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On the dyadic nature of emotion regulation

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Chapter 2

Sense or Sensibility?
Social Sharers' Evaluations of Socio-Affective vs. Cognitive Support in Response to Negative Emotions

Summary
When in emotional distress, people often turn to others for social support. A general distinction has been made between two types of support that are differentially effective: Whereas socio-affective support temporarily alleviates emotional distress, cognitive support may contribute to better long-term recovery. In the current studies, we examine what type of support individuals seek. We first confirmed in a pilot study that these two types of support can be reliably distinguished. Then, in Study 1, we experimentally tested participants' support evaluations in response to different emotional situations using a vignette methodology. Findings showed that individuals perceived any type of reaction that included socio-affective support as preferable. The evaluation of cognitive support, however, was dependent on the specific emotion: Unlike worry and regret, anger and sadness were characterized by a strong dislike for purely cognitive support. Using different materials, Study 2 replicated these findings. Taken together, the findings suggest that individuals evaluate different types of support in a way that is unlikely to benefit emotional recovery in the long run.

This chapter is based on:

Pauw, L. S., Sauter, D. A., Van Kleef, G. A., & Fischer, A. H. (2018). Sense or sensibility? Social sharers' evaluations of socio-affective vs. cognitive support in response to negative emotions. *Cognition and Emotion*, *32*(6), 1247-1264.

Introduction

From time to time, we are all troubled by negative emotions. A wealth of research has studied how individuals regulate such emotions from an intra-individual perspective (for overviews, see Gross, 2013; Webb, Miles, & Sheeran, 2012). Crucially, however, when we experience negative emotions, we typically feel the urge to tell others about our experience, a phenomenon also termed social sharing (Rimé, 2009). One review found that almost all emotional experiences are shared with others (Rimé et al., 1992). Social sharing can be seen as a means of emotion regulation, in that the person who is sharing attempts to receive help from another in regulating their own emotions. The question then arises *how* they want the other to regulate their emotions. Or, to put it differently: What type of support do individuals seek when sharing their emotions?

Two primary types of support have been distinguished by Rimé (2009). Listeners may offer *socio-affective support*, which includes comfort and validation, or *cognitive support*, which is directed at altering cognitions related to the emotional experience by recreating meaning and reappraisal. It has been argued that these two types of support are differentially effective: Whereas socio-affective support temporarily alleviates emotional distress, cognitive support is thought to be effective in bringing about more long-term recovery (Brans, Mechelen, Rimé, & Verduyn, 2014; Lepore, Fernandez-Berrocal, Ragan, & Ramos, 2004; Mor & Winquist, 2002; Nils & Rimé, 2012; Rimé, 2009; but see Batenburg & Das, 2014; Lepore, Ragan, & Jones, 2000). What is unknown, however, is whether individuals' support preferences map onto this differential effectiveness. Do people indeed seek the support from others that would be best for them in the long term? The aim of the present chapter is firstly to investigate how people evaluate these different types of support when sharing their negative emotions with others, and secondly to establish whether support evaluations depend on the type of emotion that is shared. We report two experimental studies, in which we investigate evaluations of socio-affective and cognitive support, and examine potential moderation by the specific emotion at hand.

Support Evaluations

There is evidence suggesting that people are motivated to seek socio-affective support. As Rimé argues (2009), emotional distress produces socio-affective motives, possibly as a result of early attachment patterns. When in emotional distress, people seek out others (Schachter, 1959; Taylor, 2006), and socio-affective goals are well represented in the reasons people report for sharing their emotions with others (Duprez, Christophe, Rimé, Congard, & Antoine, 2014). The immediate emotional relief and reduced loneliness that socio-affective support

can engender (Brans et al., 2014; Morelli et al., 2015; Nils & Rimé, 2012) likely foster this pursuit.

The quest for cognitive support, however, is less straightforward. On the one hand, drawing on instrumental accounts of emotion regulation, individuals should be motivated to solicit cognitive support, given its long-term effectiveness (Tamir, 2009). Indeed, the needs for cognitive clarity, receiving advice, and obtaining another perspective have emerged alongside socio-affective motives as self-reported reasons for social sharing (Duprez et al., 2014). On the other hand, obtaining advice or a different view, without the other person first legitimizing the way one feels or providing emotional support, is generally not appreciated and is considered invalidating (Burleson et al., 2005; Lepore et al., 2000). It is therefore not clear whether people accurately foresee the benefits of cognitive support: The benefits likely take time to develop, and it is unclear whether they outweigh the potential short-term costs. People might not be willing to hear a different perspective too soon in the recovery process (Rimé, 2009). In sum, the desirability of socio-affective support seems relatively unequivocal, but when and to what extent people seek cognitive support remains an open question.

Support as a Function of Specific Emotions

One potentially important factor in examining the type of support that people prefer is the specific emotion at hand. Most research conducted on social sharing has focused on general negative affect or distress (though see Brans et al., 2013, 2014; Wetzer, Zeelenberg, & Pieters, 2007). Instructions often include recalling "a negative emotional experience" (e.g., Batenburg & Das, 2014; Zech & Rimé, 2005), or emotion manipulations involving videos that are likely to induce a mix of negative emotions (e.g., Lepore et al., 2004, 2000; Nils & Rimé, 2012). However, emotions differ in terms of their appraisals and associated action tendencies (Frijda et al., 1989; Roseman, 2013), the latter of which are predicted to have evolved into coherent sets of strategies for coping with different kinds of situations (Roseman, 2013). As such, emotions likely vary in their required types of regulation, and might thereby also elicit different support needs (Horowitz et al., 2001). To date, there has been little theorizing and research on the relationship between specific emotions and support needs. One exception is a set of studies conducted by Wetzer and colleagues (Wetzer et al., 2007). They tested the prediction that the action tendencies of two emotions (regret and anger) would result in differential evaluations of others' reactions to social sharing. They found that these two emotions indeed were associated with distinct response preferences: Anger was associated with a need for more validation and vicarious aggression directed at a third person, whereas regret elicited the need for more cognitive responses, particularly advice and reappraisal. In the current study, we

examine people's support seeking as a request for help with regulating one's emotions. We focus on several negative emotions that differ on features including, but not limited to, antecedent events, appraisal profiles, and action tendencies.

Overview of Present Research

Taken together, it seems evident that individuals are strongly inclined to share their emotions with others (Rimé, 2009; Rimé et al., 1991). This can be seen as an implicit request for others' support to help regulate the sharer's emotions, and sharers generally perceive social support to be helpful (Zech & Rimé, 2005). It is, however, less evident what type of support they want, which is an important question given the differential effectiveness associated with socio-affective and cognitive support.

The present set of studies examined individuals' evaluation of socio-affective and cognitive support. The broad concept of evaluation is used here to refer to individuals' judgments of the perceived benefit, effectiveness, and appropriateness of a specific type of support. In a pilot study, we asked participants to report on previous sharing episodes, in order to examine whether socio-affective and cognitive support were indeed the most important determinants of participants' evaluations, compared to other reasons for sharing. We largely replicated these findings in a second pilot study, fully reported in the Supplemental Materials (Supplement 2.3). Then, in Studies 1 and 2, we used an experimental approach to test evaluations of socio-affective and cognitive support directly, while also investigating the role of specific emotions. Participants imagined being in a situation eliciting regret, anger, sadness, worry, or general negative affect, and evaluated different forms of socio-affective and cognitive support.

We selected these emotions because of their prevalence in daily life (Shimanoff, 1984; Van Goozen & Frijda, 1993), and because they differ in terms of subjective experience and appraisals (Borkovec, Ray, & Stöber, 1998; Roseman, Spindel, & Jose, 1990; Roseman, Wiest, & Swartz, 1994; Scherer, 1999). More specifically, we included emotions that differ in 'certainty' appraisals, because we predicted that higher uncertainty regarding the situation or oneself would make one more receptive to cognitive support, as this may help to alleviate the uncertainty by changing the way one thinks about the situation. According to research in the domain of appraisal theory, worry and regret imply more uncertainty about the antecedent event than anger and sadness. Worry is characterized by an uncertain negative future outcome (Borkovec et al., 1998; Roseman et al., 1990) and regret involves self-doubt (Roseman et al., 1990; Wetzer et al., 2007). Sadness, on the other hand, is elicited by an irrevocable loss, whereas anger is evoked by the

(experienced) certainty that the blocking of one's goal is caused by the behavior of another person (Roseman et al., 1990).

We thus explored the possibility that individuals would be more open to cognitive support when experiencing regret and worry, compared to sadness and anger. As such, we would replicate and extend the different emotional support preferences between anger and regret that were found by Wetzer et al. (2007). We did not have any specific hypotheses regarding the appreciation of socio-affective support across emotions. Finally, in addition to four specific emotions, we included a condition evoking general negative affect ("feeling bad"), in order to facilitate comparison with previous research on social sharing. In all studies, we aimed for 50 participants per experimental condition. Furthermore, all study protocols were approved by the local ethics committee of the Department of Psychology of the University of Amsterdam.

Pilot Study

This pilot study was designed to test whether socio-affective and cognitive support are indeed the most important predictors of the perceived benefits of social sharing, and whether these predictors differ across emotions. We asked participants to recall a situation in which they experienced anger, sadness, regret, worry, or general negative affect. We then asked them to recall an instance in which they had shared a specific emotional experience with another person, to report on the fulfillment of potential sharing motives, and finally to judge perceived benefits as well as interpersonal closeness.

Method

Participants

A total of 289 participants, recruited through MTurk, completed the study in exchange for $1. Nine participants were dropped from the dataset: Six participants failed the attention question on the first page, which directed them to the end of the survey; one participant did not write down an emotional event; and two participants indicated that they had failed to successfully recall an emotional instance. This resulted in a final sample of 280 participants (47% male), with a mean age of 36.6 years (SD = 11.9), ranging from 18 to 71 years.

Procedure and Materials

Participants were asked to recall an emotional experience (involving sadness, worry, anger, regret, or general negative affect) that they had shared with someone who was uninvolved in the emotional experience itself. Indeed, participants overall reported to have experienced the target emotion most

intensely (see Supplement 2.1 and 2.2 for details on the manipulation check).[2] Participants were asked to think back at the sharing episode, and to complete an adapted version of the Social Sharing Motives Scale (SSMS; Duprez et al., 2014), rating the fulfilment of 42 different potential sharing goals on a 7-point Likert scale (1 = *strongly disagree* to 7 = *strongly agree*). Given significant intercorrelations among several of the factors, we opted for a promax rotated factor analysis, which revealed the following seven factors: Cognitive Support (e.g., "get an outside perspective"; α = .94), Arousing Empathy and Attention (e.g., "move them"; α = .90), Venting (e.g., "get it off my chest"; α = .87), Informing (e.g., "inform them about the situation"; α = .85), Socio-Affective Support (e.g., "feel I could rely on somebody"; α = .84), Warning (e.g., "warn them"; α = .91), and Finding Meaning (e.g., "find meaning in what occurred"; α = .83). The last factor was a combination of only two items that loaded considerably higher on the first factor (Cognitive Support). We therefore discarded this factor, but included the items in the first factor (see Appendix A for all items and associated factors).[3]

Next, participants rated their general affect after the sharing event, perceived affective improvement, perceived understanding, and perceived help (e.g., "To what extent do you have the impression that sharing your emotions with the other person made you feel better?") on a 100-point slider bar (0 = *not at all* to 100 = *very much*). These items were averaged to form a perceived benefits index (α = .76). Furthermore, participants rated how close they felt to their sharing partner both before and after sharing, by filling out the inclusion of the other in the self (IOS) scale (Aron, Aron, & Smollan, 1992), in which they were asked to choose between seven pictures representing different degrees of inclusion or closeness (1 = *no inclusion of other in the self* to 7 = *almost full inclusion of other in the self*). Finally, participants provided demographic information, after which they were debriefed and thanked for participating. In total, the study took 10 to 15 minutes to complete.

[2] The general negative affect condition, however, resembled the sadness condition.

[3] The results of this factor analysis thus largely replicated the SSMS factor structure reported by Duprez and colleagues (2014). Arousing Empathy and Attention, Venting, and Socio-Affective Support were almost exact replications of the original factors. Whereas Informing and Warning formed one factor in the original questionnaire, they now loaded on two separate factors. The two main differences were, firstly, that two factors of the SSMS, Clarification and Meaning, and Advice and Solutions, were now subsumed under one factor, termed Cognitive Support. Secondly, the SSMS included a factor named Re-experiencing, focused on re-experiencing and sharing the event. We did not replicate this factor: These items now fell under Informing and Arousing Empathy and Arousal. The failed replication of this latter factor may be explained by the fact that we only included negative emotional experiences, whereas the study by Duprez and colleagues focused both on positive and negative emotions. They found that positive, not negative emotions were mostly shared with the purpose of re-experiencing.

Results and Discussion

To test the relative importance of all types of fulfilled sharing motives, we conducted a regression analysis with all six factor means as predictors of perceived benefits. As predicted, Socio-Affective Support ($\beta = .35$, $t[272] = 4.63$, $p < .001$) and Cognitive Support ($\beta = .17$, $t[272] = 2.36$, $p = .019$) were significant positive predictors of perceived benefits, while Venting, Informing, and Warning were not. Finally, Arousing Empathy and Attention appeared to be a significant negative predictor of perceived benefits ($\beta = -.17$, $t[272] = -2.51$, $p = .013$). Adding interaction terms between Emotion and all six factors in a second block in the regression model did not lead to a significant change in explained variance, R^2 change = .02, $F(6, 267) = 1.03$, $p = .408$. The importance of the different sharing motives thus did not differ across specific emotions.

Furthermore, to test the relative importance of all six types of fulfilled sharing motives in predicting interpersonal closeness after sharing, we conducted a hierarchical linear regression while controlling for interpersonal closeness before sharing. In the first step, Pre-Sharing Closeness was added as a predictor of Post-Sharing Closeness using the Enter method. In the next step, all six fulfilled motives were added. The first model including only Pre-Sharing Closeness was significant, $F(1, 278) = 443.74$, $p < .001$. More importantly, including all fulfilled motives in the second model led to a significant increase in explained variance, R^2 change = .04, $F(6, 272) = 5.09$, $p < .001$. Obtained Socio-Affective Support was a significant positive predictor of Post-Sharing Closeness, $\beta = .19$, $t(271) = 3.54$, $p < .001$. Additionally, Venting was a marginally significant positive predictor of Post-Sharing Closeness, $\beta = .08$, $t(271) = 1.91$, $p = .057$. Cognitive Support, Arousing Empathy and Arousal, Informing and Warning did not significantly predict Post-Sharing Closeness (all ps > .327). Adding interaction terms between Emotion and all six motives in a third block in the regression model again did not lead to a significant change in explained variance, R^2 change < .01, $F(6, 266) = 0.37$, $p = .896$. Thus, Socio-Affective Support and Venting positively predicted interpersonal closeness experienced after sharing, regardless of the emotion.

The findings of this pilot study showed that both socio-affective and cognitive support positively predict perceived benefits of sharing, with socio-affective support additionally bringing about enhanced interpersonal closeness. This is in line with Rimé's theory (2009) that individuals have a strong motive to receive socio-affective and cognitive support when sharing their emotions. Furthermore, arousing empathy and attention appeared to be a negative predictor of perceived benefits. One explanation can be derived from inspection of the individual items, which tap into arousing interest, attention, and surprise. Making oneself stand out might lead one to feel deviant and consequently not well understood. Another

possible explanation may be that arousing too much empathy makes the problem seem worse, as it confirms the sharer's (negative) viewpoint. This is in line with research on co-rumination, which has shown that extensively discussing and revisiting emotional problems together can develop into dwelling on negative affect, which can impede emotional recovery (Rose et al., 2007; Stone et al., 2011). Together, these findings thus suggest that merely venting and arousing empathy and attention do not suffice, and might even have a negative impact on people's sharing experience. Socio-affective and cognitive support, on the other hand, appear to be the most important contributors to a positive sharing experience.

Given the relatively exploratory nature of this study and the large number of variables that were included, we conducted a second pilot study to confirm the robustness of these findings. This study is described in Supplement 2.3. We replicated both the positive effect of socio-affective and cognitive support on perceived benefits, as well as the negative effect of arousing empathy and attention, attesting to the robustness of these findings. Furthermore, socio-affective support again increased feelings of interpersonal closeness.

Finally, we found the positive effects of socio-affective and cognitive support across all studied emotions. The reported emotion episodes represented a great variety of events. While this variability may allow for generalizability across a wide range of emotional situations, it might also explain why we found no effects of emotion. Despite the fact that participants indicated to have experienced the target emotion most intensely (see Supplement 2.2), the situations they reported were very diverse, thereby likely varying on many dimensions such as antecedent events, appraisals, and action tendencies. This large variety within, compared to between emotion conditions may have overridden potential emotion effects. Therefore, we decided to use vignettes in Studies 1 and 2 to allow for cleaner comparisons between the different emotions.

Study 1

Having established the importance of socio-affective and cognitive support for sharers' perceptions of whether sharing episodes were beneficial, we focused only on these two types of support in the following studies. More specifically, in Study 1, we examined evaluations of socio-affective support, cognitive support, or a combination of both. In addition, we investigated whether the temporal order of received support might be relevant. Rimé (2009) argued that timing is important because socio-affective support may be essential in order to first buffer intense emotional distress, after which people may be open to a more cognitive form of emotion regulation (see also Burleson et al., 2005). In his argument, Rimé was referring to real-life emotional experiences where the intensity may require

multiple conversations over time to enable individuals' receptiveness for cognitive support. Given the overall lower emotional intensity that is brought about by vignettes, we thought that this methodology might allow us to examine whether a similar temporal order effect may occur on a shorter time scale (i.e., within one conversation). Finally, we examined whether support preferences would depend on the specific emotion at hand, using the same set of emotions as in the pilot study. Here, we used vignettes that were designed to elicit the target emotion. The different types of support were standardized by providing participants with supportive reactions tailored to the vignettes.

Method

Participants

A total of 277 participants were recruited through convenience sampling (i.e., personal networks of research assistants). They completed the survey online. One participant was excluded because she was underage. This resulted in a final sample of 276 participants (31% male), with a mean age of 32.4 years (*SD* = 14.6), ranging from 18 to 66 years. All participants signed informed consent online.

Procedure

After answering a few demographic questions, participants were presented with a vignette evoking either sadness, anger, regret, worry, or general negative affect. They were instructed to imagine themselves in the described situation, and were then asked to imagine sharing this situation with a friend over the phone. They were then presented sequentially with four different hypothetical reactions of their friend (i.e., socio-affective support, cognitive support, socio-affective support followed by cognitive support, or cognitive support followed by socio-affective support), which they rated on desirability, effectiveness, and appropriateness. Afterwards, they were asked to answer a few control questions about the realism of the vignettes and supportive responses, before they were debriefed about the purpose of the study and thanked for participating. In total, the study took participants 5 to 10 minutes to complete.

Design and Manipulations

The study involved a 5 (Emotion: sadness, worry, anger, regret, or general negative affect) x 4 (Support: socio-affective support, cognitive support, socio-affective support followed by cognitive support, or cognitive support followed by socio-affective support) mixed design. Participants were randomly assigned to one of the emotion conditions, and received all four types of support in random

order. The dependent variable comprised the ratings of the reactions on desirability, effectiveness, and appropriateness.

Emotion

Emotion was manipulated by using different vignettes, written on the basis of the core relational theme and appraisal pattern of each emotion (Roseman et al., 1990; Smith & Lazarus, 1993). The sadness scenario (definite loss) involved the death of a friend due to leukaemia. Worry (uncertain loss) was induced by a situation in which a friend was late and possibly involved in a train accident. The regret vignette (negative self-blame and desire to undo what has been done) described a missed opportunity to visit one's grandmother in the hospital. Anger (goal blockage and other-blame) was induced by a scenario in which a friend did not return a borrowed car in time for an important job interview of the protagonist. The scenario involving general negative affect described a typical bad day, during which everything seemed to go wrong. To ensure that the vignettes evoked the intended emotion, a pilot study was conducted. The results of this pilot study can be found in Supplement 2.4 (see Appendix B for the exact phrasing of the vignettes).

Support

Participants read four different types of supportive reactions of their hypothetical friend, involving socio-affective support, cognitive support, and two combinations. The combined responses were simply the exact combination of the socio-affective and cognitive support reaction, in two different orders. All supportive reactions were tailored to the specific vignette to enhance ecological validity (see Appendix B for the different support reactions). Socio-affective support messages always included validation of the other's feelings, understanding, and empathy (e.g. for sadness "I'm sorry to hear this, how horrible for you. I realize this must be very hard. I understand how you feel, and I can imagine you'll be upset for a while now."). Cognitive support was always characterized by providing and encouraging a different, more positive perspective on the situation (e.g. for sadness "Fortunately, she will no longer be in pain, after having been ill for such a long time. Now she is finally at peace. Try to think of the good memories you have together.").

Support evaluation

The different types of support were evaluated using 12 items tapping into desirability, anticipated effectiveness, and appropriateness (e.g., "To what extent would you like to receive this response?"). All questions were answered on a 7-point Likert scale (1 = *not at all* to 7 = *very much*) and can be found in Appendix C.

A general evaluation index was created by averaging all 12 items (all alphas > .96).[4]

Control questions

To preclude potential mood effects, participants rated their mood at the beginning of the experiment using a 100-point slider bar (0 = *bad* to 100 = *good*). Furthermore, we asked several control questions relating to the vignettes (e.g., concerning the realism of the described situations and support) to ensure that the vignettes did not differ in unintended ways. These questions and related results are reported in Supplement 2.5.

Results and Discussion

Participants did not differ in pre-study mood across the different emotion conditions ($M = 76.23$, $SD = 13.04$), $F(4, 271) = 0.22$, $p = .925$, $\eta_p^2 < .01$. To test which type of support participants preferred and whether these preferences were dependent on the emotion, a repeated-measures analysis was conducted with Support as a within-subjects factor and Emotion as a between-subjects factor. Mauchly's test indicated that the assumption of sphericity had been violated, $\chi^2(5) = 43.74$, $p < .001$. Therefore, degrees of freedom were corrected using Huynh-Feldt estimates of sphericity ($\varepsilon = .92$). The results showed a significant main effect of Support, $F(2.75, 745.51) = 27.31$, $p < .001$, $\eta_p^2 = .09$. Pairwise comparisons (Bonferroni-corrected) of support conditions indicated that, overall, purely cognitive support was least preferred compared to socio-affective support ($p < .001$, $d = .44$), socio-affective support followed by cognitive support ($p < .001$, $d = .54$), and cognitive support followed by socio-affective support ($p < .001$, $d = .33$; see Table 1 for means and standard deviations). Furthermore, the temporal order of the combined messages appeared to affect the evaluations. Socio-affective support followed by cognitive support was evaluated more positively than cognitive support followed by socio-affective support ($p = .001$, $d = .23$).[5] All other comparisons were non-significant (all ps > .379).

Furthermore, a significant interaction between Emotion and Support emerged, $F(11.00, 745.51) = 6.37$, $p < .001$, $\eta_p^2 = .09$. As can be seen in Figure 1, socio-affective support was roughly equally evaluated across the different emotions, while

[4] A principle axis factor analysis was conducted over all 12 items for each support message separately, collapsing across emotions. For three out of four support message evaluations, only one factor was extracted using Promax rotation (i.e. Eigenvalues over Kaiser's criterion of 1). For the socio-affective support message, two factors were extracted. For reasons of parsimony and consistency, we therefore averaged all items.

[5] Emotion also had a significant main effect on the preference ratings ($F[4, 271] = 19.64$, $p < .001$, $\eta_p^2 = .22$), indicating that support was differently evaluated across the different vignettes, regardless of the specific type of support that was offered. Since these effects are not relevant to our research question, pairwise comparisons are not discussed here (but can be provided upon request).

evaluations of cognitive support differed across the different emotions. Specifically, while purely cognitive support was least positively evaluated compared to all other types of reactions in the case of anger and sadness, this was not the case for general negative affect (GNA), regret, and worry. More specifically, in the case of sadness, any kind of response that included socio-affective support was evaluated more positively than responses that did not. For anger, the pattern was similar, although purely socio-affective support was perceived as even more positive than a combination of both (see Table 1). For worry, in contrast, the only significant difference that emerged was between cognitive support as compared to socio-affective support followed by cognitive support, with the latter being more positively evaluated. Similarly, the desired responses to regret were also less pronounced: Socio-affective support followed by cognitive support was evaluated more positively than only socio-affective support, with all other comparisons being non-significant. Lastly, the order in which socio-affective and cognitive support were offered only mattered in the case of GNA. The overall order effect of the two support combinations thus seemed to be driven by the GNA condition.

Table 1

Means (M) and Standard Deviations (SD) for Mean Evaluations of Socio-Affective Support (SA), Cognitive Support (C), Socio-Affective Support followed by Cognitive Support (SA-C), and Cognitive Support followed by Socio-Affective Support (C-SA), including Number of Participants (N) per Emotion Condition, Study 1

	GNA (N = 55)	Regret (N = 56)	Anger (N = 55)	Sadness (N = 52)	Worry (N = 59)	Total (N = 277)
	M (SD)	*M (SD)*	*M (SD)*	*M (SD)*	*M (SD)*	*M (SD)*
SA	5.00 (0.91) $^{ab\,1}$	4.52 (1.12) $^{a\,12}$	4.53 (1.40) $^{a\,12}$	4.69 (1.23) $^{a\,12}$	4.31 (1.12) $^{ab\,2}$	4.60 (1.18) ^{ab}
C	4.55 (1.30) $^{a\,12}$	4.95 (1.20) $^{ab\,1}$	2.89 (1.42) $^{b\,3}$	3.45 (1.29) $^{b\,34*}$	4.15 (1.30) $^{a\,24*}$	4.01 (1.49) ^{c}
SA-C	5.55 (1.02) $^{b\,1}$	5.19 (1.21) $^{b\,12}$	3.80 (1.59) $^{c\,3}$	4.65 (1.37) $^{a\,2}$	4.78 (1.29) $^{b\,2}$	4.80 (1.43) ^{a}
C-SA	4.90 (1.17) $^{a\,1}$	4.90 (1.25) $^{ab\,1}$	3.71 (1.34) $^{c\,2}$	4.38 (1.31) $^{a\,12}$	4.49 (1.20) $^{ab\,1}$	4.48 (1.32) ^{b}

Note. Numeric superscripts (^{123}) refer to comparisons between different emotions, within one support type (i.e., horizontal comparisons). Letter superscripts (^{abc}) refer to comparisons between different types of support, within one emotion condition (i.e., vertical comparisons). Shared superscripts indicate the absence of a statistical difference based on Bonferroni-corrected pairwise comparisons (i.e., $p > .05$). * $p = .052$.

In sum, the present study showed that, overall, participants believed they would prefer responses that included socio-affective support to responses that did not. Put differently, participants appeared to dislike purely cognitive support. However, this relative negative evaluation of cognitive support seemed to be mostly driven by anger and sadness; cognitive support was more appreciated in the case of worry and regret. Finally, socio-affective support followed by cognitive support was evaluated more positively compared to the reversed order, in line with Rimé's (2009) theory suggesting that socio-affective support might be required first to reduce emotional distress. It should be noted, however, that this order effect was only found for general negative affect. Taken together, across emotions participants thus seemed to expect to appreciate a response that is known to make people feel good in the short term, fostering closeness and relief (Brans et al., 2014; Morelli et al., 2015; Nils & Rimé, 2012). Whether people thought that they would be open to a more cognitively challenging form of support was dependent on the specific emotion at hand.

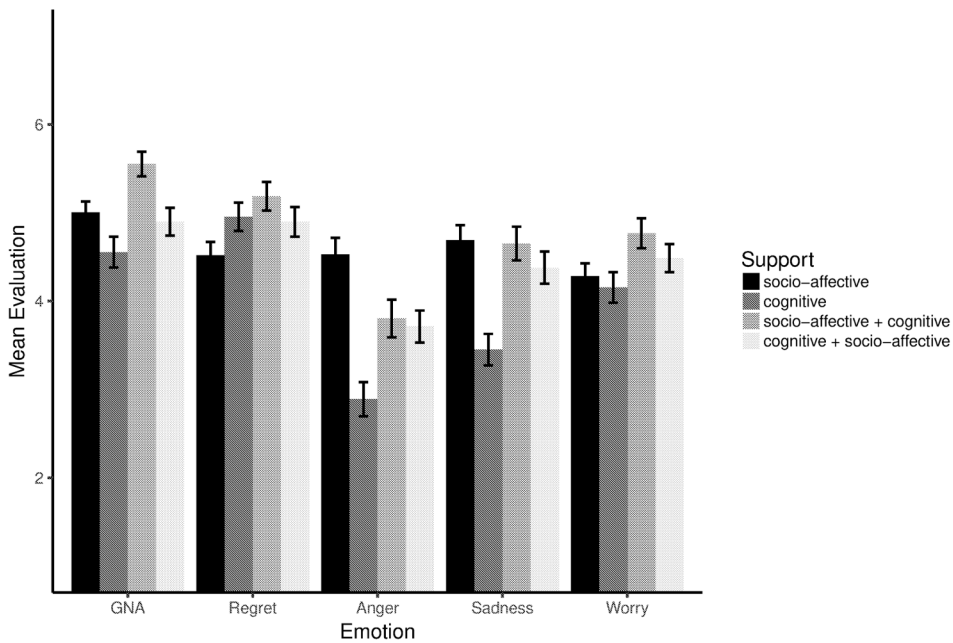

Figure 1. Mean Evaluations (the Higher, the More Positive) for all Supportive Reactions including Error Bars Representing One Standard Error around the Mean, per Emotion Condition, Study 1.

Study 2

Study 1 showed that, across emotions, purely cognitive support was least positively evaluated. All of the other responses (which all included socio-affective support) were perceived more positively. The order did seem to matter, at least for general negative affect, in that socio-affective support followed by cognitive support was preferred to the reversed order. Furthermore, evaluations were shown to depend on the emotion. Before interpreting these patterns, it should be noted that the support messages in Study 1 were tailored to the specific vignettes and thereby idiosyncratic. Therefore, the differential preference ratings cannot be solely attributed to the different emotions. To allow for firmer conclusions, we conducted a replication study in which we made use of new vignettes and associated supportive responses.

Method

Participants and Procedure

A total of 190 participants completed an online study via Crowdflower in exchange for $0.20. Responses of three participants were deleted because they participated twice. This resulted in a final sample of 187 participants (42% male), with a mean age of 37.6 years (*SD* = 12.5), ranging from 18 to 70 years. All participants signed informed consent online. The study took 5 to 10 minutes to complete.

Design and Material

The design was similar to that of Study 1, with one exception: The general negative affect condition was dropped because of the difficulty in comparing the findings to the four specific emotion conditions. More specifically, the general negative affect vignette evoked a mix of several negative emotions (e.g., frustration, anger, sadness), which may all be associated with different support preferences, making it difficult to interpret comparisons with the other vignettes that were constructed to evoke a single emotion. This resulted in a 4 (Emotion: sadness, worry, anger, or regret) x 4 (Support: socio-affective support, cognitive support, socio-affective support followed by cognitive support, and cognitive support followed by socio-affective support) mixed design. Participants were randomly assigned to one of the emotion conditions, and received all four types of support in random order. The dependent variable comprised the same ratings as in Study 1.

Emotion

Emotions were manipulated by presenting different vignettes. Compared to the vignettes used in Study 1, they were shorter and more general, to allow some room for participants to tap from their own experiences. Rather than being potentially side-tracked by specific details, we aimed for participants to visualize the depicted situations themselves, within the general frame of the vignette. The sadness scenario involved a friend committing suicide. Worry was induced by imagining discovering an odd-looking birthmark that might signify skin cancer. The regret scenario described having foregone a holiday that turned out to be fantastic. Finally, the anger vignette described a false accusation of having violated someone's trust. Again, the vignettes were validated in a pilot test, of which the results are described in Supplement 2.6. The exact vignettes can be found in Appendix D.

Support evaluation

Participants received support tailored to the specific vignette. The reactions were more general compared to Study 1, but comprised the same key elements (see Appendix D). For example, the socio-affective support message for sadness was "I'm very sorry for your loss. You must feel devastated. What a horrible situation". The cognitive support message read: "At least you know that this is what she wanted. Now, she no longer needs to suffer". The same items as in Study 1 were used to evaluate the responses, resulting in a general evaluation index for each of the four support types (all alphas > .97).[6]

Results and Discussion

To test how participants evaluated the different types of support and whether these evaluations were emotion-specific, a repeated-measures analysis was conducted with Support as a within-subjects factor and Emotion as a between-subjects factor. Mauchly's test indicated that the assumption of sphericity had been violated, $\chi^2(5) = 42.87$, $p < .001$. Therefore, degrees of freedom were corrected using Huynh-Feldt estimates of sphericity ($\varepsilon = .88$). The results showed a significant main effect of Support, $F(2.65, 484.11) = 11.98$, $p < .001$, $\eta_p^2 = .06$. Replicating Study 1, Bonferroni-corrected pairwise comparisons indicated that, overall, purely cognitive support was evaluated significantly less positively than socio-affective support ($p = .006$, $d = .31$), socio-affective support followed by cognitive support ($p < .001$, $d = .38$), and cognitive support followed by socio-affective support ($p < .001$, $d = .34$; see Table 2 for means and standard deviations).

[6] Accidentally, one item tapping into desirability was not included. However, a principle axis factor analysis revealed that for all support types, again only one factor was extracted using Promax rotation (i.e., Eigenvalues over Kaiser's criterion of 1), thereby yielding essentially the same preference index.

The latter three types of support did not differ in terms of their evaluations (all *p*s > .945).[7]

Table 2
Means (M) and Standard Deviations (SD) on Mean Evaluations of Socio-Affective Support (SA), Cognitive Support (C), Socio-Affective Support followed by Cognitive Support (SA-C), and Cognitive Support followed by Socio-Affective Support (C-SA), including Number of Participants (N) per Emotion Condition, Study 2

	Regret (*N* = 47)	Anger (*N* = 50)	Sadness (*N* = 47)	Worry (*N* = 43)	Total (*N* = 187)
	M (SD)	*M (SD)*	*M (SD)*	*M (SD)*	*M (SD)*
SA	4.41 (1.69) $^{a\,1}$	4.55 (1.41) $^{a\,1}$	4.86 (1.39) $^{a\,1}$	4.14 (1.45) $^{a\,1}$	4.50 (1.50) ^{a}
C	4.78 (1.43) $^{a\,1}$	3.48 (1.49) $^{b\,2*}$	2.69 (1.60) $^{b\,2*}$	5.13 (1.33) $^{b\,1}$	3.99 (1.76) ^{b}
SA-C	5.03 (1.47) $^{a\,12}$	4.32 (1.67) $^{a\,23}$	3.57 (1.73) $^{c\,3}$	5.77 (0.99) $^{c\,1}$	4.64 (1.70) ^{a}
C-SA	4.94 (1.40) $^{a\,1}$	4.62 (1.42) $^{a\,1}$	3.37 (1.80) $^{c\,2}$	5.39 (1.15) $^{bc\,1}$	4.57 (1.64) ^{a}
N	47	50	47	43	187

Note. Numeric superscripts (^{123}) refer to comparisons between different emotions, within one support type (i.e., horizontal comparisons). Letter superscripts (^{abc}) refer to comparisons between different types of support, within one emotion condition (i.e., vertical comparisons). Shared superscripts indicate the absence of a statistical difference based on Bonferroni-corrected pairwise comparisons (i.e., $p > .05$). * $p = .053$.

[7] Again, Emotion exerted a main effect, $F(3, 183) = 15.89$, $p < .001$, $\eta_p^2 = .21$, indicating that support was generally more appreciated for some emotions compared to others. Since these differences were not relevant to our research question, the specific comparisons are not discussed here.

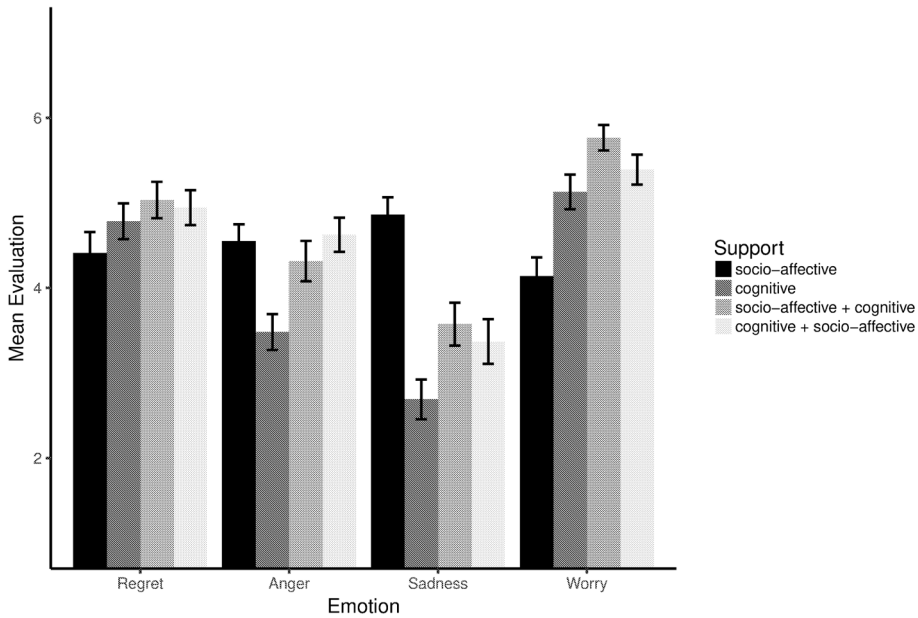

Figure 2. Mean Evaluations (the Higher, the More Positive) for all Supportive Reactions including Error Bars Representing One Standard Error around the Mean, per Emotion Condition, Study 2.

Furthermore, a significant interaction effect emerged between Emotion and Support, again indicating that support evaluation was emotion-specific, $F(7.94, 484.11) = 15.40$, $p < .001$, $\eta_p^2 = .20$ (see Table 2 for the means and standard deviations). As can be seen in Figure 2, socio-affective support was equally favorably evaluated across the different emotions (all *p*s > .134). Again, cognitive support was driving the differential evaluations across the emotions. The emotion-specific patterns were roughly similar to those in Study 1, with a few small differences. Replicating the results of Study 1, the poor evaluations of cognitive support were particularly pronounced in the sadness and anger conditions. For anger, purely cognitive support was least positively evaluated, compared to any of the other reactions, while all other responses were equally positively evaluated. For sadness, purely socio-affective support was evaluated more positively than any of the other responses. Socio-affective support followed by cognitive support was perceived as more positive than purely cognitive support, with the reversed order combination falling in between. For worry, we observed the opposite pattern: Socio-affective support was rated lower than responses that included cognitive support. Here, the combination of socio-

affective support followed by cognitive support was evaluated more positively than purely cognitive support, and the reversed-order combination again fell in between. Finally, for regret, no differences emerged: All support messages were evaluated equally.

In sum, replicating the results of Study 1 using different vignettes, participants again indicated that they would appreciate cognitive support least, while any type of reaction including socio-affective support was evaluated more positively. Again, anger and sadness were driving this effect. Worry and regret, on the other hand, were associated with relatively more appreciation of cognitive support.

General Discussion

The present studies examined how individuals evaluate different types of social support in response to sharing negative emotional experiences, and whether these evaluations are emotion-specific. Two pilot studies established that socio-affective and cognitive support were the most important contributors to whether people felt social sharing was fulfilling to them (see also Rimé, 2009). We then conducted two experiments to compare people's relative evaluations of different kinds of support. Participants were presented with vignettes evoking sadness, anger, worry, regret, or (in Study 1) general negative affect. Subsequently, they were presented with responses providing socio-affective support, cognitive support, or a combination of both, and were asked to evaluate these.

Main Findings and Theoretical Implications

We assessed participants' preferences with respect to the kind of support they would want when sharing their emotions. Participants generally felt that receiving any type of response that included socio-affective support would be more favorable than receiving purely cognitive support. This result may be partially explained by the finding of our pilot studies showing that it is socio-affective support that fosters feelings of interpersonal closeness (cf. Batenburg & Das, 2014; Nils & Rimé, 2012), and is in line with previous research indicating that people perceive socio-affective support to be helpful (even though more objective measures indicate otherwise; Brans, Koval, et al., 2013; Morelli et al., 2015; Nils & Rimé, 2012). Furthermore, the consistently high desirability of socio-affective support across different emotional situations fits well with the finding that socio-affective support is the most normative and frequently used response (Brans, Van Mechelen, et al., 2013).

However, the current set of results adds an important caveat to this conclusion, because support evaluations were found to be emotion-specific: Whereas socio-affective support was considered equally desirable across emotions, the

appreciation of cognitive support was dependent on the specific emotion. More specifically, the relative dislike of purely cognitive support appeared to occur most strongly in situations of anger and sadness. Cognitive support was anticipated to be more appreciated in the case of worry and regret than of anger and sadness. For worry, though, socio-affective support followed by cognitive support was slightly preferred over purely cognitive support, again underlining that purely cognitive support is rarely appreciated (see also Brans, Van Mechelen, et al., 2013). For regret, support preferences were less differentiated. Finally, general negative affect was included in Study 1, because previous research has often not specified the type of negative affect that was induced. The support evaluations of general negative affect closely resembled the average pattern across the specific emotions, demonstrating a general preference for any type of socio-affective support. The findings of Study 1 further suggested that cognitive support should preferably be preceded by socio-affective support rather than vice versa – an effect we did not replicate in Study 2, quite possibly because general negative affect was not included in Study 2.

There are multiple explanations for the differential support evaluations across emotions. As noted, the four emotions differ in their appraisals, action tendencies, and subjective experiences (Borkovec et al., 1998; Roseman et al., 1990, 1994; Scherer, 1999). Especially differences in certainty appraisals could have affected the receptiveness to cognitive support. Drawing on Lazarus' theory and empirical work on coping and stress (e.g., Folkman & Lazarus, 1980), one factor that may explain the different patterns for sadness and anger on the one hand, and worry and regret on the other hand, concerns the extent to which participants believe there is something that can still be done about the situation. Sadness is characterized by certainty about the loss (Roseman et al., 1990), which renders it relatively difficult to reappraise: The main thing one can do in many such situations, is to accept the situation as it is. Socio-affective support may in fact be especially desirable in the case of sadness because it can reduce experienced loneliness by providing comfort, care, and proximity (Morelli et al., 2015; Rimé, 2009). Indeed, sadness over a social loss has been shown to be associated with an increased desire for social connectedness (Gray, Ishii, & Ambady, 2011), in which socio-affective support can provide. Similarly, anger is also characterized by the appraisal of certainty, in that the angry person is certain that the blocking of their goal is caused by the behavior of another person (Roseman et al., 1990). This certainty of others' wrongdoing may explain why individuals prefer to be validated (i.e., receiving socio-affective support) rather than challenged (i.e., receiving cognitive support) in their view of the situation. Thus, because appraisals of certainty are inherent to anger and sadness, socio-affective support may be more desirable than cognitive support.

Worry, on the other hand, is characterized by great uncertainty (i.e., fear that something bad might happen; Borkovec, Ray, & Stöber, 1998; Roseman et al., 1990). The person experiencing worry could thus potentially still do something constructive about this situation, such as changing their negative appraisal of the uncertain situation. Receiving an alternative perspective on a worrisome situation may therefore be highly welcome. Similarly, while the negative outcome in the case of regret may be certain, a characterizing feature of this emotion is the motivation to correct or improve in the future (Roseman et al., 1994). As such, regret may be best countered by cognitive support, not only because one can learn from previous experiences in order to improve in the future, but also because putting such a situation in perspective may benefit one's self-evaluation, which is at stake in the case of regret (Roseman et al., 1990; see also Wetzer et al., 2007). Thus, both for worry and regret, a complete focus on accepting the negative (appraisal of the) situation may exacerbate the negative emotion, while reappraisal may alleviate the negative emotions. Admittedly, our data only provide indirect evidence for the role of appraisals. Additional research is needed to test these explanations directly. The fact that we replicated this pattern of results in two studies that differed in vignettes, support messages, and populations, does speak to the reliability of the observed effects.

Taken together, the reported studies show that socio-affective and cognitive support indeed were the most important contributors to whether people felt that others' regulation had helped them. People consistently indicated that they would appreciate receiving socio-affective support when sharing their emotions. The desirability of cognitive support, however, was more context-dependent, and differed between emotions. Our findings regarding the varying appreciation of cognitive support may help explain some previous inconsistencies with regards to the effectiveness of cognitive support (e.g., Lepore et al., 2004, 2000). In some emotional situations, cognitive support may be less effective (e.g., sadness about the death of a loved one), or individuals might simply be unwilling to receive this type of support (e.g., anger about un unfair treatment), thereby also rendering it ineffective (Horowitz et al., 2001).

Limitations and Future Directions

Several limitations of our studies should be acknowledged. First, it should be noted that we did not assess actual support provision. Therefore, our findings are limited to what people *think* they seek and appreciate. It is conceivable that people's preferences for particular forms of emotional support in hypothetical situations differ from their appreciation when actually receiving such support (see Loewenstein, 1996). Future studies are needed to establish when cognitive support might actually be desired and appreciated. Discovering under which

circumstances people are open to cognitive support is important, given that cognitive support seems necessary to achieve emotional recovery. By providing another perspective, listeners may help the sharer change their appraisal of the situation and thereby also their emotional response (Gross, 2002; Jones & Wirtz, 2006; Rimé, 2009). Indeed, several studies suggest that cognitive support can bring about long-term emotional, cognitive and physiological benefits (Batenburg & Das, 2014; Lepore et al., 2004; Nils & Rimé, 2012). Importantly, however, support may only be effective when individuals actually wish to receive it (Horowitz et al., 2001). Indeed, if people are not open to cognitive support, they are likely to dismiss it (see Lepore et al., 2000).

Besides the specific emotion at hand, one potential boundary condition for the appreciation of cognitive support may be whether it is preceded by (or co-occurs with) socio-affective support. The current findings suggest that cognitive support can generally be appreciated, as long as it comes with socio-affective support. This overall preference for a combination of both types of support is in line with the idea that socio-affective support may be necessary to buffer intense emotional distress first, after which people may be open to more cognitive forms of emotion regulation (Burleson et al., 2005; Rimé, 2009). Although we only found an effect of the order of combined support for general negative affect, order may be important in real-life interactions that extend over longer time periods. Order effects may further be dependent on a second, related, boundary condition: timing. Immediately after an emotional event, emotional intensity may be too high for sharers to appreciate cognitive support. Supporting this idea, research on intrapersonal emotion regulation has shown that individuals choose to engage in more cognitive forms of emotion regulation (i.e., reappraisal) at later stages in the emotional episode (Kalokerinos, Résibois, Verduyn, & Kuppens, 2016) and when emotional intensity is relatively low (Sheppes et al., 2014). Future studies comparing emotional situations varying in recency, or in which support provision spans longer periods of time (e.g., daily diary studies) may lend themselves better to test whether time, or the antecedence by socio-affective support may indeed be required for individuals to be open to cognitive support.

A related question for future research is whether people communicate their emotions differently when they seek different types of support (Derlega, Winstead, Oldfield III, & Barbee, 2003; Horowitz et al., 2001). Such support-driven expressions would likely shape the responses they elicit from the listener (Horowitz et al., 2001; Yankeelov, Barbee, Cunningham, & Druen, 1995). People may share their emotions in such a way that they are more likely to elicit socio-affective support from the other, which would make them feel good in the short term (Nils & Rimé, 2012; Rimé, 2009). However, this may be problematic as repeatedly sharing one's emotions while receiving socio-affective support can

result in co-rumination (Curci & Rimé, 2012). Co-rumination involves frequently discussing problems together and dwelling on negative emotions, and has been found to predict greater friendship quality, but also depression and inadequate emotional adjustment (Rose et al., 2007; Stone et al., 2011). Thus, by shaping conversations, people's strong need for socio-affective support may even be one of the reasons why social sharing mostly leads to *perceived* benefits, but not to actual recovery.

Finally, it is worth mentioning that we do not intend to claim that socio-affective support and cognitive support are the only two types of (meaningful) support. In our studies, we have limited ourselves to verbal responses to social sharing. Two other forms of support that are less targeted at directly regulating the emotion at hand, yet are likely to be frequently sought and provided, include instrumental support and social companionship (see Cohen & Wills, 1985). Instrumental (or practical) support involves the provision of concrete, tangible assistance, such as driving someone to the hospital or doing their groceries (Cohen & Wills, 1985). Social companionship includes any form of spending leisure time together, which may facilitate distraction and bring about more positive affect and – to the best of our knowledge – seems relatively overlooked as a form of social support. Interestingly, these two types of support were not evident in the reasons people reported for sharing their emotions (Duprez et al., 2014). It may be that individuals are less likely to share their emotions with others when their goal is to obtain distraction. This, however, remains an empirical question.

Concluding Remarks

In sum, the current studies indicate that individuals generally anticipate appreciating socio-affective support more than cognitive support when imagining sharing their emotions with others, which is in line with the great prevalence of socio-affective support provision and the perceived benefits of sharing (Rimé, 2009; Zech & Rimé, 2005). The anticipated appreciation of cognitive support seems more dependent on context, specifically the particular emotion at hand. Given its potential to enhance emotional recovery, future research is warranted to identify under which circumstances people are in fact open to receive cognitive support from others.

Appendix A

Adapted version of the Social Sharing Motives Scale (Duprez et al., 2014). The abbreviations in brackets refer to the subscales in our pilot studies: Cognitive Support (CS), Socio-Affective Support (SAS), Arousing Empathy and Attention (AEA), Venting (VE), Informing (INF), and Warning (WA).

When you shared the event with the other person, what kind of response did you want from them?

1. learn about their view (CS)
2. receive support (SAS)
3. share my emotions (VE)
4. learn about their opinion (CS)
5. re-experience the event (AEA)
6. express my emotions (VE)
7. share my experience (INF)
8. be supported (SAS)
9. get attention (AEA)
10. receive suggestions (CS)
11. inform the other (INF)
12. think about what occurred (CS)
13. get an outside perspective (CS)
14. have my view of the event validated (CS)
15. let off steam (VE)
16. inform them about what occurred (INF)
17. make myself stand out (AEA)
18. feel I could rely on somebody (SAS)
19. put what occurred into perspective (CS)
20. see how they would have reacted (CS)
21. cause surprise (AEA)
22. warn the other (WA)
23. feel connected (SAS)
24. analyze what happened (CS)
25. remember what occurred (AEA)
26. arouse empathy (AEA)
27. better understand what occurred (CS)
28. be helped (SAS)
29. get it off my chest (VE)
30. inform them about the situation (INF)

31. evoke emotion in the other (AEA)
32. vent my feelings (VE)
33. generate interest (AEA)
34. find meaning in what occurred (CS)
35. warn them (WA)
36. let my emotions out (VE)
37. move them (AEA)
38. clarify my feelings about what occurred (CS)
39. share the event (INF)
40. get a different perspective on the situation (CS)
41. get a more positive view on the situation (CS)
42. seek physical support (e.g., a stroke, a hug, an arm around my shoulder) (SAS)

Appendix B

Vignettes and Supportive Reactions Used in Study 1

In Study 1, participants were randomly presented with one of the five emotion-inducing vignettes. These are presented separately below, each with four supportive reactions tailored to the specific vignette. Please note that these concern translations of the originally Dutch vignettes and responses.

Sadness

Vignette

You are at home and receive a phone call. You see on the screen that it is the [male] friend of a good [female] friend of yours. You have been friends with her for a long time, and you see each other often. You answer your phone and immediately you hear that his voice sounds unusual. He asks you if you can sit down, because something serious has happened. You immediately suspect what it is about. Your mutual friend has leukaemia. Lately, she fortunately seemed to be doing better. Then you hear your mutual friend on the phone say that she passed away last night. You really did not expect this.

Socio-Affective Support

I'm sorry to hear this, how horrible for you. I realize this must be very hard. I understand how you feel, and I can imagine you'll be upset for a while now.

Cognitive Support

I'm sorry to hear this. Fortunately, she will no longer be in pain, after having been ill for such a long time. Now she is finally at peace. Try to think of the good memories you have together.

Socio-Affective + Cognitive Support

I'm sorry to hear this, how horrible for you. I realize this must be very hard. I understand how you feel, and I can imagine you'll be upset for a while now. Fortunately, she will no longer be in pain, after having been ill for such a long time. Now she is finally at peace. Try to think of the good memories you have together.

Cognitive + Socio-Affective Support

I'm sorry to hear. Fortunately, she will no longer be in pain, after having been ill for such a long time. Now she is finally at peace. Try to think of the good memories you have together.

How horrible for you. I realize this must be very hard. I understand how you feel, and I can imagine you'll be upset for a while now.

Anger

Vignette

A friend is begging you to borrow your car for the night. She really wants to go to a party, but it is outside of the city. You agree to her request, but on the condition that she will return the car on time. You need the car the next morning to go to an important job interview. She promises you everything will be alright, snatches the keys out of your hands and takes off. When you leave the house the next morning, the car isn't there! Just at that moment your phone beeps, and you receive a text message from her: "I had too much to drink to drive home, sorry". Again, she did not stick to the agreement. This means you will not be on time for your job interview.

Socio-Affective Support

I'm sorry you won't be on time for your interview now. I understand how you feel. What your friend did is really not okay. She knew how important this was for you.

Cognitive Support

These things happen, you'll get another chance. Try to see it as a learning experience. From now on you may be more cautious and not lend your car to someone who doesn't not seem so reliable after all.

Socio-Affective + Cognitive Support

I'm sorry you won't be on time for your interview now. I understand how you feel. What your friend did is really not okay. She knew how important this was for you. But these things happen, you'll get another chance. Try to see it as a learning experience. From now on you may be more cautious and not lend your car to someone who doesn't not seem so reliable after all.

Cognitive + Socio-Affective Support

These things happen, you'll get another chance. Try to see it as a learning experience. From now on you may be more cautious and not lend your car to someone who doesn't not seem so reliable after all. I'm sorry you won't be on time for your interview now. I understand how you feel. What your friend did is really not okay. She knew how important this was for you.

Regret

Vignette

Your grandmother is old and her health is deteriorating. She is trying her best to stay strong, but now she needs to go to the hospital. Your parents are asking you if you will also come visit her. You are in doubt because the timing is not great as

you are very busy with work. Besides, the hospital your grandmother is in is not exactly around the corner. In the end, you decide not to go. Later you hear that she has been moved to a special ward that does not allow visitors, and you do not know if you will be able to see her again. You think to yourself, I wish I had gone.

Socio-Affective Support
I'm sorry for you that you can't see her right now. I understand this must be really hard for you, and I can imagine that you're afraid that you will not be able to see her again.

Cognitive Support
You could not have seen this coming, so don't blame yourself. She has been hanging in there for a long time now, and she is strong, so I'm sure she will pull through. Who knows, she may be dismissed from the ward soon, and you will be able to visit her again. Try not to worry about it too much.

Socio-Affective + Cognitive Support
I'm sorry for you that you can't see her right now. I understand this must be really hard for you, and I can imagine that you're afraid that you will not be able to see her again. But you could not have seen this coming, so don't blame yourself. She has been hanging in there for a long time now, and she is strong, so I'm sure she will pull through. Who knows, she may be dismissed from the ward soon, and you will be able to visit her again. Try not to worry about it too much.

Cognitive + Socio-Affective Support
You could not have seen this coming, so don't blame yourself. She has been hanging in there for a long time now, and she is strong, so I'm sure she will pull through. Who knows, she may be dismissed from the ward soon, and you will be able to visit her again. Try not to worry about it too much. I'm sorry for you that you can't see her right now. I understand this must be really hard for you, and I can imagine that you're afraid that you will not be able to see her again.

Worry

Vignette
Tonight a good friend of yours is coming over for dinner. While grocery shopping, you are texting elaborately about what to have for dinner. Once you get home you start cooking, as he will arrive any minute. After some time, dinner is almost ready, but your friend still hasn't arrived yet. This is strange, because usually he is always on time. He hasn't let you know he will be late. You try to call him to check, but he doesn't pick up. After half an hour, you hear on the radio that a train accident occurred between Utrecht and Amsterdam. He was on the train from Utrecht to Amsterdam.

Socio-Affective Support
What an unpleasant situation. He is usually always on time. Strange that he didn't notify you. I understand you are afraid that he might have been on that train, let's hope he wasn't!

Cognitive Support
We should not immediately assume the worst. Maybe he missed his train. There are no trains going anymore between Utrecht and Amsterdam at the moment. And even if he would be on the train that was in the accident, that does not necessarily mean he is seriously injured of course.

Socio-Affective + Cognitive Support
What an unpleasant situation. He is usually always on time. Strange that he didn't notify you. I understand you are afraid that he might have been on that train, let's hope he wasn't! We should not immediately assume the worst. Maybe he missed his train. There are no trains going anymore between Utrecht and Amsterdam at the moment. And even if he would be on the train that was in the accident, that does not necessarily mean he is seriously injured of course.

Cognitive + Socio-Affective Support
We should not immediately assume the worst. Maybe he missed his train. There are no trains going anymore between Utrecht and Amsterdam at the moment. And even if he would be on the train that was in the accident, that does not necessarily mean he is seriously injured of course. But what an unpleasant situation. He is usually always on time. Strange that he didn't notify you. I understand you are afraid that he might have been on that train, let's hope he wasn't!

General Negative Affect

Vignette
You wake up with a start, look at the clock and realize you have overslept. You haven't been in a good place lately and you are as slow as molasses. Now you also need to rush to get to work on time. You see it is raining heavily and you need to cycle to work. Unfortunately, you don't have time to find your rainwear. You arrive to work late and totally soaked. The rest of the day you work as hard as possible, but it seems as if the pile of work is not getting any smaller. You decide to stay late to finish your work. When you cycle home in the evening, it's still pouring outside. Once at home and hungry, you open the fridge to find that the food you had been looking forward to eating has gone bad.

Socio-Affective Support
I understand how you feel. I'm sorry you had such a bad day. And then you had to work late. I can imagine you wish this day was just over.

Cognitive Support
Fortunately, tomorrow is a new day that I'm sure will be better. Don't worry too much about this being a bad day. At least you got some work done today.

Socio-Affective + Cognitive Support
I understand how you feel. I'm sorry you had such a bad day. And then you had to work late. I can imagine you wish this day was just over. Fortunately, tomorrow is a new day that I'm sure will be better. Don't worry too much about this being a bad day. At least you got some work done today.

Cognitive + Socio-Affective Support
Fortunately, tomorrow is a new day that I'm sure will be better. Don't worry too much about this being a bad day. At least you got some work done today. I do understand how you feel. I'm sorry you had such a bad day. And then you had to work late. I can imagine you wish this day was just over.

Appendix C

We asked participants to rate the following items in Study 1 and Study 2, with the exception of item 2, which was accidentally not included in Study 2.

1. To what extent would you like this reaction?
2. To what extent would you like to receive this reaction?
3. To what extent would this be a reaction you want?
4. To what extent do you think this response is suitable?
5. To what extent do you think this response is appropriate?
6. To what extent do you think this response is fitting?
7. To what extent would you feel supported by this reaction?
8. To what extent do you find this response reassuring?
9. To what extent would you experience this reaction as helpful?
10. To what extent do you think this reaction would make you feel better?
11. To what extent do you think this response would help you cope with the situation?
12. To what extent do you think this response would make you feel better in the long run?

Appendix D

Vignettes and Supportive Reactions Used in Study 2
In Study 2, participants were randomly presented with one of the four emotion-inducing vignettes. These are presented separately below, each with four supportive reactions tailored to the specific vignette.

Sadness

Vignette
You just received the news that one of your closest friends committed suicide.

Socio-Affective Support
I'm very sorry for your loss. You must feel devastated. What a horrible situation.

Cognitive Support
At least you know that this is what she wanted. Now, she no longer needs to suffer.

Socio-Affective + Cognitive Support
I'm very sorry for your loss. You must feel devastated. What a horrible situation. At least you know that this is what she wanted. Now, she no longer needs to suffer.

Cognitive + Socio-Affective Support
At least you know that this is what she wanted. Now, she no longer needs to suffer. But I'm very sorry for your loss. You must feel devastated.

Anger

Vignette
Your colleague told you a personal secret in confidence. Now, your boss appears to know about this secret, and your colleague wrongfully accuses you of having passed it on. You never told anyone about the secret.

Socio-Affective Support
That must be very frustrating! I totally understand how you must feel. What an unpleasant situation.

Cognitive Support
I'm sure that at some point, they will realize you didn't tell anyone. And if not, they will forget about it eventually.

Socio-Affective + Cognitive Support
That must be very frustrating! I totally understand how you must feel. What an unpleasant situation. But I'm sure that at some point, they will realize you didn't tell anyone. And if not, they will forget about it eventually.

Cognitive + Socio-Affective Support
I'm sure that at some point, they will realize you didn't tell anyone. And if not, they will forget about it eventually. But it must be very frustrating! I totally understand how you must feel. What an unpleasant situation.

Regret

Vignette
After much deliberation, you decided not to join your friends on a holiday. Now they have just returned, and it turns out they had the best time of their lives.

Socio-Affective Support
That's a shame; I totally understand how you must feel.

Cognitive Support
I'm sure there will be other opportunities. Now you know you should just come along next time!

Socio-Affective + Cognitive Support
That's a shame; I totally understand how you must feel. Though I'm sure there will be other opportunities. Now you know you should just come along next time!

Cognitive + Socio-Affective Support
I'm sure there will be other opportunities. Now you know you should just come along next time! But it's a shame; I totally understand how you must feel.

Worry

Vignette
You recently discovered an odd-looking birthmark that suddenly appeared on your back. The doctor seems concerned. He has referred you to a specialist to check whether it's skin cancer.

Socio-Affective Support
I'm sorry to hear that. I understand how you must feel. What a stressful situation.

Cognitive Support
Let's just wait for the results, before we assume the worst. Maybe it's just a benign birthmark, after all, the chances are low that it's something malicious.

Socio-Affective + Cognitive Support
I'm sorry to hear that. I understand how you must feel. What a stressful situation. But let's just wait for the results, before we assume the worst. Maybe it's just a benign birthmark, after all, the chances are low that it's something malicious.

Cognitive + Socio-Affective Support
Let's just wait for the results, before we assume the worst. Maybe it's just a benign birthmark, after all, the chances are low that it's something malicious. But I'm sorry to hear that. I understand how you must feel. What a stressful situation.