood effects on cognition often depend on contextual cues and the kind of processing strategy adopted by people in a given situation (Fiedler, 2001; Forgas, 1995, 2002; Sedikides, 1995). For example, mood effects may be different or even absent when the deceptive communication is of direct personal relevance and people adopt more motivated processing strategies. Mood effects on gullibility vs. skepticism may also be highly sensitive to a variety of other pragmatic and situational variables such as the motivations, personality and affective intelligence of the individual. For example, Lane and DePaulo (1999) found that dispositionally dysphoric individuals were only better at detecting specific types of lies, namely false reassurances, perhaps because these are the type of deceptive communications they are likely to be exposed to themselves.

Further, although we found that mood mainly affected judgments of deceptive rather than truthful communications, this finding may be influenced by the fact that the deception base rate here was 50%. In real life, assuming that truthful communication is the norm, the natural base rate could be much lower. If so, the truth bias promoted by positive mood here may well reflect the base rate in the natural environment, and performance in good mood may be much better in an experiment that uses a significantly lower deception base rate.

We should also note that following Rosenthal and Rosnow's (1995) suggestions, care should be taken when interpreting the interaction effects, as the plot of means "is a plot of not only the interaction but also of other components" (p. 5). Thus, although the results suggest that mood mainly affects judgments of deceptive rather than truthful communications, this finding could be qualified when one removes the mood main effect consistent with the assumptions of interaction analysis. Also, although the Shapiro-Wilks test confirmed that the raw data for the ANOVA analyses of guilt ratings did not significantly deviate from the normal distribution, in future studies it would be preferable to obtain interval scale raw data for such judgments.

Finally, future research may well explore mood effects on skepticism and veracity judgments in more complex and realistic interactive situations. Even though considerable effort was made here to make the deception situation realistic, real-life instances of deception may vary in a number of respects. Fortunately, to the extent that our results were consistent across a number of dependent measures,

and are consistent with existing affect-cognition theories (Forgas, 2006, 2007), we can be reasonably confident that the findings are reliable.

Another issue is that the deception situation used in this study involved only one type of deception, specifically, denials of wrongdoing. It seems that the kinds of cues people use in detecting deception partly depend on the nature of the deceptive communication itself (Vrij & Baxter, 1999). Future research might profitably explore mood effects on qualitatively different kinds of deceptive communications, such as ingratiation, dishonest claims of achievements, etc. (Jones, 1964).

In addition to exploring non-specific mood effects, future studies may also look at the consequences of specific emotions, such as fear, disgust and anger on gullibility and skepticism (e.g., Lerner & Keltner, 2001). We know for example that fear and disgust are typically associated with avoidant behaviors, whereas anger tends to elicit aggression. It may well be that the specific behavioral tendencies associated with specific emotions also have a distinct influence on the tendency to trust or distrust communications from others, a promising topic for future investigations.

In summary, judging the veracity of interpersonal communications in everyday situations can be a demanding cognitive task that requires highly constructive processing strategies (Bond & DePaulo, 2006). Despite recent advances in affect research, we still know relatively little about how feelings impact on the degree of skepticism or gullibility people bring to the task, and their accuracy in detecting deception. This study extends recent research on affect and social cognition (Bower, 1981; Fiedler, 2001; Forgas, 1995, 2002) to the new domain of trust-related judgments, and shows that negative mood can increase, and positive mood decrease people's scepticism, and actual accuracy in detecting deceptive communications. This experiment represents a first promising step in exploring the consequences of affective states on gullibility and veracity judgments, and the cognitive processes underlying these effects. Encouragingly, our findings seem highly consistent with recent affect-cognition theories (Bless, 2001; Fiedler, 2001; Forgas, 1995, 2002), and suggest that further research on affective influences on veracity judgments and the detection of deception should be of considerable theoretical as well as applied interest.

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