"Beyond the myth of venting: Social sharing modes determine the benefits of emotional disclosure"

Nils, Frédéric ; Rimé, Bernard

ABSTRACT

When individuals experience an emotion, they talk about it afterwards. A popular 'emotional venting' belief claims that doing so dissolves the emotional impact. This study tested a model of when and how sharing emotions is beneficial. It predicts that benefits vary according to the listener's response mode. A socio-affective (empathic) mode was expected to buffer emotional distress temporarily. A cognitive (reframing) mode was anticipated to grant emotional recovery. Participants viewed an aversive film and then talked about it with an intimate. The latter was instructed to adopt either cognitive or socio-affective response modes in a 2x2 design (cognitive/non-cognitive; socio-affective/neutral). Emotional, cognitive and social benefits were assessed immediately afterwards and again two days later following re-exposure to the film. As predicted, emotional recovery occurred exclusively when the listener stimulated the participant's cognitive work. Cognitive variables (basic assumptions) were also positively modified by these conditions. Listeners' socio-affective responses entailed enhanced social integration (i.e. greater proximity to the listener; less loneliness) and an impression of feeling better. These results demonstrated that sharing emotions can lead to multiple benefits depending upon listeners' response modes: emotional recovery, consolidation of shattered assumptions, social integration, and temporary distress reduction.

CITE THIS VERSION

Abstract

When individuals experience an emotion, they talk about it afterwards. A popular ‘emotional venting’ belief claims that doing so dissolves the emotional impact. This study tested a model of when and how sharing emotions is beneficial. It predicts that benefits vary according to the listener's response mode. A socio-affective (empathic) mode was expected to buffer emotional distress temporarily. A cognitive (reframing) mode was anticipated to grant emotional recovery. Participants viewed an aversive film and then talked about it with an intimate. The latter was instructed to adopt either cognitive or socio-affective response modes in a 2x2 design (cognitive/non-cognitive; socio-affective/neutral). Emotional, cognitive and social benefits were assessed immediately afterwards and again two days later following re-exposure to the film. As predicted, emotional recovery occurred exclusively when the listener stimulated the participant's cognitive work. Cognitive variables (basic assumptions) were also positively modified by these conditions. Listeners' socio-affective responses entailed enhanced social integration (i.e. greater proximity to the listener; less loneliness) and an impression of feeling better. These results demonstrated that sharing emotions can lead to multiple benefits depending upon listeners' response modes: emotional recovery, consolidation of shattered assumptions, social integration, and temporary distress reduction.

Keywords: social sharing of emotion, emotional disclosure, distress verbalization, emotion regulation, listener responses.
Beyond the Myth of Venting:
Social Sharing Modes Determine the Benefits of Emotional Disclosure

Emotional experiences, whether positive or negative, whether part of current life or resulting from exposure to a traumatic event, generally elicit interpersonal exchange and communication. Indeed, abundant data demonstrate that when individuals experience an emotion, they systematically manifest an urge to talk about this episode and their related feelings, and to share this experience with people around them (for a review, see Rimé, 2009). This manifestation, which was labelled social sharing of emotion, has been observed in 80 to 95% of emotional episodes (Rimé, Mesquita, Philippot, & Boca, 1991). It was found to be quite general across cultures (e.g. Singh-Manoux & Finkenauer, 2001; Yogo & Onoe, 1998), as well as across types of emotion (Rimé, Finkenauer, Luminet, Zech, & Philippot, 1998). Laboratory studies confirmed that exposure to an emotion-eliciting condition provokes sharing (Luminet, Bouts, Delie, Manstead, & Rimé, 2000). Generally initiated very soon after experiencing the emotion, sharing is typically an iterative manifestation: people modally share their emotions several times, with several people. More intense emotions were observed to be shared more often and for a longer period (Rimé et al., 1998, pp. 163-167). The fact that emotions are systematically shared with others is of utmost importance. It reveals that the social dimension of emotional experiences is far from ending with facially expressive displays.

The question then arises of the consequences of interpersonal communications elicited by emotional episodes. There is a popular belief according to which sharing an upsetting experience dissolves the emotional impact of this experience. Such an ‘emotional venting’ belief was endorsed by an overwhelming majority of respondents both in a European and in an Asian sample (Zech, 2000). The belief implies that merely verbalizing an emotion would grant emotional recovery. On such a basis, the person who has just gone through a painful emotional experience is often recommended to ‘get it off your chest’. Could such a venting effect really result from merely talking out an emotional experience? Despite the high
relevance of this question both for everyday life and for professional psychological intervention, empirical studies addressing it have been scarce. Just two types of investigation exist: one deals with real-life emotional episodes and the other with laboratory-induced emotions.

**Empirical assessment of the venting hypothesis**

Studies monitoring real-life emotional episodes generally assessed (1) the extent to which such episodes had spontaneously been shared with others and (2) the evolution of their emotional impact (Rimé et al., 1998; Stroebe, Stroebe, Schut, Zech, & van den Bout, 2002). Such studies systematically failed to yield consistent correlations between these two variables. Finkenauer and Rimé (1998) collected from respondents in large samples emotional episodes which had been socially shared and emotional episodes which had been kept secret. Contrary to the venting view, no difference emerged from the comparison of the two types of episodes in terms of their current emotional impact. Further social sharing studies relied upon experimental induction of emotional sharing. Participants talked with an experimenter about an emotional event in their past under various conditions (e.g. accenting facts, focusing on emotions, talking about a controlled emotional episode, talking about a non-emotional topic) (Zech & Rimé, 2005). Studies of this type failed to evidence significant effects of sharing conditions on emotional recovery. It was remarkable, however, that despite the absence of venting effects, participants in emotion sharing conditions systematically rated their participation as more beneficial than did those in control conditions. In particular, they mentioned a better understanding of the shared episode as well as a greater feeling of proximity to their sharing target. To sum up, social sharing studies never supported the venting hypothesis. Yet verbally expressing an emotion was experienced as beneficial. One purpose of the present investigation is to unravel this puzzle.

In a second type of study, the venting hypothesis was examined in the context of a laboratory-induced emotion. Participants first viewed an emotion-eliciting film and then shared this experience with an experimenter or a confederate. Mendolia and Kleck (1993) and Lepore, Ragan, and Jones (2000) observed recovery effects when participants were re-exposed to the film 48 hours later. Compared with control participants who simply viewed the
film, participants who had shared their film experience manifested lower perceived stress levels (Lepore et al., 2000) or reported feeling more positive (Mendolia & Kleck, 1993) after viewing the film a second time. In addition, Mendolia and Kleck (1993) recorded physiological recovery effects, but Lepore et al. (2000) did not replicate this finding. Using a similar induction procedure, Lepore, Fernandez-Berrocal, Ragan, and Ramos (2004) assigned participants who had viewed an emotional film to one of four conditions: (1) talking to a challenging confederate, (2) talking to a validating (supportive) confederate, (3) talking alone, or (4) a no-talk control condition. Compared with the no-talk group, only participants in the challenging condition manifested a superior recovery. Thus, in this experiment, well-delineated sharing variations yielded clear indications about the conditions under which recovery effects could be obtained. Although sharing with a supportive listener did not bring about recovery effects, such effects occurred after a sharing situation in which the target questioned the perspectives adopted by the sharing person.

All in all, talking studies did not support the view that simply expressing an emotion would dissolve it. Lepore et al.’s (2004) findings suggested that sharing listeners and sharing modes have to be taken into consideration in this regard. Recently, Rimé (2007, 2009) proposed a model aimed at specifying the conditions under which expressing an emotion is beneficial, as well as the type of benefits which can be expected from these conditions. We now summarize this model briefly.

A theoretical model of effects of sharing an emotion

From a theoretical perspective, the conclusion that the sharing of emotion does not lead to ‘venting’ does not come as a surprise. Merely verbalizing an emotion would involve (1) re-accessing the corresponding memory network, (2) re-appraising the eliciting situation along the same lines as it had been appraised initially, and thus (3) necessarily re-activating the original experience. In place of granting emotional recovery, the mere verbalization of an emotion can thus cause temporary exacerbation of emotional feelings. Predicting under what condition the social sharing of an emotion would alleviate the impact of emotional experiences necessitates re-examining in some detail the cognitive consequences such experiences entail. Negative emotions occur when the meaning of events conflicts with the
person's systems of expectation (Carver & Scheier, 2002; Frijda, 2006; Scherer, 2004).

Emotion involves both a signalling function through which the eliciting situation captures the focus of attention and an executive function through which emotional responses are aroused (Frijda, 2006; Oatley, Keltner, & Jenkins 2006). Components of this experience are then stored in a complex long-term memory network (Lang, 1979; Leventhal, 1984) thus becoming part of the person's past. Cognitions involved in this memory network, however, may sustain the signalling function of emotion and cause the network to re-capture focal attention after the episode is over. Cognitions of three kinds can yield such effects (Rimé, 2007, 2009): (1) representation of the goals which were blocked in the emotion-eliciting episode, (2) expectations, schemas, models, or worldviews which were disconfirmed in this episode, (3) initial, unmodified appraisal of the emotional situation (an unmodified appraisal necessarily triggers the same emotion again and again). Emotional recovery thus requires cognitive work geared towards switching off these various memory-sustaining cognitions. That cognitive work can modify emotional responses is well established by classic research conducted in the framework of the appraisal theory of emotion (e.g. Lazarus, Averill, & Opton, 1970), by research underlying cognitive-behavioural intervention (e.g. Ehlers & Clark, 2000; Foa & Kozak, 1986) as well as by the study of emotion regulation (e.g. Gross, 1998; Gross & Thompson, 2007).

Is such a cognitive work encountered when the episode is socially shared? At least three elements support a negative answer. First, soon after experiencing an emotion—which is precisely when most emotional talking takes place (Rimé et al., 1991)—people are not open to changing their perspective. They typically stick to the interrupted goal pursuit (Klinger, 1975; Martin & Tesser, 1989). Second, socio-affective motives (e.g. receiving support, validation, comfort) are the motives people offer when they are asked why they share a negative emotion (Rimé, 2007). Cognitive motives (e.g. reappraisal of the eliciting situation) account for only a small number of these motives Third, the more intense the shared episode is, the less listeners manifest verbal-cognitive responses and the more they evidence socio-affective displays (e.g. reducing distance, gazing, touching, comforting) (Christophe & Rimé, 1997). All in all, spontaneous emotional-sharing situations predominantly lend themselves to
socio-affective concerns and fail to involve the cognitive ingredients needed to achieve emotional recovery.

These considerations can shed some light on the benefits participants consistently reported after sharing an emotion. Negative emotional experiences disconfirm expectations (e.g. schemas, models, worldviews) and thus trigger a state of emotional distress (anxiety, insecurity, helplessness…). Among both primates (Harlow, 1959) and human beings (Bowlby, 1969), emotional distress arouses potent socio-affective needs, and leads to a quest for appeasement, comfort, and care. Sharing an emotion involves a similar quest. It elicits socio-affective responses from the listener (Christophe & Rimé, 1997) and brings subject and listener closer to one another (for a review, see Collins & Miller, 1994). This is the source of the relief reported by those who have just shared an emotional experience: sharing elicits distress buffering behaviours from the social environment (Rimé, 2009). As individuals are indiscriminate about the multifaceted impact of an emotion, they readily equate emotional relief and emotional recovery. Yet as long as social sharing fails to involve the cognitive ingredients needed to achieve emotional recovery, the resulting emotional relief is bound to be evanescent. It will dissolve in hours, leaving the emotional impact of the episode to resurface together with a renewed need to share.

In sum, negative emotional episodes lend themselves to two conceptually and practically distinct regulation modes (Rimé, 2007, 2009). On the one hand, a cognitive regulation mode is suited to dealing with the challenging meanings resulting from a negative emotional episode. This mode is expected to lead to emotional recovery. On the other hand, the socio-affective regulation mode can buffer the emotional distress resulting from these challenging meanings. This mode is expected to provide the subject with emotional relief—at least temporarily.

Distinct listener response modes and their respective effects

The socio-affective and cognitive regulation modes overlap with the response modes that social sharing listeners naturally adopt. Horowitz et al. (2001) observed that listeners’ responses varied along two dimensions: agentic responses bent on ‘helping the person to enhance his/her sense of competence or efficacy’ (p. 50) with representative items comprising
‘give some information’, ‘give advice’, and ‘reassess the situation’; and communal responses involving ‘forms of social support that seem bent on helping the person feel loved, accepted, understood; they focus more on communion and compassion to help the person regulate internal emotional distress’ (p. 50). This dimension involved items such as ‘express empathy and understanding’, ‘tell the person that the listener cares about him/her’, ‘express concern’, ‘express physical affection’. These two helping response dimensions respectively match the cognitive and the socio-affective regulation modes considered here. Further support exists for this distinction. Using data collected from self-report questionnaires and diaries, Niven, Totterdell, and Holman (2009) recently produced a corpus of 378 distinct interpersonal affect regulation strategies. A card-sort classification followed by a hierarchical cluster analysis conducted on this corpus yielded several clusters. Two of them related to the prototypical regulation strategy of ‘talking to the target about his or her problems’. Cognitive engagement gathered strategies such as ‘giving the target advice’, ‘trying to get the target to view a situation objectively’, and ‘rationalizing a decision that the target made’, whereas affective engagement comprised items such as ‘listening to the target's problem’, ‘allowing the target to vent his or her emotions’, and ‘having a supportive conversation with the target’. Thus, empirically derived helping strategies nicely fit those resulting from our theoretical analysis.

According to the model followed in this article (Rimé, 2009), listener responses of the ‘communal’ or ‘affective engagement’ type would thus buffer the sharing person's distress and enhance this person's positive feelings. By contrast, listener responses of the ‘agentic’ or ‘cognitive’ type would stimulate the cognitive work of the sharing person, thus contributing to emotional recovery and consequently reducing negative affects. Some support for these predictions already exists. Studies examining the specific impact of emotional—or communal—listeners' responses found them to increase the sharing person's level of positive affects (Pasupathi, 2003) as well as feelings of emotional proximity (Laurenceau, Feldman-Barrett, & Pietromonaco, 1998; Horowitz et al., 2001). Studies assessing effects of listeners’ responses centred on problem-solving—or agentic responses—observed a reduction in negative affect (Costanza, Derlega, & Winstead, 1988; Horowitz et al., 2001; Pasupathi, 2003). Thus, previous studies which examined effects of the two listener response modes...
yielded findings fitting the model considered so far. Yet it had to be tested directly. The study reported here was intended to assess the immediate and longer-term effects of a cognitive and of a socio-affective sharing mode addressing a laboratory-induced negative emotional experience. This is the first study to examine the effects of talking about an emotional experience in the framework of a theoretical model specifically formulated for this purpose.

Overview of the study

Following the model adopted by Mendolia and Kleck (1993) and by Lepore et al. (2000, 2004), participants each viewed a negative emotion-inducing video sequence and then shared their felt emotions with a listener who had not seen the film. For the purpose of ecological validity, intimates (friends, family) of our participants were used as listeners in place of a standard confederate. Indeed, social sharing has been found to be undertaken virtually exclusively with intimate others (Rimé, Philippot, Boca, & Mesquita, 1992). While the participant viewed the film, the accompanying person was instructed to adopt a specified response mode in his/her role of listener during the sharing session to come. These listeners will be called ‘confederates’ hereafter. The research design involved two independent variables resulting from variations in the confederates' responses during the sharing conversation. Four experimental conditions were thus created in a 2x2 design, with socio-affective responses vs. neutral responses and cognitive reframing vs. no reframing. According to the condition, the confederate had to (1) exhibit socio-affective responses and propose a positive perspective on the contents of the video (socio-affective – reframing condition), (2) exhibit socio-affective responses and express no opinion about the video (socio-affective – no reframing condition), (3) remain affectively neutral and propose a positive perspective on the contents of the video (neutral – reframing condition), or (4) remain emotionally neutral and express no opinion about the video (neutral – no reframing control condition). Dependent measures were taken immediately after the sharing session and again two days later after a re-exposure of the participant to the emotion-eliciting stimuli. These measurements assessed (1) the residual emotional impact of the film clip, (2) the residual cognitive impact of the film clip, (3) the interpersonal consequences of the sharing session (loneliness; emotional proximity to the listener) and (4) the benefits participants perceived from the sharing session.
Hypotheses

Hypothesis 1: Emotional reactivation effects. The model holds that socio-affective sharing conditions will have no venting effect. On the contrary, such conditions are viewed as more likely to temporarily enhance rather than dampen emotional arousal. We thus predicted that at least at time 1 measurements, the socio-affective conditions of the study would yield higher levels of emotional upheaval and negative affect than would be the case in the other conditions.

Hypothesis 2: Emotional recovery effects. According to the model, the social sharing of emotion was expected to bring emotional recovery (i.e. a lower emotional impact of the displayed film clips) only when the sharing situation stimulated participants' cognitive work. We thus predicted the cognitive conditions to entail both a lower level of emotional upheaval and a lower level of negative affects. The cognitive reframing of a stimulus is assumed to have enduring consequences. The predicted effects should thus be observed not only immediately after the sharing situation (time 1 measurements) but also after the re-exposure to the film clip 48 hours later (time 2 measurements).

Hypothesis 3: Cognitive reconstruction effects. Our theory assumes that an emotional episode disconfirms at least to some extent (and sometimes dramatically, see Janoff-Bulman, 1992), the subject's expectations and models of the world. The content of the film clip was designed to temporarily dampen the viewer's worldviews and thus to entail such a cognitive impact. Sharing conditions favouring cognitive work were expected to counter such an effect. We thus predicted cognitive conditions would yield higher levels on variables assessing worldviews than would non-cognitive conditions. Here too, the cognitive reframing of a stimulus is assumed to have enduring consequences, and so the predicted effects should be observed both immediately after the sharing situation (time 1 measurements) and after the re-exposure to the film clips 48 hours later (time 2 measurements).

Hypothesis 4: Socio-affective effects. According to our model, sharing situations favouring a socio-affective rapport are expected to bring the sharing person and the target closer to one another. Our model specifically predicts the protagonists' ties to be temporarily refreshed or strengthened immediately after such an interaction (Rimé, 2009).
affective sharing conditions, sharing participants were thus expected to feel closer to their accompanying intimate and to express a lower level of loneliness than after neutral conditions. This prediction specifically concerns measurements taken immediately after the social sharing situation, and not those taken 48 hours later. Indeed, once the participant is at a distance from the supporting sharing partner, the relieving effects of the sharing process are expected to dissipate and the emotional memory to resurface.

**Hypothesis 5: Subjective benefits.** In line with findings that mere sharing is reported as beneficial even several weeks thereafter (Zech & Rimé, 2005) and as mere sharing is presumed predominantly to involve the socio-affective mode, we expected socio-affective conditions of the present study to differ from the other conditions with a higher level of subjective benefits reported by participants 48 hours later.

**Method**

**Participants**

In the framework of their completion of course requirements for a class on research methods, 89 second-year psychology students (77 females) had each to recruit a participant among intimates of theirs with the restriction that this intimate should not be another psychology student. In this manner, 89 intimates (53 females) of these psychology students were enrolled as participants in this experiment. Their average age was 20.5 years ($SD = 3.12$) and they were a close friend in 69 per cent of the cases, a girlfriend or boyfriend in 21 per cent, and a brother or sister in the remaining 10 per cent. They were randomly assigned to the four experimental conditions. The resulting distribution was independent of gender, $\chi^2 (3) < 1.0$. All the participants contributed to the first part of the experiment. Eight of them, two in each condition, failed to show up for the second part.

**Procedure**

Upon arrival, the participant and the confederate psychology student were separated by the experimenter. The participant was introduced to the video room and was informed that
he/she would first view a short video sequence and then answer questions about it, partly orally and partly in writing. The video sequence was then immediately displayed to the participant who was left alone. In the meantime, the confederate was informed that the participant was viewing an emotion-inducing video and that immediately afterwards the two of them would have to engage in a five-to-ten-minute social sharing conversation.

Confederates were instructed to adopt a well-defined role which varied according to the four conditions, as will be described below. Once the participant had viewed the video sequence, the confederate was introduced to the video room by the experimenter. The two were then left alone for their social sharing conversation which then began. At the end of this conversation, the participant and confederate were separated and invited to complete forms. The confederate's forms assessed self-reported compliance with instructions and felt emotional closeness to the participant. Thereafter, an appointment was fixed for the second part of the experiment, to take place some 48 hours later.

Upon arriving at the laboratory 48 hours later, participant and confederate were again separated. The participant viewed the video a second time and thereafter completed the same questionnaires as after the first exposure. Participation ended with a complete debriefing of the participant conducted collaboratively by the confederate psychology student and the experimenter.

Instructions for participants

Once in the video room, participants received written instructions. These instructions first presented the study as an investigation of psychological reactions to video clips displaying scenes designed to elicit questions about human nature. Participants were told that immediately after the video they would answer questions in oral and in written form about their reactions to this video. They were warned that some scenes in the video could be viewed as shocking and that they could withdraw from participation whenever they wished.
**Emotion-inducing video**

A short video (9' 30') titled ‘About human nature’ served as an emotion-inducing stimulus in this experiment. It comprised three video clips which had each been previously displayed on a national television channel and which showed (1) testimonies of two teenage girls who were forced into prostitution during their childhood, (2) ill-treatment inflicted on animals in livestock markets, and (3) scenes recorded in Nazi concentration camps. This sequence had been previously examined by an ethical committee composed of twelve staff members of the psychology department for (1) its capacity to induce negative emotions, (2) the ethical issues raised by its use in experiments, and (3) the salience of the underlying message it delivered. The twelve staff members unanimously concluded that the video clearly displayed the negative side of human nature, and that it was highly emotional while remaining within the limits of what is ethically acceptable for use in an experiment.

**Instructions for the confederate**

While the participant viewed the film, the confederate received written instructions in which he/she was informed that the study was about psychological and social responses to film scenes and that their participant was therefore being exposed now to a short video sequence. Immediately after the display, the confederate would have to hold a conversation with the participant about this video sequence. It was specified that this conversation had to last for five to ten minutes in total. Questions to be asked in this conversation by the confederate followed: (1) ‘Could you briefly describe the contents of the video sequence?’, (2) ‘Which of the three parts was the most shocking?’, (3) ‘Did viewing this video affect your view of human nature?’ (4) ‘Do you consider that viewing such sequences could be useful?’ (5) ‘Please express your feelings about the following: (a) paedophilia, (b) ill-treatment of animals, (c) genocide’. The next part of the instructions described responses to be adopted during the social sharing conversation. Their conditions varied as follows:
Socio-affective and cognitive reframing condition: ‘During the conversation, your role
will be to manifest your emotional support to the participant by being empathic, by listening,
by expressing comprehension, and by showing sympathy. In addition, you will have to hold a
positive point of view about the video viewed by the participant. In this latter respect, please
adopt positive reframing responses’. What was meant by positive reframing responses was
then specified and illustrated as follows: ‘The participant is presently viewing a video
sequence composed of three parts. The first one displays testimonies of child victims of
paedophilia. The second one is a hidden camera clip showing ill-treatment of animals in
livestock markets. The third part is a short documentary film on the Jewish genocide during
WWII. Please insist that the emotions felt when viewing this sequence are completely normal
and legitimate but that such reactions can be overcome by considering the positive impact the
displayed pictures can have. These pictures indeed already contributed (1) to a change in the
laws on paedophilia, in particular in Thailand where sanctions for sex tourism were
reinforced, (2) to the closure of the cattle markets depicted in the second documentary film,
(3) to the arrest and judgment at Nuremberg of 80 Nazis implicated in the genocide. In
addition, please insist that the video showed only negative aspects of human nature, whereas
in real life human beings are also capable of fabulous things (e.g. fighting diseases by
searching for new vaccines, making medicine available for all, fighting against poverty and
injustice, helping homeless people, developing institutions such as Doctors Without Border,
UNESCO, and so forth)’.

Socio-affective condition without cognitive reframing: ‘During the conversation, you
will have to express your emotional support for the participant by being empathic, by
listening, by expressing comprehension, and by showing sympathy, but you should never
express personal opinions in response to the participant's comments about the contents of the
video sequence’.
Cognitive reframing without socio-affective response: ‘During the conversation, your role will be to remain emotionally neutral, which means manifesting no empathy and maintaining a detached attitude with regard to the feelings expressed by the participant. In addition, you will have to hold a positive point of view about the video viewed by the participant. In this latter respect, please adopt a positive reframing response’. The previously described instructions specifying and illustrating what was meant by positive reframing responses followed.

Control condition (neither socio-affective responses nor cognitive responses): ‘During the conversation, your role will be to remain emotionally neutral, which means manifesting no empathy and maintaining a detached attitude with regard to the feelings expressed by the participant. In addition, in no way should you express personal opinions in response to the participant's comments about the contents of the video sequence. In sum, you must simply maintain a natural listening attitude’.

Besides the instructions they received, confederates had no information about the specific purposes of the study and they were thus totally blind to the tested hypotheses

Time 1 measurements

Emotional impact. Two different indexes were used to assess the residual emotional impact which the film had. First, participants rated on a scale from one (minimal upheaval) to 10 (maximum upheaval) how upset they felt in response to the video. Next, they rated on a five-point scale the extent to which they felt the ten negative affect items of the ‘state’ version of the PANAS (Positive Affect and Negative Affect Scale, Watson, Clark, & Tellegen, 1988) (α = 0.79).

Cognitive impact. First, participants' belief in a just world was measured with the six-item scale designed for this purpose by Dalbert, Montada, and Schmitt (1987). The items had to be rated on Likert scales (1 = total disagreement to 7 = complete agreement) (α = 0.71).
Next, belief about human nature was assessed on the following eight-item scale (1 = total disagreement to 7 = complete agreement) inspired by Janoff-Bulman's (1989) assumptive world questionnaires: (1) human beings are naturally good, (2-) people are generally mean, (3) people avoid hurting others as much as they can, (4-) human beings are capable of the worst atrocities, (5) human beings often manifest altruistic behaviours, (6-) human beings do not hesitate to hurt others in order to preserve their own interests, (7) deep down, human beings are ready to help, (8-) human beings do not care about the well-being of others.

Responses to the eight items were averaged ($\alpha = 0.77$).

**Interpersonal impact.** Two different indexes reflected this variable. First, participants rated on an emotional proximity scale ranging from one (not close at all) to seven (very close) how close, at this moment, they felt to the person with whom they shared the conversation. The second indicator consisted of the French translation of the UCLA Loneliness Scale (Russel, Peplau & Cutrona, 1980), which comprises 20 items, each rated on a scale from one (total disagreement) to five (total agreement). A total loneliness score ranging from 20 to 100 was calculated after conversion of negative items.

**Time 2 measurements**

Immediately after their re-exposure to the video sequence, participants again rated the extent to which the video sequence had upset them (10-point scale), the 10 negative affect items of the PANAS, the two worldview scales and the two scales assessing interpersonal variables. In addition, at the end of their participation, they had to indicate on three items (1 = total disagreement to 7 = complete agreement) the extent to which they had perceived the social sharing conversation as beneficial to them: (1) the conversation made me feel better, (2) the conversation enabled me to take a different perspective on the content of the video, (3) the conversation ended up by reducing my negative feelings. An average score of perceived benefits of the social sharing conversation was then carried out ($\alpha = 0.80$).
Compliance with instructions

Confederates and participants also rated items intended to assess their compliance with instructions. In the first session, the confederate indicated if the participant was (1) his/her life partner, (2) his/her boyfriend/girlfriend, (3) a close friend, (4) a friend, (5) someone he/she knew only a little, (6) a brother or sister. Immediately after the social sharing conversation, the confederates rated on a Likert scale (1 = not at all to 7 = completely) their perceived endorsement of the role they were assigned in this conversation.

Results

Compliance with instructions. Confederates' ratings of their perceived adherence to their role averaged 5.83 (SD = 0.79) on the seven-point scale anchored by one (not at all) and seven (completely). An analysis of variance (ANOVA) showed that these ratings did not vary with the experimental conditions.

Effects immediately after social sharing. Dependent variables assessed immediately after the social sharing conversation were subjected to a 2x2 ANOVA with socio-affective and cognitive responses as factors. The means and standard deviations observed for these variables in the four experimental conditions are displayed in Table 1.

Insert Table 1 about here

Regarding emotional variables (Hypotheses 1 and 2), participants' rating of the emotional impact of the film was significantly affected by both cognitive reframing, $F(1, 85) = 5.73, p < 0.05$, and socio-affective responses, $F(1, 85) = 4.09, p < 0.05$, whereas the interaction of these two variables failed to reach significance, $F(1, 85) < 1.0$. Conditions involving socio-affective responses yielded a higher emotional impact of the film ($M = 7.01, SD = 1.64$) compared with conditions without such responses ($M = 6.23, SD = 2.09$) whereas
conditions involving cognitive reframing generated a lower emotional impact of the film ($M = 6.17, SD = 2.07$) compared with conditions without cognitive reframing ($M = 7.10, SD = 1.64$). Similar effects occurred for negative affect. Thus, socio-affective conditions tended to entail a higher level of negative affect ($M = 2.50, SD = 0.67$) than neutral conditions ($M = 2.26, SD = 0.71$), $F(1, 85) = 3.31, p < 0.10$, whereas cognitive reframing conditions led to a lower level of negative affect ($M = 2.23, SD = 0.55$) than conditions without cognitive reframing, ($M = 2.54, SD = 0.79$), $F(1, 85) = 4.38, p < 0.05$. Again, the interaction of the two independent variables did not reach significance, $F(1, 85) < 1.0$. Thus, for both relevant dependent variables (i.e. emotional impact and negative affect), results fully supported Hypothesis 1 which predicted that socio-affective sharing would entail an emotional reactivation rather than a venting effect. Furthermore, the data for these two dependent variables consistently supported Hypothesis 2 according to which a cognitive sharing would yield a reduction of the emotional upheaval elicited by the film or, in other words, emotional recovery effects.

Regarding the two cognitive dependent variables (Hypothesis 3), cognitive sharing had a marginally significant impact on belief in a just world, $F(1, 85) = 3.59, p < 0.10$, and a significant impact on belief about human nature, $F(1, 85) = 5.85, p < 0.05$. Thus, consistently with Hypothesis 3, compared with participants in the non-cognitive conditions, those in the cognitive conditions manifested a stronger belief in a world ruled by justice (respectively, $M = 3.31, SD = 0.89$ and $M = 2.94, SD = 0.91$) as well as a more positive view of human nature (respectively, $M = 3.81, SD = 0.72$ and $M = 3.44, SD = 0.67$). There was no significant interaction, $F(1, 85) < 1.0$. In line with our expectation that effects on cognitive dependent variables would be specific to cognitive sharing conditions, socio-affective conditions yielded no significant effect for these variables, all $F$s ($1, 85) < 1.0.$
For interpersonal variables (Hypothesis 4), participants' perceived emotional proximity to their social sharing partner was significantly affected by socio-affective conditions, $F(1, 85) = 4.91, p < 0.05$. As predicted, participants exposed to socio-affective sharing conditions felt closer to their interaction partner ($M = 6.46, SD = 0.84$) than those in conditions devoid of socio-affective responses ($M = 5.95, SD = 1.19$). Confirming that such results are specific to socio-affective sharing, no significant effect of cognitive sharing conditions and no significant interaction emerged for this dependent variable, both $F$s ($1, 85$) < 1.0. Results were along the same lines for loneliness, with a significant main effect for socio-affective responses ($F(1, 85) = 4.91, p < 0.05$), and no effect for reframing, $F(1, 85) < 1.0$, or significant interaction, $F(1, 85) < 1.0$. Consistently with what was observed for emotional proximity, participants in socio-affective responding conditions felt less lonely ($M = 30.60, SD = 7.03$) than those in neutral conditions ($M = 35.09, SD = 11.26$). Altogether, these findings for interpersonal variables thus fully supported Hypothesis 4.

Effects two days later, after re-exposure to the video. Means and standard deviations for the various dependent variables recorded at time 2 in the four experimental conditions are shown in Table 2.

| Insert Table 2 about here |

With regard to emotional variables, an important effect of cognitive sharing conditions was found for the level of emotional impact of the film following re-exposure to the video sequence, $F(1, 77) = 7.43, p < 0.01$. Participants in cognitive conditions manifested a much lower emotional impact ($M = 5.70, SD = 2.49$) than those in the other two conditions ($M = 7.08, SD = 2.11$). Cognitive conditions also had an impact on negative affect in the same direction, $F(1, 77) = 4.58, p < 0.05$. Thus, participants in cognitive sharing conditions
evidenced a lower level of negative affect \((M = 2.24, \text{SD} = 0.64)\) than those in non-cognitive sharing conditions \((M = 2.55, \text{SD} = 0.72)\). These two effects supported Hypothesis 1 according to which cognitive sharing conditions would yield stable effects of emotional recovery, even after re-exposure to the emotional stimuli. No other significant effect was found for the emotional variables. In particular, the emotional reactivation effects entailed by socio-affective conditions at time 1 were no longer observed, thus confirming such effects to be evanescent, as supposed by Hypothesis 2.

With respect to the cognitive variables, cognitive conditions yielded a marginally significant effect for beliefs in a just world, \(F(1, 77) = 3.17, p < 0.10\) and a markedly significant effect for beliefs about human nature, \(F(1, 77) = 8.65, p < 0.01\). The two effects were in the same direction. Thus, reframing conditions generated a stronger belief in a just world than the no reframing conditions (respectively, \(M = 3.22, \text{SD} = 0.98\) and \(M = 2.84, \text{SD} = 0.88\)) and also induced superior confidence in human nature (respectively, \(M = 3.86, \text{SD} = 0.69\) and \(M = 3.41, \text{SD} = 0.68\)). These two effects supported Hypothesis 3 which stated that the positive effects of cognitive sharing conditions on beliefs and worldviews would be robust over time and would resist re-exposure to the emotional stimuli. No other significant effect was found for these dependent variables, thus confirming the observed effects to be specific to cognitive sharing conditions.

For interpersonal variables, consistently with our view that interpersonal effects observed immediately after socio-affective sharing would vanish in the long term (Hypothesis 4), no effect of socio-affective sharing conditions occurred on perceived proximity to the sharing target, \(F(1, 77) < 1.0\), or on loneliness, \(F(1, 77) = 1.87, \text{ns}\). Consistently with our expectations, no significant effect of positive reframing conditions occurred for these dependent variables, all three \(F\)s \((1, 77) < 1.0\).
Finally, ratings of the benefits participants had perceived in the social sharing conversation manifested a marginally significant effect of socio-affective conditions, $F(1, 77) = 3.01, p < 0.10$. In line with our expectations (Hypothesis 5), participants in socio-affective sharing conditions reported higher benefits than those in neutral conditions (respectively, $M = 4.51$, $SD = 1.27$ and $M = 3.96$, $SD = 1.65$). No other effect was observed for this variable.

Discussion

This study tested a theoretical model intended to specify the conditions under which talking about a negative emotional experience is beneficial and the type of benefits to be expected (Rimé, 2009). According to the model, overcoming the psychological impact of a negative emotional episode implies not one but two distinct regulation tasks. On the one hand, distress reduction should be observed if the social sharing process provides the subjects with socio-affective responses (e.g. social support, understanding, validation). On the other hand, emotional recovery should be achieved if the social sharing process involves a cognitive work geared towards switching off memory-sustaining cognitions. Participants shared their experience of an emotional video sequence and their listeners adopted either a socio-affective or a cognitive response style. In previous studies (Lepore et al., 2000, 2004; Mendolia & Kleck, 1993), the same person played the role of listener for all the participants. In the present study, each participant interacted with a member of his/her own intimate network. This not only enhanced the realism of the experiment but also reduced the possibility of contamination of the experimental conditions that could have occurred if a single confederate had been used. Psychology students who acted as confederates all took their role very seriously. This was supported by commitment ratings which averaged a value close to six on a seven-point scale ($SD < 1.0$).

Our results nicely supported all the various hypotheses. The initial question was whether recovery effects can result from simply verbalizing an emotion. The socio-affective
conditions of our experiment were suited to answer this question as they favoured maximal venting. The findings disconfirmed the venting hypothesis. Both for the emotional impact of the film sequence and for negative affect the observed values were in the opposite direction. Simply verbalizing an emotion exacerbated its negative effects instead of offering relief. Such effects were no longer apparent two days later. That the mere expression of an emotional experience yields an enhancement of that emotion was recently documented in the framework of collective emotional expression (Kanyangara, Rimé, Philippot, & Yzerbyt, 2007; Rimé, Kanyangara, Yzerbyt, & Paez, 2011; Rimé, Paez, Basabe, & Martinez, 2010). The popular view that putting an emotion into words dissolves it is thus unsubstantiated. In an empirical review of the venting hypothesis taken in its broader sense (i.e. the hypothesis that distress expressions, such as crying, or anger expression, have direct and immediate relief effects), Kennedy-Moore and Watson (1999) reached exactly the same conclusion: ‘(...) it should be clear that the venting hypothesis and its corollaries are myths. Whether or not expression of distress is beneficial depends on what is expressed, to whom, and how’ (p. 58).

We considered that the popular venting view might have its origin in the temporary distress-buffering effects resulting from the mere fact of being listened to by another person. Two findings from our socio-affective sharing conditions are consistent with this interpretation. On the one hand, supporting Hypothesis 5, a trend indicated that participants in these conditions reported experiencing higher benefits from their participation compared with those in the affectively neutral conditions. This result was obtained from the following three items: the conversation (1) made me feel better, (2) enabled me to take a different perspective, (3) ended up reducing my negative feelings. In actual fact, neither a change in perspective nor a reduction of negative feelings resulted from the socio-affective conditions. That participants in these conditions reported the opposite subjective impressions supports our speculation that the venting hypothesis originates from a misattribution. On the other hand, these same
participants also scored higher than their neutral counterparts on proximity and lower on loneliness. These various results are consistent with previous observations that merely sharing an emotion has both intrapersonal and interpersonal benefits (Zech & Rimé, 2005). That sharing an emotion with a supportive listener ends up enhancing social integration is both a basic consideration of our theoretical model (Rimé, 2009) and a well-documented finding in interpersonal (Christophe & Rimé, 1997, Collins & Miller, 1994; Laurenceau et al., 1998; Horowitz et al., 2001) and collective expression situations (Kanyangara et al., 2007, Rimé et al., 2010, 2011).

If simply verbalizing an emotion can bring temporary emotional relief, but fails to bring emotional recovery, the question then arises as to what conditions engender emotional recovery. A clear answer to this question was found. Immediately after sharing, participants involved in cognitively-focused sharing felt comparatively less upset by the video and reported a lower level of negative affect. These positive effects were robust as they were observed again two days later after participants' re-exposure to the video sequence. Our results thus clearly supported those of the only previous study that varied the response mode of a social sharing listener. Using four experimental conditions, Lepore et al. (2004) found recovery effects only in the challenging listener condition, a condition which clearly resembled the cognitive reframing conditions used in the present investigation. Additionally, as we had predicted, our cognitive sharing conditions entailed positive effects for the cognitive impact of the video sequence. Participants in these conditions manifested enhanced beliefs in a just world and in human nature, two beliefs expected to be shattered by the film sequence. Here too, these effects were robust, as they were maintained following the second exposure to the video sequence. To our knowledge, this is the first demonstration of reconstructive effects of a cognitive intervention after a laboratory-induced challenge of worldviews.
In the introduction to this article, we pointed out that the two response modes considered here were not new. Our socio-affective mode resembled the communal responses distinguished by Horowitz et al. (2001) and the definition of our cognitive reframing mode overlapped with the same authors’ agentic listener responses. Communal listeners' responses were found to increase the sharing person's level of positive affects (Pasupathi, 2003), and feelings of emotional proximity (Laurenceau et al., 1998; Horowitz et al., 2001). Agentic responses yielded a positive impact on negative affect (Costanza et al., 1988; Horowitz et al., 2001; Pasupathi, 2003). These previous observations are thus nicely consistent with the present results. The present study, however, was the first to test these response modes in the framework of a theoretical model specifically designed to account for effects of verbalizing and sharing emotional experiences. We believe that the results of our experiment increase confidence in a model intended to shed light on the question of effects of verbalizing emotions, a question which is often debated in a theoretical vacuum.

The various results of this experiment showed that emotional sharing can yield multiple benefits: emotional recovery, consolidation of shattered beliefs, social integration, and distress reduction. It is remarkable that the various observed effects, which were all predicted by our theoretical model, could be obtained from very simple instructions communicated in a few minutes to psychology students who found themselves transformed into confederates of their experimenter. Of course, the present endeavour is limited by its reliance on artificial, laboratory-induced, emotional experiences. It will be the task of future studies to examine the model in the context of emotional episodes in real life. In real life, most social sharing of emotion develops soon after the emotional event (Rimé, 2009). At this stage, however, affected persons do not lend themselves to cognitive response and predominantly manifest distress cues aimed at arousing socio-affective responses from the social environment. This suggests that the timing of the adoption of the two response modes
should be considered. In the period which immediately follows an emotional experience, socio-affective interventions might be most appropriate, both because they fit the natural demands and because they can buffer the distress resulting from the episode. Later on, victims of a negative experience might become progressively more accessible to cognitive change and might lend themselves more willingly and more profitably to a cognitive intervention.

To conclude, our previous studies demonstrated that emotions systematically elicit a social sharing process (Rimé, 2009). These studies thus revealed that an emotion is hardly the mere intrapersonal and private experience it is often considered in the literature. The present investigation supported the additional supposition that social sharing partners play a decisive role in the regulation of the emotional experience. The multiple potential effects of sharing an emotion which were illustrated in the experiment all depended upon the social sharing targets’ response style. No one can provide socio-affective responses for her/himself and cognitive reframing responses are much more easily initiated with the support of another person.
References


Table 1

Results for emotional, cognitive and social variables immediately after the social sharing conversation

<table>
<thead>
<tr>
<th></th>
<th>Socio-affective sharing</th>
<th>Neutral sharing</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Cognitive sharing</td>
<td>Non-cognitive sharing</td>
</tr>
<tr>
<td></td>
<td>Cognitive sharing</td>
<td>Non-cognitive sharing</td>
</tr>
<tr>
<td>N</td>
<td>23</td>
<td>22</td>
</tr>
<tr>
<td>N</td>
<td>22</td>
<td>22</td>
</tr>
</tbody>
</table>

Emotional variables

<table>
<thead>
<tr>
<th></th>
<th>Socio-affective sharing</th>
<th>Neutral sharing</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emotional impact</td>
<td>6.50 (1.75)</td>
<td>7.55 (1.36)</td>
</tr>
<tr>
<td>Negative affect</td>
<td>2.35 (.55)</td>
<td>2.66 (.76)</td>
</tr>
</tbody>
</table>

Cognitive variables

<table>
<thead>
<tr>
<th></th>
<th>Socio-affective sharing</th>
<th>Neutral sharing</th>
</tr>
</thead>
<tbody>
<tr>
<td>Belief / just world</td>
<td>3.34 (.93)</td>
<td>3.07 (1.01)</td>
</tr>
<tr>
<td>Beliefs / human nature</td>
<td>3.83 (.73)</td>
<td>3.44 (.70)</td>
</tr>
</tbody>
</table>

Interpersonal variables

<table>
<thead>
<tr>
<th></th>
<th>Socio-affective sharing</th>
<th>Neutral sharing</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emotional proximity</td>
<td>6.43 (.99)</td>
<td>6.50 (.67)</td>
</tr>
<tr>
<td>Loneliness</td>
<td>29.78 (9.69)</td>
<td>31.45 (7.24)</td>
</tr>
</tbody>
</table>
Table 2

Results for emotional, cognitive and social variables after re-exposure to the video two days later

<table>
<thead>
<tr>
<th></th>
<th>Socio-affective sharing</th>
<th>Neutral sharing</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Cognitive sharing</td>
<td>Non-cognitive sharing</td>
</tr>
<tr>
<td></td>
<td>$N = 21$</td>
<td>$N = 20$</td>
</tr>
</tbody>
</table>

**Emotional variables**

<p>| | | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Emotional impact</td>
<td>6.09 (2.62)</td>
<td>7.15 (2.13)</td>
<td>5.30 (2.34)</td>
<td>7.02 (1.99)</td>
</tr>
<tr>
<td>Negative affect</td>
<td>2.42 (.67)</td>
<td>2.52 (.68)</td>
<td>2.05 (.58)</td>
<td>2.59 (.76)</td>
</tr>
</tbody>
</table>

**Cognitive variables**

<p>| | | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Belief / just world</td>
<td>3.24 (1.02)</td>
<td>2.77 (.97)</td>
<td>3.20 (.98)</td>
<td>2.92 (.83)</td>
</tr>
<tr>
<td>Beliefs / human nature</td>
<td>3.80 (.55)</td>
<td>3.41 (.70)</td>
<td>3.93 (.83)</td>
<td>3.41 (.67)</td>
</tr>
</tbody>
</table>

**Interpersonal variables**

<p>| | | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Emotional proximity</td>
<td>6.05 (1.63)</td>
<td>6.40 (.68)</td>
<td>6.15 (1.14)</td>
<td>6.00 (1.03)</td>
</tr>
<tr>
<td>Loneliness</td>
<td>31.10 (10.36)</td>
<td>32.05 (9.75)</td>
<td>35.05 (12.36)</td>
<td>34.85 (9.23)</td>
</tr>
<tr>
<td><strong>Perceived benefits</strong></td>
<td>4.62 (1.31)</td>
<td>4.47 (1.27)</td>
<td>4.23 (1.54)</td>
<td>3.70 (1.80)</td>
</tr>
</tbody>
</table>