

Chapter 4

The Dynamics of Interpersonal Emotion Regulation: How Sharers Elicit Desired (But Not Necessarily Helpful) Support

Summary

People frequently tell others about experiences that distress them, a phenomenon termed social sharing. Paradoxically, although people perceive social sharing as beneficial, it often fails to promote emotional recovery. This may be partially explained by sharers seeking – and thereby eliciting – support that is not helpful in the long term. Here, we examined the role that sharers themselves play in eliciting different forms of support. Participants were randomly assigned to the role of sharer (who was asked to discuss an upsetting situation) or listener (who was instructed to respond naturally). Afterwards, both sharer and listener independently watched the interaction on video in 20-second fragments. For each fragment, sharers rated their experienced emotional intensity and socio-affective and cognitive support needs, while listeners rated their perception of the sharer's emotional intensity and their own support provision. Emotional intensity was associated with an increase in sharers' socio-affective support needs and listeners' socio-affective support provision, but a decrease in cognitive support provision. Moreover, the more accurately listeners judged sharers' emotional intensity, the more they fulfilled sharers' socio-affective (but not cognitive) support needs. These findings illuminate the role of sharers in shaping interpersonal emotion regulation by clarifying how the way they communicate their needs and feelings influences listeners' support provision. Together with existing evidence that sharers usually desire socio-affective support (which alleviates momentary distress, but does not facilitate long-term recovery), these findings suggest that sharers elicit the support they desire, explaining why they perceive sharing as beneficial although it does not engender emotional recovery.

This chapter is based on:

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Introduction

When we experience emotional distress, we tend to share our experience with others, a phenomenon termed social sharing (Rimé et al., 1992). Surprisingly, despite people perceiving social sharing to be effective, it often does not lead to long-term emotional recovery (Zech & Rimé, 2005). Whether or not sharing is beneficial in the long run critically depends on the type of support that listeners provide. Two types of support have been identified by Rimé (2009): Listeners may provide socio-affective support, which includes providing comfort, care, and validating the way the other feels. Alternatively, listeners might provide cognitive support, which is directed at changing the way the other appraises the situation, by, for example, providing a different perspective. Whereas socio-affective support has been found to increase temporary feelings of closeness and perceived benefits, cognitive support is generally more conducive to bringing about long-term emotional recovery (e.g., Batenburg & Das, 2014; Brans, Van Mechelen, Rimé, & Verduyn, 2013; Lepore, Fernandez-Berrocal, Ragan, & Ramos, 2004; Nils & Rimé, 2012; Rimé, 2009; but see also Lepore, Ragan, & Jones, 2000).

Considering that emotional recovery in the aftermath of a distressing experience depends in large part on the support people receive from others, it is important to understand the determinants of support provision. One possibility is that sharers themselves may play a role in eliciting the support that they desire. Recent work suggests that sharers generally have a strong preference for socio-affective support, and listeners also have a strong tendency to provide socio-affective support (Duprez, Christophe, Rimé, Congard, & Antoine, 2014; Pauw, Sauter, Van Kleef, & Fischer, in press, 2018). As a consequence, social sharing may often revolve around socio-affective support provision, which could explain both the immediate subjective benefits people experience when sharing (because social support is comforting), and the absence of long-term recovery (Pauw et al., in press; Rimé, 2009). However, while this research suggests that *overall* listeners seem to provide socio-affective support, remarkably little is known about the *dynamics* within a sharing interaction and how specific types of support are elicited. Given the differential efficacy of socio-affective versus cognitive support in aiding emotional recovery, this question is of central importance to our understanding of when and why social sharing may be (in)effective.

In this chapter, we examined whether sharers can communicate their needs and feelings such that they can bring about the support that they seek. Based on earlier theorizing (Rimé, 2009), we investigated the possibility that sharers' support needs – and thereby also listeners' support provision – are shaped by the level of emotional distress they experience. High emotional intensity should increase socio-affective support needs, but decrease cognitive support needs (Rimé, 2009).

Building on this general idea, we conducted an interaction study to examine (1) whether the intensity of sharers' emotional distress predicts their support needs, (2) whether and how sharers' support needs shape listeners' support provision, and (3) whether the accuracy of listeners' perceptions of sharers' emotional intensity facilitates the provision of support that is more closely aligned with sharers' needs.

Communicating Support Needs

When talking with others about an emotional experience, sharers may seek different forms of support from listeners (Duprez et al., 2014). Importantly, for listeners to recognize the sharer's need for support, it is crucial that they (correctly) identify the emotional state of the sharer (Reeck, Ames, & Ochsner, 2016). The intensity of the sharer's experienced emotions may drive their support needs. This idea is reflected in Rimé's (2009) theorizing that timing plays a crucial role in social sharing. He argued that when the emotion-eliciting event happened recently, emotional distress is likely to be relatively high. Consequently, the situation would call for immediate buffering of the emotional distress through socio-affective support. However, as emotional intensity subsides over time, sharers should become more open (i.e., have more cognitive resources available and be more motivated) to engage in more elaborate cognitive processing. Rimé proposed that cognitive support might thus be more desired and effective under relatively low emotional intensity.

Indirect support for this idea comes from research on intrapersonal emotion regulation. Emotional intensity has been found to strongly influence the regulation strategies people choose to employ when regulating their own emotions (Sheppes et al., 2014). When emotional intensity is high, people prefer regulation strategies focused on disengaging from the emotionally upsetting situation, such as suppression or distraction (Dixon-Gordon, Aldao, & De Los Reyes, 2015; Sheppes et al., 2014; Sheppes, Scheibe, Suri, & Gross, 2011). While not conducive to long-term recovery, these preferences are motivated by short-term goals as they have the potential to yield immediate relief. In contrast, reappraisal is a more cognitively demanding emotion regulation strategy (Sheppes, Catran, & Meiran, 2009; Sheppes & Meiran, 2008). Yet by engaging with the emotional situation, reappraisal allows for evaluating, processing, and remembering the emotional information, thereby making the use of this strategy more motivated by long-term recovery goals (Sheppes et al., 2014). When emotional intensity is low, people are more inclined to engage in reappraisal (Kalokerinos, Résibois, Verduyn, & Kuppens, 2017; Sheppes et al., 2014; Sheppes et al., 2011). Findings on intrapersonal emotion regulation thus suggest that emotional intensity impacts

the cognitive ability, as well as the motivation, to engage in different emotion regulation strategies.

The question, then, is whether sharers can communicate their feelings and support needs such that they can get a listener to provide support that matches the kind of support they wish to receive. There is some work suggesting that listeners can infer sharers' support needs from the way sharers describe emotionally upsetting events. Horowitz and colleagues (Horowitz et al., 2001) found that listeners picked up on support goals that are implied in differential expressions: For example, the expression "I don't know what to do" led listeners to provide more problem-focused support, whereas "I feel awful" elicited more emotion-focused support. Extending these findings, a recent study showed that sharers indeed communicate their emotions differently depending on the type of support they seek from the listener (Pauw, Sauter, Van Kleef, & Fischer, 2019). Specifically, sharers expressed their emotions more directly when seeking socio-affective support, whereas when looking for cognitive support, they communicated the way they evaluated the situation (i.e., appraisals). However, listeners were insensitive to these cues (see Trees, 2005, for a similar conclusion) and consistently assumed that sharers were seeking a high degree of socio-affective support – an assumption that in fact corresponded with sharers generally having a very high desire for socio-affective support (see also Pauw et al., 2018). These findings thus suggest that listeners may overall be fulfilling support seekers' (socio-affective) support needs, though potentially not as a result of effective communication.

Yet, it should be noted that this latter set of studies (Pauw et al., 2019) did not involve an actual sharing interaction. Instead, listeners were presented with written stories from which listeners were asked to infer sharers' support goals, but did not actually provide support. Consequently, it might be that in an actual sharing interaction, listeners are in fact competent in picking up on sharers' fluctuating support needs. For example, sharers might express their support needs through non-verbal channels, such as facial expressions, gaze, bodily movements, or tone of voice (Keltner, Tracy, Sauter, Cordaro, & McNeil, 2016). While sharers and listeners may be unaware of these potentially implicit cues, these cues might still influence listeners' behavior.

Sharers' emotional expressions communicate relevant information about the sharer, including not only their current emotional state, but also their needs, goals, and motives (Fridlund, 1994; Keltner & Haidt, 1999; Parkinson & Simons, 2012; Van Kleef, 2009; Van Kleef et al., 2011). Indeed, there is some evidence that listeners are able to extrapolate sharers' support needs from the perceived intensity of sharers' emotions: Listeners judged sharers to be in greater need of socio-affective support to the extent that they perceived the sharer to be in greater

distress (Pauw et al., 2019). Speaking more directly to the impact of emotional intensity on support provision, a survey conducted by Christophe and Rimé (1997) revealed that when sharers discussed highly intense emotional situations, listeners reported having provided more non-verbal comforting and less reappraisal.

Given the potential role of emotional intensity in determining support needs as well as support provision, it follows that the more accurately listeners judge sharers' emotional intensity levels, the better they should be able to provide support that matches what the sharer is seeking. This proposition fits with the general notion that empathic accuracy fosters behavior that is responsive to others' needs (Reis & Patrick, 1996). Empathic accuracy has been defined as the degree to which a listener accurately infers a sharer's thoughts or feelings (Ickes, Stinson, Bissonnette, & Garcia, 1990), which should help the listener to understand what the sharer needs. Indirectly supporting this idea, empathic accuracy has been observed to relate to more constructive behaviors in supportive as well as conflict interactions (Kilpatrick, Bissonnette, & Rusbult, 2002). Several studies, mostly using laboratory-based couple interactions, have found that greater empathic accuracy was associated with increased instrumental support provision and decreased negative support behaviors (Howland, 2016; Verhofstadt et al., 2016; Verhofstadt, Buysse, Ickes, Davis, & Devoldre, 2008). Recently, another study showed that greater empathic accuracy facilitated socio-affective support provision, though only to the extent that listeners were empathically concerned and thus motivated to help the sharer (Winczewski, Bowen, & Collins, 2016). Taken together, these studies suggest that greater empathic accuracy fosters the provision of support that is generally considered responsive or constructive. Importantly, however, these studies did not assess the extent to which the provided support corresponded with the kind of support that the sharer was seeking. Whether accurately inferring sharers' feelings facilitates the provision of support that is actually responsive to sharers' needs is thus a question that remains to be empirically tested.

The Present Study

Previous research suggests that sharers are strongly inclined to seek socio-affective support when sharing their emotions with others – a type of support they are also likely to receive. Yet so far, it is unclear what role sharers may have in eliciting different forms of support. It is also possible that listeners' previously observed support provision was based on a general assumption that sharers seek socio-affective support (see Pauw et al., 2019). The present study was designed to examine whether sharers communicate their feelings and support needs in such a way that they may bring about the type of support that they seek. Given the

overall desirability yet limited effectiveness of socio-affective support, this could help explain why sharers generally perceive sharing to be beneficial, despite the absence of long-term emotional recovery (Zech & Rimé, 2005).

The current study thus aimed to gain a better understanding of how different kinds of social support are brought about. More specifically, our aim was three-fold: First, we tested the prediction that greater emotional intensity would increase socio-affective support needs, and decrease cognitive support needs. Second, we wanted to examine to what extent sharers' socio-affective and cognitive support needs drive listeners' corresponding support provision throughout an actual interaction. Finally, based on the predicted role of emotional intensity in determining both support needs as well as support provision, we tested the hypothesis that greater empathic accuracy, defined as accurately inferring emotional intensity levels, promotes support provision that is more tailored to sharers' needs.

To test these predictions, we paired 104 participants with another participant who they did not know, and randomly assigned them the role of sharer or listener ($N = 104$ dyads). Each dyad engaged in an 8-minute sharing interaction in which the sharer told the listener about an emotional event that still upset them, while the listener was instructed to respond naturally. Afterwards, both individuals separately watched a video of the interaction in fragments of 20 seconds. After each segment of 20 seconds, sharers rated their *experienced* emotional intensity and socio-affective and cognitive support *needs*, whereas listeners rated their *perception* of the sharer's emotional intensity, as well as their own support *provision* for each fragment. This is the first study assessing the role of emotional intensity in shaping support needs and support provision in an actual dynamic sharing interaction. This allowed us to examine whether sharers can communicate their feelings and support needs such that they shape listeners' support provision.¹⁷

Method

Participants

We aimed for a sample of 100 dyads, given that this is a common sample size used for dyadic data analyses (Kenny, Kashy, & Cook, 2006). A total of 208 participants ($M_{\text{age}} = 22.9$, $SD = 6.5$; 70% female) were recruited via the University of Amsterdam. Participants were randomly paired with another, same-sex participant. We opted for same-sex dyads to reduce the likelihood of sexual attraction impacting participants' behavior (e.g., impression management).

¹⁷ The study protocol was approved by the local ethics committee of the Department of Psychology of the University of Amsterdam.

Participants did not know each other before participating.¹⁸ The reason for forming dyads of strangers rather than friends or couples was that this helped rule out any impact of previous relationship dynamics, including existing expectations and habitual patterns (see the Discussion for elaboration). For one dyad, audio was not successfully recorded during the interaction, leading to incomplete data; this dyad was excluded from data analyses. Participation took approximately one hour, and participants were compensated with 10 euros or course credits.

Procedure

Once both participants had arrived at the laboratory, the experimenter briefly explained the procedure, after which participants were randomly assigned to the role of sharer or listener. Furthermore, participant pairs were alternately allocated to one of two different emotion conditions, which were included in order to create variance in support needs. Previous research suggested that different emotions are associated with different support preferences: Whereas anger is related to a strong preference for socio-effective support, worry is associated with a desire for both socio-affective and cognitive support (Pauw et al., 2018).¹⁹

The sharer was led to a private cubicle, where they were asked to sign the informed consent form, read the role-specific instructions, recall an emotional experience, and answer questions about demographics, their mood, and the event.²⁰

The listener was led to their cubicle to read instructions and answer questions about demographics and their current mood. When finished, the participants called the experimenter who led them to a cozy, furnished room where the interaction would take place. They were seated in comfortable chairs, facing each other with a 90° angle across a small coffee table. We chose this spatial arrangement for the same reason that it is generally advised for therapy sessions:

¹⁸ To verify whether participants were indeed unacquainted, we asked participants to rate the extent to which they knew each other on a scale ranging from 1 (*not at all*) to 7 (*very well*). While 98 dyads indicated not knowing one another at all, three dyads knew each other somewhat (a score of 2 on 7-point scale), and one dyad knew each other very well (7 on 7-point scale). Exclusion of these four dyads yielded the same results for all reported analyses.

¹⁹ Indeed, replicating prior work (Pauw et al., 2018), we found that whereas participants experienced an overall equally high desire for socio-affective support across emotion conditions ($M_{\text{anger}} = 43.48$, $SD = 19.25$; $M_{\text{worry}} = 41.65$, $SD = 20.57$; $t[100] = 0.81$, $p = .422$), those in the worry condition experienced a higher need for cognitive support ($M = 38.87$, $SD = 18.55$) compared to those in the anger condition ($M = 27.05$, $SD = 19.35$, $t[100] = 3.15$, $p = .002$). Given that the emotion condition was not central to our research question, we did not include this variable in our main analyses. Additional analyses are available upon request.

²⁰ We also measured sharers' overall support needs before the interaction. However, because we wanted to examine sharers' fluctuating support needs throughout the interaction, these overall ratings were not used in the present study. They are, however, available upon request.

It allows the client (here the sharer) to avoid eye contact, while both conversational partners are still directed towards one another (Vroljik, 1991).

In order to get used to the setting and get comfortable, the participants first played an icebreaker task. This task consisted of discussing amusing, unreasonable dilemmas (e.g., “Gain 25 kilos that will last forever, or go to jail for two years”). After five minutes, the experimenter returned to the discussion room, briefly clarified the procedure for the sharing situation and turned on the camera. More specifically, the experimenter explained that the sharer would share a personal story, to which the listener was instructed to respond as naturally as possible. After the experimenter left the room, a buzzer sounded that signified the beginning of the conversation. During the interaction, the participants were recorded from three different angles. Two remote-controllable cameras attached to the walls were directed at one participant each, of which the footage was combined (using Black Media Express software) into split-screen recordings showing both participants’ full bodies. Furthermore, a frontal tripod camera recorded the entire scene.²¹ After eight minutes, the same buzzer signaled the end of the conversation. After giving the participants one additional minute to finish their conversation, the experimenter returned to the discussion room and switched off the camera. Participants were led back to their separate cubicles to finish the rest of the experiment individually.

Participants first filled out several questions regarding the interaction (using Qualtrics). When finished, they called the experimenter, who started up the video-mediated recall (VMR) procedure (using Presentation). To ensure that participants fully understood the procedure, we first administered a trial session in which participants watched the first fragment of their conversation and answered questions about the sharer’s emotional intensity and, depending on their role, their own socio-affective and cognitive support *needs* (sharers) or support *provision* (listeners). Next, participants watched their entire conversation on video, paused at 20-s intervals. This interval was chosen based on a pilot study as well as previous research indicating that intervals shorter than 20 seconds yield redundant information (Halford & Sanders, 1990; Welsh & Dickson, 2005). After each segment, participants answered the same set of three questions described above (see Figure 1 for a graphical depiction of the VMR paradigm). At the end of the study, participants were debriefed, thanked and compensated for their participation.

²¹ These recordings were not shown to the participants, but used for backup purposes in case the split screen recordings would fail.

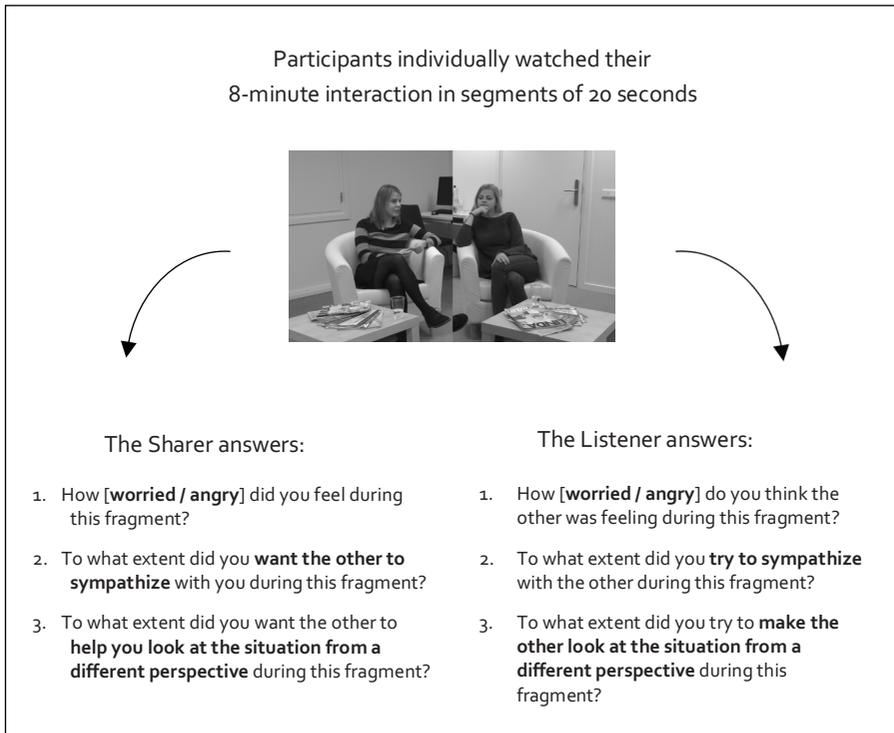


Figure 1. Graphical depiction of the video-mediated recall paradigm. Participants answered the same set of three questions for each of the 24 fragments.

Materials

Sharing instructions

Depending on their assigned emotion condition, participants were instructed to recall a current or recent event (not longer than 5 years ago) that *still* made them feel angry or worried – and which they were willing to share with the other participant. They were asked to write down what happened or was going on, what made them feel angry or worried, how it had affected their lives and what still bothered them. The emotional events that sharers chose to discuss varied widely. Common examples included friend or family issues (e.g., divorce, ill family members, an argument, death), romantic relationship issues (e.g., cheating, breakups), personal health, work or study issues.

Support needs

Throughout the VMR, for every 20-s segment, sharers reported the extent to which, at that moment, they *desired* socio-affective support (“To what extent did

you want the other to sympathize with you during this fragment?") and cognitive support ("To what extent did you want the other to help you look at the situation from a different perspective during this fragment?"), using a 100-point slider bar (0 = *not at all*, 100 = *very much*).

Support provision

Similarly, throughout the VMR, listeners rated the extent to which they *provided* socio-affective support ("To what extent did you sympathize with the other during this fragment?") and cognitive support ("To what extent did you try to make the other look at the situation from a different perspective during this fragment?"), using a 100-point slider bar (0 = *not at all*, 100 = *very much*).

Emotional intensity and empathic accuracy

Throughout the VMR, both participants rated the sharer's emotional intensity (anger or worry, depending on their assigned condition), using a 100-point slider bar (0 = *not at all*, 100 = *very much*). This thus resulted in both self- and other-reports of the sharer's emotional intensity during the interaction, which were used to assess empathic accuracy both across and within dyads.

We operationalized empathic accuracy at the dyad-level as the correlation between *experienced* and *perceived* emotional intensity. This is a frequently used method to assess the degree to which listeners correctly infer changes in levels of affect (Zaki, Bolger, & Ochsner, 2008, 2009; Zaki, Weber, Bolger, & Ochsner, 2009). Furthermore, to assess momentary empathic accuracy within dyads, empathic accuracy was operationalized by calculating the absolute (i.e., root of square) difference between sharers' and listeners' ratings of the sharer's emotional intensity for each time point in the interaction. These difference scores were multiplied by -1, such that higher scores reflect a better match between sharers and listeners.

Control questions

Participants rated to what extent the presence of the camera bothered them ($M = 2.92$, $SD = 1.76$), and how similar this conversation was to conversations they normally would have in their daily lives ($M = 5.06$, $SD = 1.45$), on 7-point Likert scales (1 = *not at all*, 7 = *very much*).

Mood

To ensure that the role division did not affect participants' mood, all participants rated their own mood on a scale ranging from -5 (very bad) to +5 (very good), both prior to sharing and afterwards.²² Before sharing, sharers ($M = 1.93$, $SD = 1.98$)

²² We additionally obtained pre-conversational ratings of sharers' support needs, as well as background information regarding the shared event (e.g., recency). Furthermore, we included post-conversational ratings of emotional intensity of the sharer and the listener, perceived and provided support, perceived

were in a somewhat, though not significantly, worse mood compared to listeners ($M = 2.44$, $SD = 1.89$), $t(204) = -1.87$, $p = .063$. This small difference disappeared after the interaction (sharers: $M = 2.82$, $SD = 1.42$, listeners: $M = 2.60$, $SD = 1.60$), $t(102) = -0.89$, $p = .375$.

Results

1. Does Emotional Intensity Predict Support Needs?

First, we tested our hypothesis that the experience of high emotional intensity increases socio-affective support needs, and decreases cognitive support needs. To test this prediction, we conducted two multi-level analyses, taking into account that we had multiple measurements for each participant (level 1), who were part of a dyad (level 2) (Bolger & Laurenceau, 2013). Intercepts and slopes were allowed to vary randomly across dyads, and to be correlated, because dyads may show different baseline levels of support needs as well as different effects of emotional intensity on their support needs. Errors were allowed to be correlated over time by an autoregressive covariance structure. Predictors were person-mean centered to capture only fluctuations in the person's intensity ratings.²³ In line with our predictions, experienced emotional intensity positively predicted sharers' socio-affective support needs, $B = .54$, $SE = 0.03$, $p < .001$, 95% CI [0.48, 0.61]. However, unexpectedly, experienced emotional intensity positively (rather than negatively) predicted sharers' cognitive support needs as well, $B = .26$, $SE = 0.04$, $p < .001$, 95% CI [0.18, 0.33].

2. Do Sharers' Support Needs Predict Listeners' Support Provision?

To answer our second research question of whether sharers' support needs predict listeners' concurrent support provision throughout the conversation, we conducted two multi-level analyses. We predicted listeners' momentary socio-affective (cognitive) support provision by sharers' momentary socio-affective (cognitive) support needs. First, sharers' socio-affective support needs indeed significantly predicted their listener's socio-affective support provision, $B = 0.24$, $SE = 0.03$, $p < .001$, 95% CI [0.18, 0.31]. Second, sharers' cognitive support needs indeed significantly predicted their listener's cognitive support provision, $B = 0.29$, $SE = 0.04$, $p < .001$, 95% CI [0.22, 0.37].

While these regression analyses suggest a substantial relationship between sharers' support needs and listeners' support provision, it is possible that in these

benefits, interpersonal closeness, and self-esteem. These data fall outside the scope of this chapter, but details are available upon request.

²³ Unless where specified otherwise, this data-analytic approach was adopted in all multilevel analyses reported in this chapter.

eight-minute conversations, people follow certain conversational patterns that are unrelated to listeners picking up on sharers' needs. For example, sharers may start off by sharing their concerns, after which their support needs may peak, and then subside again. Therefore, to establish whether the observed alignment between support needs and support provision reflected a pattern that was idiosyncratic to each dyad's dynamics, we correlated sharers' socio-affective (cognitive) support needs with listeners' concurrent socio-affective (cognitive) support provision, and compared these observed dyad correlations with a benchmark derived from randomly paired participants (i.e., pseudo-dyads; see Sels et al., in press). This permutation test is a frequently used method in which observed data (in this case, dyad correlations) are compared against a distribution of all other possible outcomes derived from randomly re-arranging the data (here, pseudo-dyad correlations; Good, 2013; Higgins, 2004). The permutation test revealed that the correlation observed between socio-affective support needs and provision among real dyads ($r = .24$, $SD = .33$) was significantly higher than that among pseudo-dyads ($r = .05$, $SD = .29$), $t(101.60) = 5.64$, $p < .001$, thereby ruling out the possibility that the observed correlation was due to general conversational patterns. Similarly, the correlation between cognitive support needs and provision observed among real dyads ($r = .27$, $SD = .30$) was significantly higher than that among pseudo-dyads ($r = .09$, $SD = .29$), $t(100.80) = 5.75$, $p < .001$. Thus, overall, listeners' support provision was uniquely aligned with their sharing partner's socio-affective and cognitive support needs.

3. Does Empathic Accuracy Promote Support Provision that Matches Needs?

So far, we have observed that the level of experienced emotional intensity shapes support needs, and that these needs in turn shape support provision. Next, we examined the hypothesis that greater empathic accuracy (i.e., more alignment between self- and other-ratings of the sharer's emotional intensity) predicts greater alignment between support needs and support provision. This hypothesis can be tested both across and within dyads. First, we tested whether couples characterized by greater empathic accuracy also showed greater support alignment (i.e. *across dyads*). We operationalized empathic accuracy as the dyad-level correlation between *experienced* and *perceived* emotional intensity, and support alignment as the correlation between socio-affective versus cognitive support *needs* and socio-affective versus cognitive support *provision*. Two regression analyses were conducted, predicting support alignment by empathic accuracy. In line with our hypothesis, empathic accuracy significantly predicted socio-affective support alignment across dyads, $B = 0.34$, $SE = 0.12$, $p = .007$, 95% CI [0.10, 0.59]. Thus, the more listeners' perceptions of the sharer's emotional intensity aligned with sharers' emotional experience, the more listeners' socio-

affective support provision was aligned with the sharer's socio-affective support needs. Contrary to our hypothesis, however, empathic accuracy did not predict cognitive support need fulfillment across dyads, $B = -0.04$, $SE = 0.12$, $p = .742$, 95% CI [-0.27, 0.19].²⁴

Second, we tested whether, *within dyads*, greater empathic accuracy at one time point also predicted greater support alignment at that same time point. To this end, we conducted two multi-level analyses. Empathic accuracy was operationalized using the absolute (i.e., root of square) differences between sharers' and listeners' ratings of the sharer's emotional intensity. Similarly, support alignment was assessed by using the absolute differences between sharers' needs and listeners' support provision. Both difference scores were multiplied by -1, such that higher scores reflect a greater match between sharers and listeners. The predictor (i.e., empathic accuracy) was dyad mean-centered to capture only fluctuations in the dyad's absolute difference score. In line with our hypotheses, empathic accuracy positively predicted socio-affective support need alignment within dyads, $B = 0.18$, $SE = 0.04$, $p < .001$, 95% CI [0.11, 0.26]. Thus, greater empathic accuracy at one moment in the conversation predicted more socio-affective support alignment at that same time point. Similar to the results across dyads, and contrary to our hypotheses, empathic accuracy did not predict cognitive support alignment within dyads, $B = 0.01$, $SE = 0.03$, $p = .706$, 95% CI [-0.05, 0.07].

In sum, these findings show that greater empathic accuracy was associated with greater socio-affective, but not cognitive, support alignment, both across and within dyads. In other words, listeners who were overall better at picking up on fluctuations in their conversation partner's emotional intensity, matched their socio-affective support provision to the sharer's fluctuating needs to a greater extent throughout the conversation. Furthermore, when listeners were more accurate in perceiving the sharer's emotional intensity level, they were also better able to meet the sharer's socio-affective support needs at that same moment in the interaction.²⁵

²⁴ To ensure that the observed effects were not driven by peak emotional intensity inflating dyadic correlations, we reran the analyses controlling for sharers', listeners', or both dyad members' peak emotional intensity. All analyses yielded the same conclusions, thereby excluding this as a potential alternative explanation. Furthermore, using Fisher transformed correlations to ensure a normal distribution yielded the same results throughout all conducted analyses.

²⁵ As described in Howland and Rafaeli (2010), there are several ways to operationalize empathic accuracy, all reflecting different conceptualizations. The cross-dyad comparison using dyad-level correlations assesses *pattern accuracy*, reflecting the correspondence between the temporal patterns of the sharer's experienced emotional intensity level and the listener's estimation of that intensity. The within-dyad comparison we conducted reflects *level accuracy*, as it assesses the discrepancies between the sharer's and listener's intensity ratings, rather than their co-occurrence over time. To assess whether our conclusions also hold when assessing level accuracy *across* dyads, we ran an additional set of analyses predicting support alignment by empathic accuracy using the dyad's Euclidean distance

Additional Analyses: Does Sharers' Emotional Intensity Predict Listeners' Support Provision?

As described above, we hypothesized that the better able listeners were at judging sharers' distress levels (i.e., empathic accuracy), the better able they should be in fulfilling their support needs. To shed more light on why empathic accuracy fostered socio-affective, but not cognitive support alignment, we also examined the effect of emotional intensity on listeners' support *provision*. Implicit in our hypothesis was the prediction that emotional intensity would impact sharers' support needs and listeners' support provision in similar ways: We had predicted that highly intense emotions would increase socio-affective support needs and provision, and decrease cognitive support needs and provision. As reported above, contrary to our hypothesis, emotional intensity in fact positively predicted both socio-affective and cognitive support *needs*.

To examine whether emotional intensity did impact support *provision* in the hypothesized way, we conducted two multi-level regression analyses, predicting (socio-affective and cognitive) support provision by emotional intensity as reported by the sharer and perceived by the listener. As predicted, both emotional intensity as experienced by the sharer ($B = 0.08$, $SE = 0.03$, $p = .009$, 95% CI [0.02, 0.14]) and as perceived by the listener ($B = 0.24$, $SE = 0.04$, $p < .001$, 95% CI [0.16, 0.32]) positively predicted socio-affective support provision. Furthermore, and partially in line with our hypotheses, emotional intensity as experienced by the sharer ($B = -0.12$, $SE = 0.03$, $p < .001$, 95% CI [-0.18, -0.06]) negatively predicted cognitive support provision, whereas emotional intensity as perceived by the listener did not ($B = -0.01$, $SE = 0.04$, $p = .883$, 95% CI [-0.09, 0.08]).²⁶ Thus, when sharers experienced greater emotional intensity at a particular moment in the interaction, this was associated with increased socio-affective and decreased cognitive support provision by the listener.

Discussion

Summary of Main Findings

The main aim of the present study was to examine the micro-level dynamics of social sharing, testing whether and how sharers' emotions and needs shape the type of support that listeners provide. To this end, participants ('sharers') discussed an emotional event with another participant who they did not know

scores, reflecting absolute accuracy across the entire interaction, rather than momentary accuracy. Replicating our findings, these analyses revealed that dyads with greater overall empathic accuracy also showed greater overall socio-affective, but not cognitive, support alignment.

²⁶ We used a variance component covariance structure to predict cognitive support provision, given that the model would not converge using an unstructured covariance structure.

(‘listeners’). Using a video-mediated recall procedure (Welsh & Dickson, 2005), we obtained measures of emotional intensity as experienced by the sharer and perceived by the listener, as well as sharers’ support needs and listeners’ support provision, rated for each 20-second fragment of an 8-minute conversation. Partially in line with our first hypothesis, higher emotional intensity as experienced by sharers predicted a greater desire for socio-affective support. Unexpectedly, it also predicted a greater need for cognitive support. Sharers’ support needs predicted listeners’ support provision, thereby supporting our second hypothesis. Speaking to the robustness of these findings, socio-affective and cognitive support needs were aligned with listeners’ corresponding support provision to a greater extent than was observed for pseudo-dyads. In other words, when individuals share an emotional event, they appear to signal how they want to be supported, and listeners seem to be attuned to sharers’ fluctuating support needs.

Finally, partially confirming our third hypothesis, greater empathic accuracy was associated with socio-affective, but not cognitive, support alignment: The more accurately the listener perceived the sharer’s level of emotional intensity throughout the conversation, the more their socio-affective support provision was tailored to the sharer’s socio-affective support needs. This effect occurred across dyads (i.e., dyads that were overall high in empathic accuracy also showed high socio-affective support alignment), as well as within dyads (i.e., at moments during the interaction when empathic accuracy was high, support alignment was also higher). This was not the case for cognitive support, however: While sharers’ cognitive support needs increased when they were more emotional, listeners in fact provided less cognitive support when sharers were in greater distress.

Theoretical Implications

We found that empathic accuracy facilitated socio-affective but not cognitive support alignment. This incongruity may be explained by the differential role that emotional intensity likely plays for the two types of support. Higher emotional intensity experienced by sharers was associated with them seeking socio-affective support to a greater extent. Similarly, when listeners perceived sharers to be in higher emotional distress, they provided more socio-affective support – a type of support that is indeed likely to temporarily buffer emotional distress (Nils & Rimé, 2012; Rimé, 2009). Sharers’ and listeners’ similar responses to emotional distress thus explain why high empathic accuracy contributed to socio-affective support alignment. These findings extend previous theorizing by empirically confirming that high emotional intensity is indeed associated with greater socio-affective support needs (Rimé, 2009). Furthermore, they complement previous research by showing that high perceived distress is not only associated with listeners’

inferences of greater socio-affective support needs (Pauw et al., 2019), but also with actually increased socio-affective support *provision*. It is possible that listeners know from experience that support needs vary as a function of emotional intensity and adjust their support provision accordingly. People's past experiences in successfully regulating their own and others' emotions, as well as experiences of being helped by others in regulating their own emotions, may shape how people try to regulate others' emotions (Masten, Morelli, & Eisenberger, 2011; Shipman & Zeman, 2001).

However, we found that emotional intensity was differentially associated with cognitive support needs in sharers and cognitive support provision among listeners, which explains why listeners' accurately picking up on sharers' emotional intensity did not contribute to greater cognitive support alignment. While the finding that higher experienced distress was associated with reduced cognitive support provision was expected based on earlier research (Christophe & Rimé, 1997; Pauw et al., 2019), we had predicted that high emotional intensity would similarly reduce sharers' desire for cognitive support (Rimé, 2009; Sheppes et al., 2014, 2011), but we found that intensity increased sharers' desire for cognitive support. One potential explanation for this finding is that sharers likely did not share acute emotional events, but rather shared situations that they had already coped with to some degree. While still eliciting negative affect, the intensity of the emotional event may not have been so high as to block sharers' motivation or cognitive ability to be receptive to cognitive support. Indeed, while sharers reported feeling relatively distressed when recalling the event before the interaction ($M = 63.26$, $SD = 23.47$ on a 0-100 point scale), they reported having experienced more modest emotional intensity throughout the interaction ($M = 39.56$, $SD = 17.47$).

All in all, the present findings speak to an important role of emotional intensity in social sharing dynamics. Our findings are partially in line with literature suggesting that greater empathic accuracy fosters more responsive support provision (Reis & Patrick, 1996). While earlier work has shown that empathic accuracy promotes the provision of socio-affective support (Howland, 2016; Winczewski et al., 2016), as well as instrumental support (Verhofstadt et al., 2008, 2016), the current study extends those findings by showing that empathic accuracy fosters support provision that is more aligned with sharers' socio-affective support needs. Correctly perceiving sharers' emotional intensity may thus facilitate one's understanding of what the sharer needs, and thereby contribute to support provision that is responsive to their needs.

Furthermore, sharers' success in communicating their needs to listeners has important implications for the effectiveness of their sharing. The current findings speak to a role for sharers in shaping the support that they receive. Prior research

shows that sharers usually seek socio-affective support – a type of support that alleviates momentary emotional distress, but unlike cognitive support does not facilitate long-term recovery (Duprez et al., 2014; Pauw et al., 2018). The current findings suggest that sharers may thus elicit the support that they desire, explaining why they perceive sharing to be beneficial, although it does not engender emotional recovery.

Strengths, Limitations, and Future Directions

While extant research has investigated the prevalence and effectiveness of social sharing, very few studies have looked into the *process* of sharing itself. To the best of our knowledge, the current study is the first to examine whether sharers can communicate their feelings and needs such that they elicit the support that they want from the sharer. More specifically, we studied how sharers' fluctuating distress levels shape their support needs throughout an interaction, and how these needs in turn impact support provision. We examined this question in a dynamic sharing interaction in which both conversational partners could naturally interact. The use of a video-mediated recall procedure allowed us to obtain temporally fine-grained measures of both partners' perceptions of the interaction without intervening in the interaction itself. By continuously assessing sharers' needs and listeners' support provision, this approach allowed us to examine whether and when listeners are responsive to sharers' needs, thereby going beyond prior research looking into overall perceptions of support provision and responsiveness. By examining the micro-dynamics of a social sharing interaction, the present study sheds more light on why sharing may often go awry.

It should be noted that the present study likely did not capture the entire range of experienced emotional distress, given that sharers were instructed to share a past emotional event that still upset them. This may have impacted the sharing dynamics: Sharers' support needs and listeners' support provision might follow different patterns in extremely distressing situations. For example, based on prior research, we would predict a greater predominance of socio-affective support needs and provision (Christophe & Rimé, 1997; Rimé, 2009). Nevertheless, participants did share events that were distressing to them, as evidenced by the relatively high emotional intensity ratings. Moreover, we reasoned that sharing an autobiographical upsetting situation should nonetheless elicit a wider range of emotional intensity, as well as a more ecologically valid interaction, compared to inducing an emotional experience in the lab.

Another study characteristic that may affect the generalizability of the current findings is our choice for unacquainted dyads. Listeners' experience and behavior during the interaction likely are affected by the nature of their relationship. The relationship is considered a central aspect of social sharing and may also impact

the amount and type of support that people give (Christophe & Rimé, 1997; Dovidio & Penner, 2002). Given that listeners in the present study were previously unacquainted with the sharer, the sharing may not have been as emotion inducing as it would have been if a close other would have been involved. As such, support provision may have been less impacted by personal distress and empathic concern, and more by general beliefs about helpfulness or normative motives (e.g., personal standards, or social norms; Batson et al., 1987; Dovidio & Penner, 2002). Nevertheless, it should be noted that listeners did report being emotionally impacted by the sharer's story ($M = 37.50$, $SD = 24.53$, on a 0-100 scale), and both sharers and listeners rated the conversation as relatively similar to conversations they would normally have in their daily lives ($M = 5.06$, $SD = 1.45$, on a 7-point Likert scale). Future research may shed light on how listeners' motivations vary as a function of the relationship with the sharer, and how this influences support provision. For example, while enhanced empathic concern for close others may foster greater socio-affective support provision, it is also possible that listening to a close other in need evokes personal distress that in turn makes people less inclined to provide socio-affective support, and instead opt for strategies directed at reappraising or disengaging from the emotional situation (e.g., see Lewis & Manusov, 2009; Smith, 2015).

These caveats notwithstanding, we intentionally paired participants with someone they did not know. By having participants share with a stranger, we aimed to avoid pre-established relational patterns and instead allow the sharing interaction to unfold from a clean slate. A close other is likely better able to recognize the sharer's emotions and support needs, as they have accumulated knowledge regarding the other's regulatory preferences, goals, and past experiences (López-Pérez, Sanchez, & Parkinson, 2017; Wilhelm & Perrez, 2004). Based on this shared past, an interaction with a close other would provide less need for the sharer to communicate their support needs throughout the 8-minute conversation. Therefore, we intentionally attempted to create an interaction free of prior expectations and patterns, in order to examine whether sharers are able to communicate their feelings and needs to an unacquainted listener.

While our findings speak to an important role of emotional intensity in shaping socio-affective support provision, future research is needed to establish how listeners can correctly infer sharers' cognitive support needs – a question that seems especially important given the potential of cognitive support for long-term recovery (e.g., see Nils & Rimé, 2012). In a previous set of studies, listeners appeared insensitive to sharers' cues indicative of a need for cognitive support (Pauw et al., 2019). However, in the present study, sharers' cognitive support needs did positively predict cognitive support provision. This suggests that cognitive support needs are communicated via other cues. The fact that more

strongly experienced (but not perceived) emotional intensity negatively predicted cognitive support provision suggests that something in sharers' behavior led listeners to infer the (in)appropriateness of cognitive support provision (e.g., avoided eye contact, withdrawal behavior). It is possible that under low emotional intensity, sharers adopted a more reflective stance towards the emotional situation, which may have elicited the provision of more cognitive support by the listeners. Sharers may, for example, have used more cognitive language (e.g., words reflecting insight; see Balon & Rimé, 2016), or used non-verbal cues, such as facial expressions or tone of voice, that implicitly communicated reduced emotional intensity (Keltner et al., 2016), leading listeners to infer a greater openness to cognitive support (Pauw et al., 2019).

Another possibility is that cognitive support provision, or potentially any type of support provision, is strongly influenced by listeners projecting their own support needs onto the sharer. People have been shown to project their own positive and negative emotions onto others (Clark, Culin, Clark-Polner, & Lemay, 2016; Overall, Fletcher, Simpson, & Fillo, 2015; Wilhelm & Perrez, 2004), which may in fact disrupt their attention to the actual support needs of the other. Recent work revealed that perspective taking impaired emotion recognition to the extent that people had themselves had a similar emotional experience (Israelashvili, Sauter, & Fischer, under review). The authors theorized that this was due to the projection of their own emotional experiences onto the other person. In a similar vein, listeners have been shown to project their own evaluations of a support interaction onto the listener (Marigold, Holmes, Wood, & Cavallo, 2014). It is therefore not unthinkable that, while potentially well intended, listeners may also project their own support needs onto others.

Relatedly, listeners' support provision might not only be driven by the sharer's distress, but also by the distress it evokes in the listeners themselves (cf. Parkinson & Simons, 2012). For example, listeners have been shown to provide greater emotional support to the extent that they experienced similar emotions as the sharer during the support interaction (Verhofstadt et al., 2008). However, it should be noted that emotional impact on the listener might also result in *less* responsive support. For example, sharers may irritate the listener (e.g., when the listener perceives the distress as unjustified; Weiner, 1980) or cause the listener to become vicariously distressed (Batson, Fultz, & Schoenrade, 1987; Lewis & Manusov, 2009; Smith, 2015), which may impede adequate support provision (Devoldre, Davis, Verhofstadt, & Buysse, 2010; Fabes, Eisenberg, & Eisenbud, 1993).

Finally, while not assessed in the present study, individual differences may play a role in shaping both support seeking and support provision behaviors. For example, one important individual difference concerns attachment style, which is associated with chronic differences in people's cognitive, emotional, and

behavioral responses when interacting with (close) others (Collins, 1996; Hazan & Shaver, 1987). The extent to which people seek support as a coping strategy has been found to systematically differ among adults with different attachment styles (Ognibene & Collins, 1998). Whereas securely attached and preoccupied individuals were strongly inclined to seek social support, those who were more anxious and avoidant were less likely to do so. These differences were partly driven by confidence in the availability and dependability of others: Securely attached individuals were more confident that support was available from friends and family, which predicted their greater tendency to seek out support. Furthermore, the way people seek support, as well as how they interpret and respond to support, also varies depending on attachment style (Collins & Feeney, 2000; Simpson, Rholes, & Nelligan, 1992). Finally, the type of support listeners provide is also shaped by their internal working models of attachment (Simpson et al., 1992).

Thus, one important avenue for future research will be to examine the relative importance of the objective features of the emotion-eliciting event, the sharer and the listener in determining how support is brought about. The present study focused on the role of the sharer in eliciting support provision. Other determinants that warrant empirical investigation include listeners' appraisals of the situation, beliefs regarding effective and desired support, and potential projections of their own support needs. Finally, individual differences of both the sharer and the listener should be examined.

Concluding Remarks

The present study shows that people experiencing emotional distress may elicit different kinds of social support from others depending on how they communicate in face-to-face interactions. Our results show that sharers' fluctuating emotional intensity levels shape their support needs, which shape listeners' support provision. Furthermore, listeners' empathic accuracy fosters support provision that is more closely tailored to sharers' socio-affective support needs. Together with prior evidence that sharers usually desire socio-affective support – which alleviates momentary distress, but does not facilitate long-term recovery – the present findings suggest that sharers elicit the support they desire, explaining why they perceive sharing as beneficial in the absence of emotional recovery. Ironically, sharers may thus carry partial responsibility for the unsuccessfulness of their social sharing in bringing about effective interpersonal emotion regulation.