

Research article

Mood and positive testing in social interaction

BENOIT DARDENNE*, MURIEL DUMONT, CHRISTINE GRÉGOIRE† AND MARIE SARLET†
Department of Cognitive Science, University of Liège, Liège, Belgium

Abstract

Why, how and when does mood influence positive testing, that is, the selection of matching questions, when people actively search for information about others they meet? In four experiments, we demonstrated that happy mood increased positive testing compared to sad mood. Experiment 1 showed that happy participants were more strongly motivated to get along and smooth the interaction to come than sad ones. In addition, evidence was provided by a mediation analysis that happy mood increased the preference for positive testing because of such an improved motivation to get along. Furthermore, Experiment 2 showed that happy participants' preference for positive testing vanished when cognitive resources were limited. The preference for positive testing appeared under happy mood only when the context made salient the goal to get along (Experiments 3 and 4). Together, these results suggest that positive testing in a social-hypothesis testing paradigm may have social values. Copyright © 2009 John Wiley & Sons, Ltd.

Affective states colour how people think and how they use information when interacting with others. Being happy or sad influences many steps of information processing, such as attention to information, selective encoding and retrieval or evaluative judgment. Surprisingly, however, nearly all of the research we could cite relies on participants that process information passively received. What about the impact of mood on the way people actively gather information about another person? This question has so far received very little if any attention. In this paper, we propose to investigate the moderating role of positive and negative mood on people's tendency to engage in positive testing, that is, using matching questions that focus on the same attributes as the hypothesis to be tested. Specifically, we are interested in why, how and when mood influences the way people actively use positive testing about others they meet.

MOOD, PROCESSING STYLE AND GOAL PURSUIT

As recently reviewed by Schwarz and Clore (2007; see also Fiedler, 2000, 2001), numerous studies indicate clearly that positive mood tends to elicit greater top-down, global and assimilative style of information processing than neutral or negative mood states. Negative mood, conversely, promotes greater bottom-up, local and accommodative processing style. Indeed, there is no suspense here: compared to negative or neutral moods, positive mood increases reliance on scripts (e.g. Bless, Clore, Schwarz, Golisano, Rabe, & Wölk, 1996), schemas (e.g. Gasper & Clore, 2002), stereotypes (e.g. Bless,

Schwarz, & Kimmelmeier, 1996; Bodenhausen, Kramer, & Susser, 1994) and leads to greater abstractness in the representation of behaviours (e.g. Beukeboom & Semin, 2005) and even construal as well as goals (e.g. Labroo & Patrick, 2009).

One explanation is that mood serves as information about the value and significance of whatever comes to mind. According to Clore and Huntsinger (2007), positive mood validates any accessible cognition or information and as a matter of fact any dominant response, whereas negative mood would not or even could invalidate them. In a similar way, positive mood, compared to negative one, promotes relational processing (i.e. relating the information to one's own expectancy). These propositions are indeed perfectly consistent with the idea that mood is a moderator influencing processing style by serving as experiential (and bodily) information regarding what reaction is to be taken with respect to the situation and/or the target of a judgment. According to this affect-as-information model (Bless, 2000; Clore & Storbeck, 2006; Schwarz, 1990), positive mood suggests that the situation is benign and that the target does not carry any danger. Because no special action is to be taken, positive mood leads to top-down use of pre-existing knowledge, such as category or stereotype. Conversely, negative mood suggests that the situation and/or the target involve a threat and that some action is to be taken. This fosters paying attention to the details of the situation through systematic or bottom-up information processing in order to (eventually) prevent negative consequences related to the threat from occurring. Many scholars have also pleaded for similar ideas; positive affect instigates an assimilative and approach goal state

*Correspondence to: Benoit Dardenne, Department of Cognitive Science, Boulevard du Rectorat 5 (B-32), B-4000 Liège (Sart-Tilman), Belgium.
E-mail: b.dardenne@ulg.ac.be

†Research Fellow at the FRS, Fonds National de la Recherche Scientifique, Belgium.

whereas negative affect promotes a more accommodative and aversive goal state (see for instance, Bierhoff, 1988; Cunningham, 1988; Eisenberg, Losoya, & Spinrad, 2003; Fiedler, 2000, 2001; Grégoire & Dardenne, 2004; Isen, 1987; Larsen, McGraw, & Cacioppo, 2001; Schaller & Cialdini, 1990).

Furthermore, a recent research by Fishbach and Labroo (2007; see also Custers & Aarts, 2005) nicely illustrates the effect of mood on the pursuit of any accessible goal state. A goal could be defined as a cognitive representation of a desired endpoint. These abstract representations can become more or less accessible through contextual cues and they guide behaviour toward attainment of these goal states without necessarily involving conscious planning. According to Fishbach and Labroo (2007), positive mood, compared to negative mood, would facilitate adherence to any accessible goal and then the pursuit of congruent actions. As a matter of fact, positive mood increases the tendency to adopt goals, regardless of the exact goal content (precisely, whether it involves self-improvement or mood management). Although we very briefly mentioned some studies that manipulated mood, the majority of the research on mood and goal states has however studied mood as a consequence of goal pursuit rather than as a moderator (for a review, see Fishbach & Ferguson, 2007).

In sum, the message seems to be that positive mood means 'go' with the activated or accessible information or goal whereas negative mood means 'stop' and then 'do something about it'. In this paper, we are mainly concerned with social interaction. In such a context, what could be the activated goal state? There are of course many goal states that could be chased in life, from achievement at school to getting a cup of coffee. In social interaction also, one could strive for multiple goals, from appearing likeable and/or competent to appearing dangerous and/or helpless. However, one prominent goal in most social interactions, besides accuracy, is certainly to get along well with others and have a smooth and pleasant interpersonal interaction (Baumeister & Leary, 1995; Fiske, 2002; Snyder, 1992; Stevens & Fiske, 1995). Indeed, relating to other people, affiliating with them, and maintaining and creating interpersonal and social links are amongst the most important basic human needs (Pittman & Zeigler, 2007). According to the literature we just reviewed, positive mood should facilitate adherence to the goal of getting along, as this goal is certainly accessible when one is about to start a social interaction.

Note that positive affect does not necessarily imply that happy individuals are lazier than sad individuals. That is, relying on 'usual routines', whatever the information or cognition coming to mind, or on one's most accessible goal state, does not imply that happy individuals are not able or willing to engage in effortful processing. When the task demands (Bless et al., 1996) or explicit instructions (Bless, Bohner, Schwarz, & Strack, 1990) require effortful processing, happy individuals can be motivated to process the information and to adopt goals requiring cognitive resources (see also Bodenhausen et al., 1994; Hildebrand-Saints & Weary, 1989; Isbell, 2004; Krauth-Gruber & Ric, 2000; Schwarz, 2002). This is of course inconsistent with the proposal that positive mood limits cognitive resources or impairs processing motivation (e.g. Mackie & Worth, 1989; Schwarz & Bless, 1991).

SOCIAL-HYPOTHESIS TESTING

Importantly, as mentioned above, most of the research devoted to the influence of affect on cognition has examined people's processing style when they are passively receiving information. The very few studies that have investigated the impact of mood on information people seek out about another person seem however to confirm the idea that, contrary to positive mood, negative mood leads to favour the most detailed and, subjectively at least, informative information. However, to the best of our knowledge, in all these studies, participants had very poor if any information at all about the target. Isbell, Burns, and Haar (2005) examined active information search about a totally unknown target simply called Carol. Similarly, Hildebrand-Saints and Weary (1989; see also Edwards, Weary, von Hippel, & Jacobson, 2000) told their participants that they were about to interview an *unknown* individual (simply described as a college freshman) and asked them to cover a wide range of contents (a rather vague and imprecise task).

The above studies are crucial but they all investigated information search strategies when people have no clue about whom the target is. However, very often, people have existing beliefs, expectations or a hypothesis in hand about the interaction partner. All the experiments reported in the present paper used the so-called 'social-hypothesis testing paradigm' as initiated by Snyder and Swann (1978). In that paradigm, people decide what kind of information to seek for or what kind of questions to ask to an interviewee about whom they have an expectation. Past research using that paradigm has shown that, in choosing questions and conducting interviews, people often ask the target about features that are consistent with their own expectancy (i.e. asking 'Do you like crowded parties?' to an extrovert) rather than inconsistent (i.e. asking 'Do you enjoy staying alone at home?' to an extrovert). Then, independently of mood state, perceivers preferentially engage in *positive testing* or *matching tendency*, seeking additional information that focuses on the same attributes as the initial information (e.g. Cameron & Trope, 2004; Johnston, 1996; Johnston & Macrae, 1994; Trope & Thompson, 1997; see also Friedrich, 1993; Klayman, 1995; Klayman & Ha, 1987, 1989; Nickerson, 1998).

Research on social-hypothesis testing has also showed that people who are chronically or momentarily instructed to be oriented toward the smoothness of the social interaction displayed an even stronger preference for positive testing (Dardenne & Leyens, 1995; Dumont, Yzerbyt, Snyder, Mathieu, Comblain, & Scaillet, 2003; Leyens, Dardenne, & Fiske, 1998; Snyder, 1992; Snyder & Haugen, 1994; Snyder & Stukas, 1999; Swann & Giuliano, 1987). As suggested by Leyens, Dardenne, Yzerbyt, Scaillet, and Snyder (1999), a reason for this is that positive testing might lead perceivers to feel adapted to the target who, in turn, may experience the interaction as being personalized. In short, these authors proposed that positive testing might be a by-product of a goal to get along with others.

THE PRESENT STUDIES

We expected positive mood to promote a general tendency to adopt any current goal state that is accessible and, in a social

interaction context, one such a goal is very probably to have a smooth and pleasant interaction. Then, happy individuals, compared to sad ones, should strive more for getting along with other. Experiment 1 tested whether happy (vs. sad) mood increases both the motivation to adopt the goal to get along and the preference for positive testing. Furthermore, Experiment 1 also tested the hypothesis that positive testing under happy mood is mediated by the motivation to get along.

In the rest of the studies, we tested some implications of our theoretical reasoning. If positive testing is a by-product of a motivation to get along and if it is a rather effortful and demanding strategy, then decreasing cognitive resources with a cognitive load manipulation should impair positive testing (Experiment 2). Furthermore, we manipulated directly some contextual factors that should increase the motivation to get along. (De Dreu & Van Kleef, 2004; Jones, 1986; Keltner, Gruenfeld, and Anderson, 2003) claimed that encountering a high status person increases attention to reward and punishment, which makes a social encounter with the powerful more significant than encounter with powerless people. We then proposed that the motivation to get along should be especially high when interviewing a high status person (vs. equal status, Experiment 3). Similarly, expecting a face-to-face interaction (vs. not expecting such an interaction) is certainly a context in which the goal of getting along should be particularly salient and accessible (Experiment 4). In both cases, we therefore expected an increase in positive testing under positive mood when the context fosters the goal to get along as compared to when the goal is less salient.

In Experiments 1–4, we also investigated the nature of the positive testing tendency, under the form of diagnostic and constraining type of information seeking. Questions are diagnostic if they discriminate between the hypothesis or profile and its alternatives and, generally, could be answered yes or no. For instance, a question like ‘Do you like to tell jokes in front of others?’ is most likely to be answered ‘yes’ by an extrovert person but more likely to be answered ‘no’ by a person who is not an extrovert. Answers to such questions thus provide direct evidence confirming or infirming the hypothesis. Questions are constraining if they preclude the interviewee from answering in a complete agreement with her or his true personality. That is, any answer to that kind of questions would confirm the hypothesis held. As an example, a question like ‘What kind of jokes do you often tell in front of others?’ leads to a variety of answers that will be appraised as consistent and confirming the extrovert hypothesis. Research has shown an overwhelming preference for diagnostic information search, at least when people are motivated to develop an accurate impression (Devine, Hirt, & Gehrke, 1990; Klayman & Ha, 1987; Skov & Sherman, 1986; Trope & Bassok, 1983). In contrast, constraining information has so far received little attention. This may be partly explained by the fact that such questions are assumed to be rarely used. However, Leyens (1989) as well as De Dreu and Van Kleef (2004) provided evidence that constraining questions are formulated more often during real interview than when questions are to be selected before an interview. Presumably, constraining questions might have some values that appeared only in real social interaction.

EXPERIMENT 1

Method

Participants and Overview

Twenty-eight students were told that they would participate in two ostensibly unrelated tasks. They were told that the first one concerned the recall of a personal life event (mood induction), while the second one was briefly mentioned as a short encounter with a stranger who described him/herself in a very brief profile (either as an introvert or as an extrovert, $N = 14$ for each profile).

Procedure

Participants were induced with positive or negative mood by asking them to recall a happy or a sad recent and vivid event. The experimenter explained that a colleague of hers, from another Department, was in the process of constructing a ‘Life Event Inventory’ that required a large amount of vivid life events. This mood manipulation has been extensively used in prior research (e.g. Isbell, 2004; Isbell et al., 2005; Krauth-Gruber & Ric, 2000). Participants were given approximately 10 minutes to complete the task.

Participants then indicated the extent to which four adjectives described their current state of mind using a scale from 1 (not at all) to 9 (extremely well). The words ‘happy’ and ‘sad’ were embedded in this list as a check for the mood manipulation. In an ostensibly unrelated task, in order to assess participants’ motivation to get along and to smooth the interaction, they were asked eight questions about how they intended to behave during the forthcoming interaction. Inspired by the Self-Monitoring Scale (Snyder & Gangestad, 1986), these items explicitly assessed the extent to which participants wanted to get along with the partner and to control and regulate their self-presentation and expressive behaviours in order to make the forthcoming interaction smooth and pleasant on a scale from 1 (not at all) to 7 (totally). Examples of these items are ‘I’ll do my best to have a pleasant meeting’, ‘I’ll try to make the person feel at ease’ and ‘I’ll try to do what is necessary for us to have a nice time together’ ($\alpha = .86$).

All the participants believed they were about to ask the questions themselves to the interviewee in a forthcoming face-to-face interaction. The experimenter further explained that this will help her to understand how people conduct an interview. Participants’ task was then to select questions in order to form an impression of the interviewee, that is, if the person is really like the self-description she/he gave on an introversion/extroversion scale (or profile). On a 21-point scale anchored with the labels *introvert* (0) and *extrovert* (20), the interviewee had allegedly circled either the number 5 or the number 15. The labels were accompanied by short definitions (respectively: inner-oriented, timid and reserved; vs. other-oriented, sociable and outgoing).

Finally, participants completed the questions selection task (according to the procedure of Trope & Bassok, 1983, and Devine et al., 1990). All the participants received 16 cards with one question written on each. The cards were arranged in a random order unique for each participant. Participants were

asked to select eight questions. The list was said to be provided in order to make the questions selection task easier. They went through the cards at their own pace and were asked to sort the questions into two piles: eight questions they did *not* want to ask, and eight questions they did want to ask to the interviewee. The 16 questions were issued from Dardenne and Leyens (1995; Leyens et al., 1998): eight questions were matching an extrovert personality and the remaining was matching an introvert personality. For instance, if the interviewee described him/herself as an introvert, a matching question would involve that person's desire to stay alone whereas a nonmatching question would involve that person's willingness to tell jokes in front of others. Besides, questions were either diagnostic or constraining. Both diagnostic and constraining questions could match or not the hypothesis. For instance, an individual who believes that the interviewee is an introvert may ask 'Do you like to work alone?' (Diagnostic and matching question); 'What kind of situations makes you feel ill-at-ease and awkward?' (Constraining and matching question), 'Do you like charades and playing theatre?' (Diagnostic and non-matching question); or 'Why do you like to be in a group with other persons?' (Constraining and nonmatching question). These questions were pretested such that they were as easy to ask whatever the category (see Dardenne & Leyens, 1995).

When the questions selection task had been completed, participants were probed for suspicion, thanked and debriefed. In all the experiments reported in this paper, the experimenters were trained in clinical psychology and were instructed to pay attention to the feelings of participants, especially in the sad mood condition.

Results and Discussion

Manipulation Check

As expected, participants were happier after recalling a happy ($M = 7.86$) than a sad ($M = 4.93$) life event, $F(1, 26) = 13.86$, $p < .001$, $\eta^2 = .35$. Similarly, participants were sadder after recalling a sad ($M = 4.71$) than a happy episode ($M = 1.64$), $F(1, 26) = 15.32$, $p < .001$, $\eta^2 = .37$.

Motivation to Get Along

Answers to the questions about the motivation to get along with the target during the expected forthcoming interaction were combined into a single measure. We then submitted it to a 2 (positive vs. negative mood) \times 2 (introvert vs. extrovert profile) ANOVA. Confirming our hypothesis, participants in

the positive mood condition expressed greater motivation to get along with the target ($M = 5.83$) than participants in the negative mood condition ($M = 4.94$), $F(1, 27) = 6.25$, $p < .05$, $\eta^2 = .21$. No other effects were significant.

Questions Selection Task

The number of selected questions were submitted to a Mood (positive vs. negative) \times Profile (introvert vs. extrovert) \times Information search (matching vs. nonmatching) \times Question type (diagnostic vs. constraining) ANOVA. Mood and profile were between-subjects variables. Information search and question type were within-subjects variables. Note that with such a design, the amount of matching plus nonmatching questions selected necessarily summed to 8 (same for diagnostic plus constraining questions). Then, the pattern of results for one kind of questions (e.g. matching) mirrors its counterpart (nonmatching). Consistent with our hypothesis, more matching questions were selected by happy ($M = 4.50$) than by sad participants ($M = 3.50$), as reflected by an interaction between mood and information search, $F(1, 24) = 3.88$, $p = .06$, $\eta^2 = .14$. No other effects were found. The lack of a three-way interaction between mood, information search and type of questions, $F(1, 72) < 1$, indicated that positive mood participants gathered constraining and diagnostic matching information to the same extent. Overall though, participants displayed more positive testing under positive than negative mood.

Mediation Analysis

The mediation hypothesis concerning the effect of mood on positive testing was examined in a regression analysis including both moods (coded as -1 if negative and 1 if positive) and the measure of motivation to get along as predictors. According to Baron and Kenny (1986), three relationships must be demonstrated in order to test mediation (see Figure 1). First, we confirmed that our manipulation of mood predicted the motivation to get along ($\beta = .47$, $p < .05$) as well as positive testing ($\beta = .39$, $p < .05$). Second, motivation to get along predicted positive testing ($\beta = .60$, $p < .001$). Third, as can be seen in Figure 1, the direct effect of mood on positive testing was no longer significant when the motivation to get along was entered into the regression analysis, $\beta = .14$, $p > .40$, whereas the motivation to get along still predicted the amount of positive testing, $\beta = .53$, $p < .01$. The (conservative) Sobel test further confirmed that the reduction in the direct effect of mood on positive testing was significant ($z = 2.00$; $p < .05$). As a further statistical validation

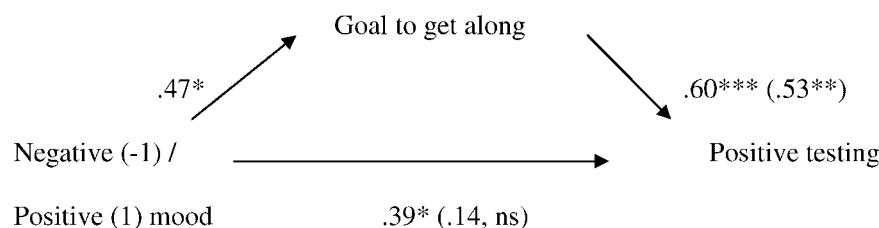


Figure 1. Goal to get along with the interaction target as a mediator of the preference for matching questions when positive or negative mood is induced (Experiment 1). Note: Coefficients inside parentheses are parameter estimates for a regression model containing both predictors. * $p < .05$; ** $p < .01$; *** $p < .001$

of this mediation, we adopted Preacher and Hayes' (2008) bootstrapping procedure (with 5000 resamples). The advantage of the bootstrapped estimates is that they are not based on any distributional assumptions regarding the error terms or, importantly, large sample size. The indirect effect of mood on positive testing through the proposed mediator was .33, with a standard error of .14, 95% confidence interval [.092, .665], which then further validated our mediation hypothesis.

Confirming our hypotheses, the preference for positive testing (under the form of a higher selection of matching questions) was due to happy mood increasing people's motivation to get along with the interaction target. Consistent with the idea that positive testing is a way to display empathy (Leyens et al., 1998, 1999) and to smooth the interaction (Dardenne & Leyens, 1995), people who were motivated to get along with the target (i.e. happy people) manifested a stronger preference for positive testing when searching for information about the interaction target. If the motivation to get along is an active goal state that is more or less demanding and effortful and if positive testing is the by-product of that goal, then positive testing should require some cognitive resources. Therefore, a most convincing test of the hypothesis that happy people use positive testing because they 'actively' follow a getting along goal should be to manipulate directly the amount of cognitive resources available.

EXPERIMENT 2

Method

Participants and Overview

Eighty students participated in two ostensibly unrelated tasks. Participants were received in groups of up to 4 by a female experimenter who briefly explained that they would have to complete two independent tasks that had been combined into one single session. The general procedure was the same as for Experiment 1, except that we did not measure the goal of getting along and that the cognitive load was manipulated. Half the participants had to keep in mind a set of letters and numbers while selecting the questions (cognitive load). The remaining participants (no load) went directly to the questions selection task.

Materials and Procedure

Participants were first asked to recall either a happy or a sad life event. Then they completed a mood manipulation check, that is, how they felt 'at the present time', on a 21-point scale from 0 (very bad) to 20 (very good). Next, they completed the questions selection task. Half the participants were instructed that the experimenter wanted to mimic real life interview settings, in which people ask questions 'while they are thinking or doing other stuffs at the same time'. In this cognitive load condition, participants had 20 seconds to memorize a string of five letters and five numbers that were written on a sheet of paper in a random order. They were told that a recall task would be administered at the end of the session. The remaining participants were not asked to memorize anything and

proceeded directly to the questions selection task. All participants believed they were about to ask the selected questions themselves to the interviewee in a face-to-face interaction. When the questions selection task had been completed as in Experiment 1, participants in the cognitive load condition were asked to write down the string of letters and numbers. Correct recall was scored if the correct letter or number was recalled at its correct location in the sequence. Participants were then probed for suspicion, thanked and debriefed.

Results and Discussion

Manipulation Check and Recall

As expected, participants who reported a happy life event felt happier than participants who reported a sad life event ($M_s = 15.03$ and 11.03), $t(78) = 5.31$, $p < .001$, $\eta^2 = .27$. A 2 (mood: positive vs. negative) \times 2 (profile: introvert vs. extrovert) ANOVA on the correct recall showed no effect (with a grand mean of 5.50). In particular, happy participants recalled as many items as sad participants did ($M_s = 5.43$ vs. 5.56), $F(1, 36) < 1$.

Questions Selection Task

The main results concerned the selection of matching questions. We conducted a 2 Mood (positive vs. negative) \times 2 Load (load vs. no load) \times 2 Profile (introvert vs. extrovert) \times 2 Information search (matching vs. non-matching) \times 2 Question type (diagnostic vs. constraining) mixed model factorial ANOVA. Mood, load and profile were between-subjects variables. Information search and question type were within-subjects variables.

Participants selected more matching ($M = 4.85$) than nonmatching ($M = 3.15$) questions, $F(1, 72) = 33.76$, $p < .001$, $\eta^2 = .32$. A two-way interaction between mood and information search was also significant, $F(1, 72) = 10.29$, $p < .005$, $\eta^2 = .13$, which showed that participants selected more matching questions when experiencing a positive ($M = 5.33$) rather than a negative mood ($M = 4.38$). Most importantly, the analyses revealed a significant three-way interaction between mood, cognitive load and information search, $F(1, 72) = 4.10$, $p < .05$, $\eta^2 = .05$. As expected, more detailed analyses revealed that when a positive mood was induced, participants who were under cognitive load selected less matching information ($M = 4.86$) than those who were not distracted ($M = 5.89$), $t(38) = 3.06$, $p < .005$, $\eta^2 = .20$. As can be seen in Table 1, for sad participants, the load manipulation

Table 1. Number of matching questions selected as a function of mood and cognitive load (Experiment 2)

	No load	Load
Positive mood	5.89 _a	4.86 _b
Negative mood	4.27 _b	4.50 _b

Note: Means with a different subscript are different at $p < .005$.

had no effect, $t(38) < 1$, *ns*, and both negative mood conditions led to select fewer matching questions than happy participants who were not distracted, $t(38)$ and $t(34) > 3.20$, $ps < .005$, both $\eta^2 > .21$. Whatever distracted or not, participants experiencing a negative mood selected the same amount of matching questions than participants who experienced a positive mood under cognitive load, $t(38)$ and $t(42) < 1.30$, *ns*.

The ANOVA also revealed a significant main effect of question type such that participants selected more diagnostic ($M = 4.49$) than constraining ($M = 3.51$) questions, $F(1, 72) = 37.04$, $p < .001$, $\eta^2 = .16$. Finally, the absence of a four-way interaction between mood, load, information search and type of questions, $F(1, 72) < 1$, *ns*, further indicated that when sufficient cognitive resources were available, participants induced with a positive mood favoured constraining and diagnostic matching information to the same extent.¹

Experiment 2 showed that the preference for positive testing manifested by happy participants vanished when few cognitive resources were left available. Because happy and sad participants recalled as many items in the cognitive load conditions, differences cannot be attributed to variations in the cognitive charge both groups suffered. This suggests that happy participants were motivated to and devoted cognitive resources in order to actively search for matching information. Negative mood, in contrast, did not seem to elicit any effortful strategy in the information search. We now turn our attention to some contextual factors that should increase the goal to get along. Indeed, the goal to get along should be especially strong, that is, accessible and salient, when happy participants expect a face-to-face interaction with a higher status person. Therefore, the preference for positive testing should be the strongest for happy participants who believe in a forthcoming interaction with a high status target (compared to the three other conditions).

EXPERIMENT 3

Method

Participants and Overview

Eighty-eight students participated in two ostensibly unrelated tasks. The cover story was the same as in Experiments 1 and 2. The target's status was manipulated such that participants thought they would select and ask questions themselves, in a forthcoming interview, to an interviewee whose status was either equal or higher than their own.

Materials and Procedure

In order to induce positive or negative mood, participants were asked to provide a written report of either a very happy or a

¹Both main effects for question type and information search were involved in a significant three-way interaction with profile, $F(1, 72) = 13.82$, $p < .001$, $\eta^2 = .16$. Although the preference for diagnostic over constraining questions held strongly whatever the introvert or extrovert profile ($M = 4.82$ and 5.59 , resp.), the preference for matching questions is lower for the extrovert profile ($M = 4.02$) compared to the introvert one ($M = 4.25$), as indicated by an interaction between information search and profile, $F(1, 72) = 5.01$, $p < .05$, $\eta^2 = .07$.

very sad recent life event. The profile of the target was presented as in Experiments 1 and 2 but, contrary to these experiments, participants were told that they would have to select as many questions as they wished from a list of 16 questions. It was emphasized that they should select questions until they felt they would have enough information to reach a decision concerning the interviewee's personality. Just before the questions selection task, half the participants were told that they were about to select questions to be asked by themselves to an associate professor of the department (high status). The remaining participants were told that the interviewee was an undergraduate student (equal status). After the questions selection task, participants' mood was assessed through a manipulation check. Participants were asked to report on a 10-point scale from 0 (very bad) to 9 (very good) how they 'feel at the present time'. As a check for the status manipulation, participants were asked to rate the interviewee's status compared to their own, by circling a number from 1 (lower than mine) to 7 (higher than mine). Participants were then probed for suspicion, thanked and debriefed.

Results and Discussion

Manipulation Checks

Participants' evaluation of their relative status compared to the interviewee's one was submitted to a 2 (mood) \times 2 (status of the interviewee) \times 2 (profile) ANOVA. As expected, only a main effect of interviewee's status was significant, $F(1, 80) = 19.33$, $p < .001$, $\eta^2 = .20$. The status of the associate professor was rated higher than the status of the undergraduate student ($M_s = 5.02$ and 3.91). Participants' self-rating of happiness was submitted to the same ANOVA. Analysis showed no significant effect. However, specific comparison revealed that participants in the positive mood conditions were happier than those in the negative mood conditions ($M_s = 7.23$ and 6.52), $t(86) = 1.76$, $p < .05$, one-tailed. Because measured at the very end of the study, we might suspect that the induced mood slightly vanished. The same manipulation checks, applied early in the procedure as in Experiments 1 and 2, have nevertheless yielded strong effects. The advantage of delaying the manipulation check of mood is that it did not focus participants' attention toward the mood manipulation before the questions selection task.

Questions Selection Task

On average, participants selected 6.72 questions, that is, they globally chose 42% of all the questions available to them. We submitted the total number of questions asked to a Mood \times Status \times Profile ANOVA. The interaction between status and profile was the only significant effect, $F(1, 80) = 4.90$, $p < .05$, $\eta^2 = .06$. Post-hoc tests, however, showed no significant simple effects (all $ps > .29$). Following De Dreu and Van Kleef (2004), indices of the relative number of constraining or diagnostic questions about introversion or about extroversion were computed by dividing the number of questions selected in a particular category by the total number of questions selected. These four indices were submitted to a Mood (positive vs. negative) \times Status of the interviewee

(higher vs. equal) \times Profile (introvert vs. extrovert) \times Information search (matching vs. nonmatching) \times Question type (diagnostic vs. constraining) mixed model factorial ANOVA. Mood, status and profile were between-subjects variables. Information search and question type were within-subjects variables.²

Overall, participants selected more matching ($M = .62$) than nonmatching ($M = .38$) questions, $F(1, 80) = 39.36, p < .001, \eta^2 = .33$. The two-way interaction between status and information search was significant, $F(1, 80) = 4.52, p < .05, \eta^2 = .05$. Participants selected more matching questions when confronted with a high status interviewee ($M = 0.66$) than when they were confronted with an equal status interviewee ($M = 0.58$). Importantly, the three-way interaction between mood, status and information search was also significant, $F(1, 80) = 4.56, p < .05, \eta^2 = .05$ (see Table 2). As expected, for happy participants, those who believed in a forthcoming interaction with a high status person selected more matching information ($M = 0.72$) than when expecting to meet an equal status interviewee ($M = 0.55$), $t(42) = 3.10, p < .005, \eta^2 = .19$. Sad participants did not treat high ($M = .61$) and equal ($M = .61$) status interviewees differently ($t(42) < 1, ns$) and both selected significantly fewer matching questions than participants in positive mood confronted to a high status target, $t(42) > 2.08, ps < .05$, both $\eta^2 > .09$. Whatever the status of the interviewee, negative mood led to select the same amount of matching questions than positive mood participants expecting to meet an interviewee whose status was equal to theirs, $t(42) < 1, ns$. Presumably, specifying explicitly that the partner is an equal status student did not reveal the same pattern as when the status of the partner is unknown (Experiments 1 and 2).

The analysis also revealed a significant main effect for question type, such that participants selected more diagnostic ($M = .59$) than constraining ($M = .41$) questions, $F(1, 80) = 21.63, p < .001, \eta^2 = .21$.³ Finally, the absence of a four-way interaction between mood, status, information search and type of questions, $F(1, 80) = 1.24, p > .26$, further indicated that when interacting with a high status target, mood's influence was similar for constraining matching information than for diagnostic matching ones.

Table 2. Conditional probability of selecting matching questions as a function of mood and the interaction target's status (Experiment 3)

	High status target	Equal status target
Positive mood	.72 _a	.55 _b
Negative mood	.61 _b	.61 _b

Note: Means with a different subscript are different at $p < .05$.

²Because proportions are seldom normally distributed, this ANOVA has been performed using arcsine transformed scores. Results are exactly the same as with untransformed scores so we decided to report the analyses based on these untransformed scores.

³This main effect was qualified by a significant three-way interaction with profile and information search, $F(1, 80) = 15.55, p < .001, \eta^2 = .16$. This interaction is merely one of degree; although the preference for matching over nonmatching questions hold strongly whatever the introvert or extrovert profile ($M = .64$ and $.61$, resp.), $F(1, 80) = 2.51, p > .11$, the preference for diagnostic over constraining questions is lowered in the introvert profile condition ($M = .54$) compared to the extrovert one ($M = .64$), as revealed by a significant interaction between question type and profile ($F(1, 80) = 7.77, p < .01, \eta^2 = .09$).

As expected, the preference for positive testing revealed the strongest for happy participants who believed in a forthcoming interaction with a high status target. Interestingly, sad mood participants were not affected by the interaction context. That is, whether the interaction partner was a high status partner or not, sad mood always led to relatively weak reliance on positive testing. On the contrary, happy mood led to stronger positive testing when the interviewee is a high rather than equal status. In line with Experiment 2, this suggests that happy mood instigates some 'active' and effortful goal states and strategy involving positive testing.

Nevertheless, some characteristics of the status manipulation could lead to give credits to alternative explanations. First, it could be that, under positive mood, a large amount of knowledge about the interaction target (equal-status target) leads to consider one's own expectation, and then positive testing, as less appropriate than when knowledge about the target is weak (higher-status target). Indeed, knowing more about a target has been shown to lead to stereotype dilution (Nisbett, Zukier, & Lemley, 1981; Yzerbyt, Leyens, & Schadron, 1997), that is, less reliance on expectations. Second, it can be assumed that people felt more confident in the high status than in the equal status person's self-rating that served as profile information (maybe simply because higher status persons are older than students). Greater confidence might then lead to greater reliance on positive testing because it would appear as more appropriate in a context where positive mood indicates safety and allows using top-down processing.

In order to rule out the above alternative explanations, we reasoned that merely expecting a real face-to-face forthcoming interaction with an interviewee should make participants' goal of getting along particularly salient and accessible. In contrast, requiring them to select questions to ask while they know that no real interaction with the person will ever take place should not stress such a goal. The main purpose of our last experiment was to rule out alternative explanations and generalize results of Experiment 3 with a manipulation of the interaction context that does not involve the confounds we just pointed out.

EXPERIMENT 4

Method

Participants and Overview

Ninety-six students participated in the experiment. As in the previous studies, participants were told that they would have to complete two independent tasks that had been combined into one single session. Half the participants thought they would simply select questions for the interviewee without interacting with him/her later on. The remaining participants were made accountable and responsible for their questions selection as they thought they were selecting questions they would later personally ask to the interviewee in a real face-to-face interaction.

Materials and Procedure

Materials and procedure were essentially the same as in Experiments 1–3. Participants were first induced into positive or negative mood like in Experiments 1–3, and then their

actual mood was immediately checked. Participants were asked to report on a 21-point scale from 0 (very bad) to 20 (very good) how they felt 'at the present time'. They then proceeded to the allegedly unrelated questions selection task. For half the participants, the task was presented as a selection of questions that would be later asked to the interviewee by the experimenter herself (no interaction condition). The remaining participants were told that they would select questions they would personally ask to a person they were about to meet (forthcoming interaction condition). Participants selected exactly eight questions as in Experiments 1 and 2.

Results and Discussion

Mood Manipulation Check

As expected, when checked immediately, participants who reported a happy life event felt better than participants who reported a sad life event ($M_s = 14.46$ and 10.02), $t(94) = 4.89$, $p < .001$, $\eta^2 > .20$.

Questions Selection Task

Our main analysis concerned the number of stereotype-consistent questions selected by participants. The design of the study was a Mood (positive vs. negative) \times Context (perspective of interaction vs. no interaction) \times Profile (introvert vs. extrovert) \times Information search (matching vs. nonmatching) \times Question type (diagnostic vs. constraining) mixed model factorial. Mood, context and profile were between-subjects variables. Information search and question type were within-subjects variables.

Analyses revealed that participants selected more matching ($M = 4.86$) than nonmatching ($M = 3.14$) questions, $F(1, 88) = 50.00$, $p < .001$, $\eta^2 = .36$. The interaction between information search and mood tended to be significant, $F(1, 88) = 3.53$, $p < .07$, $\eta^2 = .04$, suggesting that participants experiencing positive mood selected more matching questions ($M = 5.10$) than participants experiencing negative mood ($M = 4.63$). The interaction between information search and context also tended to be significant, $F(1, 88) = 3.21$, $p < .08$, $\eta^2 = .04$, suggesting that participants who expected a real interaction with the interviewee favoured matching questions ($M = 5.08$) to a greater extent than those who did not expect a face-to-face interaction ($M = 4.65$). Most importantly, conceptually replicating Experiment 3, the analyses revealed a significant three-way interaction between mood, context and information search, $F(1, 88) = 4.56$, $p < .05$, $\eta^2 = .05$. As expected (see Table 3), more detailed analyses revealed that when a positive mood was induced, those who believed in a real forthcoming interaction selected more matching questions

($M = 5.58$) than those who were not expecting to interact ($M = 4.63$), $t(46) = 2.66$, $p < .05$, $\eta^2 = .13$. When a negative mood was induced, however, the context had no effect ($M = 4.58$ for face-to-face and $M = 4.67$ for no interaction, $t(42) < 1$, *ns*) and both led to select fewer matching questions than positive mood participants who were expecting to have a social interaction, $t(46) > 2.71$, $p_s < .05$, both $\eta^2 > .14$. Negative mood participants in both contexts selected the same amount of matching questions than happy mood participants who did not expect to meet the interviewee, $t(46) < 1$, *ns*.

The ANOVA also showed a significant main effect of question type which revealed that participants selected more diagnostic ($M = 4.64$) than constraining ($M = 3.36$) questions, $F(1, 88) = 37.04$, $p < .001$, $\eta^2 = .30$.⁴ Again, the absence of a four-way interaction between mood, context, information search and type of questions, $F(1, 88) < 1$, further indicated that expecting a forthcoming interaction or not did not change the mood's manipulation effect on the selection of constraining and diagnostic matching information. Finally, the five-way interaction was also significant, $F(1, 88) = 4.12$, $p < .05$, $\eta^2 = .05$. This five-way interaction suggested that, for happy participants, the effects of the context on matching information search (whatever diagnostic or constraining) were stronger when facing an introvert than an extrovert. No other effects were found, $F_s < 1$, and in particular, question type (diagnostic vs. constraining) never interacted with other variables, suggesting that the preference for diagnostic over constraining questions maintained stable across the experimental conditions.

Replicating and generalizing Experiment 3, we showed that the preference for positive testing was stronger for happy participants believing that they would themselves ask the questions to the interviewee in a forthcoming face-to-face interview than for any other group of participants. As in Experiment 3, negative mood led participants to weak reliance on their expectations. On the contrary, positive mood led to favouring positive testing to a greater extent when the context conveyed high rather than low significance. In Experiment 3, several explanations were viable to account for the observed effect. That is, positive testing could have varied as a function of the context when mood was positive because of some specific characteristics of the status manipulation. None of these characteristics were present in Experiment 4 in which significance of the context was manipulated through the reality of the interview. Therefore, Experiment 4 ruled out these alternative explanations for the effect of mood on information search.

GENERAL DISCUSSION

Information gathering is an important part of our daily social activities. However, most of the research devoted to the

Table 3. Number of matching questions selected as a function of mood and perspective of interaction (Experiment 4)

	Face-to-face interaction	No interaction
Positive mood	5.58 _a	4.63 _b
Negative mood	4.58 _b	4.67 _b

Note: Means with a different subscript are different at $p < .05$.

⁴Both main effects of information search and question type were qualified by a significant three-way interaction with profile, $F(1, 88) = 7.51$, $p < .01$, $\eta^2 = .08$. This interaction is merely one of degree; although the preference for matching over nonmatching questions held strongly whatever the introvert or extrovert profile ($M = 4.69$ and 5.04 , resp.), the preference for diagnostic questions over constraining ones is lowered in the introvert profile condition ($M = 4.44$) compared to the extrovert one ($M = 4.83$), as indicated by the two-way interaction between question type and profile, $F(1, 88) = 3.86$, $p < .06$, $\eta^2 = .04$.

influence of affect on cognition has examined people's processing style when passively receiving information. The main goal of the present paper was thus to investigate the influence mood has on the way people actively search for information in interaction contexts. We were interested in why, how and when mood influences the way people use positive testing.

In four experiments, we provided the first evidence of the influence of mood on positive testing, that is, the preference for information matching one's own expectations. In all four experiments, we repeatedly showed that positive but not negative mood leads people to select matching questions when expecting a forthcoming interaction. Experiment 1 showed that happy people were more strongly motivated by the goal to get along and smooth the interaction than sad people. In addition, evidence was provided by a mediation analysis that positive mood increased the preference for positive testing because of an increased goal to get along with the target. Hence, this provides at least one answer to the questions about 'why' and 'how' mood influences the way people actively search for positive questions.

Experiment 2 also informed us about 'how' mood influences the way people search for matching questions by showing that happy people devote efforts and cognitive resources in order to search for these information. Finally, Experiments 3 and 4 indicated that the strong preference for positive testing manifested by happy people was conditional to the activation of the goal to get along well with others. This goal was improved by the perspective of encountering a high rather than an equal status person (Experiment 3) and the perspective of a real face-to-face forthcoming interaction rather than the perspective of no real interaction (Experiment 4). This provides some answers to the question about 'when' mood does influence the way people actively search for matching information in a social context. At least, Experiments 1, 3 and 4 provided some boundary conditions of positive testing fostered by positive mood. In all four experiments, we provided evidence that both diagnostic and constraining matching information were affected to the same extent by mood. Presumably, diagnostic questions are thus not the only ones considered useful. Constraining questions seem to involve equivalent advantages as diagnostic questions as soon as they are matching the initial information made salient about the target (Leyens, 1989; Leyens et al., 1998).

All our results perfectly fit into the framework developed by Clore and Huntsinger (2007) as well as Fishbach and Ferguson (2007), amongst others. Compared to negative mood, positive mood validates any accessible cognition or information (like one's own expectation) as well as empowers the most accessible responses (like getting along well in a social interaction as well as positive testing). They are also largely compatible with other framework. Cunningham (1988) or Fiedler (2000, 2001), for instance, proposed that positive mood is associated with a motivation or goal to approach others. Getting along with others and trying to smooth the interaction certainly also reflects approach behaviours elicited by positive mood. To the least, such a motivation or goal indicates some interest for the interaction target and consideration and respect for the information that she/he provided about his/her personality. The so-called Gricean's rules of conversation (and in particular the cooperation principle, see Grice, 1975)

also support the idea that using other's self-reported knowledge is adaptive. Indeed, taking into account the information that the interaction target provides suggests trust and respect in his or her self-disclosure. Our results are also consistent with numerous other studies showing that positive mood can decrease self-focus in self-relevant task (Abele, Silvia, & Zöller-Utz, 2005), might lead to looking for acceptance (Carver, Kus, & Scheier, 1994), and might increase trust in an acquaintance (Dunn & Schweitzer, 2005). Beyond these theoretical frameworks, we added that these processes are mediated by a motivation to get along (Experiment 1), need cognitive resources (Experiment 2), depend on the partner's relative status (Experiment 3) and on the reality of the social interaction (Experiment 4).

Throughout this paper, we firmly refrained from using some *indélicatesses* in the words we used, not using expressions like 'stereotype' (when we meant hypothesis to test, or profile) and 'confirmation bias' (when we meant positive testing, or matching questions). Nevertheless, substituting these expressions, from personality profile to stereotype and from positive testing to confirmation bias, could further enlighten our results. It has been argued that stereotype-consistent information is preferred over stereotype-inconsistent one because it is seen as more likely to serve social connectivity function (Kashima, Klein, & Clark, 2007; see also Brown & Levinson, 1987; Semin, 2007). For instance, in dyadic interactions, people spend more time talking about and express more agreement with stereotype-consistent than inconsistent information (Ruscher, 1998). As stated recently by Clark and Kashima (2007), 'communicating stereotype-consistent information may convey a message of similarity, liking, and a general motive to get along, in that it implies the existence of common ground (p. 1030)'. Obviously, the message within this literature is very similar to ours.

Although we now have much more precise knowledge about both the influence of mood on information search and on the general process through which this might occur, some questions remain however unanswered. Indeed, even though we examined quite deeply the phenomenon we were interested in, future studies should go even further in the investigation of the 'why' question. For instance, although we believe we have reasonably strong arguments for the role of the motivation to get along, as we named it, one could advocate that the motivation to get along is one additional example of a more basic readiness in good mood to rely on top-down strategies and to elaborate on the stimulus creatively. As a matter of fact, as reviewed in the Introduction section, positive mood increases generative processing, active inferences as well as self-determined strategies. Then, expecting future interaction (Experiment 4) as well as dealing with a high status-person (Experiment 3) could have increased reliance on these processes. In a related vein, the willingness to get along (as measured in Experiment 1) might also reflect the more general readiness of people in a good mood to collaborate 'on any game' and follow demands that would appear suitable in a given context. As a matter of fact, good mood could also increase behaviours (such as impoliteness) that may reduce the likelihood of smoothly getting along with others. This is of special interest as happy individuals might have the resources or the backbone to do risky, unpleasant, undesired, impolite, norm-deviant or otherwise unusual and unethical things (see,

for instance, Forgas, 1999; Raghunathan & Trope, 2002). In the present set of studies, the goal of getting along is certainly highly accessible, but many other contexts might make other goals more accessible.

Examining the consequences of their information search tendency may also help to better understand happy participants' goal. For instance, the benefits for the person asking for information as well as for the person who is answering the questions might be very interesting to investigate. A first potential consequence of favouring positive testing (or confirming questions) one might think of is the supportive rather than conflicting atmosphere that these questions convey. Indeed, positive testing is by nature in line with the partner's assumed personality. It is expected to lead the partner to feel at ease and understood. On the contrary, 'negative' testing (or disconfirming questions) is rather conflicting in nature precisely because it goes to the opposite direction of the partner's assumed personality. Contrary to positive testing, it reveals the interviewer's tendency to be systematic in attempting to discover who the partner really is, at the expense of getting along with him/her. Although this type of questions may provide more accurate information about the partner's true personality (especially when the partner is not what she/he is assumed to be) it is also quite risky in terms of maintaining a pleasant atmosphere during the interaction (especially when the partner is like what she/he is assumed to be). For instance, talking about politics with a female hairdresser (a negative or stereotype-inconsistent testing) is not a problem and allows discovering who she really is if she is indeed more intelligent than suggested by stereotypical knowledge or one's own expectations. However, if she is in fact rather uninterested in politics, then such a topic might make her feel quite ill at ease. Actually, the interviewer might soon feel rather ill at ease as well!

Given that the tendency to favour positive testing is stronger when mood is positive rather than negative (though depending on the context), it could be argued that positive mood leads to consider the risk of deteriorating the atmosphere as an unacceptable risk to impair happiness. Of course, such a risk is certainly the least acceptable when interaction contexts are significant, which perfectly fits with our results. However, future research is needed to provide direct evidence of whether such a risk drives the information search. Also, it would be very interesting to know whether positive testing indeed contributes to positive mood maintenance.

Another potential consequence of favouring positive testing is the positive impression it gives of the interviewer. Indeed, De Dreu and Van Kleef (2004) showed that being asked confirming questions (i.e. stereotype-consistent) creates a more positive image of the interviewer. Consistent with this idea, Dardenne (2009; Leyens et al., 1999) further demonstrated that being asked positive questions after providing information about their own personality led people to provide more help to the interviewer. Manifesting an increased tendency for positive testing when experiencing positive mood may thus again be seen as a way to maintain such a positive mood state. Being appreciated by others such that they would provide help may be seen as quite ego-flattering. Creating bonds between us and others and feeling socially supported moreover are known to be efficient buffers against stress and likely contribute to maintain good health and

positive affective states (see, for instance, Grégoire & Dardenne, 2004; House, Landis, & Umberson, 1988). These are other aspects that deserve to be investigated in future research.

All in all thus, although a lot is still to be investigated in this domain, we provided the very first evidence that mood affects the way people actively search for 'stereotypical' information (or, more correctly, how mood affects positive testing). Contrary to negative mood, positive mood increases people's motivation to get along and to smooth the interaction, a reason why they devoted efforts in searching for matching information. Opposite to what has long been assumed, positive testing is thus not necessarily a lazy and erroneous strategy (we are not underestimating the damaging consequences positive testing might have in some context, e.g. Kassin, Goldstein, & Savitsky, 2003). Rather, when people possess both the motivation and the cognitive resources to do the task carefully, positive mood instigates an active strategy favouring people's own expectations in gathering information about interaction partners.

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